Informatica Ultra Messaging (Version 6.7.1)

# Operations Guide

Informatica Ultra MessagingOperations Guide

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# Preface

The *Ultra Messaging Operations Guide* is written for Ultra Messaging administrators. It describes Ultra Messaging monitoring and troubleshooting. This guide assumes that you are familiar with Ultra Messaging concepts.

# Informatica Resources

## Informatica My Support Portal

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## Informatica Documentation

The Informatica Documentation team takes every effort to create accurate, usable documentation. If you have questions, comments, or ideas about this documentation, contact the Informatica Documentation team through email at infa_documentation@informatica.com. We will use your feedback to improve our documentation. Let us know if we can contact you regarding your comments.

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The Informatica Marketplace is a forum where developers and partners can share solutions that augment, extend, or enhance data integration implementations. By leveraging any of the hundreds of solutions available on the Marketplace, you can improve your productivity and speed up time to implementation on your projects. You can access Informatica Marketplace at http://www.informaticamarketplace.com.

## Informatica Velocity

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Online Support requires a user name and password. You can request a user name and password at http://mysupport.informatica.com.

The telephone numbers for Informatica Global Customer Support are available from the Informatica web site at http://www.informatica.com/us/services-and-training/support-services/global-support-centers/.

CHAPTER 1

# Monitoring UM Statistics, Logs and Daemons

This chapter includes the following topics:


- Monitoring Transport Statistics, 1
- Monitoring Application Log Messages, 3
- Monitoring the UMP Store Daemon (umestored), 3
- Monitoring the UM Router Daemon (tnwgd), 5
- Monitoring Messaging System Resources, 7
- Startup/Shutdown Procedures, 9
- UM Analysis Tools, 12


## Monitoring Transport Statistics

Monitoring the activity on your UM transport sessions is the most important component of your UM monitoring effort. UM provides the following four methods to monitor your **UM** activities.

- Use **UM** API function calls within your applications to retrieve statistics and deliver them to your monitoring application.
- Use the **UM** Monitoring API to more easily retrieve and send statistics to your monitoring application.
- Use Automatic Monitoring to easily employ the **UM** Monitoring API to monitor **UM** activity at an **UM** context level.
- Use the **Ultra Messaging SNMP Agent** and MIB (purchased separately to monitor statistics through a Network Management System). See *The Ultra Messaging SNMP Agent* for detailed information.

Automatic Monitoring is the easiest method to implement using configuration options or environment variables. Since many topics can use multiple transport sessions, UM Monitoring doesn't provide transport information for individual topics. From an Operations point of view, however, the health and behavior of your transport sessions is more correlated to system performance. Although UM Monitoring also provides statistics on event queues, these statistics are more specific to a single application and not a system wide health indication.

The optimum interval for collecting statistics is between 5-10 seconds. The shorter the interval, the greater the data collected which may require most advanced methods of evaluation.

This section lists some of the more important transport statistics to monitor listed by transport type.

## LBT-RM and LBT-RU Receiver Statistics

Essentially, aside from **msg_rcved** and **bytes_rcved**, if any receiver statistics increment, a problem may exist. The following lists the most important statistics.

1. **naks_sent**means a transport has a gap in sequence numbers, which can be recoverable or unrecoverable loss.
2. **unrecovered_txw** and **unrecovered_tmo** loss statistics. Indicates retransmissions not delivered to a receiver. (The receiving application will have received a LBM_MSG_UNRECOVERABLE_LOSS or LBM_MSG_UNRECOVERABLE_LOSS_BURST log message via its receive callback, which should be found in the streaming or API log file.
3. **lbm_msgs_no_topic_rcved** indicates that receivers may be doing too much topic filtering (wasting CPU resource) because they are processing messages in which they have no interest. If this statistic is greater than 25% of msgs_rcvd , a problem may exist or topics may need to be distributed to different transport sessions.
4. **dgrams_dropped_*** - Indicates the reception of invalid datagrams, e.g. a non-UMS datagram or datagram from an incompatible version.

## LBT-RM and LBT-RU Source Statistics

The following lists the most important statistics.

1. **rxs_sent** indicates that some lost messages are being recovered, but the reason for the loss should be investigated and corrected.
2. **naks_shed** indicates the number of retransmission requests (NAKs) the source transport has not fulfilled, sending a NCF instead. This statistics can help pinpoint transport bottlenecks, such as **retransmit_rate_limiter** (configuration option).

## TCP Receiver and Source Statistics

**lbm_msgs_no_topic_rcvd**. Indicates that receivers may be doing too much topic filtering (wasting CPU resource) because they are processing messages in which they have no interest. If this statistic is greater than 25% of **msgs_rcvd** , a problem may exist or topics may need to be distributed to different transport sessions.

## LBT-IPC Receiver and Source Statistics

**lbm_msgs_no_topic_rcvd**. Indicates that receivers may be doing too much topic filtering (wasting CPU resource) because they are processing messages in which they have no interest. If this statistic is greater than 25% of **msgs_rcvd**, a problem may exist or topics may need to be distributed to different transport sessions.

## Event Queue Statistics

The following lists the most important statistics.

1. **data_msgs** & **events** - Total data messages and events enqueued - check these not growing beyond pre-defined bounds

2. **age_mean** & **age_max** - If an application uses a receive-side event queue for message delivery rather than direct callbacks, this indicates average and longest time messages wait on that queue before the application starts processing them.
3. **data_msgs_svc_mean** & **data_msgs_svc_max** - indicates average and longest time the application spends processing each event-queued message.

# Monitoring Application Log Messages

UM returns log messages to your application when conditions warrant. Your applications can decide what messages to collect and log. Most UM development teams are concerned with the efficiency and performance of their applications and therefore will log any messages returned to their applications from UM. It may be helpful to meet with your UM development team to learn exactly what they log and how best to monitor the log files. Ideally your UM development team includes a timestamp when they log a message, which can be important for comparison of disparate data, such as CPU information to transport statistics.

See the UM Log Messages section for individual messages and descriptions.

UM daemons (lbmrd, umestored, tnwgd) automatically log messages to the log files specified in their XML configuration files.

# Monitoring the UMP Store Daemon (umestored)

The UM store provides persistence services to UM sources and receivers. Multiple stores can be used in the following two configurations .

- Round-Robin, which allows only one store of the group to be the active store.
- Quorum/Consensus, which allows a number of stores to be used at the same time. Multiple stores can fail and **UMP** can continue operation unhindered.

Monitor the following for all stores.

- Store log files
- Application events and log files
- Store's internal transport statistics
- UMP store daemon web monitor

## Store Log File

The store's XML configuration file specifies the location of the log file. UM always appends store log files. If you use the same log file for the same store over multiple days, it will contain all the information logged across a number of days. Each store should have its own log file.

The following lists critical things to monitor in a store log file.

- aio_warnings - may indicate a problem with the disk (disk full, cannot write, etc.)
- Proxy source creation - indicates that a source 'went away'. This may be fine, but could also indicate an error condition. Discuss with your UM development team when this event is safe and when it indicates a problem.

- Rapid log file growth - Log files growing rapidly or growing much more rapidly than normal, may indicate a problem. Look at what types of messages are being written to the log at higher-than-normal rates to see where the issue might be.

In application log files, look for LBM_SRC_EVENT_UME_REGISTRATION_ERROR messages. These can indicate many different problems that will prevent message persistence. See the UM Log Messages section for details.

## Monitoring a Store's Internal Transport Statistics

Since `umestored` is a proprietary UM application developed with the UM API library, you can configure the daemon with automatic monitoring and then access transport statistics for the daemon's internal sources and receivers. To accomplish this, follow the procedure below.

1. Enable Automatic Monitoring in the UM configuration file cited in the umestored XML configuration file's <daemon> element.
2. For each store configured in the umestored XML configuration file, add a **<context-name>** element. Automatic Monitoring then maintains complete transport statistics for each store at the interval set in the UM configuration file.

## UMP Store Web Monitor

Explanations of umestored statistics can be found in *Section 13*, *UM Guide for Persistence and Queuing*. The store XML configuration file contains the location of the Store Web Monitor. Information you can monitor on the umestored Web Monitor include the following.

1. List of stores the daemon is running.
2. List of topics and wildcard topic patterns for each store, along with registration IDs for the sources sending on the topics.
3. Source and receiver information for each topic.
4. UM Stats or transport-level statistics for underlying receivers in the store. These are similar to the transport statistics mentioned earlier, however they indicate how the store is communicating with its sources for a given topic. For example, a non-zero number of **naks_sent** means the store is experiencing some loss.

TIP: You can build a script that executes the Linux wget command at a 5 second interval to grab a web monitor screen shot and save it to a directory or file. (Also curl or geneos web tool kit.)

## Detecting UMP Store Failures

You can detect the loss of a store with the following.

- Loss of the UMP Store's Process ID (PID)
- Application log messages stating the loss of connection to the store

Stores can also be "too busy" and therefore cannot service source and receiving applications. Sources declare a store inactive with the LBM_SRC_EVENT_UME_STORE_UNRESPONSIVE event when the store's activity timeout expires . This can be caused by the following.

- Disk is too busy (or when the system starts swapping)
- The store is processing an overly-large load of recovery traffic. You may want to recommend that UM administrators consider a larger quorum / consensus group size.

# Monitoring the UM Router Daemon (tnwgd)

The Ultra Messaging UM Router links disjoint topic resolution domains by forwarding multicast and/or unicast topic resolution traffic ensuring that receivers on the "other" side of the UM Router receive the topics to which they subscribe. See the *UM Dynamic Routing Guide* for more details.

Understand UM Router (tnwgd) output traffic and WAN impacts - especially the use of rate limiters.

- WAN overrun is the number one source of UM Router problems
- Test WAN link throughput to determine the real limits of the UM Router and environment
- Make sure WAN bandwidth can cope with UM and any other traffic

Review and understand loss conditions unique to using a UM Router. Collaborate with your UM development team to ensure the correct tuning and configurations are applied for your messaging system. Also monitor latency over the UM Router with the UM sample application `lbmpong` routinely and monitor output.

Monitor the following for UM Routers.

- UM Router log files
- Application events and log files
- UM Router internal transport statistics
- UM Router daemon web monitor

## UM Router Log File

You can monitor the UM Router log for changes detected by the UM Router. Like store logs, UM Router logs are appended, not overwritten. In general, you can ignore most Level 7 LBM_LOG_INFO messages. Critical and warning ( Level 2 MUL_LOG_CRIT and Level 5 MUL_LOG_WARNING) messages should always be investigated as soon as they occur.

The following are important UM Router (tnwgd) log messages.

### Connection Failure Messages to Monitor

- peer portal [name] failed to connect to peer at [IP:port] via [interface] [err]: *reason*
- peer portal [name] failed to accept connection (accept) [err]: *reason*

### Lost Connection Messages to Monitor

- peer portal [name] lost connection to peer at [IP:port] via [interface]
- peer portal [name] connection destroyed due to socket failure
- peer portal [name] detected dropped inbound connection (read) [err]: *reason*
- peer portal [name] detected dropped inbound connection (zero-len read)

### Peer Messages to Monitor

Dual TCP:

- peer portal [name] received connection from [IP:port]
- peer portal [name] connected to [IP:port]

Single TCP:

- Acceptor: peer portal [name] received connection from [IP:port]
- Initiator: peer portal [name] connected to [IP:port]

# UM Router Transport Statistics

Using the **<monitor>** element in a UM Router's XML configuration file, you can monitor the transport activity between the UM Router and its Topic Resolution Domain. The configuration also provides Context and Event Queue statistics. The statistics output identifies individual portals by name.

# UM Router Web Monitor

The UM Router web monitor provides access to a UM Router's portal and general statistics and information. The UM Router XML configuration file contains the location of the gateway web monitor. The default port is 15305.

A UM Router Web Monitor provides a web page for each endpoint and peer portal configured for the UM Router. Peer portals connect UM Routers and communicate only with other peer portals. Endpoint portals communicate with topic resolution domains. Each statistic display a value for units (messages or fragments) and bytes.

Important statistics you can monitor on the **tnwgd** Web Monitor include the following.

## Endpoint Send Statistics

Increases in the Endpoint Send Statistics values indicate errors and problems. A separate statistic appears for each of the three types of topic message: transport topic, immediate topic, immediate topicless.

1. Fragments/bytes dropped due to blocking - Indicates inability to send due to a transport's rate controller. Message rates on other portals probably exceed the rate controller limit on the monitored portal. The UM Router's XML configuration file may need to be adjusted.
2. Fragments/bytes dropped due to error - Indicates a possible network socket or memory failure.
3. Fragments/Bytes Dropped Due To Fragment Size Error - Indicates a configuration error which should be corrected. Maximum datagram size for all transports must be the same throughout the network. Nonzero indicates fragments were received which were larger than the egress portal's maximum datagram size.
4. Current/maximum data bytes enqueued - Indicates how much data is currently queued and indicates the maximum amount of data queued because the incoming rate exceeded what the TCP connection could handle. Results in a latency penalty. Size of the queue is limited, so if the limit is exceeded, messages are dropped due to blocking.

## Peer Send Statistics

Increases in the Peer Send Statistics values indicate errors and problems.

1. Fragments/bytes (or messages/bytes) dropped (blocking) - The result of attempting to send too much data via the peer link.
2. Fragments/bytes (or messages/bytes) dropped (not operational) - Peer connection not yet fully established. The UM Router peer could be down or starting up.
3. Current/maximum data bytes enqueued - Indicates how much data is currently queued and indicates the maximum amount of data queued because the incoming rate exceeded what the TCP connection could handle. Results in a latency penalty. Size of the queue is limited, so if the limit is exceeded, messages are dropped due to blocking.
4. Messages or bytes Received / Fragments or bytes Forwarded - Increasing counters indicate communicating peers. Stagnant counters indicate a lack of traffic flow. A sender could be down, receivers on the remote side could have no interest for the topics, the peer connection could have failed.

## Detecting UM Router Failures

You can detect the loss of a UM Router by the following.

- Loss of the UM Router's Process ID (PID)
- Loss of the UM Router's Web Monitor (you can poll the UM Router's Web Monitor to be sure it is accessible.)
- Monitoring the performance of applications sending messages through the UM Router.
  - Are applications receiving the appropriate volume of data?
  - Do you see a high number of retransmissions?
  - Are applications generating the expected number of actions? Understanding the expected flow and actions is critical and requires collaboration with your UM development team.
- Monitoring network performance and behavior in and out of the UM Router. Understanding your network topology and the expected network traffic through the UM Router is critical and requires collaboration with your UM development team.

# Monitoring Messaging System Resources

In addition to monitoring UM activity, you must also consider the health and activity of your system resources.

- CPU usage
- Memory Usage
- (netstat -s)
- Latency
- UDP buffers

Informatica recommends periodic checks of system resources that employ
. It is one of the most authoritative logs you can look at to see how your system is behaving. For example, running a daily or weekly sanity check on the percentage of topic-resolution traffic to data traffic can be very useful.

## UMP Store System Considerations

Consider the following system issues regarding UMP Store monitoring.

- Make sure that the environment in which a UMP Store daemon (umestored) is started has enough available file descriptors for the number of sources in your environment. UM uses a minimum of 2 file descriptors per UM source in addition to normal UM file descriptors for transports and other objects. You can use **ulimit** in Linux and *Process Explorer* on Microsoft® Windows® to monitor file handles.

  **Note:** The reduced-fd repository type uses 5 File Descriptors for the entire store, regardless of the number of topics, in addition to normal UM file descriptors for transports and other objects. Use of this repository type may impact performance.
- Monitor system resources (CPU usage, memory, disk space, wait%, memory swapping.
- If the system is about to start swapping, your resources are insufficient for the required system performance. Reconfiguration and/or additional resources will be required.

## Sources of Latency

The following are common sources of latency.

- Loss and recovery
- Slow receivers
- Wildcard receivers with overly broad interest patterns
- High resource utilization
- 'Busy' applications - messages backed up in event queues. Your UM Development Team can tell you if your UM applications use event queues.

## Runtime Diagnostics

Use the following to validate a healthy system.

- UM monitoring metrics are active as a sign of liveness
- Pre-defined thresholds are not breached in the monitoring systems
- Application logs are clear of errors/warnings
- Required processes are running i.e. **lbmrd**
- General system resources are within pre-defined bounds i.e. CPU, memory, network stats (specific to the applications)
- Operating system e.g. UDP buffers for loss detection

Use the following to validate the system is operating within acceptable limits.

1. Monitor memory usage and growth over time.
   - Applications with increasing memory could indicate a future problem
   - Could indicate apps are misconfigured for required scalability
   - Event queue growth (also UM metrics)
   - Theoretical memory limits for 32-bit/64-bit processes, dependent on OS and language choice.
2. Spikes in CPU usage across multiple systems indicate a system wide event and could be an indication of a "crybaby" receiver causing source retransmissions or a rogue wildcard receiver.
3. Monitor network activity across the environment.
   - Switch failures / unplugged cable
   - Network Interface Card (NIC) failures
   - Symptoms of NIC bonding failure
   - Significant changes in overall network traffic could indicate a problem such as loss (discussed later)
4. Look for correlated activity. Do CPU spikes and network spikes lead or lag each other?
5. Build thresholds based on an established business as usual (BAU) baseline.
6. These diagnostics and UM metrics could indicate a general problem with the applications, network or underlying hardware.

# Startup/Shutdown Procedures

In a multicast environment, only the applications and monitoring tools need to be started. If using UMP (Persistence) the store daemon (**umestored**) also needs to be started. Likewise, use of the UM Router requires starting the UM Router daemon (**tnwgd**).

In a unicast-only environment, one or more resolver daemons ( **lbmrd** ) are typically required. It is recommended that you start the lbmrd before starting the applications.

Informatica recommends that you shutdown applications using UM sources and receivers cleanly, even though UM is able to cope with the ungraceful shutdown and restart of applications and UM daemons.

A failed assertion could lead to immediate application shutdown. If opting to restart a UM client or **lbmrd**, no other components need be restarted. Failed assertions should be logged with Informatica support.

## Topic Resolution

Your UM development or administration team should anticipate the time and bandwidth required to resolve all topics when all applications initially start. This team should also establish any restarting restrictions. Operations staff should not have any direct topic resolution tasks aside from monitoring the increased CPU and bandwidth usage.

Topic resolution is the discovery of a topic's transport session information by a receiver to enable the receipt of topic messages. Although in a multicast environment, topic resolution does not need to be started or shutdown, it does use network resources and can cause deaf receivers and other problems if not operating properly. See *Topic Resolution* in the *UM Concepts Guide* for more detailed information.

Applications cannot deliver messages until topic resolution completes. UM monitoring statistics are active before all topics resolve. In a large topic space approximately 10,000 topics) topic resolution messages may be 'staggered' or rate controlled, taking potentially several seconds to complete.

For example, 10,000 topics at the default 1,000 **resolver_initial_advertisements_per_second** will take 10 seconds to send out an advertisement for every topic. If all receiving applications have been started first, fully resolving all topics may not take much more than 10 seconds. The rate of topic resolution can also be controlled with the **resolver_initial_advertisement_bps** configuration option. Topic advertisements contain the topic string and approximately 110 bytes overhead. Topic queries from receivers contain no overhead, only the topic string.

## UM Applications

Your UM development team should provide you with the application names, resident machines and startup parameters, along with a sequence of application/daemon startups and shutdowns.

The following lists typical application startup errors.

- Lack of resources
- License not configured - LOG Level 3: CRITICAL: LBM license invalid [LBM_LICENSE_FILENAME nor LBM_LICENSE_INFO are set]
- Cannot bind port - lbm_context_create: could not find open TCP server port in range.
  Too many applications may be running using the UM context's configured port range on this machine. This possibility should be escalated to your UM development team.

  Application is possibly already running. It is possible to start more than one instance of the same UM application.
- Invalid network interface name / mask - lbm_config: line 1: no interfaces matching criteria

- Multiple interfaces detected - LOG Level 5: WARNING: Host has multiple multicast-capable interfaces; going to use [en1][10.10.10.102]
  This message appears for multi-homed machines. UM is not explicitly configured to use a single interface. This may not cause an issue but requires configuration review by your UM development team.

### Indications of Possible Application Shutdown

A UM application shutdown may not be obvious immediately, especially if you are monitoring scores of applications. The following lists events that may indicate an application has shutdown.

- The Process ID disappears. Consider a method to monitor all process IDs (PIDs).
- You notice the existence of a core dump file on the machine.
- UM statistics appear to reduce in volume or stop flowing.
- In an Application Log, one or more End Of Session (EOS) events signaling the cessation of a transport session. This may indicate a source application may have shut down. Your UM development team must explicitly log LBM_MSG_EOS events. Some EOS events may be delayed for some transports.
- In an Application Log, disconnect events (LBM_SRC_EVENT_DISCONNECT) for unicast transports (if implemented) indicate UM receiver applications have shutdown.

## Unicast Topic Resolver (lbmrd)

If not using multicast topic resolution, one or more instances of **lbmrd** must be started prior to stating applications. Unicast resolver daemons require an XML configuration file and multiple resolver daemons can be specified by your UM development team for resiliency. See *UM Concepts Guide*, *Unicast Topic Resolution* for more details.

Execute the following command on the appropriate machine to start a unicast topic resolver ( **lbmrd** ).

lbmrd --interface=ADDR -L daemon_logfile.out -p PORT lbmrd.cfg

- To stop the resolver, use the kill command.
- If a unicast resolver daemon terminates, restart it.
- Observe the **lbmrd** logfile for errors and warnings

If running multiple s and an **lbmrd** in the list becomes inactive, the following log message appears.

unicast resolver <ip>:<port> went inactive

If all unicast resolver daemons become inactive, the following log message appears,

No active resolver instances, sending via inactive instance

After all topics are resolved, daemons do not strictly need to be running unless you restart applications. Resolver daemons do not cache or persist state and do not require other shutdown maintenance.

## UMP Store (umestored)

Stores can operate in disk-backed or memory-only mode specified in the store's XML configuration file. Disk backed stores are subject to the limitations of the disk hardware. Stores should not be run on virtual machines and each store should have a dedicated disk. UM holds messages in memory until written to disk.

### Starting a Store

Execute the following command on the appropriate machine to start a (**umestored**).

umestored config-file.xml

- Record umestored PID to monitor process presence for failure detection.
- On Microsoft Windows®, monitor the umestored service.
- Observe the **umestored** logfile for errors and warnings

In disk mode, stores create two types of files.

- Cache file - contains the actual persisted messages, and can grow to be very large over time. It is important to ensure that there is enough disk space to record the appropriate amount of persisted data.
- State file - contains information about the current state of each client connection and is much smaller.

Stores do not create any files in memory-only mode.

### Restarting a Store

Perform the following procedure to restart a store.

1. If the store is still running, kill the PID (Linux) or use the Windows Service Manager® to stop the Windows service.
2. If you want a clean "start-of-day" start, delete the cache and state files. The location of these files is specified in the store's XML configuration file.
3. Wait 20-30 seconds to let timeouts expire. Due to its use of connectionless protocols, UMP depends upon timeouts. Therefore, do not rapidly restart the store.
4. Run the command: umestored config-file.xml**umestored** automatically uses the existing cache and state files after a graceful shutdown and resumes as part of the current messaging stream at its last known position.

### Common Startup and Shutdown Issues

- Cache and state directories don't exist.
- Disk space - Cache files contain the actual persisted messages, and can grow to be very large over time. It is important to ensure that there is enough disk space to record the appropriate amount of persisted data.
- Configuration error - UM parses a store's XML configuration file at startup, reporting errors to standard error.
- Configuration error - UM reports other configuration errors the store's log file.
- Missing license details.

## UM Router (tnwgd)

When a UM Router starts it discovers all sources and receivers in the topic resolution domains to which it connects. This results in a measurable increase and overall volume of topic resolution traffic and can take some time to complete depending upon the number of sources, receivers, and topics. The rate limits set on topic resolution also affect the time to resolve all topics.

See also “ Topic Resolution” on page 9 above.

### Starting a UM Router

Execute the following command on the appropriate machine to start a UM Router (**tnwgd**).

tnwgd config-file.xml

- Record **tnwgd** PID to monitor process presence for failure detection.
- Observe the **tnwgd** logfile for errors and warnings.

### Restarting a UM Router

Perform the following procedure to restart a UM Router.

1. If the UM Router is still running, kill the PID.
2. Wait 20-30 seconds to let timeouts expire. After a restart new proxy sources and receivers must be created on the UM Router. Applications will not use the new proxies until the transport timeout setting expires for the old connections. Until this happens, applications may appear to be "deaf" since they are still considering themselves as connected to the "old" UM Router proxies. Therefore, do not rapidly restart the UM Router.
3. Run the command: tnwgd config-file.xml

# UM Analysis Tools

Tools available to analyze UM activity and performance.

### Packet Capture Tools

- **Wireshark**® is an open-source network packet analysis tool, for which Informatica provides 'dissectors' describing our packet formats. It is used to open and sift through packet capture files, which can be gathered by a variety of both software and hardware tools. For more information about Wireshark or to download the UM Wireshark plugins, please visit http://www.29west.com/wireshark.
- **Tshark** is a command-line version of Wireshark.
- **Tcpdump** is the primary software method for gathering packet capture data from a specific host. It is available on most Unix-based systems, though generally gathering packet captures with the tool requires super-user permissions.

### Resource Monitors

- **Top** is a system resource monitor available on Linux/Unix that presents a variety of useful data, such as CPU use (both average and per-CPU), including time spent in user mode, system mode, time processing interrupts, time spent waiting on I/O, etc.
- **Microsoft** ®**Windows**® **System Resource Manager** manages Windows Server® 2008 processor and memory usage with built-in or custom resource policies.
- **prstat** is a resource manager for Solaris® that provides similar CPU and memory usage information.

### Process Analysis Tools

- **pstack** dumps a stack trace for a process (pid). If the process named is part of a thread group, then **pstack** traces all the threads in the group.
- **gcore** generates a coredump for a Solaris, Linux, and HP-UX process. The process continues after core has been dumped. Thus, **gcore** is especially useful for taking a snapshot of a running process.

### Network Tools

- **netstat** provides network statistics for a computer's configured network interfaces. This extensive command-line tool is available on Linux/Unix based systems and Windows operating systems.
- **wget** is a Linux tool that captures content from a web interface, such as a UM daemon web monitor. Its features include recursive download, conversion of links for offline viewing of local HTML, support for proxies, and more.

- **netsh** is a Windows utility that allows local or remote configuration of network devices such as the interface.

## UM Tools

- **lbmmoncache** is a utility that monitors both source notification and source/receiver statistics. Contact UM Support for more information about this utility.
- **lbtrreq** restarts the opic resolution process. Contact UM Support for more information about this utility.

## UM Debug Flags

The use of UM debug flags requires the assistance of UM Support. Also refer to the following Knowledge Base articles for more information about using debug flags.

- KB ID: 80100 - Using debug flags
- KB ID: 80101 - Using debug flags in application code
- KB ID: 80242 - Using debug flags with daemons
- KB ID: 80241 - Using debug flags with daemons running as windows services

CHAPTER 2

# Monitoring UM with the lbmmon API

This chapter includes the following topics:


- Introduction, 14
- UMS API Functions and Data Structures, 15
- UMS Monitoring API, 17
- Automatic Monitoring, 25
- Monitoring Examples, 26
- Interpreting LBT-RM Source Statistics, 29


## Introduction

Messaging systems often employ real-time monitoring and rapid human intervention to prevent the system from becoming unstable. The design of UM encourages stable operation by allowing you to pre-configure how UM will use resources under all traffic and network conditions. Hence manual intervention is not required when those conditions occur.

Monitoring UM still fills important roles other than maintaining stable operation. Chiefly among these are capacity planning and a better understanding of the latency added by UM as it recovers from loss. Collecting accumulated statistics from all sources and all receivers once per day is generally adequate for these purposes.

### Why Monitor?

Monitoring can aid different groups within an organization.

- Developers can spot bugs that impact system performance.
- Performance tuning groups can pinpoint under-performing receivers.
- Testing groups can understand the reaction of a system to stresses like random packet loss during pre-production testing.
- Network or middleware management groups can use monitoring to ensure a production system continues to operate within its design criteria.

## What to Monitor

Before discussing the monitoring statistics that are built into UM, we mention two things that are probably more important to monitor: connectivity and latency. UM provides some assistance for monitoring these, but the final responsibility rests with your applications.

### Connectivity

If you monitor only one thing, monitor connectivity, defined as the ability of your system components to talk to each other when needed Connectivity failures generally indicate a software, hardware, or network failure and generally require prompt attention. UM features like End Of Source (EOS) events, new source notifications, and receiver connect/disconnect events may help in application connectivity monitoring. See the lbmprice.c example to see techniques for using these to build an awareness of when components of the system come and go.

### Message Latency

If you monitor only two things, monitor connectivity and the latency of every message. Connectivity monitoring will catch the hard failures and latency monitoring will catch the soft failures. Many impending hard failures in hardware, software, and networks show up first as rises in average latency or as latency spikes. See our white paper Pragmatic Advice for Handling Market Data Rate Increases for additional comments on the importance of measuring latency.

### Monitoring Methods

UM provides the following methods to monitor your UM activities.

- Use UM API function calls within your applications to retrieve statistics and deliver them to your monitoring application.
- Use the UM Monitoring API to more easily retrieve and send statistics to your monitoring application.
- Use Automatic Monitoring to easily employ the UM Monitoring API to monitor UM activity at an UM context level.
- Use the Ultra Messaging SNMP Agent and MIB to monitor statistics through a Network Management System. You purchase the Ultra Messaging SNMP Agent separately.
- Use the Ultra Messaging System Monitoring Option to monitor components of a Ultra Messaging deployment such as application host, transports, topic resolution domains and application instances. The System Monitoring Option uses its own user interface. You purchase the Ultra Messaging System Monitoring Option separately.

# UMS API Functions and Data Structures

The UM API contains functions that retrieve various statistics for a context, event queue, source or receiver. This section lists the functions and constructors you can use to retrieve statistics, along with the data structures UM uses to deliver the statistics. Refer to the UMS API documentation ( *UM C API*, *UM Java API* or *UM .NET API*) for specific information about the functions and constructors. Links to the data structures appear in the tables to provide quick access to the specific statistics available.

## Context Statistics

Context statistics help you monitor topic resolution activity, along with the number of unknown messages received and the number of sends and responses that were blocked or returned EWOULDBLOCK. Context statistics also contain transport statistics for Multicast Immediate Messaging (MIM) activity and transport statistics for all the sources or receivers in a context.

| C API Function | Java or .NET API Constructor | Data Structure |
|---|---|---|
| `lbm_context_retrieve_stats()` | `LBMContextStatistics(LBMContext ctx)` | *`lbm_context_stats_t`* |
| `lbm_context_retrieve_rcv_transport_stats()` | `LBMReceiverStatistics(LBMContext int maxStats)` | *`lbm_rcv_transport_stats_t`* |
| `lbm_context_retrieve_src_transport_stats()` | `LBMSourceStatistics(LBMContext int maxStats)` | *`lbm_src_transport_stats_t`* |
| `lbm_context_retrieve_mim_rcv_stats()` | `LBMMIMReceiverStatistics(LBMContext ctx)` | *`lbm_rcv_transport_stats_lbtrm_t`* |
| `lbm_context_retrieve_mim_src_stats()` | `LBMMIMSourceStatistics(LBMContext ctx)` | *`lbm_src_transport_stats_lbtrm_t`* |

## Event Queue Statistics

Event Queue statistics help you monitor the number of events currently on the queue, how long it takes to service them (maximum, minimum and mean service times) and the total number of events for the monitoring period. These statistics are available for the following types of events.

- Data messages
- Request messages
- Immediate messages
- Wildcard receiver messages
- I/O events
- Timer events
- Source events
- Unblock events
- Cancel events
- Callback events
- Context source events
- Total events
- Age of events

When monitoring Event Queue statistics you must enable the Event Queue UM Configuration Options, *queue_age_enabled*, *queue_count_enabled* and *queue_service_time_enabled*. UM disables these options by default, which produces no event queue statistics.

| C API Function | Java or .NET API Constructor | Data Structure |
|---|---|---|
| lbm_event_queue_retrieve_stats() | LBMEventQueueStatistics(LBMEventQueue evq) | *lbm_event_queue_stats_t* |

## Source or Receiver Transport Statistics

You can retrieve transport statistics for different types of transports. In addition, you can limit these transport statistics to a specific source sending on the particular transport or a specific receiver receiving messages over the transport. Source statistics for LBT-RM, for example, include the number of message datagrams sent and the number of retransmissions sent. For receiver LBT-RM, statistics include, for example, the number of message datagrams received and number of UM messages received.

**Note:** None of the transport statistics are topic level statistics. Currently UM does not provide statistics that show the activity of a specific topic on one or more transport sessions.

| C API Function | Java or .NET API Constructor | Data Structure |
|---|---|---|
| lbm_rcv_retrieve_transport_stats() | LBMReceiverStatistics(LBMReceiver lbmrcv source) | *lbm_rcv_transport_stats_t* |
| lbm_rcv_retrieve_all_transport_stats() | LBMReceiverStatistics(LBMReceiver lbmrcv int maxStats) | *lbm_rcv_transport_stats_t* |
| lbm_src_retrieve_transport_stats() | LBMSourceStatistics(LBMSource lbmsrc) | *lbm_src_transport_stats_t* |

# UMS Monitoring API

This section discusses the following topics.


- "UMS Monitoring Process Flow" on page 19
- "API Framework Flexibility" on page 20
- "Initial Monitoring Questions" on page 20
- "Creating a Monitoring Source" on page 20
- "Specifying the Object to Monitor" on page 21
- "Receiving Monitoring Data" on page 22
- "The UMS Transport Module" on page 24
- "The UDP Transport Module" on page 25
- "The SNMP Transport Module" on page 25


The UM Monitoring API (see *lbmmon.h* or the LBMMonitor classes in the *Java API* and the *.NET API*) provides a framework to easily gather UMS transport statistics and send them to a monitoring or reporting

application. Transport sessions for sources and receivers, along with all transport sessions for a given context can be monitored. This API can be implemented in one of two ways.

- Build monitoring into your application with the UM Monitoring API functions.
- Turn on Automatic Monitoring with UMS configuration options. See “Automatic Monitoring” on page 25.

An application requesting transport monitoring is called a monitor source, and an application accepting statistics is a monitor receiver. These monitoring objects deal only with transport session statistics and should not be confused with UM sources and UM receivers, which deal with UM messages. Statistics for both UM sources and UM receivers can be forwarded by a monitor source application.

Both a monitor source and monitor receiver comprise three modules:

- A format module, responsible for serializing and de-serializing the statistics. The proper transmission between monitor source and monitor receiver requires this serialization.
- A transport module that is responsible for sending and receiving statistics data.
- A control module, responsible for gathering the statistics, and calling the appropriate functions from the format and transport modules.

You can substitute format and transport modules of your own choosing or creation. UM Monitoring provides the following sample modules:

- LBMMON CSV format module
- LBMMON UMS transport module
- LBMMON UDP transport module
- LBMMON SNMP transport module

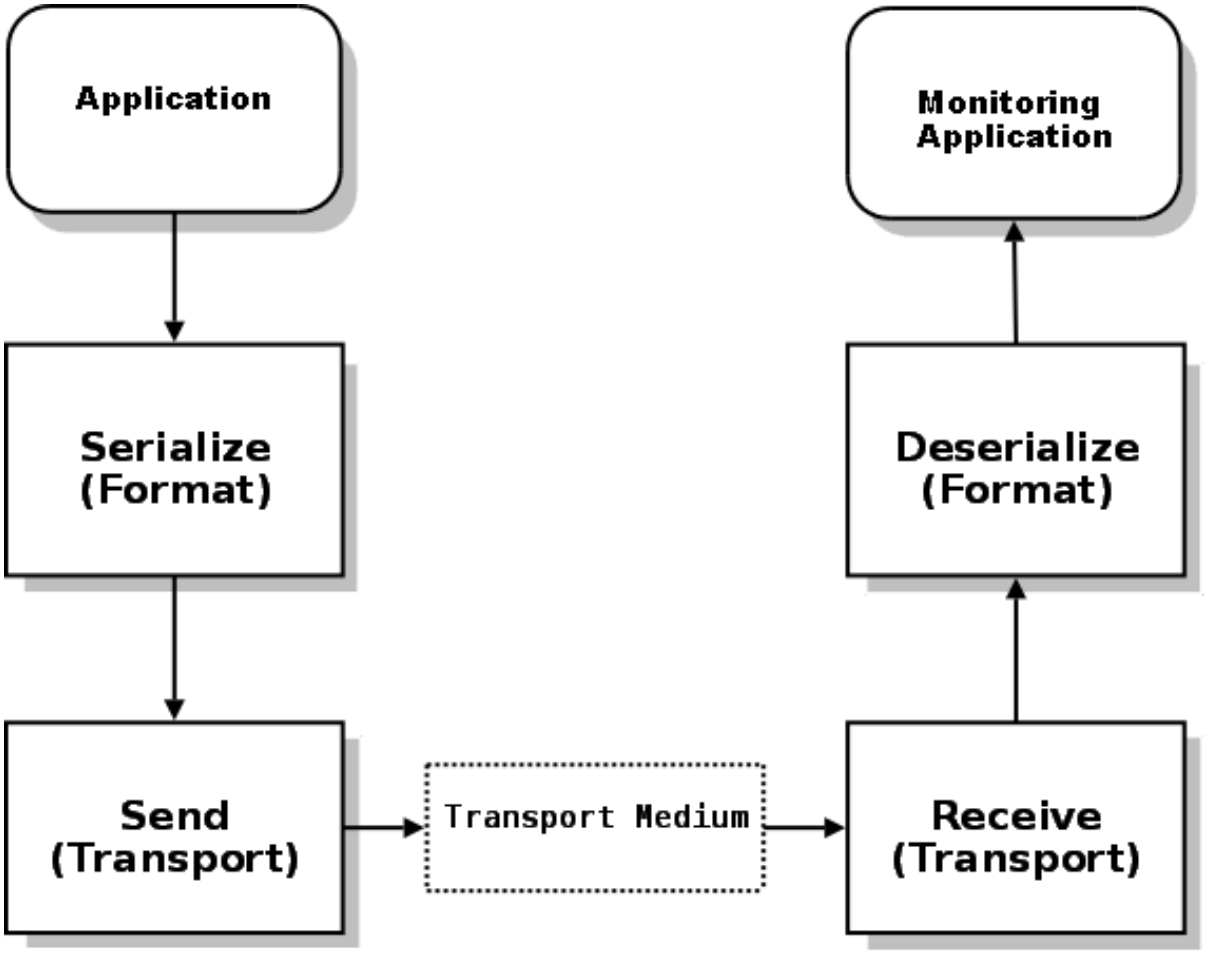
To view the source code for all LBMMON transport modules, see *LBMMON Example Source Code* found on the Related Pages tab in the C Application Programmer's Interface.

**Note:** The LBMMON SNMP transport module can be used for non-SNMP based monitoring. The Ultra Messaging SNMP Agent is not required for its use.

## UMS Monitoring Process Flow

The overall process flow appears in the diagram below.

**Figure 1. UMS Monitoring Process Flow**




1. Your application creates the monitor source controller, specifying the format and transport modules to use. It also calls lbmmon functions to start monitoring an UM context, UM source or UM receiver.
2. The monitor source controller passes those statistics to the format module serialization function.
3. The monitor source controller passes the resulting serialized data to the transport module send function.
4. The transport module transmits the data over some transport medium (such as a network).
5. The monitor receiver controller transport module receives the serialized data. (Your monitoring application has already created the monitor receiver controller specifying the format and transport modules to use, along with the application callback functions to use upon the receipt of UM source or UM receiver statistics data.)
6. The monitor receiver controller calls the format module's de-serialization function.
7. Finally, the monitor receiver controller passes the statistics to your monitoring application via the specified application callback functions.

Your applications only calls functions in the controller modules, which calls the appropriate functions in the transport and format modules.

## API Framework Flexibility

The segregation of UM Monitoring into control, format, and transport modules provides flexibility for monitor receivers in two ways.

- Allows you to use languages for which no UM API or binding exists.
- Allows you to use monitoring products which do not integrate with UM.

As an example, assume you have a Perl application which currently gathers statistics from other network applications (or, you are simply most comfortable working in Perl for such tasks). There is no Perl binding for UM. However, Perl can handle UDP packets very nicely, and can pick apart CSV data easily. By implementing a UDP transport module to be used by the monitor sources, your Perl application can read the UDP packets and process the statistics.

## Initial Monitoring Questions

If you can answer the following questions, you're already on your way.

1. What format module will you use? LBMMON CSV Format module or a different one.
2. What transport module will you use? One of the 3 LBMMON modules or a different one.
3. Do you want to monitor individual sources/receivers, or an entire context? The difference is in how the statistics are aggregated.
    - Monitoring a context aggregates transport statistics for all sources and receivers associated with a context, by transport. Note that this is not by transport type. The default configuration for TCP, for example, allocates up to 10 ports, forming up to 10 separate transport sessions. Absent any specific instructions, UM allocates sources and receivers to these 10 transports in a round-robin fashion. So the statistics for a specific transport on a context will aggregate all sources and receivers which use that specific transport.
    - Ultra Messaging recommends that you monitor either a context or source/receiver, but not both. For example if Topic1 and Topic2 are mapped to the same transport session (which is the only transport session for the context) and you monitor both the receivers and the context, you will get 3 identical sets of statistics: one for Topic1 reporting the stats for it's transport session, one for Topic2 reporting the stats for the same transport session, and one for the transport session via the context.
    - In the case of wildcard receivers, only the context may be monitored. UM creates wildcard receivers dynamically as it detects topics which match the wildcard pattern. The application does not have access to these dynamically-created receivers. So the only way to monitor a wildcard receiver is to monitor the context on which it was created.
4. Should statistics be sent automatically, or on demand?
    - Automatic sending of statistics is by far the simplest approach. You simply indicate how often the statistics should be gathered and sent. The rest is taken care of.
    - On-demand is somewhat more involved. Your application decides when statistics should be gathered and sent. If you intend to use the arrival of statistics as a type of heartbeat, this is the method you should use.

The following sections present more discussion and sample source code about starting monitor sources, monitor receivers and the LBMMON format and transport modules.

## Creating a Monitoring Source

The following examples demonstrate how to use the UM Monitoring API to enable monitoring in your application.

First, create a monitoring source controller:

```
lbm_context_t * ctx;
lbm_src_t * src;
lbm_rcv_t * rcv;
lbmmon_sctl_t * monctl;

if (lbmmon_sctl_create(&monctl, lbmmon_format_csv_module(), NULL,
lbmmon_transport_lbm_module(), NULL) == -1)
{
        fprintf(stderr, "lbmmon_sctl_create() failed\n");
        exit(1);
}
```

The above code tacitly assumes that the `ctx`, `src`, and `rcv` variables have been previously assigned via the appropriate UM API calls.

The monitoring source controller object must be passed to subsequent calls to reference a specific source controller. One implication of this is that it is possible to have multiple monitoring source controllers within a single application, each perhaps monitoring a different set of objects.

In the above example, the default CSV format module and default UM transport module are specified via the provided module functions **lbmmon_format_csv_module()** and **lbmmon_transport_lbm_module()**.

## Specifying the Object to Monitor

Once a monitoring source controller is created, the application can monitor a specific context using:

```
if (lbmmon_context_monitor(monctl, ctx, NULL, 10) == -1)
{
        fprintf(stderr, "lbmmon_context_monitor() failed\n");
        exit(1);
}
```

The above example indicates that statistics for all transports on the specified context will be gathered and sent every 10 seconds.

A UM source can be monitored using:

```
if (lbmmon_src_monitor(monctl, src, NULL, 10) == -1)
{
        fprintf(stderr, "lbmmon_src_monitor() failed\n");
        exit(1);
}
```

Finally, an UM receiver can be monitored using:

```
if (lbmmon_rcv_monitor(monctl, rcv, NULL, 10) == -1)
{
        fprintf(stderr, "lbmmon_rcv_monitor() failed\n");
        exit(1);
}
```

The two above examples also request that statistics for all transports on the specified source or receiver be gathered and sent every 10 seconds.

Statistics can also be gathered and sent in an on-demand manner. Passing 0 for the Seconds parameter to **lbmmon_context_monitor()**, **lbmmon_src_monitor()**, or **lbmmon_rcv_monitor()** prevents the automatic gathering and sending of statistics. To trigger the gather/send process, use:

```
lbmmon_sctl_sample(monctl);
```

Such a call will perform a single gather/send action on all monitored objects (contexts, sources, and receivers) which were registered as on-demand.

As part of application cleanup, the created monitoring objects should be destroyed. Each individual object can be de-registered using `lbmmon_context_unmonitor()`, **lbmmon_src_unmonitor()**, or **lbmmon_rcv_unmonitor()**. Finally, the monitoring source controller can be destroyed using:

```
lbmmon_sctl_destroy(monctl);
```

Any objects which are still registered will be automatically de-registered by **lbmmon_sctl_destroy()**.

## Receiving Monitoring Data

To make use of the statistics, an application must be running which receives the monitor data. This application creates a monitoring receive controller, and specifies callback functions which are called upon the receipt of source or receiver statistics data.

Use the following to create a monitoring receive controller:

```
lbmmon_rctl_t * monctl;
lbmmon_rctl_attr_t * attr;
lbmmon_rcv_statistics_func_t rcvcb = { rcv_statistics_cb };
lbmmon_src_statistics_func_t srccb = { src_statistics_cb };
lbmmon_evq_statistics_func_t evqcb = { evq_statistics_cb };
lbmmon_ctx_statistics_func_t ctxcb = { ctx_statistics_cb };

if (lbmmon_rctl_attr_create(&attr) != 0)
{
    fprintf(stderr, "call to lbmmon_rctl_attr_create() failed, %s\n", lbmmon_errmsg());
    exit(1);
}
if (lbmmon_rctl_attr_setopt(attr, LBMMON_RCTL_RECEIVER_CALLBACK, (void *) &rcvcb,
sizeof(rcvcb)) != 0)
{
    fprintf(stderr, "call to lbmmon_rctl_attr_setopt() failed, %s\n", lbmmon_errmsg());
    exit(1);
}
if (lbmmon_rctl_attr_setopt(attr, LBMMON_RCTL_SOURCE_CALLBACK, (void *) &srccb,
sizeof(srccb)) != 0)
{
    fprintf(stderr, "call to lbmmon_rctl_attr_setopt() failed, %s\n", lbmmon_errmsg());
    exit(1);
}
if (lbmmon_rctl_attr_setopt(attr, LBMMON_RCTL_EVENT_QUEUE_CALLBACK, (void *) &evqcb,
sizeof(evqcb)) != 0)
{
    fprintf(stderr, "call to lbmmon_rctl_attr_setopt() failed, %s\n", lbmmon_errmsg());
    exit(1);
}
if (lbmmon_rctl_attr_setopt(attr, LBMMON_RCTL_CONTEXT_CALLBACK, (void *) &sctxcb,
sizeof(ctxcb)) != 0)
{
    fprintf(stderr, "call to lbmmon_rctl_attr_setopt() failed, %s\n", lbmmon_errmsg());
    exit(1);
}
if (lbmmon_rctl_create(&monctl, lbmmon_format_csv_module(), NULL,
lbmmon_transport_lbm_module(), (void *)
transport_options, attr) != 0)
{
    fprintf(stderr, "call to lbmmon_rctl_create() failed, %s\n", lbmmon_errmsg());
    exit(1);
}
if (lbmmon_rctl_attr_delete(attr) != 0)
{
    fprintf(stderr, "call to lbmmon_rctl_attr_delete() failed, %s\n", lbmmon_errmsg());
    exit(1);
}
```

As in the earlier example, the default CSV format module and default UM transport module are specified via the provided module functions **lbmmon_format_csv_module()** and **lbmmon_transport_lbm_module()**.

As an example of minimal callback functions, consider the following example:

```
void rcv_statistics_cb(const void * AttributeBlock, const lbm_rcv_transport_stats_t *
Statistics)
{
    lbm_ulong_t source = LBMMON_ATTR_SOURCE_NORMAL;
    if (lbmmon_attr_get_source(AttributeBlock, &source) != 0)
    {
        source = LBMMON_ATTR_SOURCE_NORMAL;
    }
    switch (Statistics->type)
    {
        case LBM_TRANSPORT_STAT_TCP:
            handle_rcv_tcp_statistics();
            break;
        case LBM_TRANSPORT_STAT_LBTRM:
            switch (source)
            {
                case LBMMON_ATTR_SOURCE_IM:
                    handle_rcv_im_lbtrm_statistics();
                    break;
                default:
                    handle_rcv_lbtrm_statistics();
                    break;
            }
            break;
        case LBM_TRANSPORT_STAT_LBTRU:
            handle_rcv_lbtru_statistics();
            break;
    }
}

void src_statistics_cb(const void * AttributeBlock, const lbm_src_transport_stats_t *
Statistics)
{
    lbm_ulong_t source = LBMMON_ATTR_SOURCE_NORMAL;
    if (lbmmon_attr_get_source(AttributeBlock, &source) != 0)
    {
        source = LBMMON_ATTR_SOURCE_NORMAL;
    }
    switch (Statistics->type)
    {
        case LBM_TRANSPORT_STAT_TCP:
            handle_src_tcp_statistics();
            break;
        case LBM_TRANSPORT_STAT_LBTRM:
            switch (source)
            {
                case LBMMON_ATTR_SOURCE_IM:
                    handle_src_im_lbtrm_statistics();
                    break;
                default:
                    handle_src_lbtrm_statistics();
                    break;
            }
            break;
        case LBM_TRANSPORT_STAT_LBTRU:
            handle_src_lbtru_statistics();
            break;
    }
}

void ctx_statistics_cb(const void * AttributeBlock, const lbm_context_stats_t *
Statistics)
{
    /* Handle context stats */
}

void evq_statistics_cb(const void * AttributeBlock, const lbm_event_queue_stats_t *
Statistics)
{
```

```
    /* Handle event queue stats */
}
```

Upon receipt of a statistics message, the appropriate callback function is called. The application can then do whatever is desired with the statistics data, which might include writing it to a file or database, performing calculations, or whatever is appropriate.

Beyond the actual statistics, several additional pieces of data are sent with each statistics packet. These data are stored in an attribute block, and are accessible via the **lbmmon_attr_get_*()** functions. Currently, these data include the IPV4 address of machine which sent the statistics data, the timestamp (as a time_t) at which the statistics were generated, and the application ID string supplied by the sending application at the time the object was registered for monitoring. See **lbmmon_attr_get_ipv4sender()**, **lbmmon_attr_get_timestamp()**, and **lbmmon_attr_get_appsourceid()** for more information.

# The UMS Transport Module

The UM transport module understands several options which may be used to customize your use of the module. The options are passed via the TransportOptions parameter to the**lbmmon_sctl_create()** and **lbmmon_rctl_create()** functions, as a null-terminated string containing semicolon-separated name/value pairs.

The following options are available:

- `config` specifies a configuration file. This file is processed in a manner similar to **lbm_config()**. However, unlike **lbm_config()**, the current default attributes are not changed. Instead, the options parsed from the configuration file are applied only to the UM objects created by the module.
- `topic` specifies the topic name to use for sending and receiving statistics. By default, the topic `/29west/statistics` is used.
- `wctopic` specifies (for monitor receivers only) a wildcard pattern to be used to receive statistics.

As an example, assume your application needs to use a special configuration file for statistics. The following call allows your application to customize the UM transport module using the configuration file `stats.cfg`.

```
lbmmon_sctl_t * monctl;
const char * tropt = "config=stats.cfg";
if (lbmmon_sctl_create(&smp;monctl, lbmmon_format_csv_module(), NULL,
lbmmon_transport_lbm_module(), tropt) == -1)
{
        fprintf(stderr, "lbmmon_sctl_create() failed\n");
        exit(1);
}
```

If your application also needs to use a specific topic for statistics, the following code specifies that, in addition to the configuration file, the topic `StatisticsTopic` be used for statistics.

```
lbmmon_sctl_t * monctl;
const char * tropt = "config=stats.cfg;topic=StatisticsTopic";
if (lbmmon_sctl_create(&monctl, lbmmon_format_csv_module(), NULL,
lbmmon_transport_lbm_module(),
tropt) == -1)
{
        fprintf(stderr, "lbmmon_sctl_create() failed\n");
        exit(1);
}
```

It is important to use the same topic and configuration for both monitor sources and receivers. Otherwise your applications may send the statistics, but the monitor receiver won't be able to receive them.

To view the source code for all LBMMON transport modules, see *LBMMON Example Source Code* found on the Related Pages tab in the C Application Programmer's Interface.

## The UDP Transport Module

The UDP transport module understands several options which may be used to customize your use of the module. The options are passed via the TransportOptions parameter to the **lbmmon_sctl_create()** and **lbmmon_rctl_create()** functions, as a null-terminated string containing semicolon-separated name/value pairs.

The UDP module supports sending and receiving via UDP unicast, UDP broadcast, and UDP multicast. The following options are available.

- `address` specifies the unicast IP address to which statistics are sent via UDP. Applicable to sender only.
- `port` is the IP port packets are sent to. Defaults to 2933.
- `interface` specifies the network interface over which multicast UDP is sent or received.
- `mcgroup` is the multicast group on which to send and receive UDP packets.
- `bcaddress` specified the broadcast address to which UDP packets are sent. Applicable to sender only.
- `ttl` specifies the TTL for each multicast UDP packet. Applicable to sender only.

To view the source code for all LBMMON transport modules, see *LBMMON Example Source Code* found on the Related Pages tab in the C Application Programmer's Interface.

## The SNMP Transport Module

The SNMP transport modules operates in identical fashion to the UMS Transport Module. See "The UMS Transport Module" on page 24

To view the source code for all LBMMON transport modules, see *LBMMON Example Source Code* found on the Related Pages tab in the C Application Programmer's Interface.

# Automatic Monitoring

Instead of building a monitoring capability into your application using the UM Monitoring API, automatic monitoring allows you to easily produce monitoring statistics with the UM Monitoring API by setting a few simple UM configuration options. Automatic monitoring does not require any changes to your application. You control Automatic Monitoring with eight configuration options, see *Automatic Monitoring Options* in the *UM Configuration Guide*.

You can enable Automatic Monitoring for either or both of the following.

- Transport Statistics - Automatic monitoring of transport statistics reflect data for all the transport sessions within the UM context. You cannot, however, receive statistics for an individual transport session. Essentially, you turn on automatic monitoring of a context's transport sessions by specifying a *`context monitor_interval`* . The use of the Ultra Messaging SNMP Agent requires the `lbmsnmp` *`monitor_transport`* .
- Event Queue Statistics - Automatic Monitoring of Event Queues provides statistics for all the Event Queues within the UM context. You turn on automatic monitoring of a context's Event Queues by specifying a *`event_queue monitor_interval`* .

You can also set environment variables to turn on automatic monitoring for all UM contexts (transports and event queues). See *Automatic Monitoring Options* for more information.

# Monitoring Examples

This section demonstrates the use of the two UM monitoring example applications described in /doc/example/index.html. We present advice based on what we have seen productively monitored by customers and our own knowledge of transport statistics that might be of interest. Of course, what you choose to monitor depends on your needs so merge these thoughts with your own needs to determine what is best for you.


- "lbmmon.c" on page 26
- "lbmmonudp.c and lbmmondiag.pl" on page 27


## lbmmon.c

The example application lbmmon.c acts as a Monitor Receiver and is provided in both executable and source form. It writes monitoring statistics to the screen and can be used in conjunction with other example applications (which act as the Monitor Sources). The following procedure uses lbmrcv and lbmsrc to create messaging traffic and adds a configuration file in order to specify the LBT-RM transport instead of the TCP default. (The LBT-RM transport displays more statistics than TCP.)

Since UM does not generate monitoring statistics by default, you must activate monitoring in your application. For the example application, use the `--monitor-ctx=n` option where `n` is the number of seconds between reports. The following procedure activates monitoring on the receiver, specifying the context (ctx) to create a complete set of receiver statistics. You could activate monitoring in a similar fashion on the source and create source statistics.

To use lbmmon to view statistics from sample application output:

1. Create configuration file with the single option of `source transport lbtrm` and name it `LBTRM.cfg`.
2. Run `lbmmon --transport-opts="config=LBTRM.cfg"`
3. Run `lbmrcv -c LBTRM.cfg --monitor-ctx="5" Arizona`
4. Run `lbmsrc -c LBTRM.cfg Arizona`

After lbmsrc completes, the final output for lbmmon should closely resemble the following.

```
Receiver statistics received from C:\Program Files\29West\UME_1.2.1\Win2k-i386\bin
\lbmrcv.exe
at 10.29.1.78, sent Wed Jan 09 14:25:49 2008
Source: LBTRM:10.29.1.78:4391:323382d8:224.10.10.10:4400
Transport: LBT-RM
LBT-RM messages received                                  : 45455
Bytes received                                            : 370000000
LBT-RM NAK packets sent                                   : 0
LBT-RM NAKs sent                                          : 0
Lost LBT-RM messages detected                             : 0
NCFs received (ignored)                                   : 0
NCFs received (shed)                                      : 0
NCFs received (retransmit delay)                          : 0
NCFs received (unknown)                                   : 0
Loss recovery minimum time                                : 4294967295ms
Loss recovery mean time                                   : 0ms
Loss recovery maximum time                                : 0ms
Minimum transmissions per individual NAK                  : 4294967295
Mean transmissions per individual NAK                     : 0
Maximum transmissions per individual NAK                  : 0
Duplicate LBT-RM data messages received                   : 0
LBT-RM messages unrecoverable (window advance)            : 0
LBT-RM messages unrecoverable (NAK generation expiration): 0
LBT-RM LBM messages received                              : 10000000
LBT-RM LBM messages received with no topic                : 0
LBT-RM LBM requests received                              : 0
```

Notes:

- Since this procedure was done on a single machine. No packets were lost and therefore lbmrcv did not generate any NAKs and lbmsrc did not send any NCFs. If you run this procedure across a network, packets may be lost and you would see statistics for NAKs, NCFs and loss recovery.
- This procedure activates monitoring on the receiver, specifying the context (`--monitor-ctx`) to create a complete set of receiver transport statistics. You could activate monitoring in a similar fashion on the source and create source statistics. Each set of statistics shows one side of the transmission. For example, source statistics contain information about NAKs received by the source (ignored, shed, retransmit delay, etc.) where receiver statistics contain data about NCFs received. Each view can be helpful.
- Moreover, as explained earlier in Specifying the Object to Monitor, individual receivers or sources can be monitored instead of all transport activity for a context. For this procedure, use `--monitor-rcv` or `--monitor-src`.
- You could run this procedure again specifying a different transport (LBT-RU or TCP) in the configuration file and receive a different set of statistics. For descriptions of all the transport statistics, refer to the transport statistics data structures in the C Application Programmer's Interface. Click on the Data Structures tab at the top and click on **lbm_rcv_transport_stats_t** or **lbm_src_transport_stats_t**.

# lbmmonudp.c and lbmmondiag.pl

The example application, lbmmonudp.c receives UM statistics and forwards them as CSV data over a UDP transport. The Perl script, lbmmondiag.pl, can read UDP packets and process the statistics, reporting Severity 1 and Severity 2 events. This script only reports on LBT-RM transports.

To run lbmmonudp.c with `lbmmondiag.pl`, use the following procedure.

1. Create configuration file with the single option of `source transport lbtrm` and name it `LBTRM.cfg`.
2. Run `lbmmonudp -a 127.0.0.1 --transport-opts="config=LBTRM.cfg"`
3. Run `lbmrcv -c LBTRM.cfg --monitor-ctx="5" Arizona`
4. Run `lbmsrc -c LBTRM.cfg Arizona`
5. Run `lbmmondiag.pl`

The following sections discuss some of the possible results of this procedure. Your results will vary depending upon conditions in your network or if you run the procedure on a single machine.

## Severity 1 — Monitoring Unrecoverable Loss

The most severe system problems are often due to unrecoverable datagram loss at the reliable transport level. These are reported as severity 1 events by the `lbmmondiag.pl` example script. Many of the scalability and latency benefits of UM come from the use of reliable transport protocols like LBT-RM and LBT-RU. These protocols provide loss detection, retransmission, and recovery up to the limits specified by an application. Unrecoverable loss is reported by the transport when loss repair is impossible within the specified limits.

Unrecoverable transport loss often (but not always) leads to unrecoverable message loss so it is very significant to applications that benefit from lossless message delivery.

Unrecoverable loss can be declared by receivers when the *transport_lbtrm_nak_generation_interval* has ended without receipt of repair. Each such loss event is recorded by incrementing the `unrecovered_tmo` field in **lbm_rcv_transport_stats_t**. Output from `lbmmondiag.pl` might look like this:

```
Sev1: 34 datagrams unrecovered due to NAK generation interval ending
```

Unrecoverable loss can also be triggered at receivers by notice from a source that the lost datagram has passed out of the source's transmission window. Each such loss event is recorded by incrementing the `unrecovered_txw` field in **lbm_rcv_transport_stats_t**. Output from `lbmmondiag.pl` might look like this:

```
Sev1: 249 datagrams unrecovered due to transmission window advancement
```

## Severity 2 — Monitoring Rate Controller Activity

The data and retransmission rate controllers built into LBT-RM provide for stable operation under all traffic conditions. These rate controllers introduce some latency at the source since that is generally preferable to the alternative of NAK storms or other unstable states. The `lbmmondiag.pl` example script reports this activity as a severity 2 event since latency is normally the only effect of their operation.

Activity of the rate controller indicates that a source tried to send faster than the configured *`transport_lbtrm_data_rate_limit`* . Normally, this limit is set to the speed of the fastest receivers. Sending faster than this rate would induce loss in all receivers so it is generally best to add latency at the source or avoid sending in such situations.

The current number of datagrams queued by the rate controller is given in the `rctlr_data_msgs` field in **lbm_src_transport_stats_t**. No more than 10 datagrams are ever queued. Output from `lbmmondiag.pl` might look like this:

```
Sev2: 10 datagrams queued by data rate controller
```

Activity of the retransmission rate controller indicates that receivers have requested retransmissions in excess of the configured *`transport_lbtrm_retransmit_rate_limit`* . Latency is added to retransmission requests in excess of the limit to control the amount of latency they may add to messages being sent the first time. This behavior avoids NAK storms.

The current number of datagrams queued by the retransmission rate controller is given in the `rctlr_rx_msgs` field in **lbm_src_transport_stats_t**. No more than 101 datagrams are ever queued. Output from `lbmmondiag.pl` might look like this:

```
Sev2: 101 datagrams queued by retransmission rate controller
```

## Severity 2 — Monitoring Loss Recovery Activity for a Receiver

It is important to monitor loss recovery activity because it always adds latency if the loss is successfully repaired. UM defaults generally provide for quite a bit of loss recovery activity before loss would become unrecoverable. Statistics on such activity are maintained at both the source and receiver. Unrecoverable loss will normally be preceded by a burst of such activity.

UM receivers measure the amount of time required to repair each loss detected. For each transport session, an exponentially weighted moving average is computed from repair times and the maximum and minimum times are tracked.

The total number of losses detected appears in the lost field in **lbm_rcv_transport_stats_t**. It may be multiplied by the average repair time given in the `nak_stm_mean` field in **lbm_rcv_transport_stats_t** to estimate of the amount of latency that was added to repair loss. This is probably the single most important metric to track for those interested in minimizing repair latency. The `lbmmondiag.pl` script reports this whenever the lost field changes and the average repair time is nonzero. Output might look like this:

```
Sev2: 310 datagrams lost
```

```
Sev2: 112.236 seconds estimated total latency due to repair of 564 losses
```

**Note:** This estimate only includes latency added in the recovery of lost messages. Requiring ordered delivery also adds latency for all messages that arrive after the time of loss and before the time that repair arrives. See the ordered_delivery option to control this.

In addition to counting losses detected, UM reliable receivers also count the number of NAKs generated in the `naks_sent` field in **lbm_rcv_transport_stats_t**. Output from `lbmmondiag.pl` might look like this:

```
Sev2: 58 NAKs sent
```

Those who are new to reliable multicast protocols are sometimes surprised to learn that losses detected do not always lead to NAK generation. If a datagram is lost in the network close to the source, it is common for many receivers to detect loss simultaneously when a datagram following the loss arrives. Scalability would suffer if all receivers that detected loss reported it by generating a NAK at the same time. To improve scalability, a random delay is added to NAK generation at each receiver. Since retransmissions are multicast, often only one NAK is generated to repair the loss for all receivers. Thus it is common for the number of losses detected to be much larger than the number of NAKs sent, especially when there are many receivers with similar loss patterns.

### Severity 2 — Monitoring Loss Recovery Activity for a Source

For sources, the principal concern is often understanding how much the retransmission of messages already sent at least once slowed down the source. Obviously, bandwidth and CPU time spent servicing retransmission requests cannot be used to send new messages. This is the way that lossy receivers add latency for lossless receivers.

UM sources track the number of NAKs received in the `naks_rcved` field in **lbm_src_transport_stats_t**. The number of datagrams that they retransmit to repair loss is recorded in the `rxs_sent` field in **lbm_src_transport_stats_t**.

The number of retransmitted datagrams may be multiplied by the average datagram size and divided by the wire speed to estimate the amount of latency added to new messages by retransmission. Output from the example `lbmmondiag.pl` script might look like this:

```
Sev2: 7478 NAKs received
Sev2: 50 retransmissions sent
Sev2: 0.015056 seconds estimated total latency due to retransmissions
```

## Interpreting LBT-RM Source Statistics

LBT-RM sources maintain many statistics that can be useful in diagnosing reliable multicast problems. See the UM API documentation ***lbm_src_transport_stats_lbtrm_t*** *Structure Reference* for a description of the fields. The remainder of this section gives advice on interpreting the statistics.

Divide **naks_rcved** by **msgs_sent** to find the likelihood that sending a message resulted in a NAK being received. Expect no more than a few percent on a network with reasonable loss levels.

Divide **rxs_sent** by **msgs_sent** to find the ratio of retransmissions to new data. Many NAKs arriving at a source will cause many retransmissions.

Divide **naks_shed** by **naks_rcved** to find the likelihood that excessive NAKs were ignored. Consider reducing loss to avoid NAK generation.

Divide **naks_rcved** by **nak_pckts_rcved** to find the likelihood that NAKs arrived individually (~1 -> individual NAKs likely; ~0 -> NAKs likely to have arrived grouped in a single packet). Individual NAKs often indicate sporadic loss while grouped NAKs often indicate burst loss.

Divide **naks_rx_delay_ignored** by **naks_ignored** to find the likelihood that NAKs arrived during the ignore interval following a retransmission. The configuration option *transport_lbtrm_ignore_interval* controls the length of this interval.

CHAPTER 3

# UM Monitoring Statistics

This chapter includes the following topics:


- UM Monitoring Statistics Overview, 31
- Context Statistics, 31
- Receiver Transport Statistics, 34
- Source Transport Statistics, 44
- Event Queue Statistics, 49


## UM Monitoring Statistics Overview

You can use Ultra Messaging statistics to monitor the health and activity of contexts, transports and event queues.

## Context Statistics

Context statistics help you monitor topic resolution activity, along with the number of unknown messages received and the number of sends and responses that were blocked or returned EWOULDBLOCK. Context statistics also contain transport statistics for all the sources or receivers in a context.

Ultra Messaging provides the following statistics for a UM Context:

**Malformed Topic Resolution Datagrams Dropped**

The **lbmmon** field name is **tr_dgrams_dropped_malformed**. Number of malformed topic resolution datagrams discarded.

**Maximum Receiver Callback Service Time**

The **lbmmon** field name is **rcv_cb_svc_time_max**. The maximum time in microseconds used to call user receive callbacks of type **lbm_rcv_cb_proc()** for wildcard, hot-failover, and regular receivers. Does not include SMX receivers. Does not include minimum times for any other context thread callbacks, such as timer callback or immediate message callbacks. The initial value before any data has been reported is zero. Ultra Messaging computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement. For the Java and .NET APIs, includes the overhead time spent crossing the managed/jni boundaries. You must set the configuration option *receiver_callback_service_time_enabled* to populate this statistic.

#### Mean Receiver Callback Service Time

The **lbmmon** field name is **rcv_cb_svc_time_mean**. The mean time in microseconds used to call user receive callbacks of type **lbm_rcv_cb_proc()** for wildcard, hot-failover, and regular receivers. Does not include SMX receivers. Does not include minimum times for any other context thread callbacks, such as timer callback or immediate message callbacks. For the Java and .NET APIs, includes the overhead time spent crossing the managed/jni boundaries. You must set the configuration option *receiver_callback_service_time_enabled* to populate this statistic.

#### Message Fragments Lost

The **lbmmon** field name is **fragments_lost**. Number of data message fragments detected as lost in the context. UM fragments messages larger than the maximum datagram size for the transport and assigns a unique sequence number to each fragment. UM increments the count when a delivery controller in the context detects a gap in fragment sequence numbers. Lost request responses or Unicast Immediate Message (UIM) control messages do not increase this statistic. Lost message fragments sent to hot-failover receivers with arrival-order delivery and lost message fragments sent over LBT-SMX also do not increase this statistic.

#### Message Fragments Unrecoverably Lost

The **lbmmon** field name is **fragments_unrecoverably_lost**. Number of data message fragments detected as unrecoverably lost in the context. UM fragments messages larger than the maximum datagram size for the transport and assigns a unique sequence number to each fragment. UM increments the count in the following ways:

- increments by one when a delivery controller in the context sends a LBM_MSG_UNRECOVERABLE_LOSS event to the receiving application
- increments by the number of lost fragments when a delivery controller in the context sends a LBM_MSG_UNRECOVERABLE_LOSS_BURST event to the receiving application

Unrecoverably lost message fragments sent to hot-failover receivers with arrival-order delivery do not increment this statistic. An unrecoverable loss event sent by a delivery controller for a receiver underlying the hot-failover receiver does increment this statistic if another underlying receiver was able to compensate. Unrecoverably lost message fragments sent over LBT-SMX do not increment this statistic.

#### Minimum Receiver Callback Service Time

The **lbmmon** field name is **rcv_cb_svc_time_min**. For internal use only. The minimum time in microseconds used to call user receive callbacks of type **lbm_rcv_cb_proc()** for wildcard, hot-failover, and regular receivers. Does not include SMX receivers. Does not include minimum times for any other context thread callbacks, such as timer callback or immediate message callbacks. The initial value before UM Monitoring reports any data is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. Ultra Messaging computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement. For the Java and .NET APIs, includes the overhead time spent crossing the managed/jni boundaries. You must set the configuration option *receiver_callback_service_time_enabled* to populate this statistic.

#### Number of Duplicate Unicast Immediate Messages Received

The **lbmmon** field name is **uim_dup_msgs_rcved**. Number of duplicate unicast immediate messages (UIMs) received and dropped.

#### Number of Send Calls Blocked

The **lbmmon** field name is **send_blocked**. Number of Ultra Messaging send calls blocked. Unusually high counts indicate performance degradation or I/O problems.

#### Number of Send Calls That Returned EWOULDBLOCK

The **lbmmon** field name is **send_would_block**. Number of Ultra Messaging send calls returned EWOULDBLOCK. The return of EWOULDBLOCK occurs when a send call set to be non-blocking encounters an error condition where it would otherwise be blocked. Under normal operating conditions, the count should be at or near 0.

#### Number of Send Response Calls Blocked

The **lbmmon** field name is **resp_blocked**. Number of Ultra Messaging send response calls blocked. Unusually high counts indicate performance degradation or I/O problems.

#### Number of Send Response Calls That Returned EWOULDBLOCK

The **lbmmon** field name is **resp_would_block**. Number of Ultra Messaging send response calls returned EWOULDBLOCK. The return of EWOULDBLOCK occurs when a send call set to be non-blocking encounters an error condition where it would otherwise be blocked. Under normal operating conditions, this count should be at or near 0.

#### Number of Topics in Source Resolver Cache

The **lbmmon** field name is **tr_src_topics**. Number of topics in the source topic resolver cache, also referred to as the topic map. Large or growing values might impact performance.

#### Number of Topics in Receiver Resolver Cache

The **lbmmon** field name is **tr_rcv_topics**. Total number of topics in the receiver topic resolver cache, also referred to as the topic map. Large or growing values might impact performance.

#### Number of Topic Resolution Datagrams Received

The **lbmmon** field name is **tr_dgrams_rcved**. Number of topic resolution datagrams received by the context. Each datagram can contain one or more advertisements, queries, and query responses, from source or receiver objects. A faster accumulation of counts typically indicates more source, receiver, or context objects are being created.

#### Number of Topic Resolution Datagrams Sent

The **lbmmon** field name is **tr_dgrams_sent**. Number of topic resolution datagrams sent from the context. Each datagram can contain one or more advertisements, queries, and query responses from source or receiver objects. A faster accumulation of counts typically indicates more source, receiver, or context objects are being created.

#### Number of Topic Resolution Datagrams That Failed to Send

The **lbmmon** field name is **tr_dgrams_send_failed**. Number of topic resolution datagrams that the UM Resolver attempted to send but failed. The count should be at or near 0.

#### Number of Unicast Immediate Messages Received Without Stream Information

The **lbmmon** field name is **uim_msgs_no_stream_rcved**. Number of unicast immediate messages (UIMs) received without stream information.

#### Number of Unknown LBT-RM datagrams Received

The **lbmmon** field name is **lbtrm_unknown_msgs_rcved**. Number of LBT-RM datagrams received that do not belong to any transport session. These datagrams can be from a source in a different TRD targeting the same group or IP address and port as a source in the receiver TRD. An attempt to spoof Ultra Messaging messages is also a possibility.

#### Number of Unknown LBT-RU datagrams Received

The **lbmmon** field name is **lbtru_unknown_msgs_rcved**. Number of LBT-RU datagrams received not belonging to any transport session. These datagrams can be from a source in a different TRD targeting the same group or IP address and port as a source on the receiver TRD. An attempt to spoof Ultra Messaging messages is also a possibility.

**Number of Unresolved Topics in Receiver Resolver Cache**

The **lbmmon** field name is **tr_rcv_unresolved_topics**. Number of unresolved topics in the receiver topic resolver cache, also referred to as the topic map. Large or growing values might impact performance, though the count can be close to the total number of topics in the resolver cache under normal conditions.

**Topic Resolution Datagrams Dropped for Incorrect Version**

The **lbmmon** field name is **tr_dgrams_dropped_ver** . Number of topic resolution datagrams discarded due to incorrect version. The datagram version field must match the UM Resolver version for the receiving context. Datagrams with incorrect versions might be produced by an application sending spurious traffic.

**Topic Resolution Datagrams Dropped for Incorrect Type**

The **lbmmon** field name is **tr_dgrams_dropped_type**. Number of topic resolution datagrams discarded due to incorrect type. The datagram's type field, for example Topic Query Record (TQR) or Topic Information Record (TIR), must match the expectations of the receiving context.

**Total Bytes for All Topic Resolution Datagrams Received**

The **lbmmon** field name is **tr_bytes_rcved**. The total number of bytes for all topic resolution datagrams received by the context, including datagram headers.

**Total Bytes for All Topic Resolution Datagrams Sent**

The **lbmmon** field name is **tr_bytes_sent**. The total number of bytes for all topic resolution datagrams sent from the context, including datagram headers.

**Producer Count**

The number of producers in the context. The Administrator Daemon generates this synthetic statistic.

**Consumer Count**

The number of consumers in the context. The Administrator Daemon generates this synthetic statistic.

# Receiver Transport Statistics

You can retrieve transport statistics for different types of transports that show the activity of receivers on the transport session.

You can access receiver statistics for the following transports.

- TCP
- LBT-RM
- LBT-RU
- LBT-IPC
- LBT-RDMA
- LBT-SMX

## TCP Receiver Statistics

You can access the following receiver statistics for a TCP transport:

#### TCP Bytes Received

The **lbmmon** field name is **bytes_rcved**. Number of TCP datagram bytes received including UM header information.

#### TCP Datagrams Received with No Receiver Interest

The **lbmmon** field name is **lbm_msgs_no_topic_rcved**. Number of messages received on the TCP transport that were not on the topic of interest to the receiver. A value approaching the value of TCP Datagrams Received indicates that the receiver is consuming a high amount of CPU time to filter unwanted topics. Consider reconfiguring sources to send on either a different transport session or different ranges of transport sessions.

#### TCP Datagrams Received

The **lbmmon** field name is **lbm_msgs_rcved**. Number of message datagrams received on the TCP transport. A single datagram may contain one or more messages or a fragment of a larger message. Ultra Messaging fragments TCP messages larger than configuration option *transport_tcp_datagram_max_size*. The count reflects the number of datagrams required to fragment a large message. The count also includes messages received for which no receiver had interest.

#### TCP Requests Received

The **lbmmon** field name is **lbm_reqs_rcved**. Number of UM request messages received.

#### Discard Ratio

The Administrator Daemon generates this synthetic statistic. Discard ratio is the percentage of traffic received, but filtered out and ignored by the application instance. When an application instance subscribes to a topic, receives on a transport that is carrying topics of interest and non-interest. This causes the application instance to examine all the traffic it is receiving on that transport and filter out the topics of non-interest. The process of filtering out and discarding utilizes CPU resources. The discard ratio needs to be close to zero for optimal performance. If the discard ratio is high for all the application instances receiving on a particular transport, optimize the deployment by mapping discarded topics on a separate transport.

## LBT-RM Receiver Statistics

You can access the following receiver statistics for a LBT-RM transport:

#### Duplicate Datagrams

The **lbmmon** field name is **duplicate_data**. Number of duplicate LBT-RM datagrams received. A large number indicates a loss prone network, possibly due to other receiver transports requesting retransmissions that this receiver transport has successfully received. Duplicates datagrams require extra CPU resources to filter and reject the duplicates.

#### LBT-RM Bytes Received

The **lbmmon** field name is **bytes_rcved**. Number of LBT-RM datagram bytes received including UM header information.

#### LBT-RM Datagrams Dropped Due to Incorrect Header Type

The **lbmmon** field name is **dgrams_dropped_hdr**. Number of datagrams discarded due to bad header type. The dropped datagrams appear to be intact, but contain an unrecognizable header format.

#### LBT-RM Datagrams Dropped Due to Incorrect Version

The **lbmmon** field name is **dgrams_dropped_version**. Number of datagrams discarded due to incorrect version. The datagram version field must match the expectations of the receiver transport.

#### LBT-RM Datagrams Dropped Due to Packet Type

The **lbmmon** field name is **dgrams_dropped_type**. Number of datagrams discarded due to incorrect type. The datagram type field must match the expectations of the receiver transport.

#### LBT-RM Datagrams Dropped Due to Small Size

The **lbmmon** field name is **dgrams_dropped_size**. Number of datagrams discarded due to being smaller than the size designated in the datagram's size field.

#### LBT-RM Datagrams Dropped Due to Unrecognizable Format

The **lbmmon** field name is **dgrams_dropped_other**. Number of unrecognizable datagrams discarded. Datagrams might be corrupt or from a foreign or incompatible software.

#### LBT-RM Datagrams Lost

The **lbmmon** field name is **lost**. Number of LBT-RM datagrams detected as lost.

#### LBT-RM Datagrams Received

The **lbmmon** field name is **lbm_msgs_rcved**. The **lbmmon** field name is **lbm_msgs_rcved**. Number of message datagrams received on the LBT-RM transport. A single datagram may contain one or more messages or a fragment of a larger message. Ultra Messaging fragments LBT-RM messages larger than configuration option *transport_lbtrm_datagram_max_size*. The count reflects the number of datagrams required to fragment a large message. This number also includes messages received for which no receiver had interest.

#### LBT-RM Datagrams Received with No Receiver Interest

The **lbmmon** field name is **lbm_msgs_no_topic_rcved**. Number of messages received on the LBT-RM transport that were not on the topic of interest to the receiver. A value approaching the value of `lbm_msgs_rcved` indicates that the receiver is consuming a high amount of CPU time to filter unwanted topics. Consider reconfiguring sources to send on either a different transport session or different ranges of transport sessions.

#### LBT-RM Messages Received

The **lbmmon** field name is **msgs_rcved**. Number of message datagrams received on the LBT-RM transport. A single datagram may contain one or more messages or a fragment of a larger message. Ultra Messaging fragments LBT-RM messages larger than configuration option *transport_lbtrm_datagram_max_size*.

#### LBT-RM Request Messages Received

The **lbmmon** field name is **lbm_reqs_rcved**. Number of Ultra Messaging request messages received.

#### Maximum Number of NAKs

The **lbmmon** field name is **nak_tx_max**. Maximum number of times for each lost message that a receiver transport transmitted a NAK. A value higher than 1 suggests that the receiver transport probably has experienced unrecoverable loss. A significantly high value compared to the mean number of NAKs implies an isolated incident. The initial value before any data has been reported is zero. UM computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement.

#### Maximum Recovery Time

The **lbmmon** field name is **nak_stm_max**. The longest time recorded in milliseconds to recover lost messages. If this time is near or equal to the configuration option *transport_lbtrm_nak_generation_interval* setting, the receiver transport probably has experienced unrecoverable loss. The initial value before any data has been reported is zero. UM computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement.

**Mean Number of NAKs**

The **lbmmon** field name is **nak_tx_mean**. Mean number of times for each lost message that a receiver transport transmitted a NAK. Ideally the mean number of NAKs should be at or near 1. A higher value indicates a loss prone network. This is an exponentially weighted moving average for accumulated NAKs for each lost message, weighted to the most recent recorded time.

**Mean Recovery Time**

The **lbmmon** field name is **nak_stm_mean**. Mean time in milliseconds to recover lost messages. The mean recovery time is an exponentially weighted moving average for accumulated measured recovery times, weighted to the most recent recorded time. Ideally the mean recovery time should be as close to your minimum recovery time as possible. High mean recovery times indicate a loss prone network.

**Minimum Number of NAKs**

The **lbmmon** field name is **nak_tx_min**. Minimum number of times for each lost message that a receiver transport transmitted a NAK. A value greater than 1 indicates a loss prone network. The initial value before any data has been reported is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. UM computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement.

**Minimum Recovery Time**

The **lbmmon** field name is **nak_stm_min**. The shortest time in milliseconds recorded to recover a lost message. If this time is greater than configuration option *transport_lbtrm_nak_backoff_interval*, The receiver transport might be sending multiple NAKs before receiving a retransmission which indicates a loss prone network. The initial value before any data has been reported is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. UM computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement.

**NAK Packets Sent**

The **lbmmon** field name is **nak_pckts_sent**. Number of negative acknowledgement (NAK) packets sent by the receiver transport for messages detected as missing from the expected sequence. Ultra Messaging batches NAKs into NAK packets to save network bandwidth. This should always be less than or equal to the number of individual NAKs sent or **naks_sent**.

**NAKs Sent**

The **lbmmon** field name is **naks_sent**. Number of individual negative acknowledgements (NAKs) sent by the receiver transport for messages detected as missing from the expected sequence. This may differ from the tally of lost datagrams due to the following reasons.

- Other receiver transports may have already sent a NAK for the same lost datagram. As a result, the source might send either a NAK confirmation (NCF) or a message retransmission before the receiver transport has a chance to issue a NAK.
- During periods of heavy loss, receiver transports might issue multiple NAKs for each lost datagram. You control the frequency of multiple NAKs with the configuration options *transport_lbtrm_nak_generation_interval* and *transport_lbtrm_nak_backoff_interval*. Ultra Messaging continues to send NAKs at the generation and backoff intervals until either the receiver receives the retransmission or the delivery controller declares the datagram as unrecovered. UM then delivers an LBM_MSG_UNRECOVERABLE_LOSS event to the receiver application.

**NCFs Ignored**

The **lbmmon** field name is **ncfs_ignored**. Number of NAK confirmations (NCF) received from a source transport with reason code `ignored`. If a source transport receives a NAK for a datagram that it has recently retransmitted, it sends an `NCF ignored` and does not retransmit. The source ignores NAKs for

the interval you set by the configuration option *transport_lbtrm_ignore_interval*. If the NCF ignored count is high, a receiver transport might not be receiving retransmissions or you may have set the *transport_lbtrm_ignore_interval* too long.

#### NCFs with Retransmission Delay

The **lbmmon** field name is **ncfs_rx_delay**. Number of NAK confirmations (NCF) received with reason code rx_delay. When a source transport retransmit rate limiter prevents the transport from immediately retransmitting any lost datagrams, the transport responds to a NAK with an NCF rx_delay. The transport then queues the retransmission to send later. The receiver transport waits for the retransmission and does not immediately send another NAK. If this count is high, one or more receiver transports might be experiencing delivery problems, which fills the source transport retransmit queue.

#### NCFs Shed

The **lbmmon** field name is **ncfs_shed**. Number of NAK confirmations (NCF) received with reason code shed. When a source transport retransmit queue and rate limiter are both at maximum, the source transport responds to a NAK with an NCF shed and does not retransmit the message. The receiver transport waits and then sends another NAK. If the NCF shed count is high, one or more receiver transports experiencing delivery problems may be clogging the source transport's retransmit queue.

#### NCFs Unknown

The **lbmmon** field name is **ncfs_unknown**. Number of NAK confirmations (NCF) received with a reason code the receiver transport does not recognize. The receiver transport records NCFs with an unrecognized reason code as unknown. After a delay set by configuration option *transport_lbtrm_nak_suppress_interval*, the receiver transport resends the NAK. The NCFs unknown counter should never be greater than 0 unless applications linked with different versions of UM software coexist on the same network.

#### Number of LBT-RM Datagrams Received Out of Order

The **lbmmon** field name is **out_of_order**. Number of out-of-order LBT-RM transport datagrams received. The receiver transports counts a datagram as out of order if the datagram fills a previously detected sequence gap, but is not a retransmission.

#### Unrecoverable Loss From NAK Generation Interval Expiration

The **lbmmon** field name is **unrecovered_tmo**. Number of LBT-RM datagrams unrecovered due to a retransmission not received within the NAK generation interval. At the expiration of the NAK generation interval, set by configuration option *transport_lbtrm_nak_generation_interval*, the receiver transport does not send any NAKs for the lost datagram.

#### Unrecoverable Loss From Transmission Window Advance

The **lbmmon** field name is **unrecovered_txw**. Number of LBT-RM datagrams unrecovered due to transmission window advance. The transmission window, set by configuration option *lbtrm_transmission_window_size* indirectly determines the number of messages available for retransmission because of its size. The source transport maintains the window size by removing older messages. If a slow receiver transport sends a NAK for a message no longer in the source transport transmission window, the source transport cannot retransmit the message. the receiver transport then marks the message as unrecoverably lost.

#### Discard Ratio

The Administrator Daemon generates this synthetic statistic. Discard ratio is the percentage of traffic received, but filtered out and ignored by the application instance. When an application instance subscribes to a topic, receives on a transport that is carrying topics of interest and non-interest. This causes the application instance to examine all the traffic it is receiving on that transport and filter out the topics of non-interest. The process of filtering out and discarding utilizes CPU resources. The discard ratio needs to be close to zero for optimal performance. If the discard ratio is high for all the application

instances receiving on a particular transport, optimize the deployment by mapping discarded topics on a separate transport.

## LBT-RU Receiver Statistics

Ultra Messaging provides the following receiver statistics for a LBT-RU transport:

**Duplicate Datagrams**

The **lbmmon** field name is **duplicate_data**. Number of duplicate LBT-RU datagrams received. A large number indicates a loss prone network, possibly due to other receiver transports requesting retransmissions that this receiver transport has successfully received. Duplicates datagrams require extra CPU resources to filter and reject the duplicates.

**LBT-RU Bytes Received**

The **lbmmon** field name is **bytes_rcved**. Number of LBT-RU datagram bytes received including UM header information.

**LBT-RU Datagrams Dropped Due to Incorrect Header Type**

The **lbmmon** field name is **dgrams_dropped_hdr**. Number of datagrams discarded due to bad header type. The dropped datagrams appear to be intact, but contain an unrecognizable header format.

**LBT-RU Datagrams Dropped Due to Incorrect Version**

The **lbmmon** field name is **dgrams_dropped_version**. Number of datagrams discarded due to incorrect version. The datagram version field must match the expectations of the receiver transport.

**LBT-RU Datagrams Dropped Due to Packet Type**

The **lbmmon** field name is **dgrams_dropped_type**. Number of datagrams discarded due to incorrect type. The datagram type field must match the expectations of the receiver transport.

**LBT-RU Datagrams Dropped Due to Small Size**

The **lbmmon** field name is **dgrams_dropped_size**. Number of datagrams discarded due to being smaller than the size designated in the datagram's size field.

**LBT-RU Datagrams Dropped Due to Session ID Mismatch**

The **lbmmon** field name is **dgrams_dropped_sid**. Number of datagrams discarded due to session ID mismatch. The dropped datagrams appear correct, but contain an unmatched or unrecognized session ID field.

**LBT-RU Datagrams Dropped Due to Unrecognizable Format**

The **lbmmon** field name is **dgrams_dropped_other**. Number of unrecognizable datagrams discarded. Datagrams might be corrupt or have originated from foreign or incompatible software.

**LBT-RU Datagrams Lost**

The **lbmmon** field name is **lost**. Number of LBT-RU datagrams detected as lost.

**LBT-RU Datagrams Received**

The **lbmmon** field name is **lbm_msgs_rcved**. The **lbmmon** field name is **lbm_msgs_rcved**. Number of message datagrams received on the LBT-RU transport. A single datagram may contain one or more messages or a fragment of a larger message. Ultra Messaging fragments TCP messages larger than configuration option *transport_lbtru_datagram_max_size*. The count reflects the number of datagrams required to fragment a large message. This number also includes messages received for which no receiver had interest.

#### LBT-RU Datagrams Received with No Receiver Interest

The **lbmmon** field name is **lbm_msgs_no_topic_rcved**. Number of messages received on the LBT-RU transport that were not on the topic of interest to the receiver. A value approaching the value of `lbm_msgs_rcved` indicates that the receiver is consuming a high amount of CPU time to filter unwanted topics. Consider reconfiguring sources to send on either a different transport session or different ranges of transport sessions.

#### LBT-RU Messages Received

The **lbmmon** field name is **msgs_rcved**. Number of message datagrams received on the LBT-RU transport. A single datagram may contain one or more messages or a fragment of a larger message. Ultra Messaging fragments TCP messages larger than configuration option *`transport_lbtru_datagram_max_size`*.

#### LBT-RU Request Messages Received

The **lbmmon** field name is **lbm_reqs_rcved**. Number of UM request messages received.

#### Maximum Recovery Time

The **lbmmon** field name is **nak_stm_max**. The longest time recorded in milliseconds to recover lost messages. If this time is near or equal to the configuration option *`transport_lbtru_nak_generation_interval`* setting, the receiver transport probably has experienced unrecoverable loss. The initial value is zero. Ultra messaging computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement.

#### Maximum Number of NAKs

The **lbmmon** field name is **nak_tx_max**. Maximum number of times for each lost message that a receiver transport transmitted a NAK. A value higher than 1 suggests that the receiver transport probably has experienced unrecoverable loss. A significantly high value compared to the mean number of NAKs implies an isolated incident. The initial value is zero. UM computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement.

#### Mean Number of NAKs

The **lbmmon** field name is **nak_tx_mean**. Mean number of times for each lost message that a receiver transport transmitted a NAK. Ideally the mean number of NAKs should be at or near 1. A higher value indicates a loss prone network. This is an exponentially weighted moving average for accumulated NAKs for each lost message, weighted to the most recent recorded time.

#### Mean Recovery Time

The **lbmmon** field name is **nak_stm_mean**. Mean time in milliseconds to recover lost messages. The mean recovery time is an exponentially weighted moving average for accumulated measured recovery times, weighted to the most recent recorded time. Ideally the mean recovery time should be as close to your minimum recovery time as possible. High mean recovery times indicate a loss prone network.

#### Minimum Number of NAKs

The **lbmmon** field name is **nak_tx_min**. Minimum number of times for each lost message that a receiver transport transmitted a NAK. A value greater than 1 indicates a loss prone network. The initial value before any data has been reported is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. UM computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement.

#### Minimum Recovery Time

The **lbmmon** field name is **nak_stm_min**. The shortest time in milliseconds recorded to recover a lost message. If this time is greater than configuration option *`transport_lbtru_nak_backoff_interval`*, The

receiver transport might be sending multiple NAKs before receiving a retransmission which indicates a loss prone network. The initial value before any data has been reported is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. UM computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement.

#### NAK Packets Sent

The **lbmmon** field name is **nak_pckts_sent**. Number of negative acknowledgement (NAK) packets sent by the receiver transport for messages detected as missing from the expected sequence. UM batches NAKs into NAK packets to save network bandwidth. NAK Packets Sent should always be less than or equal to the number of individual NAKs sent.

#### NAKs Sent

The **lbmmon** field name is **naks_sent**. Number of individual negative acknowledgements (NAKs) sent by the receiver transport for messages detected as missing from the expected sequence. The number of individual NAKs sent might differ from the tally of lost datagrams due to the following reasons:

- Other receiver transports might have already sent a NAK for the same lost datagram. As a result, the source might send either a NAK confirmation (NCF) or a message retransmission before the receiver transport has a chance to issue a NAK.
- During periods of heavy loss, other receiver transports might issue multiple NAKs for each lost datagram. You control the frequency of multiple NAKs with the configuration options *transport_lbtru_nak_generation_interval* and *transport_lbtru_nak_backoff_interval*. UM continues to send NAKs at the generation and backoff intervals until either the receiver receives the retransmission or the delivery controller declares the datagram as unrecovered. UM then delivers an LBM_MSG_UNRECOVERABLE_LOSS event to the receiver application.

#### NCFs Ignored

The **lbmmon** field name is **ncfs_ignored**. Number of NAK confirmations (NCF) received from a source transport with reason code `ignored`. If a source transport receives a NAK for a datagram that it has recently retransmitted, it sends an `NCF ignored` and does not retransmit. The source ignores NAKs for the interval you set by the configuration option *transport_lbtru_ignore_interval*. If the `NCF ignored` count is high, a receiver transport might not be receiving retransmissions or you may have set the *transport_lbtru_ignore_interval* too long.

#### NCFs with Retransmission Delay

The **lbmmon** field name is **ncfs_rx_delay**. Number of NAK confirmations (NCF) received with reason code `rx_delay`. When a source transport retransmit rate limiter prevents the transport from immediately retransmitting any lost datagrams, the transport responds to a NAK with an `NCF rx_delay`. The transport then queues the retransmission to send later. The receiver transport waits for the retransmission and does not immediately send another NAK. If this count is high, one or more receiver transports experiencing delivery problems may be clogging the source transport retransmit queue.

#### NCFs Shed

The **lbmmon** field name is **ncfs_shed**. Number of NAK confirmations (NCF) received with reason code `shed`. When a source transport retransmit queue and rate limiter are both at maximum, the source transport responds to a NAK with an `NCF shed` and does not retransmit the message. The receiver transport waits and then sends another NAK. If the `NCF shed` count is high, one or more receiver transports experiencing delivery problems may be clogging the source transport's retransmit queue.

#### NCFs Unknown

The **lbmmon** field name is **ncfs_unknown**. Number of NAK confirmations (NCF) received with a reason code the receiver transport does not recognize. The receiver transport records NCFs with an unrecognized reason code as `unknown`. After a delay set by configuration option

*transport_lbtru_nak_suppress_interval*, the receiver transport resends the NAK. The `NCFs unknown` counter should never be greater than 0 unless applications linked with different versions of UM software coexist on the same network.

#### Unrecoverable Loss From NAK Generation Interval Expiration

The **lbmmon** field name is **unrecovered_tmo**. Number of LBT-RU datagrams unrecovered due to a retransmission not received within the NAK generation interval. At the expiration of the NAK generation interval, set by configuration option *transport_lbtru_nak_generation_interval*, the receiver transport does not send any more NAKs for the lost datagram.

#### Unrecoverable Loss From Transmission Window Advance

The **lbmmon** field name is **unrecovered_txw**. Number of LBT-RU datagrams unrecovered due to transmission window advance. The transmission window, set by configuration option *lbtru_transmission_window_size*, indirectly determines the number of messages available for retransmission because of its size. The source transport maintains the window size by removing older messages. If a slow receiver transport sends a NAK for a message no longer in the source transport transmission window, the source transport cannot retransmit the message and the receiver transport marks the message unrecoverably lost.

#### Discard Ratio

The Administrator Daemon generates this synthetic statistic. Discard ratio is the percentage of traffic received, but filtered out and ignored by the application instance. When an application instance subscribes to a topic, receives on a transport that is carrying topics of interest and non-interest. This causes the application instance to examine all the traffic it is receiving on that transport and filter out the topics of non-interest. The process of filtering out and discarding utilizes CPU resources. The discard ratio needs to be close to zero for optimal performance. If the discard ratio is high for all the application instances receiving on a particular transport, optimize the deployment by mapping discarded topics on a separate transport.

## LBT-IPC Receiver Statistics

You can access the following receiver statistics for a LBT-IPC transport.

#### Number of LBT-IPC Messages Received

The **lbmmon** field name is **msgs_rcved**. Number of LBT-IPC messages received. A single message datagram may contain one or more messages or a fragment of a larger message. Ultra Messaging fragments LBT-IPC messages larger than configuration option *transport_lbtipc_datagram_max_size*.

#### LBT-IPC Bytes Received

The **lbmmon** field name is **bytes_rcved**. Number of LBT-IPC datagram bytes received including Ultra Messaging header information.

#### LBT-IPC Datagrams Received

The **lbmmon** field name is **lbm_msgs_rcved**. Number of message datagrams received on the LBT-IPC transport. A single datagram may contain one or more messages or a fragment of a larger message. Ultra Messaging fragments LBT-IPC messages larger than configuration option *transport_lbtipc_datagram_max_size*. The count reflects the number of datagrams required to fragment a large message. The count also includes messages received for which no receiver had interest.

#### LBT-IPC Datagrams Received with No Receiver Interest

The **lbmmon** field name is **lbm_msgs_no_topic_rcved**. Number of messages received on the LBT-IPC transport that were not on the topic of interest to the receiver. A value approaching the value of LBT-IPC Datagrams Received indicates that the receiver is consuming a high amount of CPU time to filter

unwanted topics. Consider reconfiguring sources to send on either a different transport session or different ranges of transport sessions.

**LBT-IPC Requests Received**

The **lbmmon** field name is **lbm_reqs_rcved**. Number of Ultra Messaging request messages received.

**Discard ratio**

The Administrator Daemon generates this synthetic statistic. Discard ratio is the percentage of traffic received, but filtered out and ignored by the application instance. When an application instance subscribes to a topic, receives on a transport that is carrying topics of interest and non-interest. This causes the application instance to examine all the traffic it is receiving on that transport and filter out the topics of non-interest. The process of filtering out and discarding utilizes CPU resources. The discard ratio needs to be close to zero for optimal performance. If the discard ratio is high for all the application instances receiving on a particular transport, optimize the deployment by mapping discarded topics on a separate transport.

# LBT-RDMA Receiver Statistics

You can access the following receiver statistics for a LBT-RDMA transport.

**Number of LBT-RDMA Messages Received**

The **lbmmon** field name is **msgs_rcved**Number of LBT-RDMA messages received. A single message datagram may contain one or more messages or a fragment of a larger message. Ultra Messaging fragments LBT-RDMA messages larger than configuration option *transport_lbtrdma_datagram_max_size*.

**LBT-RDMA Bytes Received**

The **lbmmon** field name is **bytes_rcved**Number of LBT-RDMA datagram bytes received including Ultra Messaging header information.

**LBT-RDMA Datagrams Received**

The **lbmmon** field name is **lbm_msgs_rcved**Number of message datagrams received on the LBT-RDMA transport. A single datagram may contain one or more messages or a fragment of a larger message. Ultra Messaging fragments LBT-RDMA messages larger than configuration option *transport_lbtrdma_datagram_max_size*. The count reflects the number of datagrams required to fragment a large message. The count also includes messages received for which no receiver had interest.

**LBT-RDMA Datagrams Received with No Receiver Interest**

The **lbmmon** field name is **lbm_msgs_no_topic_rcved**Number of messages received on the LBT-RDMA transport that were not on the topic of interest to the receiver. A value approaching the value of LBT-RDMA Datagrams Received indicates that the receiver is consuming a high amount of CPU time to filter unwanted topics. Consider reconfiguring sources to send on either a different transport session or different ranges of transport sessions.

**LBT-RDMA Requests Received**

The **lbmmon** field name is **lbm_reqs_rcved**Number of Ultra Messaging request messages received.

# LBT-SMX Receiver Statistics

Enter a short description of the concept here (optional).

You can access the following receiver statistics for a LBT-SMX transport.

#### Number of LBT-SMX Messages Received

The **lbmmon** field name is **msgs_rcved**. Number of LBT-SMX messages received. A single message datagram may contain one or more messages or a fragment of a larger message. Ultra Messaging fragments LBT-SMX messages larger than configuration option *transport_lbtsmx_datagram_max_size*.

#### LBT-SMX Bytes Received

The **lbmmon** field name is **bytes_rcved**. Number of LBT-SMX datagram bytes received including Ultra Messaging header information.

#### LBT-SMX Datagrams Received

The **lbmmon** field name is **lbm_msgs_rcved**. Number of message datagrams received on the LBT-SMX transport. A single datagram might contain more than more message provided the messages size is less than half the size of the configuration option *transport_lbtsmx_datagram_max_size*. The count reflects the . Number of datagrams required to fragment a large message. The count also includes messages received for which no receiver had interest.

#### LBT-SMX Datagrams Received with No Receiver Interest

The **lbmmon** field name is **lbm_msgs_no_topic_rcved**. Number of messages received on the LBT-SMX transport that were not on the topic of interest to the receiver. A value approaching the value of LBT-SMX Datagrams Received indicates that the receiver is consuming a high amount of CPU time to filter unwanted topics. Consider reconfiguring sources to send on either a different transport session or different ranges of transport sessions.

#### LBT-SMX Requests Received

The **lbmmon** field name is **lbm_reqs_rcved**. Number of Ultra Messaging request messages received.

# Source Transport Statistics

You can retrieve transport statistics for different types of transports that show the activity of sources on the transport session.

You can access source statistics for the following transports.

- TCP
- LBT-RM
- LBT-RU
- LBT-IPC
- LBT-RDMA
- LBT-SMX

## TCP Source Statistics

You can access the following source statistics for a TCP transport:

#### Number of Receivers Connected to Source

The **lbmmon** field name is **num_clients**. Number of receiver transports connected to the source transport.

#### Total Bytes in the TCP Buffer

The **lbmmon** field name is **bytes_buffered**. Number of bytes in the UM TCP buffer. The configuration options *transport_tcp_multiple_receiver_behavior* and *transport_session_maximum_buffer* affect the number of bytes buffered.

#### TCP bytes sent

The **lbmmon** field name is **bytes_sent**. Number of bytes sent on the TCP transport.

#### TCP bytes sent per second.

Number of bytes sent per second on the TCP transport.

## LBT-RM Source Statistics

You can access the following source statistics for a LBT-RM transport:

#### LBT-RM Bytes Retransmitted

The **lbmmon** field name is **rx_bytes_sent**. Number of LBT-RM datagram bytes retransmitted by the source transport. In a normal, light loss scenario, most NAKs induce a retransmission. When losses becomes heavy or many receiver transports begin losing the same LBT-RM datagrams, the counts of NAKs shed, ignored or delayed might inflate. Retransmissions can also drop lower than NAKS received.

#### LBT-RM Bytes Sent

The **lbmmon** field name is **bytes_sent**. Number of LBT-RM datagram bytes sent including UM header information.

#### Number of Bytes In the Transmission Window

The **lbmmon** field name is **txw_bytes**. Number of bytes in the transmission window. Each source transport session maintains a transmission window buffer. You set the size of the buffer with the configuration option, *transport_lbtrm_transmission_window_size*. Typically, the count approaches the window size or exceeds it by a small amount.

#### Number of LBT-RM Datagrams Delayed by Rate Limit

The **lbmmon** field name is **rctlr_data_msgs**. Number of LBT-RM datagrams queued by the data rate limiter. When a source transport attempts to send messages or retransmissions faster than its data rate limiter allows the data rate limiter queues the messages until they can be sent within the data rate limit. You set the rate limit with the configuration option *transport_lbtrm_data_rate_limit*.

#### Number of LBT-RM Datagrams Retransmitted

The **lbmmon** field name is **rxs_sent**. Number of LBT-RM datagrams retransmitted by the source transport. In a normal, light loss scenario, most NAKs induce a retransmission. When losses becomes heavy or many receiver transports begin losing the same LBT-RM datagrams, the counts of NAKs shed, ignored or delayed might inflate. Retransmissions can also drop lower than NAKS received.

#### Number of LBT-RM Datagrams Sent

The **lbmmon** field name is **msgs_sent**. Number of LBT-RM datagrams sent. A single datagram may contain one or more messages or a fragment of a larger message. UM fragments LBT-RM messages larger than configuration option *transport_lbtrm_datagram_max_size*.

#### Number of LBT-RM Retransmissions Delayed by Rate Limit

The **lbmmon** field name is **rctlr_rx_msgs**. Number of LBT-RM transport retransmission datagrams queued by the retransmit rate limiter. When a source transport attempts to send retransmissions faster than its retransmit rate limiter allows, the retransmit rate limiter queues the messages until they can be sent within the retransmit rate limit. You set the retransmit rate limit with the configuration option

*transport_lbtrm_retransmit_rate_limit*. The Number of NAK Retransmissions Delayed by Rate Limit is also high if multiple receiver transports send NAKs for the same lost message.

#### Number of Messages In the Transmission Window

The **lbmmon** field name is **txw_msgs**. Number of LBT-RM messages in the transmission window. Each source transport session maintains a transmission window buffer. You set the size of the buffer with the configuration option, *transport_lbtrm_transmission_window_size*. Sources can retransmit the messages in the transmission window buffer.

#### Number of NAKs Ignored

The **lbmmon** field name is **naks_ignored**. Number of negative acknowledgements (NAK) the source transport ignored and sent an NAK confirmation (NCF) with reason code `ignored`. A source transport ignores a NAK for any message it has recently retransmitted for the interval set by the configuration option *transport_lbtrm_ignore_interval*. If this count is high, a receiver transport might not be receiving retransmissions or *transport_lbtrm_ignore_interval* may be too long.

#### Number of NAK Packets Received

The **lbmmon** field name is **nak_pckts_rcved**. Number of negative acknowledgement (NAK) packets received by this source transport. UM batches NAKs into NAK packets to save network bandwidth. The count should be less than or equal to the number of NAKs received.

#### Number of NAKs Received

The **lbmmon** field name is **naks_rcved**. Number of individual negative acknowledgements (NAK) received by the source transport. Receiver transports send NAKs for lost messages. Source transports respond to the first NAK for a lost message with a retransmission. The source transport responds to subsequent NAKs for the lost message with a NAK confirmation (NCF). If the retransmission fails, the receiver transport sends another NAK after the *transport_lbtrm_nak_suppress_interval* expires.

#### Number of NAK Retransmissions Delayed by Rate Limit

The **lbmmon** field name is **naks_rx_delay_ignored**. Number of negative acknowledgements (NAK) that the source transport has not processed due to the retransmit rate limit you set by the configuration option *transport_lbtrm_retransmit_rate_limit*. For each delayed NAK retransmission, the source transport immediately sends an `NCF rx_delay`and queues the retransmission for later transmission within the rate limit. If this count is high, one or more receiver transports might be experiencing delivery problems, which fills the source transport retransmit queue.

#### Number of NAKs Shed

The **lbmmon** field name is **naks_shed**. Number of negative acknowledgements (NAK) the source transport has shed by sending an NCF with reason code `shed`. When a source transport retransmit queue and rate limiter are both at maximum, the source transport responds to a NAK with an `NCF shed` and does not retransmit the message. The receiver transport waits and then sends another NAK after the *transport_lbtrm_nak_suppress_interval* expires. If the `NCF shed` count is high, one or more receiver transports experiencing delivery problems may be clogging the source transport's retransmit queue.

#### Total unrecoverable loss

## LBT-RU Source Statistics

You can access the following source statistics for a LBT-RU transport:

#### LBT-RU Bytes Retransmitted

The **lbmmon** field name is **rx_bytes_sent**. Number of LBT-RU datagram bytes retransmitted by the source transport. In a normal, light loss scenario, most NAKs induce a retransmission. When losses

becomes heavy or many receiver transports begin losing the same LBT-RU datagrams, the counts of NAKs shed, ignored or delayed might inflate. Retransmissions can also drop lower than NAKS received.

#### LBT-RU Bytes Sent

The **lbmmon** field name is **bytes_sent**. Number of LBT-RU datagram bytes sent including UM header information.

#### Number of LBT-RU Datagrams Retransmitted

The **lbmmon** field name is **rxs_sent**. Number of LBT-RU datagrams retransmitted by the source transport. In a normal, light loss scenario, most NAKs induce a retransmission. When losses becomes heavy or many receiver transports begin losing the same LBT-RU datagrams, the counts of NAKs shed, ignored or delayed might inflate. Retransmissions can also drop lower than NAKS received.

#### Number of LBT-RU Datagrams Sent

The **lbmmon** field name is **msgs_sent**. Number of LBT-RU datagrams sent. A single datagram may contain one or more messages or a fragment of a larger message. UM fragments LBT-RU messages larger than configuration option *transport_lbtru_datagram_max_size*.

#### Number of NAKs Ignored

The **lbmmon** field name is **naks_ignored**. Number of negative acknowledgements (NAK) the source transport ignored and sent an NAK confirmation (NCF) with reason code `ignored`. A source transport ignores a NAK for any message it has recently retransmitted for the interval you set by the configuration option *transport_lbtru_ignore_interval*. If this count is high, a receiver transport might not be receiving retransmissions or you might have set the *transport_lbtru_ignore_interval* too long.

#### Number of NAK Packets Received

The **lbmmon** field name is **nak_pckts_rcved**. Number of negative acknowledgement (NAK) packets received by this source transport. UM batches NAKs into NAK packets to save network bandwidth. The count should be less than or equal to the number of NAKs received.

#### Number of NAKs Received

The **lbmmon** field name is **naks_rcved**. Number of individual negative acknowledgements (NAK) received by the source transport. Receiver transports send NAKs for lost messages. Source transports respond to the first NAK for a lost message with a retransmission. The source transport responds to subsequent NAKs for the lost message with a NAK confirmation (NCF). If the retransmission fails, the receiver transport sends another NAK after the *transport_lbtru_nak_suppress_interval* expires.

#### Number of NAK Retransmissions Delayed by Rate Limit

The **lbmmon** field name is **naks_rx_delay_ignored**. Number of negative acknowledgements (NAK) that the source transport has not processed due to the retransmit rate limit you set by the configuration option *transport_lbtru_retransmit_rate_limit*. For each delayed NAK retransmission, the source transport immediately sends an `NCF rx_delay`and queues the retransmission for later transmission within the rate limit. If this count is high, one or more receiver transports might be experiencing delivery problems, which fills the source transport retransmit queue.

#### Number of NAKs Shed

The **lbmmon** field name is **naks_shed**. Number of negative acknowledgements (NAK) the source transport has shed by sending an NCF with reason code `shed`. When a source transport retransmit queue and rate limiter are both at maximum, the source transport responds to a NAK with an `NCF shed` and does not retransmit the message. The receiver transport waits and then sends another NAK after the *transport_lbtru_nak_suppress_interval* expires. If the `NCF shed` count is high, one or more receiver transports experiencing delivery problems may be clogging the source transport's retransmit queue.

#### Number of Receivers Connected to Source

The **lbmmon** field name is **num_clients**. Number of receiver transports connected to the source transport.

#### Total unrecoverable loss

## LBT-IPC Source Statistics

You can access the following source statistics for a LBT-IPC transport:

#### Number of Receivers Connected to Source

The **lbmmon** field name is **num_clients**. Number of receiver transports connected to the source transport.

#### Number of LBT-IPC Datagrams Sent

The **lbmmon** field name is **msgs_sent**. Number of LBT-IPC datagrams sent. A single datagram may contain one or more messages or a fragment of a larger message. UM fragments LBT-IPC messages larger than configuration option *transport_lbtipc_datagram_max_size*.

#### LBT-IPC Bytes Sent

The **lbmmon** field name is **bytes_sent**. Number of LBT-IPC datagram bytes sent including UM header information.

## LBT-RDMA Source Statistics

You can access the following source statistics for a LBT-RDMA transport.

#### Number of Receivers Connected to Source

The **lbmmon** field name is **num_clients**. Number of receiver transports connected to the source transport.

#### Number of LBT-RDMA Datagrams Sent

The **lbmmon** field name is **msgs_sent**. Number of LBT-RDMA datagrams sent. A single datagram may contain one or more messages or a fragment of a larger message. Ultra Messaging fragments LBT-RDMA messages larger than configuration option *transport_lbtrdma_datagram_max_size*.

#### LBT-RDMA Bytes Sent

The **lbmmon** field name is **bytes_sent**. Number of LBT-RDMA datagram bytes sent including Ultra Messaging header information.

## LBT-SMX Source Statistics

You can access the following source statistics for a LBT-SMX transport.

#### Number of Receivers Connected to Source

The **lbmmon** field name is **num_clients**. Number of receiver transports connected to the source transport.

#### Number of LBT-SMX Datagrams Sent

The **lbmmon** field name is **msgs_sent**. Number of LBT-SMX datagrams sent. A single LBT-SMX datagram may contain more than one message provided messages are less than half the size of the configuration option *transport_lbtsmx_datagram_max_size*.

#### LBT-SMX Bytes Sent

The **lbmmon** field name is **bytes_sent**. Number of LBT-SMX datagram bytes sent including Ultra Messaging header information.

# Event Queue Statistics

Event Queue statistics help you monitor the number of events on the queue, how long it takes to service the events and the total number of events for the monitoring period.

You can access the following statistics for an Ultra Messaging Event Queue.

#### Maximum Age of Event When Dequeued

The **lbmmon** field name is **age_max**. Maximum age of event queue entry when dequeued. The value represents the longest period from when Ultra Messaging added an event to the queue and when Ultra Messaging removed the event from the queue. The initial value before UM Monitoring reports any data is zero. Ultra messaging computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement. You must set the configuration option, *queue_age_enabled* to populate this statistic.

#### Maximum Service Time for Data Messages

The **lbmmon** field name is **data_msgs_svc_max**. Maximum service time in microseconds for data messages. The value represents the longest time from when Ultra Messaging removed a message from the queue until the application completely serviced the message. The initial value before UM Monitoring reports any data is zero. Ultra messaging computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Maximum Service Time for Callback Events

The **lbmmon** field name is **callback_events_svc_max**. Maximum service time in microseconds for callback events. The value represents the longest time from when Ultra Messaging removed a callback event service from the queue until the application completely serviced the event. The initial value before UM Monitoring reports any data is zero. Ultra messaging computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Maximum Service Time for Cancel Events

The **lbmmon** field name is **cancel_events_svc_max**. Maximum service time in microseconds for cancel events. Cancel events as seen by the event queue do not actually consume service time. Informatica does not recommend using this counter.

#### Maximum Service Time for Context Source Events

The **lbmmon** field name is **context_source_events_svc_max**. Maximum service time in microseconds for context source events. The value represents the longest time from when Ultra Messaging removed a context source event from the queue until the application completely serviced the event. The initial value before UM Monitoring reports any data is zero. Ultra messaging computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Maximum Service Time for I/O Events

The **lbmmon** field name is **io_events_svc_max**. Maximum service time in microseconds for I/O events. The value represents the longest time from when Ultra Messaging removed a I/O event from the queue until the application completely serviced the event. The initial value before UM Monitoring reports any data is zero. Ultra messaging computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Maximum Service Time for Response Messages

The **lbmmon** field name is **resp_msgs_svc_max**. Maximum service time in microseconds for response messages. The value represents the longest time from when Ultra Messaging removed a response message from the queue until the application completely serviced the message. The initial value before UM Monitoring reports any data is zero. Ultra messaging computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Maximum Service Time for Source Events

The **lbmmon** field name is **source_events_svc_max**. Maximum service time in microseconds for source events. The value represents the longest time from when Ultra Messaging removed a source event from the queue until the application completely serviced the event. The initial value before UM Monitoring reports any data is zero. Ultra messaging computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Maximum Service Time for Timer Events

The **lbmmon** field name is **timer_events_svc_max**. Maximum service time in microseconds for timer events. The value represents the longest time from when Ultra Messaging removed a timer event from the queue until the application completely serviced the event. The initial value before UM Monitoring reports any data is zero. Ultra messaging computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Maximum Service Time for Topicless Messages

The **lbmmon** field name is **topicless_im_msgs_svc_max**. Maximum service time in microseconds for topic-less Multicast Immediate Messaging (MIM) messages. The value represents the longest time from when Ultra Messaging removed a topic-less MIM message from the queue until the application completely serviced the message. The initial value before UM Monitoring reports any data is zero. Ultra messaging computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Maximum Service Time for Wildcard Receiver Messages

The **lbmmon** field name is **wrcv_msgs_svc_max**. Maximum service time in microseconds for wildcard receiver messages. The value represents the longest time from when Ultra Messaging removed a wildcard receiver message from the queue until the application completely serviced the message. The initial value before UM Monitoring reports any data is zero. Ultra messaging computes the maximum value as the larger of the current measured value and the current statistic value. A value of zero equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Mean Age of Event When Dequeued

The **lbmmon** field name is **age_mean**. Mean age of event queue entries when dequeued. The mean service time is an exponentially weighted moving average for accumulated event service durations weighted to the most recent recorded time. The value represents the average service time measured

from when Ultra Messaging added an event to the queue and when Ultra Messaging removed the event from the queue. You must set the configuration option, *queue_age_enabled* to populate this statistic.

#### Mean Service Time for Data Messages

The **lbmmon** field name is **data_msgs_svc_mean**. Mean service time in microseconds for data messages. The mean service time is an exponentially weighted moving average for accumulated data message service durations weighted to the most recent recorded time. The value represents the average service time measured from when Ultra Messaging removed a message from the queue until the application completely serviced the message. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Mean Service Time for Callback Events

The **lbmmon** field name is **callback_events_svc_mean**. Mean service time in microseconds for callback events. The mean service time is an exponentially weighted moving average for accumulated callback event service durations weighted to the most recent recorded time. The value represents the average service time measured from when Ultra Messaging removed a callback event from the queue until the application completely serviced the callback event. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Mean Service Time for Cancel Events

The **lbmmon** field name is **cancel_events_svc_mean**. Mean service time in microseconds for cancel events. Cancel events as seen by the event queue do not actually consume service time. Informatica does not recommend using this counter.

#### Mean Service Time for Context Source Events

The **lbmmon** field name is **context_source_events_svc_mean**. Mean service time in microseconds for context source events. The mean service time is an exponentially weighted moving average for accumulated context source event service durations weighted to the most recent recorded time. The value represents the average service time measured from when Ultra Messaging removed a context source event from the queue until the application completely serviced the event. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Mean Service Time for I/O Events

The **lbmmon** field name is **io_events_svc_mean**. Mean service time in microseconds for I/O events. The mean service time is an exponentially weighted moving average for accumulated data message service durations weighted to the most recent recorded time. The value represents the average service time measured from when Ultra Messaging removed an I/O Event from the queue until the application completely serviced the event. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Mean Service Time for Response Messages

The **lbmmon** field name is **resp_msgs_svc_mean**. Mean service time in microseconds for response messages. The mean service time is an exponentially weighted moving average for accumulated data message service durations weighted to the most recent recorded time. The value represents the average service time measured from when Ultra Messaging removed a message from the queue until the application completely serviced the message. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Mean Service Time for Source Events

The **lbmmon** field name is **source_events_svc_mean**. Mean service time in microseconds for source events. The mean service time is an exponentially weighted moving average for accumulated source event service durations weighted to the most recent recorded time. The value represents the average service time measured from when Ultra Messaging removed a source event from the queue until the

application completely serviced the event. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Mean Service Time for Timer Events

The **lbmmon** field name is **timer_events_svc_mean**. Mean service time in microseconds for timer events. The mean service time is an exponentially weighted moving average for accumulated timer event service durations weighted to the most recent recorded time. The value represents the average service time measured from when Ultra Messaging removed a timer event from the queue until the application completely serviced the event. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Mean Service Time for Topicless Messages

The **lbmmon** field name is **topicless_im_msgs_svc_mean**. Mean service time in microseconds for topic-less Multicast Immediate Messaging (MIM) messages. The mean service time is an exponentially weighted moving average for accumulated data message service durations weighted to the most recent recorded time. The value represents the average service time measured from when Ultra Messaging removed a topic-less MIM message from the queue until the application completely serviced the message. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Mean Service Time for Wildcard Receiver Messages

The **lbmmon** field name is **wrcv_msgs_svc_mean**. Mean service time in microseconds for wildcard receiver messages. The mean service time is an exponentially weighted moving average for accumulated data message service durations weighted to the most recent recorded time. The value represents the average service time measured from when Ultra Messaging removed a wildcard receiver message from the queue until the application completely serviced the message. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Minimum Age of Event When Dequeued

The **lbmmon** field name is **age_min**. Minimum age of event queue entry when dequeued. The value represents the shortest period from when Ultra Messaging added an event to the queue and when Ultra Messaging removed the event from the queue. The initial value before UM Monitoring reports any data is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. Ultra Messaging computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement. You must set the configuration option, *queue_age_enabled* to populate this statistic.

#### Minimum Service Time for Data Messages

The **lbmmon** field name is **data_msgs_svc_min**. Minimum service time in microseconds for data messages. The value represents the shortest time from when Ultra Messaging removed a message from the queue until the application completely serviced the message. The initial value before UM Monitoring reports any data is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. Ultra Messaging computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Minimum Service Time for Callback Events

The **lbmmon** field name is **callback_events_svc_min**. Minimum service time in microseconds for callback events. The value represents the shortest time from when Ultra Messaging removed a callback event from the queue until the application completely serviced the event. The initial value before UM Monitoring reports any data is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. Ultra Messaging computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value

equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Minimum Service Time for Cancel Events

The **lbmmon** field name is **cancel_events_svc_min**. Minimum service time in microseconds for cancel events. Cancel events as seen by the event queue do not actually consume service time. Informatica does not recommend using this counter.

#### Minimum Service Time for Context Source Events

The **lbmmon** field name is **context_source_events_svc_min**. Minimum service time in microseconds for context source events. The value represents the shortest time from when Ultra Messaging removed a context source event from the queue until the application completely serviced the event. The initial value before UM Monitoring reports any data is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. Ultra Messaging computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Minimum Service Time for I/O Events

The **lbmmon** field name is **io_events_svc_min**. Minimum service time in microseconds for I/O events. The value represents the shortest time from when Ultra Messaging removed an I/O event from the queue until the application completely serviced the event. The initial value before UM Monitoring reports any data is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. Ultra Messaging computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Minimum Service Time for Response Messages

The **lbmmon** field name is **resp_msgs_svc_min**. Minimum service time in microseconds for response messages. The value represents the shortest time from when Ultra Messaging removed a response message from the queue until the application completely serviced the message. The initial value before UM Monitoring reports any data is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. Ultra Messaging computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Minimum Service Time for Source Events

The **lbmmon** field name is **source_events_svc_min**. Minimum service time in microseconds for source events. The value represents the shortest time from when Ultra Messaging removed a source event from the queue until the application completely serviced the event. The initial value before UM Monitoring reports any data is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. Ultra Messaging computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Minimum Service Time for Timer Events

The **lbmmon** field name is **timer_events_svc_min**. Minimum service time in microseconds for timer events. The value represents the shortest time from when Ultra Messaging removed a timer event from the queue until the application completely serviced the event. The initial value before UM Monitoring reports any data is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. Ultra Messaging computes the minimum value as the smaller

of the current measured value and the current statistic value. The largest possible value equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Minimum Service Time for Topicless Messages

The **lbmmon** field name is **topicless_im_msgs_svc_min**. Minimum service time in microseconds for topic-less Multicast Immediate Messaging (MIM) messages. The value represents the shortest time from when Ultra Messaging removed a topic-less MIM message service from the queue until the application completely serviced the message. The initial value before UM Monitoring reports any data is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. Ultra Messaging computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Minimum Service Time for Wildcard Receiver Messages

The **lbmmon** field name is **wrcv_msgs_svc_min**. Minimum service time in microseconds for wildcard receiver messages. The value represents the shortest time from when Ultra Messaging removed a wildcard receiver message from the queue until the application completely serviced the message. The initial value before UM Monitoring reports any data is the largest possible unsigned integer, which is 4294967295 for 32-bit system and 18446744073709551615 for 64-bit system. Ultra Messaging computes the minimum value as the smaller of the current measured value and the current statistic value. The largest possible value equates to no measurement. You must set the configuration option, *queue_service_time_enabled* to populate this statistic.

#### Number of Data Messages Enqueued

The **lbmmon** field name is **data_msgs**. Number of data messages in the event queue. You must set the configuration option, *queue_count_enabled,* to populate this statistic.

#### Number of Callback Events Enqueued

The **lbmmon** field name is **callback_events**. Number of callback events in the event queue. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Number of Cancel Events Enqueued

The **lbmmon** field name is **cancel_events**. Number of cancel events in the event queue. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Number of Context Source Events Enqueued

The **lbmmon** field name is **context_source_events**. Number of context source events in the event queue. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Number of Events Enqueued

The **lbmmon** field name is **events**. Total number of events, including messages, in the event queue. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Number of I/O Events Enqueued

The **lbmmon** field name is **io_events**. Number of I/O events in the event queue. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Number of Response Messages Enqueued

The **lbmmon** field name is **resp_msgs**. Number of response messages from receiver objects in the event queue. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Number of Source Events Enqueued

The **lbmmon** field name is **source_events**. Number of source events in the event queue. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Number of Timer Events Enqueued

The **lbmmon** field name is **timer_events**. Number of timer events in the event queue. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Number of Topicless Messages Enqueued

The **lbmmon** field name is **topicless_im_msgs**. Number of topic-less Multicast Immediate Messaging (MIM) messages in the event queue. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Number of Wildcard Receiver Messages Enqueued

The **lbmmon** field name is **wrcv_msgs**. Number of wildcard receiver messages in the event queue. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Number of Unblock Events Enqueued

The **lbmmon** field name is **unblock_events**. Number of unblock events in the event queue. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Total Data Messages Enqueued

The **lbmmon** field name is **data_msgs_tot**. Total accumulated number of data messages added to the event queue since the last statistics reset. You must set the configuration option, *queue_count_enabled,* to populate this statistic.

#### Total Callback Events Enqueued

The **lbmmon** field name is **callback_events_tot**. Total accumulated number of callback events added to the event queue since the last statistics reset. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Total Cancel Events Enqueued

The **lbmmon** field name is **cancel_events_tot**. Total accumulated number of cancel events added to the event queue since the last statistics reset. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Total Context Source Events Enqueued

The **lbmmon** field name is **context_source_events_tot**. Total accumulated number of context source events added to the event queue since the last statistics reset. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Total Events Enqueued

The **lbmmon** field name is **events_tot**. Total accumulated number of events, including messages, added to the event queue since the last statistics reset. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Total I/O Events Enqueued

The **lbmmon** field name is **io_events_tot**. Total accumulated number of I/O events added to the event queue since the last statistics reset. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Total Response Messages Enqueued

The **lbmmon** field name is **resp_msgs_tot**. Total accumulated number of response messages added to the event queue since the last statistics reset.

#### Total Source Events Enqueued

The **lbmmon** field name is **source_events_tot**. Total accumulated number of source events added to the event queue since the last statistics reset. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Total Timer Events Enqueued

The **lbmmon** field name is **timer_events_tot**. Total accumulated number of timer events added to the event queue since the last statistics reset. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Total Topicless Messages Enqueued

The **lbmmon** field name is **topicless_im_msgs_tot**. Total accumulated number of topic-less Multicast Immediate Messaging (MIM) messages added to the event queue since the last statistics reset. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Total Wildcard Receiver Messages Enqueued

The **lbmmon** field name is **wrcv_msgs_tot**. Total accumulated number of wildcard receiver messages added to the event queue since the last statistics reset. You must set the configuration option, *queue_count_enabled* to populate this statistic.

#### Total Unblock Events Enqueued

The **lbmmon** field name is **unblock_events_tot**. Total accumulated number of unblock events added to the event queue since the last statistics reset. You must set the configuration option, *queue_count_enabled* to populate this statistic.

CHAPTER 4

# Troubleshooting UM Applications

This chapter includes the following topics: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## Application Crashes

These are common application and daemon liveness issues.

### UMP Store Crashed

| Symptom | Cause | Resolution |
|---|---|---|
| umestored process (PID) not running or a core file exists | | Contact Informatica Support |

### UM Router Crashed

| Symptom | Cause | Resolution |
|---|---|---|
| tnwgd process (PID) not running or a core file exists | | Contact Informatica Support |

### Excessive Resource Use

| Symptom | Cause | Resolution |
|---|---|---|
| Excessive CPU usage, often 100% | - Application thread may be deadlocked or spinning.<br>- Heap fragmentation on source (with Smartheap)<br>- Overloaded transports<br>- Improper allocation of transports and applications causing kernel-level copying of messages | Check "no-topic-messages" statistic.<br>Check if SI% (time spent processing system interrupts) is high; if so there may be too many contexts interested in the same transport data<br>Contact Informatica Support |

### Crash on deletion of an object

| Symptom | Cause | Resolution |
|---|---|---|
| Application doesn't shutdown well<br>-or-<br>Application crashes during shutdown or the deletion of an object | Improper object deletion | See Informatica UM Knowledge Base article, *LBM Deletion Best Practices* (ID 80076) |

### Datagram size mismatches

| Symptom | Cause | Resolution |
|---|---|---|
| Log message: endpoint portal [%s] unable to send: datagram size mismatch. transport_XXX_datagram_max _size must be properly configured. | Datagram sizes are inconsistently configured across the system. | Coordinate the maximum datagram size among the following configuration options.<br>- resolver_datagram_max_size<br>- transport_tcp_datagram_max_size<br>- transport_lbtrm_datagram_max_size<br>- transport_lbtru_datagram_max_size<br>- transport_lbtipc_datagram_max_size<br>- transport_lbtrdma_datagram_max_size<br>- <max-datagram> for the UM Router's Peer portal. |

# Assertions

UM produces assertions for conditions that are not expected to occur. They are not error conditions and indicate extenuating conditions that we don't handle or don't expect.

### Fatal Assertions

Fatal assertions appear for conditions that are not expected to occur and therefore require a shutdown.

Contact Informatica Support.

### Non-fatal Assertions

Non-fatal assertions occur for unexpected conditions but do not require shutdown. Normal operation may continue.

Contact Informatica Support.

# Message Loss

UM can recover message loss automatically but any recurring loss situation should be investigated and resolved.

## Symptom

The receiving application monitoring statistic, **lost**, reports the number of datagrams detected as lost.

In addition, NAKing activity also indicates message loss, however, you could turn NAKing off. (If you are concerned about message loss, however, you should not turn it off.) Your source application monitoring statistics show values for **naks_rcved** or **nak_pckets_rcved**. Receiving application monitoring statistics show values for **naks_sent** or **nak_pckets_sent**. Refer to Chapter 1, “Monitoring UM Statistics, Logs and Daemons” on page 1.

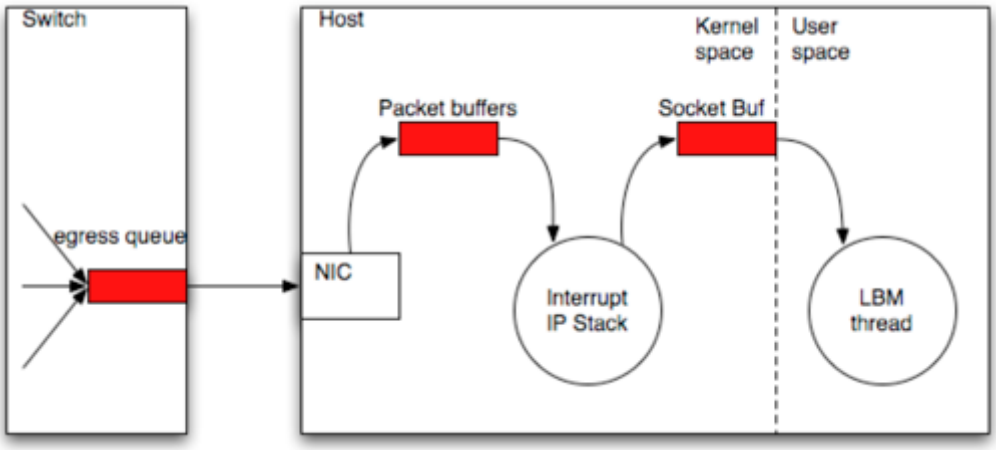
## Cause

Message loss in source-paced transports (LBT-RM, LBT-RU) can occur due to the following.

- Slow or overloaded receiver applications drop packets because, for example, the CPU can't service network interrupts or UDP socket buffers.
- An overloaded network infrastructure drops packets because of, for example, switch buffer overflows or NIC ring buffer overflows.
- A network component fails.

The following diagram depicts possible locations of message loss.

**Figure 2. Buffers Where Message Loss Can Occur**



### Resolution

Select the appropriate command from the table below to diagnose UDP socket buffer or NIC ring buffer loss.

| Platform | Buffer | Command | Result |
|---|---|---|---|
| Linux | UDP socket buffer | netstat -s | Look for the UDP field, packet receive errors |
| Linux | NIC ring buffer | ifconfig eth0 | Look for RX packets ... overruns |
| Solaris | UDP socket buffer | kstat \| grep udpInOverflows | Look for the UDP field, packet receive errors |
| Solaris | NIC ring buffer | kstat -n bge0 \| grep norcvbuf | Look for RX packets ... overruns |
| Network component | --- | Refer to the components documentation. | --- |

Use the following table if you find loss with any of the above actions.

| If you find loss in ... | And the loss ... | Resolution |
|---|---|---|
| UDP socket buffer | occurs in small bursts | Increase the UDP buffer size. |
| UDP socket buffer | Is constant | Escalate the issue to your UM development team. |
| NIC ring buffer | --- | Maximize the NIC's receive descriptors. If this doesn't reduce the loss, escalate the issue to your UM development team. |
| A network component | --- | Escalate the issue to your network team or UM development team. |

If you do not find loss in any buffers or network components, contact Informatica Support.

**Note:** Microsoft® Windows® does not report buffer loss accurately. If you believe you are experiencing UDP socket buffer overflows, you can try increasing the UDP buffer size. If you believe you are experiencing NIC ring buffer overflows, contact your NIC vendor for assistance.

# Unrecoverable Loss

Unrecoverable message loss refers to messages that have not been delivered and are not available for retransmission.

| Symptom | Cause | Resolution |
|---|---|---|
| Monitoring statistics, **unrecovered_txw** > zero | Unrecovered messages have been removed from the source's transmission and cannot be retransmitted. | Identify the source of the loss using the information found in the section, "Message Loss" on page 59.<br>-or-<br>Contact Informatica Support. |
| Monitoring statistics, **unrecovered_tmo** > zero | Unrecovered messages that were not recovered before the NAK generation interval expired. | |
| Application log messages: LBM_MSG_UNRECOVERABLE_LOSS or LBM_MSG_UNRECOVERABLE_LOSS_BURST | Either of the two causes mentioned above for unrecovered_txw or unrecovered_tmo. | |

See also Informatica UM Knowledge Base article ID 80014, *LBT-RM reports unrecoverable loss. What should I do?*

# High Latency

High latency can appear as latency spikes or just slow recovery processes such as Late Join.

| Symptom | Cause | Resolution |
|---|---|---|
| Latency spikes | Two most common causes:<br>1. Misconfigured implicit batching settings.<br>2. Message Loss | 1. Check implicit batching settings. If you desire the lowest latency at all times - which can bring a penalty of higher CPU utilization and increased probability for receivers to experience UDP buffer overflows - set implicit_batching_minimum_length to **1**. The same effect can be achieved by using the LBM_MSG_FLUSH flag inside the **lbm_src_send()** call.<br>2. Check for loss in receiver statistics. If loss is occurring, refer to "Message Loss" on page 59.<br>If these scenarios are not the problem, contact Informatica Support. |
| Slow Late Join operation | --- | Contact Informatica Support |

# Deaf Receivers

Receiver deafness is a general term that means receivers are not getting messages. This could be due to messages not being sent or simply not received. Awareness of this condition can come from many sources, such as business people complaining that they are not receiving expected data or from your own monitoring of statistics, application logs or the liveness of processes.

Use the following table to help detect topic or receiver deafness.

| Symptom | Cause | Resolution |
|---|---|---|
| All transport monitoring statistics stop "ticking". | When statistics for the affected transports stop increasing, it indicates an application has stopped publishing data for some reason. As a result the receivers of that data will go deaf. | Restart the sending applications or contact Informatica Support |
| LBT-RM or LBT-RU source monitoring statistics, **msgs_sent** and **bytes_sent** stop increasing | Indicates a source or sources has gone offline, resulting in receiver deafness. | Restart the sending applications or contact Informatica Support |
| LBT-RM or LBT-RU receiver monitoring statistics, **msgs_rcvd** and **bytes_rcvd** stop increasing | Indicates a receiver or receivers have gone offline. | Restart the receiving applications or contact Informatica Support |

| Symptom | Cause | Resolution |
|---|---|---|
| LBT-RU or TCP source monitoring statistics, **num_clients** change in unusual ways. | LBT-RU and TCP sources are able to track the number of connected clients. Unusual changes to the number of connected LBT-RU or TCP clients can indicate a problem. For example, clients dropping off during trading hours, or rapid changes in the number of clients. | Restart the sending and/or receiving applications or contact Informatica Support |
| End of Session (EOS) messages appear in applications logs. | When activity intervals expire, UM issues EOS messages to receiving applications. These appear in the application logs. | Restart the receiving applications or contact Informatica Support |
| The lbmrd Process ID (PID) disappears on either a sending or receiving machine(s). | Topic resolution has stopped. May not result in immediate topic deafness if topic resolution has already been completed, but may result in deafness if a new source or receiver comes up. | If the receiving context's monitoring statistic **tr_rcv_unresolved_topics** is zero, all topics are resolved and this may not be a problem. Either restart the receiving applications or contact Informatica Support |

### Deaf Receivers with the UM Gateway

After a receiver-side gateway is shutdown and restarted, receivers will be deaf to any forwarded traffic until EOS is triggered.

### Deaf Wildcard Receivers

| Symptom | Cause | Resolution |
|---|---|---|
| Wildcard receivers are not receiving messages. | --- | - Be sure the resolver_cache is enabled (set to 1, which is the default.<br>- Be sure wildcard queries are enabled by setting resolver_query_minimum_interval is set to the default of 50 ms. |

# UMP Sending Problems

UM sources sending from a UMP persistence application can encounter problems with flight size or the persistent store.

### Flight Size

A blocked source due to flight size limitations is not a visible problem unless the operator can see all data flows through the system.

| Symptom | Cause | Resolution |
|---|---|---|
| Monitoring statistics show a lower level of activity for a UMP application than expected. | Source not sending because it is blocked by flight size | - Increase flight size by increasing the allowable number of messages in flight with the configuration option, ume_flight_size<br>- Slow down sources.<br>- Contact Informatica Support |

### Persistent Store Connectivity

| Symptom | Cause | Resolution |
|---|---|---|
| Store log contains message, LBM_SRC_EVENT_UME_STORE_UNRESPONSIVE | Unresponsive store | The receiver can track the inability to complete registration by correlating the receipt of a new source notification with a LBM_MSG_UME_REGISTRATION _ COMPLETE_EX event. The new source notification is defined by the option receiver source_notification_function. A timer should be set to log a message or trigger an alarm if the completion message is not received after multiple seconds. To match the source in the callback to the completion event, a string comparison should be used on the **lbm_msg->source** field. The timer for each source should be canceled when its registration complete event is received. |
| The source can detect a loss of quorum by checking the error string passed in for the event LBM_SRC_EVENT_UME_STORE_UNRESPONSIVE. The string will contain "(quorum lost)" . | Lost quorum (EUMENOREG) | Restart the affected persistent stores. |

# Contacting Informatica Support

Please include the following information when contacting Informatica Support.

- The contact information you would like us to use to contact you: email, cell phone number, office phone number, etc.
- The UM product versions you are running.

- The platforms you run on and whether they are 32-bit or 64-bit.
- The UM components you use, such as UMP, the UM Gateway, etc.
- Is this problem ongoing / repeatable / reproducible?
- Were your applications starting and stopping?
- Was there a burst of message activity?
- All log files
- Any Wireshark or packet captures or a TCP dump.

Thank You.

CHAPTER 5

# UM Log Messages

This chapter includes the following topics:


- UM Core Messages, 66
- UM Core API Messages, 146
- UM Dynamic Routing Log Messages, 185
- UM Lbmrd Log Messages, 200
- UM Persistent Store Log Messages, 201
- UM Persistent Store API Log Messages, 220


## UM Core Messages

The following table lists log messages from UM core functionality.

You may find searching on the Log Message ID the most effective method to find the message's description.

**Table 1. UM Core Log Messages**

| Message | Description | Resolution |
|---|---|---|
| Core-5402-1: Hot-failover receiver ignoring mismatched sequence number size | A hot failover receiver dropped a message that had a sequence number size different than what it was expecting. | Ensure that all hot failover sources on the same topic are sending using the same sequence number size |
| Core-5455-1: epoll_ctl: EPOLL_CTL_DEL returned: errno: %d:%s | If errno is EBADF or ENOENT, File descriptor is closed before lbm_cancel_fd call | |
| Core-5455-2: lbm_fd_cancel epoll_ctl: epoll_op: %d returned errno:%d:%s | If errno is EBADF or ENOENT, file desc is closed before lbm_cancel_fd_call | |
| Core-5480-1: OTR Initiated for [%s] [%s] | OTR has been initiated either for the first time on this source, or it has been at least a log_alert_cooldown's length of time since the last log alert. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5480-2: OTR Repeated for [%s][%s] (%u times) | OTR has been ongoing for this source. | |
| Core-5480-3: no response received to late join initiation request - skipping late join | The receiver was unable to get a response from a source claiming to provide late join. | Contact Informatica support. |
| Core-5480-45: message delivery failed: persrc ctlr %p perrcv ctlr %p sqn %x | Internal error attempting to process recovered data. | Contact Informatica support |
| Core-5480-46: rxr ctlr %p request failed recovering sqns %x - %x from perrcv ctlr %p | Internal error attempting to initiate recovery of data. | Contact Informatica support. |
| Core-5480-47: mtt register failed: (%u) [%s] | Internal error while attempting to process a command on an mtt transport thread. | Contact Informatica support. |
| Core-5626-1: %s: Option %s is not recognized - ignoring. | The option name was not recognized. | If the XML config is being used for different versions of UM, and the option is valid on versions of UM other than the current application, then this message may be ignored. Otherwise, check your configuration for invalid option names. |
| Core-5626-2: %s: error parsing default value - ignoring. | The default-value attribute for this option was invalid for this platform. | If the XML config is being used for different versions of UM and/or different platforms, and the default-value is valid on other installations of UM, then this message may be ignored. Otherwise, check your configuration for invalid default-value. |
| Core-5626-3: %s: error parsing default value '%s': %s | The default-value attribute for this option was not in the correct format. | Use the format appropriate for the specific option. |
| Core-5626-4: %s: error parsing rule value - ignoring. | The rule value supplied was invalid for this platform. | If the XML config is being used for different versions of UM and/or different platforms, and the rule value is valid on other installations of UM, then this message may be ignored. Otherwise, check your configuration for invalid values. |
| Core-5626-5: %s: error parsing rule value '%s': %s | The rule value was not in the correct format. | Use the format appropriate for the specific option. |

| Message | Description | Resolution |
|---|---|---|
| Core-5626-6: %s: error parsing rule value - ignoring. | The rule value supplied was invalid for this platform. | If the XML config is being used for different versions of UM and/or different platforms, and the rule value is valid on other installations of UM, then this message may be ignored. Otherwise, check your configuration for invalid values. |
| Core-5626-7: %s: error parsing rule value '%s': %s | The rule value was not in the correct format. | Use the format appropriate for the specific option. |
| Core-5688-1279: WARNING: TCP session exists and uses a different transport_session_maximum_buffer [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_session_maximum_buffer setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1280: WARNING: TCP session exists and uses a different transport_tcp_multiple_receiver_behavior [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_tcp_multiple_behavior setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1281: WARNING: TCP session exists and uses a different transport_source_side_filtering_behavior [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_source_side_filtering_behavior setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1284: WARNING: LBT-RM session for multicast address %s exists and uses a different transport_lbtrm_tgsz [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtrm_tgsz setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1285: WARNING: LBT-RM session for multicast address %s exists and uses a different transport_lbtrm_ignore_interval [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtrm_ignore_interval setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-1286: WARNING: LBT-RM session for multicast address %s exists and uses a different transport_lbtrm_sm_minimum_interval [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtrm_sm_minimum_interval setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1287: WARNING: LBT-RM session for multicast address %s exists and uses a different transport_lbtrm_sm_maximum_interval [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtrm_maximum_interval setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1288: WARNING: LBT-RM session for multicast address %s exists and uses a different transport_lbtrm_transmission_window_size [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtrm_transmission_window_size setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1289: WARNING: LBT-RM session for multicast address %s exists and uses a different transport_lbtrm_transmission_window_size [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtrm_transmission_window_size setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1290: WARNING: LBT-RM session for multicast address %s exists and uses a different transport_lbtrm_coalesce_threshold [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtrm_coalesce_threshold setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1291: WARNING: LBT-RU session exists and uses a different transport_lbtru_client_map_size [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtru_client_map_size setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-1292: WARNING: LBT-RU session exists and uses a different transport_lbtru_transmission_window_size [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtru_transmission_window_size setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1293: WARNING: LBT-RU session exists and uses a different transport_lbtru_transmission_window_size [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtru_transmission_window_size setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1294: WARNING: LBT-RU session exists and uses a different transport_lbtru_ignore_interval [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtru_ignore_interval setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1295: WARNING: LBT-RU session exists and uses a different transport_lbtru_sm_minimum_interval [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtru_sm_minimum_interval setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1296: WARNING: LBT-RU session exists and uses a different transport_lbtru_sm_maximum_interval [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtru_sm_maximum_interval setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1297: WARNING: LBT-RU session exists and uses a different transport_lbtru_client_activity_timeout [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtru_client_activity_timeout setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-1298: WARNING: LBT-RU session exists and uses a different transport_lbtru_coalesce_threshold [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtru_coalesce_threshold setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1299: WARNING: LBT-RU session exists and uses a different transport_source_side_filtering_behavior [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtru_source_side_filtering_behavior setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1302: WARNING: LBT-IPC session exists and uses a different transport_lbtipc_sm_interval [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtipc_sm_interval setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1303: WARNING: LBT-IPC session exists and uses a different transport_lbtipc_transmission_window_size [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtipc_transmission_window_size setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-5688-1305: WARNING: Host has multiple RDMA-capable interfaces; going to use [%s][%s]. | As UMS initializes, it scans for RMDA capable interfaces in the system. If more than one is found and a specific interface has not be configured, UMS uses the first one found. | Use "transport_lbtrdma_interface" to specify the desired RDMA interface. |
| Core-5688-1793: WARNING: Requested receiver attributes will be ignored, previous receiver for topic [%s] has already defined the attributes. | Indicates a programming error where a receiver topic lookup was performed using different receiver attributes. In this case the original attributes are used. | |
| Core-5688-1794: LBT-RU source received unknown packet type %u. Origin: %s:%d | UM received data on the LBT-RU source socket that it did not recognize. It might have come from another application using a different version of UM or a non-UM application. | Please check your network for UM applications using a different version of UM or non-UM applications. |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-1795: WARNING: transport_lbtru_activity_timeout [%d] is less than transport_lbtru_nak_generation_interval [%d], this can result in silent data loss if loss occurs within the activity timeout interval prior to the end of the transport session. | If the transport_lbtru_activity_timeout is less than the transport_lbtru_nak_generation_interval it is possible that a receiver can tear down the transport session before it was able to send a NAK for a lossed message. When this happens the message is unrecoverable. | |
| Core-5688-1797: LBT-RU client %s.%u sent unknown CREQ request %x | UMS received a unicast message with an invalid message type. The message is dropped. | Contact Informatica support if this message occurs frequently or if using only one version of Ultra Messsaging software. |
| Core-5688-1798: LBMD EV version incorrect (%u). Dropping. | UMS daemon received a message with an invalid version number. The message is dropped. | Contact Informatica support if this message occurs frequently or if using only one version of Ultra Messsaging software. |
| Core-5688-1799: LBMD EV type not support (%u). Dropping. | UMS daemon received a message with an invalid message type. The message is dropped. | Contact Informatica support if this message occurs frequently or if using only one version of Ultra Messsaging software. |
| Core-5688-1800: LBMD EV source type support (%u). Dropping. | UMS daemon received a message from an unknown type of source. The message is dropped. | Contact Informatica support if this message occurs frequently or if using only one version of Ultra Messsaging software. |
| Core-5688-1801: LBMD EV unknown next header %x, ignoring header. | UMS daemon received a message with a header that was not recognized. This header will be ignored, but the rest of the message will be processed. This is potentially due to a newer version of software sending messages and is not harmful. | Contact Informatica support if this message occurs frequently or if using only one version of Ultra Messaging. |
| Core-5688-1802: LBMD EV unknown next header %x, dropping message. | UMS daemon received a message with an invalid message type. The message is dropped. | Contact Informatica support if this message occurs frequently or if using only one version of Ultra Messsaging. |
| Core-5688-1804: HF message receiver function returned -1 | An error occurred processing a message received by a hot failover receiver. The message was discarded. Please contact Informatica if this message occurs frequently. | |
| Core-5688-1811: FATAL: WSA startup error - %d | FATAL: Error in starting Windows Socket. The specific Windows Sockets Error Code is returned in the error message. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-1833: WARNING: Host has multiple multicast-capable interfaces; going to use [%s][%s]. | This warning occurs if the host machine has multiple multicast-capable interfaces detected, and the context attributes do not specify an interface (via the resolver_multicast_interface option). In this situation the first interface found is used. | |
| Core-5688-1836: CRITICAL: DBL support requested, but %s not found. Ensure %s is in the search path to enable DBL support. | This error results when dbl acceleration is specified through context configuration, but we are unable to locate the dbl shared library. | Try adding /opt/dbl/lib/ to your LD_LIBRARY_PATH or the dbl.dll location to your PATH on Windows. |
| Core-5688-1841: default thread stack size is perhaps too small, %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small. The size of the default stack size is dumped and will then be set to a larger size automatically. | |
| Core-5688-1842: reset thread stack size to %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small and is reallocated. This message reports the new size of the stack. | |
| Core-5688-1847: default thread stack size is perhaps too small, %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small. The size of the default stack size is dumped and will then be set to a larger size automatically. | |
| Core-5688-1848: reset thread stack size to %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small and is reallocated. This message reports the new size of the stack. | |
| Core-5688-1864: dbl thread join: WFSO res=%d, GLE=%d | An error occurred while waiting for the DBL thread to terminate. | Contact Informatica support. |
| Core-5688-1865: lbm_context_delete: WFSO res= %d, GLE=%d | Error waiting for context thread to cleanly exit. | Contact Informatica support. |
| Core-5688-1866: lbm_context_delete: I/O leakage: global_pending_io=%d | Small memory leak occurred, probably due to race condition in Windows. | Ignore, unless this happens many times per hour. |
| Core-5688-1879: timer returned error %u [%s] | UMS encountered an error expiring timers while processing events. | Contact Informatica support. |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-1880: wait returned error %u [%s] | UMS encountered an error processing an event on a file descriptor. The event is dropped. | Contact Informatica support. |
| Core-5688-1881: handle events returned error %u [%s] | Socket returned error while waiting for context deletion. | Ignore, unless this happens many times per hour. |
| Core-5688-1883: timer returned error %u [%s] | UMS encountered an error expiring timers while processing events. | Contact Informatica support. |
| Core-5688-1888: timer returned error %u [%s] | UMS encountered an error expiring timers while processing events. | Contact Informatica support. |
| Core-5688-1889: wait returned error %u [%s] | UMS encountered an error processing an event on a file descriptor. The event is dropped. | Contact Informatica support. |
| Core-5688-1890: handle events returned error %u [%s] | Socket returned error while waiting for context deletion. | Ignore, unless this happens many times per hour. |
| Core-5688-1892: timer returned error %u [%s] | UMS encountered an error expiring timers while processing events. | Contact Informatica support. |
| Core-5688-261: LBT-RDMA: Client Connection: failed to register client | A client has joined the LBT-RDMA transport but an error occurred trying to add the client to the client map. | |
| Core-5688-262: LBT-RDMA: Client Disconnect: failed to remove client | A client has left the LBT-RDMA transport but an error occurred trying to remove the client to the client map. | |
| Core-5688-263: LBT-RDMA: VMS connection failed event (%s) | A connection failed event has been received from the VRT library (formerly VMS library). Please refer to the description given. | |
| Core-5688-264: LBT-RDMA: unknown VMS connection event ID: %d (%s) | A connection event has been received from the VRT library (formerly VMS library) but the event is not understood. Please refer to the event ID and description given. | |
| Core-5688-265: LBT-RDMA: VMS Memory error event: (%s) | A memory error event has been received from the VRT library (formerly VMS library). Please refer to the description given. | |
| Core-5688-266: LBT-RDMA: VMS Generic library event: (%s) | A generic event has been received from the VRT library (formerly VMS library). Please refer to the description given. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-267: LBT-RDMA: VMS unknown library event: %d (%s) | An event was received from the VRT library (formerly VMS library) that is not understood. Please refer to the event ID and description given. | |
| Core-5688-270: LBT-RDMA: unknown VMS log level: %d (%s) | A log event was received from the VRT library (formerly VMS library) that is not understood. Please refer to the event ID and description given. | |
| Core-5688-271: LBT-RDMA: VMS transport event received but not expected: %d (%s) | A transport event was received from the VRT library (formerly VMS library) that is not expected. Please refer to the event ID and description given. | |
| Core-5688-272: LBT-RDMA: VMS fabric event received but not expected: %d (%s) | A fabric event was received from the VRT library (formerly VMS library) that is not expected. Please refer to the event ID and description given. | |
| Core-5688-273: LBT-RDMA: VMS unknown event class received: %d (%s) | An event was received from the VRT library (formerly VMS library) that is not understood. Please refer to the event ID and description given. | |
| Core-5688-276: lbtrdma_txw_open: failed to subscribe to VMS store (0x %x:%s:%u) | An error occurred when trying to join the LBT-RDMA transport given. This could occur if the Topic Advertisement is stale and the transport has already been deleted. | |
| Core-5688-277: lbtrdma_init: Problem loading VMS libraray | The VRT library (formerly VMS library) required for LBT-RDMA can not be loaded. | Verify correct installation. |
| Core-5688-278: lbtrdma_init: Can not initialize the VMS libary (%d) | The VRT library (formerly VMS library) required for LBT-RDMA reported an initialization error (given). | Verify correct installation. |
| Core-5688-279: lbtrdma_init: Can not initialize VMS client (%d) | The VRT library (formerly VMS library) required for LBT-RDMA reported a client initialization error (given). | Verify correct installation. |
| Core-5688-27: WARNING: %s config variable %s is deprecated. Use %s instead. | Configuration option is deprecated and has been replaced, Informatica suggests the config option that can be used instead. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-280: lbtrdma_init: Can not initialize VMS server (%d) | The VRT library (formerly VMS library) required for LBT-RDMA reported a server initialization error (given). | Verify correct installation. |
| Core-5688-281: lbtrdma_init: Can not register VMS event handler (%d) | The VRT library (formerly VMS library) required for LBT-RDMA reported the given error when registering an event callback function. | Verify correct installation. |
| Core-5688-282: lbm_transport_lbtrdma_ctlr_delete: WFSO res=%d, GLE=%d | The LBT-RDMA receiver thread failed to shutdown during context delete. Refer to the return status and OS error code given. | |
| Core-5688-283: default thread stack size is perhaps too small, %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small. The size of the default stack size is dumped and will then be set to a larger size automatically. | |
| Core-5688-284: reset thread stack size to %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small and is reallocated. This message reports the new size of the stack. | |
| Core-5688-285: LBT-RDMA Error: Creating Receiver Thread (%d) | An error was returned when trying to create the LBT-RDMA recevier thread. Please refer to the OS error number given. | |
| Core-5688-286: CRITICAL: LBM license invalid [%s] | Critical: The UMS license could not be validated. Contact Informatica support to verify the license. | |
| Core-5688-287: WARNING: LBM license warning [%s] | Warning: The UMS license could not be validated. Contact Informatica support to verify the license. | |
| Core-5688-288: CRITICAL: LBM not licensed | Critical: The UMS license could not be validated. Check the correct license is being specified. Contact Informatica support to verify the license. | |
| Core-5688-28: WARNING: %s config variable %s is deprecated. Has no effect. | Configuration option is deprecated and has no effect, UMS will ignore the config options and continue operation. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-2947: default thread stack size is perhaps too small, %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small. The size of the default stack size is dumped and will then be set to a larger size automatically. | |
| Core-5688-2948: reset thread stack size to %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small and is reallocated. This message reports the new size of the stack. | |
| Core-5688-2950: NOTICE: could not drain dbl socket on exit. (Read %d datagrams) Proceeding with cleanup. | During shutdown, the DBL thread closes all open sockets and then drains all user-space buffers. | No action necessary. |
| Core-5688-2951: WARNING: DBL enabled, but transport LBT-RM datagram max size %d > %d. Packet larger than MTU will be dropped. | DBL does not support fragmentation. Ultra Messaging displays this warning if the datagram_max_size is greater than 9000 bytes, which is the maximum frame size supported by DBL. | To guarantee that no datagrams are dropped for being too large, instruct UMS to fragment messages itself using the specified attribute. |
| Core-5688-2952: NOTICE: DBL enabled, but transport LBT-RM datagram max size %d > %d. Packets larger than MTU will be dropped. | DBL does not support fragmentation. Ultra Messaging displays this warning if the datagram_max_size is greater than 1500 bytes, which is the standard frame size supported by DBL. | To guarantee that no datagrams are dropped for being too large, instruct UMS to fragment messages itself using the specified attribute. |
| Core-5688-2953: WARNING: DBL enabled, but transport LBT-RU datagram max size %d > %d. Packet larger than MTU will be dropped. | DBL does not support fragmentation. Ultra Messaging displays this warning if the datagram_max_size is greater than 9000 bytes, which is the maximum frame size supported by DBL. | To guarantee that no datagrams are dropped for being too large, instruct UMS to fragment messages itself using the specified attribute. |
| Core-5688-2954: NOTICE: DBL enabled, but transport LBT-RU datagram max size %d > %d. Packets larger than MTU will be dropped. | DBL does not support fragmentation. Ultra Messaging displays this warning if the datagram_max_size is greater than 1500 bytes, which is the standard frame size supported by DBL. | To guarantee that no datagrams are dropped for being too large, instruct UMS to fragment messages itself using the specified attribute. |
| Core-5688-2955: WARNING: DBL enabled, but resolver datagram max size %d > %d. Packet larger than MTU will be dropped. | DBL does not support fragmentation. Ultra Messaging displays this warning if the datagram_max_size is greater than 9000 bytes, which is the maximum frame size supported by DBL. | To guarantee that no datagrams are dropped for being too large, instruct UMS to fragment messages itself using the specified attribute. |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-2956: NOTICE: DBL enabled, but resolver datagram max size %d > %d. Packets larger than MTU will be dropped. | DBL does not support fragmentation. Ultra Messaging displays this warning if the datagram_max_size is greater than 1500 bytes, which is the standard frame size supported by DBL. | To guarantee that no datagrams are dropped for being too large, instruct UMS to fragment messages itself using the specified attribute. |
| Core-5688-2959: WARNING: deleting dbl device returned %d | The DBL device could not be closed cleanly. DBL currently does not return failure from the specified function, but the log message is included in case future versions return failure. | |
| Core-5688-2972: LBT-RDMA: Source Paced, wakeup not expected | The LBT-RDMA transport is source paced and no rate limiter is implemented. Therefore, a wake-up event should never occur. Please contact Informatica support. | |
| Core-5688-3096: Unable to create dctlr entry: %s | This generally means memory couldn't be allocated. The error message included should specify the exact error condition. | |
| Core-5688-3101: NOTICE: UME receiver has ordered_delivery set to 0 and ume_explicit_ack_only set to 1. | This notice is issued when a UMP receiver controller is created and is intended to warn of a potentially undesireable configuration setting. The UMP store considers an explicit ACK for any sequence number as an implicit ACK for all prior sequence numbers. Turning off ordered_delivery in combination with explicit ACKs has the potential to acknowledge messages which have not yet been received by the application. | |
| Core-5688-3102: NOTICE: UME group index %u/%u invalid, will set all group indices to 0 | UMP has received an updated topic advertisement with an inconsistent UMP store group index. UMP recovers by "flattening" the stores into a single group. | |
| Core-5688-3103: NOTICE: UME store has out-of-range group index %u, setting to 0. | UMP has received an updated topic advertisement specifying a store with a group index which is greater than the number of advertised store groups. UMP recovers by setting the group index for the store in question to zero. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3104: NOTICE: setting compatibility (UME <= 1.2) mode for UME receiver. Extended events will not be delivered. | The UMP receiver controller creation logic has detected a receiver utilizing an older style (UMP version <= 1.2) registration callback function and turns off delivery of any extended UMP registration events. | |
| Core-5688-3105: Receiver Session ID specified. Specified RegID will be ignored | The system has detected that both a receiver Session ID and a receiver Reg ID have been specified either in the configuration file, via the configuration API or the RegID specification callback. | Specify only one of the Session ID or Reg ID. |
| Core-5688-3106: NOTICE: UME group index %u/%u invalid, will set all group indices to 0 | UMP has received an updated topic advertisement with an inconsistent UMP store group index. UMP recovers by "flattening" the stores into a single group. | |
| Core-5688-3107: NOTICE: UME store has out-of-range group index %u, setting to 0. | UMP has received an updated topic advertisement specifying a store with a group index which is greater than the number of advertised store groups. UMP recovers by setting the group index for the store in question to zero. | |
| Core-5688-3108: Receiver Session ID specified. Specified RegID will be ignored | The system has detected that both a receiver Session ID and a receiver Reg ID have been specified either in the configuration file, via the configuration API or the RegID specification callback. | Specify only one of the Session ID or Reg ID. |
| Core-5688-3117: WARNING: received PREG RESP with out-of-bounds StoreID | A registration response message was received from a store but the store ID in the message was invalid. The response is discarded. | |
| Core-5688-3118: WARNING: received PREG RESP with unused StoreID | A registration response message was received from a store, but the source is not registered to that store. | Check the source log for more information. Source may have restarted |
| Core-5688-3122: NOTICE: 1.2 UME store in use, turning off ACK to source | For compatability, UMP will automatically turn off sending ACKs to sources when a V1.x UMP store is used. | |
| Core-5688-3156: NOTICE: setting compatibility (UME <= 1.2) mode for UME source. Extended events will not be delivered. | UMP will tell you when it is setting compatibility to UMP <= 1.2 mode for UMP sources. When this setting is in effect, no extended events will not be delivered. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3157: NOTICE: ume_message_stability_notification not set. Setting for compatibility. | UMP will automatically set the ume_message_stability_notification configuration option if it is not specified. Check the configuration guide for more information. | |
| Core-5688-3160: WARNING: UME source for topic "%s" store state ignored (not in initial state) | UME source is not in the expected state (initial state) when registration is in progress. No sequence number adjustment will be performed in this case. | |
| Core-5688-3165: WARNING: received keepalive without StoreID set | A UMP Source received a keep alive packet from a store without a Store ID in the packet. | |
| Core-5688-3166: WARNING: received keepalive with out-of-bounds StoreID %u/%u | A UMP Source received a keep alive packet from a store that has an out of range Store ID. | |
| Core-5688-3167: WARNING: received keepalive from non-active store %u | A UMP Source received a keep alive packet from a non registered store. This may happen if a source did not successfully register with the particular store in question. | |
| Core-5688-3168: WARNING: received keepalive from store %u with incorrect RegID %u | A UMP Source received a keep alive packet from a store that has an invalid register ID. | |
| Core-5688-3169: NOTICE: store %u:%s:%u reports it has not received TIR. Possible misconfiguration? | The UMP store has not yet received an SRI from this source. UMP registration sometimes occurs faster than topic resolution. This warning might occur during a store failover. This warning can also occur if the store is not configured to listen to the correct topic resolution channel. | If this warning persists, check the source initial delay and store configuration options. |
| Core-5688-3170: WARNING: received ACK with out-of-bounds StoreID %u/%u | A UMP Source received an acknowledgment packet with a store that is not within the range of Store IDs. This should not happen and is not a serious condition. | |
| Core-5688-3171: WARNING: received ACK from non-active store %u | UMP received ACK from non-active store, this is not a serious condition unless it happens frequently and messaging is affected. | |
| Core-5688-3172: WARNING: received stability %sACK without StoreID set | UMP received stability ACK or NACK without StoreID set, this is not a serious condition unless it happens frequently and messaging is affected. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3173: source "%s" received CDELV without ACK ID set | Source received a delivery confirmation without the required identifier for the receiver. | This may indicate corrupted packets, check the system for network errors. |
| Core-5688-3178: WARNING: too many UME stores specified for topic resolution (max %u) | Too many stores were specified when creating a source. | Reduce the number of stores in the ume_store configuration option. |
| Core-5688-3185: WARNING: too many UME store groups specified for topic resolution (max %u) | Too many store groups were specified when creating a source. | Reduce the number of store groups in the ume_store_group configuration option. |
| Core-5688-3193: WARNING: too many UME stores specified for topic resolution (max %u) | Too many stores were specified when creating a source. | Reduce the number of stores in the ume_store configuration option. |
| Core-5688-3228: WARNING: socket reuseaddr and socket exclusiveaddr set at the same time | The configuration options *_tcp_reuseaddr and *_tcp_exclusiveaddr (Windows only) can not be used at the same time. | Check configuration option settings. |
| Core-5688-3234: WARNING: could not create TCP connection socket: %s | An error was returned from the OS while trying to create a socket (TCP). Refer to the OS error number and message given after the UMS message "could not create TCP connection socket". | |
| Core-5688-3236: WARNING: could not set nonblock on TCP connection socket: %s | An error was returned from the OS while trying to set the O_NONBLOCK and O_NDELAY flags on the socket. Refer to the OS error number and message given after the UMS message "could not set nonblock on TCP connection socket". | |
| Core-5688-3238: WARNING: could not set nonblock on TCP connection socket: %s | An error was returned from the OS while trying to set the O_NONBLOCK and O_NDELAY flags on the socket. Refer to the OS error number and message given after the UMS message "could not set nonblock on TCP connection socket". | |
| Core-5688-3240: WARNING: could not bind, port %d, on TCP connection socket: %s | An error was returned from the OS while trying to bind the socket to the given port. Refer to the OS error number and message given after the UMS message "could not bind, port xxxxx, on TCP connection socket". | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3244: WARNING: could not set SO_KEEPALIVE on TCP connection socket: %s | SO_KEEPALIVE was requested on the receiver end of TCP connection, but was not able to be set on the socket. This could be because the OS is not Windows or Linux, or because there was an error in the OS system call to set the socket options. | |
| Core-5688-3245: WARNING: could not connect on TCP connection socket: %s | An error was returned from the OS while trying to connect to the socket. Refer to the OS error number and message given after the UMS message "could not connect on TCP connection socket". | |
| Core-5688-3247: WARNING: could not connect on TCP connection socket: %s | An error was returned from the OS while trying to connect to the socket. Refer to the OS error number and message given after the UMS message "could not connect on TCP connection socket". | |
| Core-5688-3263: WARNING: could not set SO_REUSEADDR on multicast receive socket: %s | An error was returned from the OS while trying to set the socket option SO_REUSEADDR per the *_tcp_reuseaddr configuration parameter. Refer to the OS error number and message given after the UMS message "could not set SO_REUSEADDR on multicast receive socket". | |
| Core-5688-3265: WARNING: could not set SO_REUSEPORT on multicast receive socket: %s | An error was returned from the OS while trying to set the socket option SO_REUSEPORT per the *_tcp_reuseaddr configuration parameter. Refer to the OS error number and message given after the UMS message "could not set SO_REUSEPORT on multicast receive socket". | |
| Core-5688-3267: WARNING: could not bind, (port = %d, multicast group = %s), on multicast receive socket: %s | An error occurred while trying to bind to the requested ip and port. The last part of this message contains the OS error code and associated text. | Consult your OS documentation for resolutions based on the error code. |
| Core-5688-3269: WARNING: could not IP_ADD_MEMBERSHIP on multicast receive socket: %s | An error was returned from the OS while trying to set the socket option IP_ADD_MEMBERSHIP. Refer to the OS error number and message given after the UMS message "could not IP_ADD_MEMBERSHIP on multicast receive socket". | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3271: WARNING: could not set nonblock on multicast receive socket: %s | An error was returned from the OS while trying to set the O_NONBLOCK and O_NDELAY flags on the socket. Refer to the OS error number and message given after the UMS message "could not set nonblock on multicast receive socket". | |
| Core-5688-3272: WARNING: could not set nonblock on multicast receive socket: %s | An error was returned from the OS while trying to set the O_NONBLOCK and O_NDELAY flags on the socket. Refer to the OS error number and message given after the UMS message "could not set nonblock on multicast receive socket". | |
| Core-5688-3273: WARNING: could not set multicast SO_RCVBUF to requested value %u | An error was returned from the OS while trying to set the socket option SO_RCVBUF per the *_receiver_socket_buffer configuration parameter. The requested buffer size has not been set. | See the Configuration Guide for instructions about changing the OS limits. |
| Core-5688-3274: INFO: mcast rcv could only get SO_RCVBUF %u (desired %u) | The OS has set the socket option SO_RCVBUF but not to the value specified per the *_receiver_socket_buffer configuration parameter. The actual and desired values are given in the message. | See the Configuration Guide for instructions about changing the OS limits. |
| Core-5688-3284: WARNING: could not getaddress on dbl unicast rcv socket: %s | An error occurred while creating a DBL socket, which may prevent the receiver from proceeding. | Contact Informatica support. |
| Core-5688-3289: WARNING: could not set unicast SO_RCVBUF to requested value %u | An error was returned from the OS while trying to set the socket option SO_RCVBUF per the *_receiver_socket_buffer configuration parameter. The requested buffer size has not been set. | See the Configuration Guide for instructions about changing the OS limits. |
| Core-5688-3290: INFO: unicast rcv could only get SO_RCVBUF %u (desired %u) | | Increase the maximum send buffer size allowed by your OS. See the Configuration Guide for instructions about changing the OS limits. |
| Core-5688-3292: WARNING: could not find open unicast port in range [%d-%d] on dbl unicast bidir socket: %s | Could not bind a port in the specified range. The range may need to be expanded or moved to a range where less ports are in use. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3294: WARNING: could not bind, port %d, on dbl unicast bidir socket: %s | An error occurred while creating a DBL socket, which may prevent the receiver from proceeding. | Contact Informatica support. |
| Core-5688-3296: WARNING: could not getaddress on dbl unicast bidir socket: %s | An error occurred while creating a DBL socket, which may prevent the receiver from proceeding. | Contact Informatica support. |
| Core-5688-3298: WARNING: could not create unicast bidir socket: %s | An error was returned from the OS while trying to create a socket (UDP). Refer to the OS error number and message given after the UMS message "could not create unicast bidir socket". | |
| Core-5688-3300: WARNING: could not find open unicast port in range [%d-%d] on unicast bidir socket: %s | There are no ports available in the given range. Use *_port_low and/or *_port_high configuration parameters to specify a different range of ports to use. | |
| Core-5688-3302: WARNING: could not bind, port %d, on unicast bidir socket: %s | An error was returned from the OS while trying to bind the socket to the given port. Refer to the OS error number and message given after the UMS message "could not bind, port xxxxx, on unicast bidir socket". | |
| Core-5688-3304: WARNING: could not getsockname on unicast bidir socket: %s | An error was returned from the OS while trying to get the socket name. Refer to the OS error number and message given after the UMS message "could not getsockname on unicast bidir socket". | |
| Core-5688-3306: WARNING: could not set nonblock on unicast bidir socket: %s | An error was returned from the OS while trying to set the O_NONBLOCK and O_NDELAY flags on the socket. Refer to the OS error number and message given after the UMS message "could not set nonblock on unicast bidir socket". | |
| Core-5688-3307: WARNING: could not set nonblock on unicast bidir socket: %s | An error was returned from the OS while trying to set the O_NONBLOCK and O_NDELAY flags on the socket. Refer to the OS error number and message given after the UMS message "could not set nonblock on unicast bidir socket". | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3308: WARNING: could not set bidir SO_RCVBUF to requested value %u | An error was returned from the OS while trying to set the socket option SO_RCVBUF per the *_receiver_socket_buffer configuration parameter. The requested buffer size has not been set. | See the Configuration Guide for instructions about changing the OS limits. |
| Core-5688-3309: INFO: ucast bidir could only get SO_RCVBUF %u (desired %u) | The OS has set the socket option SO_RCVBUF but not to the value specified per the *_receiver_socket_buffer configuration parameter. The actual and desired values are given in the message. | See the Configuration Guide for instructions about changing the OS limits. |
| Core-5688-3330: lbm_socket_send: msg dropped (EWOULDBLOCK): adjust rate limit or buffers | The combination of the *_data_rate_limit and *_rate_interval configuration parameters are used to determine the amount of data that will be sent at each interval. If that amount exceeds the configured *_socket_buffer setting, each interval may experience an EWOULDBLOCK status from the OS due to the fact that the data does not fit into the OS buffer allocated. | If this message occurs often, review configuration option settings. |
| Core-5688-3331: lbm_socket_send: msg dropped (EWOULDBLOCK): adjust rate limit or buffers | The combination of the *_data_rate_limit and *_rate_interval configuration parameters are used to determine the amount of data that will be sent at each interval. If that amount exceeds the configured *_socket_buffer setting, each interval may experience an EWOULDBLOCK status from the OS due to the fact that the data does not fit into the OS buffer allocated. | If this message occurs often, review configuration option settings. |
| Core-5688-3335: lbm_socket_sendb: msg dropped (EWOULDBLOCK): adjust rate limit or buffers | The combination of the *_data_rate_limit and *_rate_interval configuration parameters are used to determine the amount of data that will be sent at each interval. If that amount exceeds the configured *_socket_buffer setting, each interval may experience an EWOULDBLOCK status from the OS due to the fact that the data does not fit into the OS buffer allocated. | If this message occurs often, review configuration option settings. |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3336: lbm_socket_sendb: msg dropped (EWOULDBLOCK): adjust rate limit or buffers | The combination of the *_data_rate_limit and *_rate_interval configuration parameters are used to determine the amount of data that will be sent at each interval. If that amount exceeds the configured *_socket_buffer setting, each interval may experience an EWOULDBLOCK status from the OS due to the fact that the data does not fit into the OS buffer allocated. | If this message occurs often, review configuration option settings. |
| Core-5688-3340: lbm_socket_sendtob: msg dropped (EWOULDBLOCK): adjust rate limit or buffers | The combination of the *_data_rate_limit and *_rate_interval configuration parameters are used to determine the amount of data that will be sent at each interval. If that amount exceeds the configured *_socket_buffer setting, each interval may experience an EWOULDBLOCK status from the OS due to the fact that the data does not fit into the OS buffer allocated. | If this message occurs often, review configuration option settings. |
| Core-5688-3341: lbm_socket_sendtob: msg dropped (EWOULDBLOCK): adjust rate limit or buffers | The combination of the *_data_rate_limit and *_rate_interval configuration parameters are used to determine the amount of data that will be sent at each interval. If that amount exceeds the configured *_socket_buffer setting, each interval may experience an EWOULDBLOCK status from the OS due to the fact that the data does not fit into the OS buffer allocated. | If this message occurs often, review configuration option settings. |
| Core-5688-3345: lbm_socket_sendbv: msg dropped (EWOULDBLOCK): adjust rate limit or buffers | The combination of the *_data_rate_limit and *_rate_interval configuration parameters are used to determine the amount of data that will be sent at each interval. If that amount exceeds the configured *_socket_buffer setting, each interval may experience an EWOULDBLOCK status from the OS due to the fact that the data does not fit into the OS buffer allocated. | If this message occurs often, review configuration option settings. |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3346: lbm_socket_sendbv: msg dropped (EWOULDBLOCK): adjust rate limit or buffers | The combination of the *_data_rate_limit and *_rate_interval configuration parameters are used to determine the amount of data that will be sent at each interval. If that amount exceeds the configured *_socket_buffer setting, each interval may experience an EWOULDBLOCK status from the OS due to the fact that the data does not fit into the OS buffer allocated. | If this message occurs often, review configuration option settings. |
| Core-5688-3351: lbm_socket_sendtobv: msg dropped (EWOULDBLOCK): adjust rate limit or buffers | The combination of the *_data_rate_limit and *_rate_interval configuration parameters are used to determine the amount of data that will be sent at each interval. If that amount exceeds the configured *_socket_buffer setting, each interval may experience an EWOULDBLOCK status from the OS due to the fact that the data does not fit into the OS buffer allocated. | If this message occurs often, review configuration option settings. |
| Core-5688-3352: lbm_socket_sendtobv: msg dropped (EWOULDBLOCK): adjust rate limit or buffers | The combination of the *_data_rate_limit and *_rate_interval configuration parameters are used to determine the amount of data that will be sent at each interval. If that amount exceeds the configured *_socket_buffer setting, each interval may experience an EWOULDBLOCK status from the OS due to the fact that the data does not fit into the OS buffer allocated. | If this message occurs often, review configuration option settings. |
| Core-5688-3365: NOTICE: wincport comp routine, invalid op | I/O operation completed on deleted connection. | Ignore unless this occurs many times per hour. |
| Core-5688-3368: NOTICE: WSASendTo error [send_pending %d]: %s | I/O operation could not be started due to socket error. | Ignore unless this occurs many times per hour. |
| Core-5688-3370: WARNING: lbm_sock_delete acc_conn has unknown optype %d | An unexpected I/O operation was received while deleting a connection. Only occurs when using Windows completion ports. | Contact Informatica support if this message occurs frequently. |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3375: unicast resolver %s:%u went inactive | The process received no communications from the LBMRD at the specified ip:port within the resolver_unicast_activity_timeout and is marked as inactive. | If the LBMRD is running properly, increasing the resolver_unicast_activity_timeout to account for possible network congestion or an overloaded LBMRD can resolve this issue. |
| Core-5688-3377: LBMR Version 0x %x incorrect (%s:%d len %d). [%s]. Dropping. | An LBMR packet was droppped because its version was invalid. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5688-3378: LBMR packet malformed. Dropping. Origin: %s: %d | An LBMR packet was droppped because its length did not match the length of the data received. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5688-3379: LBMR optlen malformed. Dropping packet. Origin: %s:%d | An LBMR packet was droppped because its length did not match the length of the data received. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5688-3380: LBMR optlen total_len malformed. Dropping packet. Origin: %s:%d | An LBMR packet was droppped because its length did not match the length of the data received. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5688-3383: LBMR option invalid type [%u]. Dropping packet. Origin: %s:%d | An LBMR packet was droppped because of an invalid option type. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5688-3384: LBMR Type 0x%x incorrect (%s:%d len %d). [%s]. Dropping. | An LBMR packet was droppped due to an invalid type. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5688-3385: LBMR Topic Query Record malformed. Dropping remainder. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5688-3386: LBMR Topic Info Record malformed. Dropping remainder. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5688-3387: LBMR Extended Type 0x%x incorrect (%s:%d len %d). [%s]. Dropping. | LBM resolver has encountered an unknown extended type and dropped the packet. Each type is reported only once per resolver. | Can be caused by mixed versions sharing a topic resolution address or malformed/forged packets. |
| Core-5688-3388: LBMR Topic Info Record Option not Length. Dropping remainder. | UMS encountered a mismatch in the length of a received message and its headers, determining the rest of the message to be invalid. The remainder of the message is dropped. | Contact Informatica support if this message occurs frequently. |
| Core-5688-3389: LBMR Topic Info Record Length Option not correct size. Dropping remainder. | UMS encountered a mismatch in the length of a received message and its headers, determining the rest of the message to be invalid. The remainder of the message is dropped. | Contact Informatica support if this message occurs frequently. |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3390: LBMR Topic Info Record Total Length not large enough. Dropping remainder. | UMS encountered a mismatch in the length of a received message and its headers, determining the rest of the message to be invalid. The remainder of the message is dropped. | Contact Informatica support if this message occurs frequently. |
| Core-5688-3391: LBMR Topic Info Record UME Option not correct size. Dropping remainder. | UMS encountered a mismatch in the length of a received message and its headers, determining the rest of the message to be invalid. The remainder of the message is dropped. | Contact Informatica support if this message occurs frequently. |
| Core-5688-3392: LBMR Topic Info Record Late Join Option not correct size. Dropping remainder. | UMS encountered a mismatch in the length of a received message and its headers, determining the rest of the message to be invalid. The remainder of the message is dropped. | Contact Informatica support if this message occurs frequently. |
| Core-5688-3393: LBMR Topic Info Record UME Store Option not correct size. Dropping remainder. | UMS encountered a mismatch in the length of a received message and its headers, determining the rest of the message to be invalid. The remainder of the message is dropped. | Contact Informatica support if this message occurs frequently. |
| Core-5688-3394: LBMR Topic Info Record UME Store Group Option not correct size. Dropping remainder. | UMS encountered a mismatch in the length of a received message and its headers, determining the rest of the message to be invalid. The remainder of the message is dropped. | Contact Informatica support if this message occurs frequently. |
| Core-5688-3397: LBMR Topic Info Record Option not understood and does not have ignore. Dropping remainder. | UMS received a message with a header that was not recognized. This header and the rest of the message will be ignored. This is potentially due to a newer version of software sending messages and is not harmful. | Contact Informatica support if this message occurs frequently or if using only one version of Ultra Messaging. |
| Core-5688-3398: LBMR Topic Info Record Option length incongruent. Dropping remainder. | UMS encountered a mismatch in the length of a received message and its headers, determining the rest of the message to be invalid. The remainder of the message is dropped. | Contact Informatica support if this message occurs frequently. |
| Core-5688-3400: LBMR Topic Mgmt Record Length not correct size. Dropping remainder. | UMS encountered a mismatch in the length of a received message and its headers, determining the rest of the message to be invalid. The remainder of the message is dropped. | Contact Informatica support if this message occurs frequently. |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3401: WARNING: could not undefine topic from topic map when deleting | Warning: UMS could not remove a topic from topic map. | Contact Informatica support if this message occurs frequently. |
| Core-5688-3402: LBMR WC TQR pcre_compile [%s] malformed [%d] [%s]. Dropping. | UMS detected a malformed PCRE pattern for a wild card receiver, it will drop the Topic Query Response. | Contact Informatica support if this message occurs frequently or if topic resolution appears to be failing. |
| Core-5688-3403: LBMR WC TQR regcomp [%s] malformed [%s]. Dropping. | In topic resolution process, UMS detected a malformed registration complete signal for a wild card receiver, it will drop the Topic Query Response. | Contact Informatica support if this message occurs frequently or if topic resolution appears to be failing. |
| Core-5688-3404: LBMR WC TQR Type 0x%x [%s] not understood. Dropping. | In topic resolution process, UMS detected a malformed type for a wild card receiver, it will drop the Topic Query Response. | Contact Informatica support if this message occurs frequently or if topic resolution appears to be failing. |
| Core-5688-3405: LBMR WC TQR pcre_exec [%s][%s][%d] error %d | UMS detected a malformed PCRE pattern for a wild card receiver during topic resolution. It will drop the Topic Query Response. This is not a serious condition unless it happens frequently and the resolution process is affected. | |
| Core-5688-3415: message receiver function returned -1 | An error occurred processing a message received by a receiver. The receiver's delivery controller was unable to pass the message to the application. The message was discarded. | Contact Informatica support if this message occurs frequently. |
| Core-5688-3426: WARNING: Joining session [%s] which exists and uses a different transport_lbtrm_nak_backoff_interval [%d] than requested [%d]. | After a receiver has created a transport session, a subsequent receiver joining the same transport session cannot configure a different transport_lbtrm_nak_backoff_interval setting. | |
| Core-5688-3427: WARNING: Joining session [%s] which exists and uses a different transport_lbtrm_nak_suppress_interval [%d] than requested [%d]. | After a receiver has created a transport session, a subsequent receiver joining the same transport session cannot configure a different transport_lbtrm_nak_suppress_interval setting. | |
| Core-5688-3428: WARNING: Joining session [%s] which exists and uses a different transport_lbtrm_nak_generation_interval [%d] than requested [%d]. | After a receiver has created a transport session, a subsequent receiver joining the same transport session cannot configure a different transport_lbtrm_nak_generation_interval setting. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3429: WARNING: Joining session [%s] which exists and uses a different transport_lbtrm_preactivity_timeout [%d] than requested [%d]. | After a receiver has created a transport session, a subsequent receiver joining the same transport session cannot configure a different transport_lbtrm_preactivity_timeout setting. | |
| Core-5688-3430: WARNING: Joining session [%s] which exists and uses a different transport_lbtrm_activity_timeout [%d] than requested [%d]. | After a receiver has created a transport session, a subsequent receiver joining the same transport session cannot configure a different transport_lbtrm_activity_timeout setting. | |
| Core-5688-3431: WARNING: Joining session [%s] which exists and uses a different transport_lbtrm_send_naks [%d] than requested [%d]. | After a receiver has created a transport session, a subsequent receiver joining the same transport session cannot configure a different transport_lbtrm_send_naks setting. | |
| Core-5688-3433: WARNING: Joining session [%s] which exists and uses a different transport_lbtru_nak_suppress_interval [%d] than requested [%d]. | After a receiver has created a transport session, a subsequent receiver joining the same transport session cannot configure a different transport_lbtru_nak_suppress_interval setting. | |
| Core-5688-3434: WARNING: Joining session [%s] which exists and uses a different transport_lbtru_nak_generation_interval [%d] than requested [%d]. | After a receiver has created a transport session, a subsequent receiver joining the same transport session cannot configure a different transport_lbtru_nak_generation_interval setting. | |
| Core-5688-3435: WARNING: Joining session [%s] which exists and uses a different transport_lbtru_activity_timeout [%d] than requested [%d]. | After a receiver has created a transport session, a subsequent receiver joining the same transport session cannot configure a different transport_lbtru_activity_timeout setting. | |
| Core-5688-3439: WARNING: Joining session [%s] which exists and uses a different transport_lbtipc_activity_timeout [%d] than requested [%d]. | After a receiver has created a transport session, a subsequent receiver joining the same transport session cannot configure a different transport_lbtipc_activity_timeout setting. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3541: PCRE exec [%s] [%s][%d] error %d | An error occurred while trying to match the pattern listed in the first bracketed expression. The topic string attempting to be matched is supplied as the second bracketed expression, and its length is supplied as the third bracketed expression. The error that occurred was internal to PCRE, and the error code is listed in the PCRE documentation for return values of pcre_exec. | |
| Core-5688-3546: LBMR WC TQR pcre_compile [%s] malformed [%d] [%s]. Dropping. | UMS detected a malformed PCRE pattern for a wild card receiver, it will drop the Topic Query Response. | Contact Informatica support if this message occurs frequently or if topic resolution appears to be failing. |
| Core-5688-3547: LBMR WC TQR regcomp [%s] malformed [%s]. Dropping. | In topic resolution process, UMS detected a malformed registration complete signal for a wild card receiver, it will drop the Topic Query Response. | Contact Informatica support if this message occurs frequently or if topic resolution appears to be failing. |
| Core-5688-3548: LBMR WC TQR Type 0x%x [%s] not understood. Dropping. | In topic resolution process, UMS detected a malformed type for a wild card receiver, it will drop the Topic Query Response. | Contact Informatica support if this message occurs frequently or if topic resolution appears to be failing. |
| Core-5688-3549: LBMR WC Cache pcre_exec [%s][%s][%d] error %d | An error occurred while trying to match the pattern listed in the first bracketed expression. The topic string attempting to be matched is supplied as the second bracketed expression, and its length is supplied as the third bracketed expression. The error that occurred was internal to PCRE, and the error code is listed in the PCRE documentation for return values of pcre_exec. | |
| Core-5688-3555: wildcard message receiver function returned -1 | The callback configured for wildcard receiver messages returned -1 while processing an immediate message. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3675: Response received data on TCP connection. Ignoring. Origin: %s:%d | UM has received data on a TCP connection it has reserved for writing. The data is ignored and processing continues. This can be caused by applications and stores with overlapping request_tcp_port ranges, use of OS ephemeral ports or non-UM applications sending data to the UM application's ip:port combination. The message contains the ip:port combination of the application sending the data. | Use proper request_tcp_port ranges if the originating ip:port is a UM application. If not, stop the non-UM application that is sending the data or reconfigure the UM application to use a different request_tcp_port range and restart. |
| Core-5688-3691: Sending request with request port binding disabled. | An lbm request is being sent, but the request port used to receive responses is disabled via the request_tcp_bind_request_port (context) configuration option. See the documentation for this configuration option for more information. | |
| Core-5688-3698: Response for request query index %u received. No request known. | A response was received that does not correspond to an existing request. This usually indicates that the responder took too long to respond, and the requestor had already deleted the request object when the response was received. | |
| Core-5688-3701: Response for request query index %u received. No request known. | A response was received that does not correspond to an existing request. This usually indicates that the responder took too long to respond, and the requestor had already deleted the request object when the response was received. | |
| Core-5688-3702: WARNING: deletion timeout from %s:%u while sending response or UIM | A response or a unicast immediate message was still being sent when the corresponding TCP connection closed. | Contact Informatica support. |
| Core-5688-3723: Sending unicast immediate request with request port binding disabled. | An lbm request is being sent via unicast immediate messaging, but the request port used to receive responses is disabled via the request_tcp_bind_request_port (context) configuration option. See the documentation for this configuration option for more information. | |
| Core-5688-3762: unknown fd_to_be action %d | Internal error while handling socket; probable memory corruption. | Contact Informatica support. |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3773: epoll_ctl: Tried to register a bad file descriptor | The fd_management_type is set to epoll and either the user tried to register a non-socket file descriptor or a socket that was registered unexpectedly became invalid between creating the file descriptor and registering it. Linux's epoll currently only supports socket file descriptors, and not normal files or other file descriptor types. | Contact Informatica support if this warning occurs frequently. |
| Core-5688-3774: epoll_ctl: Tried to perform an operation on a socket that is already closed | The fd_management_type is set to epoll and file descriptor registration was attempted for a socket that was already closed. This can sometimes happen if a socket is closed immediately after it is created, but before it is registered. | Contact Informatica support if this warning occurs frequently. |
| Core-5688-3777: %s:%d: sock=%p, sock->sock=%p, handle=%p, io_pending=%d, op_recv=%p, op_acc_conn=%p | Pre-assert data: a message which contains selected internal state information useful for diagnosing the cause of certain failed assertions. Does not occur during normal operation. | |
| Core-5688-3781: %s:%d: sock=%p, sock->sock=%p, handle=%p, io_pending=%d, op_recv=%p, op_acc_conn=%p | Pre-assert data: a message which contains selected internal state information useful for diagnosing the cause of certain failed assertions. Does not occur during normal operation. | |
| Core-5688-3782: %s:%d: sock=%p, sock->sock=%p, handle=%p, io_pending=%d, op_recv=%p, op_acc_conn=%p | Pre-assert data: a message which contains selected internal state information useful for diagnosing the cause of certain failed assertions. Does not occur during normal operation. | |
| Core-5688-3786: %s:%d: sock=%p, sock->sock=%p, handle=%p, io_pending=%d, op_recv=%p, op_acc_conn=%p | Pre-assert data: a message which contains selected internal state information useful for diagnosing the cause of certain failed assertions. Does not occur during normal operation. | |
| Core-5688-3793: %s:%d: sock=%p, sock->sock=%p, handle=%p, io_pending=%d, op_recv=%p, op_acc_conn=%p | Pre-assert data: a message which contains selected internal state information useful for diagnosing the cause of certain failed assertions. Does not occur during normal operation. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3794: %s:%d: sock=%p, sock->sock=%p, handle=%p, io_pending=%d, op_recv=%p, op_acc_conn=%p | Pre-assert data: a message which contains selected internal state information useful for diagnosing the cause of certain failed assertions. Does not occur during normal operation. | |
| Core-5688-3804: kevent fatal error: (%d) %s | When using the kqueue file descriptor management type on Mac OS X, an unexpected error was returned from the kevent system call. This could be caused by a variety of reasons, including being out of memory, or trying to register an invalid file descriptor, or accessing memory incorrectly. | |
| Core-5688-3805: mapentry->writecb was NULL | A registered file descriptor had a write or connect event, but the registered callback was NULL. This should never happen, and indicates possible application memory corruption. | |
| Core-5688-3806: Dropping cancelled write or connect event on handle %d | A write or connect event occurred on the indicated file descriptor (handle), but the user's registered write or connect event callback was cancelled immediately before the event happened. | |
| Core-5688-3807: mapentry->readcb was NULL | A registered file descriptor had a read, accept, or close event, but the registered callback was NULL. This can happen if the file descriptor had a write or connect event at about the same time, and the read, accept, or close event callback was cancelled for that file descriptor within its write or connect event callback. This warning is usually harmless, but may indicate improper application design. | |
| Core-5688-3808: Dropping cancelled read, accept, or close event on handle %d | A read, accept, or close event occurred on the indicated file descriptor (handle), but the user's registered read, accept, or close event callback was cancelled immediately before the event happened. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3809: mapentry->exceptcb was NULL | A registered file descriptor had an exception event, but the registered exception callback was NULL. This can happen if the file descriptor had a write, connect, read, accept, or close event at about the same time, and the file descriptor's exception callback was cancelled within any of its other callbacks. This warning is usually harmless, but may indicate improper application design. | |
| Core-5688-3810: Dropping cancelled except event on handle %d | An exception event occurred on the indicated file descriptor (handle), but the user's registered exception event callback was cancelled immediately before the event happened. | |
| Core-5688-3811: mapentry->writecb was NULL | A registered file descriptor had a write or connect event, but the registered callback was NULL. This should never happen, and indicates possible application memory corruption. | |
| Core-5688-3812: Dropping cancelled write or connect event on handle %d | A write or connect event occurred on the indicated file descriptor (handle), but the user's registered write or connect event callback was cancelled immediately before the event happened. | |
| Core-5688-3813: mapentry->readcb was NULL | A registered file descriptor had a read, accept, or close event, but the registered callback was NULL. This can happen if the file descriptor had a write or connect event at about the same time, and the read, accept, or close event callback was cancelled for that file descriptor within its write or connect event callback. This warning is usually harmless, but may indicate improper application design. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3815: mapentry->exceptcb was NULL | A registered file descriptor had an exception event, but the registered exception callback was NULL. This can happen if the file descriptor had a write, connect, read, accept, or close event at about the same time, and the file descriptor's exception callback was cancelled within any of its other callbacks. This warning is usually harmless, but may indicate improper application design. | |
| Core-5688-3816: Dropping cancelled except event on handle %d | An exception event occurred on the indicated file descriptor (handle), but the user's registered exception event callback was cancelled immediately before the event happened. | |
| Core-5688-3817: mapentry->writecb was NULL | A registered file descriptor had a write or connect event, but the registered callback was NULL. This should never happen, and indicates possible application memory corruption. | |
| Core-5688-3818: Dropping cancelled write or connect event on handle %d | A write or connect event occurred on the indicated file descriptor (handle), but the user's registered write or connect event callback was cancelled immediately before the event happened. | |
| Core-5688-3819: mapentry->readcb was NULL | A registered file descriptor had a read, accept, or close event, but the registered callback was NULL. This can happen if the file descriptor had a write or connect event at about the same time, and the read, accept, or close event callback was cancelled for that file descriptor within its write or connect event callback. This warning is usually harmless, but may indicate improper application design. | |
| Core-5688-3820: Dropping cancelled read, accept, or close event on handle %d | A read, accept, or close event occurred on the indicated file descriptor (handle), but the user's registered read, accept, or close event callback was cancelled immediately before the event happened. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3821: mapentry->exceptcb was NULL | A registered file descriptor had an exception event, but the registered exception callback was NULL. This can happen if the file descriptor had a write, connect, read, accept, or close event at about the same time, and the file descriptor's exception callback was cancelled within any of its other callbacks. This warning is usually harmless, but may indicate improper application design. | |
| Core-5688-3822: Dropping cancelled except event on handle %d | An exception event occurred on the indicated file descriptor (handle), but the user's registered exception event callback was cancelled immediately before the event happened. | |
| Core-5688-3823: mapentry->writecb was NULL | A registered file descriptor had a write or connect event, but the registered callback was NULL. This should never happen, and indicates possible application memory corruption. | |
| Core-5688-3824: Dropping cancelled write or connect event on handle %d | A write or connect event occurred on the indicated file descriptor (handle), but the user's registered write or connect event callback was cancelled immediately before the event happened. | |
| Core-5688-3825: mapentry->readcb was NULL | A registered file descriptor had a read, accept, or close event, but the registered callback was NULL. This can happen if the file descriptor had a write or connect event at about the same time, and the read, accept, or close event callback was cancelled for that file descriptor within its write or connect event callback. This warning is usually harmless, but may indicate improper application design. | |
| Core-5688-3826: Dropping cancelled read, accept, or close event on handle %d | A read, accept, or close event occurred on the indicated file descriptor (handle), but the user's registered read, accept, or close event callback was cancelled immediately before the event happened. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3827: mapentry->exceptcb was NULL | A registered file descriptor had an exception event, but the registered exception callback was NULL. This can happen if the file descriptor had a write, connect, read, accept, or close event at about the same time, and the file descriptor's exception callback was cancelled within any of its other callbacks. This warning is usually harmless, but may indicate improper application design. | |
| Core-5688-3828: Dropping cancelled except event on handle %d | An exception event occurred on the indicated file descriptor (handle), but the user's registered exception event callback was cancelled immediately before the event happened. | |
| Core-5688-3831: mapentry->writecb was NULL | A registered file descriptor had a write or connect event, but the registered callback was NULL. This should never happen, and indicates possible application memory corruption. | |
| Core-5688-3832: Dropping cancelled write or connect event on handle %d | A write or connect event occurred on the indicated file descriptor (handle), but the user's registered write or connect event callback was cancelled immediately before the event happened. | |
| Core-5688-3833: mapentry->readcb was NULL | A registered file descriptor had a read, accept, or close event, but the registered callback was NULL. This can happen if the file descriptor had a write or connect event at about the same time, and the read, accept, or close event callback was cancelled for that file descriptor within its write or connect event callback. This warning is usually harmless, but may indicate improper application design. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3835: mapentry->exceptcb was NULL | A registered file descriptor had an exception event, but the registered exception callback was NULL. This can happen if the file descriptor had a write, connect, read, accept, or close event at about the same time, and the file descriptor's exception callback was cancelled within any of its other callbacks. This warning is usually harmless, but may indicate improper application design. | |
| Core-5688-3836: Dropping cancelled except event on handle %d | An exception event occurred on the indicated file descriptor (handle), but the user's registered exception event callback was cancelled immediately before the event happened. | |
| Core-5688-3838: NOTICE: wincport %p results [%d] (%d,%d,%p,%p) op %x | Internal error handling descriptors; probable timing race condition. | Contact Informatica support. |
| Core-5688-3847: NOTICE: wincport %p line %d WSA err %d, %s (peer %s) (op %x) | A Windows Completion port operation ended with a failure. | Examine the reported WSA Error code and take the appropriate action. |
| Core-5688-3849: lbm_fd_handle_events line %d: wincport recv WSA err %d (%s) from peer %s | The Windows completion port call to recv returned an error. | Look up the WSA error and take appropriate action. |
| Core-5688-3864: NOTICE: wincport %p results [%d] (%d,%d,%p,%p) op %x | Internal error handling descriptors; probable timing race condition. | Contact Informatica support. |
| Core-5688-3883: mapentry->exceptcb was NULL | A registered file descriptor had an exception event, but the registered exception callback was NULL. This can happen if the file descriptor had a write, connect, read, accept, or close event at about the same time, and the file descriptor's exception callback was cancelled within any of its other callbacks. This warning is usually harmless, but may indicate improper application design. | |
| Core-5688-3884: Dropping cancelled except event on handle %d | An exception event occurred on the indicated file descriptor (handle), but the user's registered exception event callback was cancelled immediately before the event happened. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3885: mapentry->writecb was NULL | A registered file descriptor had a write or connect event, but the registered callback was NULL. This should never happen, and indicates possible application memory corruption. | |
| Core-5688-3886: Dropping cancelled write or connect event on handle %d | A write or connect event occurred on the indicated file descriptor (handle), but the user's registered write or connect event callback was cancelled immediately before the event happened. | |
| Core-5688-3887: mapentry->readcb was NULL | A registered file descriptor had a read, accept, or close event, but the registered callback was NULL. This can happen if the file descriptor had a write or connect event at about the same time, and the read, accept, or close event callback was cancelled for that file descriptor within its write or connect event callback. This warning is usually harmless, but may indicate improper application design. | |
| Core-5688-3888: Dropping cancelled read, accept, or close event on handle %d | A read, accept, or close event occurred on the indicated file descriptor (handle), but the user's registered read, accept, or close event callback was cancelled immediately before the event happened. | |
| Core-5688-3889: kevent returned event with unknown or unsupported filter type | kevent returned a file descriptor with a filter type that was not EVFILT_READ or EVFILT_WRITE (such as EVFILT_SIGNAL, EVFILT_PROC, etc.). UMS does not register any file descriptors for any filters other than EVFILT_READ or EVFILT_WRITE, so this is very unusual and might indicate memory corruption. | |
| Core-5688-3890: handle events returned error %u [%s] | Socket returned error while waiting for context deletion. | Ignore, unless this occurs many times per hour. |
| Core-5688-3896: wildcard message receiver function returned -1 | The callback configured for wildcard receiver messages returned -1 while processing an immediate message. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3897: wildcard message receiver function returned -1 | The callback configured for wildcard receiver messages returned -1 while processing an immediate message. | |
| Core-5688-390: event dispatch - unknown event type (%d) | The event dispatch loop encountered an unexpected event type. This is probably due to an unexpected network event occurring. | Check that the network is stable. Contact Informatica support if this message occurs frequently. |
| Core-5688-3919: Sending multicast immediate request with request port binding disabled. | An lbm request is being sent via multicast immediate messaging, but the request port used to receive responses is disabled via the request_tcp_bind_request_port (context) configuration option. See the documentation for this configuration option for more information. | |
| Core-5688-3927: New unfragged message in TCP buffer before first message is complete. | With transport_tcp_multiple_receiver_behavior set to bounded_latency or source_paced and old messages are being removed to make room for new messages, the first (oldest) message is fragmented but is incomplete. Processing will continue anyway. | |
| Core-5688-3928: New message in TCP buffer before first message is complete. | With transport_tcp_multiple_receiver_behavior set to bounded_latency or source_paced and old messages are being removed to make room for new messages, the first (oldest) message is fragmented but is incomplete. Processing will continue anyway. | |
| Core-5688-3929: No more messages in TCP buffer before old message is complete. | With transport_tcp_multiple_receiver_behavior set to bounded_latency or source_paced and old messages are being removed to make room for new messages, the message being removed is fragmented and only a portion of it could be found and removed. Processing will continue anyway. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-3930: New unfragged message in TCP buffer before old fragged message is complete. | With transport_tcp_multiple_receiver_behavior set to bounded_latency or source_paced and old messages are being removed to make room for new messages, the message being removed is fragmented and only a portion of it could be found and removed. Processing will continue anyway. | |
| Core-5688-3931: New message in TCP buffer before old message is complete. | With transport_tcp_multiple_receiver_behavior set to bounded_latency or source_paced and old messages are being removed to make room for new messages, the message being removed is fragmented and only a portion of it could be found and removed. Processing will continue anyway. | |
| Core-5688-3986: PCRE exec [%s] [%s][%d] error %d | An error occurred while trying to match the pattern listed in the first bracketed expression. The topic string attempting to be matched is supplied as the second bracketed expression, and its length is supplied as the third bracketed expression. The error that occurred was internal to PCRE, and the error code is listed in the PCRE documentation for return values of pcre_exec. | |
| Core-5688-4099: multiple interfaces match criteria - will use [%s][%s] | This warning occurs if an interface is specified by name for any of the *_interface options, and multiple interfaces on the host match the supplied name. In this case the first matching interface will be used. | Specify interfaces such that only a single interface is matched. |
| Core-5688-4100: multiple interfaces match criteria - will use [%s][%s] | This warning occurs if an interface is specified by name for any of the *_interface options, and multiple interfaces on the host match the supplied name. In this case the first matching interface will be used. | Specify interfaces such that only a single interface is matched. |
| Core-5688-4103: multiple interfaces match criteria - will use [%s][%s] | This warning occurs if an interface is specified by name for any of the *_interface options, and multiple interfaces on the host match the supplied name. In this case the first matching interface will be used. | Specify interfaces such that only a single interface is matched. |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-4104: multiple interfaces match criteria - will use [%s][%s] | This warning occurs if an interface is specified by name for any of the *_interface options, and multiple interfaces on the host match the supplied name. In this case the first matching interface will be used. | Specify interfaces such that only a single interface is matched. |
| Core-5688-4106: WARNING: could not scan IPv4 interfaces. | As UMS initializes, it scans all the network cards in the system. This scan either failed due to a lack of available resources. For example, this might be because there are no network cards that are active or the system has run out of sockets. | Check the system availability of network resources. Contact Informatica support if all resources appear to be available. |
| Core-5688-4107: WARNING: could not find a multicast capable, non-loopback interface. | As UMS initializes, it scans all the network cards in the system. If no network card is listed as supporting multicast capabilities, Ultra Messaging generates this warning. | Check network card capabilities and configuration. |
| Core-5688-4108: WARNING: using first broadcast capable interface instead. | As UMS initializes, it scans all the network cards in the system. No multicast capable card was found, but a broadcast capable card was found. The first broadcast capable card will be used. | Check network card configuration if you expect one of the network cards to be multicast capable. |
| Core-5688-410: failed to allocate hypertopic callback vector of %u bytes [%s:%d] | There was a memory allocation failure while creating the vector of callbacks associated with a received message destined for a HyperTopic receiver. This means that a message will not be delivered to some subset of registered HyperTopic receivers. | |
| Core-5688-434: received read indication on daemon connection - unknown socket | This message is used for internal purpose. | Contact Informatica support. |
| Core-5688-436: daemon control data received in unknown state %d | This message is used for internal purpose. | Contact Informatica support. |
| Core-5688-4383: JNI detected an exception in (%s): %s | UM detected a runtime exception. This should not happen. | Please contact Informatica support. |
| Core-5688-438: daemon control data received in unknown state %d | This message is used for internal purpose. | Contact Informatica support. |
| Core-5688-439: invalid action response on control channel [%s] | This message is used for internal purpose. | Contact Informatica support. |
| Core-5688-440: invalid topicname on control channel [%s] | This message is used for internal purpose. | Contact Informatica support. |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-441: invalid action response on control channel [%s] | This message is used for internal purpose. | Contact Informatica support. |
| Core-5688-446: lbmc_handle_msg returned -1. | This message usually indicates that Ultra Messaging cannot get the memory required to process incoming messages. | Check with your system administrator for possible reasons that Ultra Messaging is not able to get sufficient memory. Contact Informatica support if this message keeps occurring. |
| Core-5688-448: LBMC datagram malformed, msglen 0. Dropping. | UMS received a message with the length field set to 0. The message will be dropped. | Contact Informatica support if this message occurs frequently. |
| Core-5688-449: LBMC datagram malformed. %d %d Dropping remainder. | UM is trying to handle a datagram whose actual length and expected length do not match. \n If using the UM router, this difference may occur if there is a mismatch in the configured values for transport_*_datagram_max_size options at different portals. \n Otherwise, datagram may have come from a non-UM application. | If using the UM router, check configuration to ensure that values for transport_*_datagram_max_size options match across portals. Otherwise, check network for other non-UM applications. |
| Core-5688-450: LBMC version incorrect (%u). Dropping. Origin: %s:%d. | The LBMC version value in the received message is either corrupted or not supported by the UM product receiving messages. | Find the LBMC version value of the received message in the log line starting with Core-5688-450 and check if it is supported in the product you are using. |
| Core-5688-538: NOTICE: Source "%s" retention_size_limit less than max message size. Will retain at least 1 message. | The source retention_size_limit has been configured to be less than the maximum message size of 65536 bytes. It will still retain at least 1 message. | |
| Core-5688-542: received ACK for unknown source from %s:%d | UMS received ACK for unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-5688-587: WARNING: transport_lbtrm_activity_timeout [%d] is less than transport_lbtrm_nak_generation_interval [%d], this can result in silent data loss if loss occurs within the activity timeout interval prior to the end of the transport session. | If the transport_lbtrm_activity_timeout is less than the transport_lbtrm_nak_generation_interval it is possible that a receiver can tear down the transport session before it was able to send a NAK for a lossed message. When this happens the message is unrecoverable. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-58: loading default config file failed: %s | Loading the config file specified with the LBM_DEFAULT_CONFIG_FILE environment variable failed, due to either a missing file, inappropriate access privileges, or an error in the config file itself. | |
| Core-5688-593: IPC Error: Creating Receiver Signal Semaphore | An error occurred when an IPC receiver attempted to allocate a shared signaling semaphore. This could be caused by a permission error or no more resources. Please refer to the documentation for lbtipc_resource_manager. | |
| Core-5688-594: IPC Error: Initializing Receiver Signal Semaphore (%d) | An error occurred when an IPC receiver attempted to initialize a shared signaling semaphore. Please refer to the OS error number given. | |
| Core-5688-595: IPC Error: Creating Receiver Monitor Semaphore | An error occurred when an IPC receiver attempted to allocate a shared monitoring semaphore. This could be caused by a permission error or no more resources. Please refer to the documentation for lbtipc_resource_manager. | |
| Core-5688-596: IPC Error: Initializing Receiver Monitor Semaphore (%d) | An error occurred when an IPC receiver attempted to initialize a shared monitoring semaphore. Please refer to the OS error number given. | |
| Core-5688-597: IPC Error: Initializing Receiver Monitor Semaphore (%d) | An error occurred when an IPC receiver attempted to initialize a shared monitoring semaphore. Please refer to the OS error number given. | |
| Core-5688-598: IPC Error: Creating Shared Event (%d) (%s) | An IPC receiver could not create a shared Event. This could be caused by a permission error or the resource already exists. Please refer to the OS error number and resource name given. | |
| Core-5688-599: IPC Error: Creating Receiver Monitor Mutex (%d) (%s) | An IPC receiver could not create a shared monitoring Mutex. This could be caused by a permission error or the resource already exists. Please refer to the OS error number and resource name given. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-600: IPC Error: Getting Receiver Monitor Mutex (%d) (%s) | An IPC receiver could not acquire the shared monitoring Mutex. This could be caused by a permission error. Please refer to the OS error number and resource name given. | |
| Core-5688-601: lbtipc_rcv_create: can not obtain transport information | An IPC receiver is attempting to join an IPC transport but can not obtain the transport information from the IPC shared memory buffer. This could happen if the IPC transport has been deleted before the receiver has joined. | |
| Core-5688-602: IPC Error: Joining transport; no more free receiver slots | An IPC receiver is attempting to join an IPC transport that has no more free slots for receivers. Please adjust the "transport_lbtipc_maximum_receivers_per_transport" configuration attribute. | |
| Core-5688-603: default thread stack size is perhaps too small, %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small. The size of the default stack size is dumped and will then be set to a larger size automatically. | |
| Core-5688-604: reset thread stack size to %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small and is reallocated. This message reports the new size of the stack. | |
| Core-5688-605: IPC Error: Creating Receiver Thread (%d) | An error occurred when the IPC receiver attempted to create a thread for internal processing. Please refer to the OS error number given. | |
| Core-5688-614: LBT-IPC: failed to open shared memory (%d) | The IPC shared memory region could not be opened for reading. This could occur if a receiver attempts to join an IPC transport after the source has been deleted. Please reference the OS error number given. | |
| Core-5688-615: LBT-IPC: failed to map shared memory (%d) | An error occurred trying to map a pointer to the IPC shared memory region. Please refer to the OS error number given. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-617: LBT-IPC: failed to map shared memory (%d) | An error occurred trying to map a pointer to the IPC shared memory region. Please refer to the OS error number given. | |
| Core-5688-618: LBT-IPC: can not open shared semaphore (%d) | The shared semaphore used to ensure mutual exclusion while accessing IPC shared resources could not be opened. This could occur if a receiver attempts to join an IPC transport after the source has been deleted. Please refer to the OS error number given. | |
| Core-5688-619: LBT-IPC: failed to open shared memory (%d) | The IPC shared memory region could not be opened for reading. This could occur if a receiver attempts to join an IPC transport after the source has been deleted. Please reference the OS error number given. | |
| Core-5688-620: LBT-IPC: failed to map shared memory (%d) | An error occurred trying to map a pointer to the IPC shared memory region. Please refer to the OS error number given. | |
| Core-5688-622: LBT-IPC: failed to map shared memory (%d) | An error occurred trying to map a pointer to the IPC shared memory region. Please refer to the OS error number given. | |
| Core-5688-624: LBT-IPC: locking problem detected in lbtipc_txw_rcvr_node_alloc (%d) | An error occurred with the shared object used to ensure mutual exclusion when accessing IPC shared resources. Please refer to the OS error number given. | |
| Core-5688-625: LBT-IPC: locking problem detected in lbtipc_txw_rcvr_node_alloc (%d) | An error occurred with the shared object used to ensure mutual exclusion when accessing IPC shared resources. Please refer to the OS error number given. | |
| Core-5688-626: LBT-IPC: locking problem detected in lbtipc_txw_rcvr_node_alloc (%d) | An error occurred with the shared object used to ensure mutual exclusion when accessing IPC shared resources. Please refer to the OS error number given. | |
| Core-5688-627: LBT-IPC: locking problem detected in lbtipc_txw_rcvr_node_alloc (%d) | An error occurred with the shared object used to ensure mutual exclusion when accessing IPC shared resources. Please refer to the OS error number given. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-628: lbm_transport_lbtipc_ctlr_delete: WFSO res=%d, GLE=%d | The WaitForSingleObject() Windows call return an error while waiting for the IPC Receiver thread to exit. Refer to the response and OS error number given. | |
| Core-5688-630: LBTIPC: error mapping (initial) resource registry (%d) | An error occurred when attempting to map memory to the registry file. The registry is used to store IPC shared objects that are in use. The OS error number is given. | |
| Core-5688-632: LBTIPC: error initializing registry semaphore (%d) | The semaphore used to ensure mutual exclusion while accessing the registry could not be initialized. The registry is used to store IPC shared objects that are in use. Refer to the documentation for lbtipc_resource_manager. | |
| Core-5688-633: LBTIPC: error opening resource registry (%d) | An error occurred when attempting to open or map memory to the registry file. The OS error number is given. | |
| Core-5688-635: LBTIPC: resource registry version mismatch: use lbtipc_resource_manager to clean-up and delete registry. | An IPC registry file existed, and contained the wrong version. | For this to happen, a registry file with incorrect version information would have to be deliberately put in place. 3.5 and post3.5 use different naming schemes for registries, so this can't happen due to version mismatch. |
| Core-5688-636: LBTIPC: error re-mapping resource registry (entries: %d) (%d) | An error occurred when attempting to re-map memory to the registry file. The registry is used to store IPC shared objects that are in use. The size in entries and OS error number is given. | |
| Core-5688-637: LBTIPC: error opening/recreating registry semaphore (%d) | The semaphore used to ensure mutual exclusion while accessing the registry could not be created. The registry is used to store IPC shared objects that are in use. The OS error number is given. | |
| Core-5688-638: LBTIPC: error reinitializing registry semaphore (%d) | The semaphore used to ensure mutual exclusion while accessing the registry could not be initialized. The registry is used to store IPC shared objects that are in use. The OS error number is given. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-639: LBTIPC: error re-creating resource registry (%d) | The registry used to store IPC shared objects that are in use could not be created. The OS error number is given. | |
| Core-5688-640: LBTIPC: error in re-sizing resource registry (%d) | The registry used to store IPC shared objects that are in use could not be re-sized (expanded). The OS error number is given. | |
| Core-5688-641: LBTIPC: error re-mapping resource registry (%d) | An error occurred when attempting to re-map memory to the registry file (file expansion). The registry is used to store IPC shared objects that are in use. The OS error number is given. | |
| Core-5688-642: LBTIPC: No free semaphores could be found | A free semaphore required for the LBT-IPC transport could not be found. Refer to the documentation for lbtipc_resource_manager. | |
| Core-5688-644: LBTIPC: error opening semaphore (%d) | A free semaphore allocated for the LBT-IPC transport could not be opened. The OS error number is given. | |
| Core-5688-645: LBTIPC: error freeing semaphore; key 0x%x not found | A semaphore allocated for the LBT-IPC transport could not be freed due to an invalid internal key. | Contact Informatica support. |
| Core-5688-646: LBT-IPC unexpected send error | An attempt was made to transfer a message or message fragment to the IPC shared memory buffer but that operation failed. This is cause by a failure with trying to obtain the lock for the shared memory buffer. | |
| Core-5688-647: LBT-IPC failed to start stalled timer | The IPC source is blocked waiting for a receiver but received an error trying to start the block check timer. | |
| Core-5688-648: LBT-IPC failed to start stalled timer | The IPC source is blocked waiting for a receiver but received an error trying to start the block check timer. | |
| Core-5688-649: LBT-IPC unexpected send error | An attempt was made to transfer a message or message fragment to the IPC shared memory buffer but that operation failed. This is cause by a failure with trying to obtain the lock for the shared memory buffer. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-650: LBT-IPC unexpected send error | An attempt was made to transfer a message or message fragment to the IPC shared memory buffer but that operation failed. This is cause by a failure with trying to obtain the lock for the shared memory buffer. | |
| Core-5688-651: LBT-IPC Problem Opening Signal Semaphore (%d) | The IPC source has received a connection request from an IPC receiver and has failed to open the shared signaling semaphore. This could happen if the connection request is old and the receiver was already deleted or the source does not have permission to open the object. Please reference the OS error number given. | |
| Core-5688-652: LBT-IPC Problem Opening Event (%d) | The IPC source has received a connection request from an IPC receiver and has failed to open the shared Event. This could happen if the connection request is old and the receiver was already deleted or the source does not have permission to open the object. Please reference the OS error number given. | |
| Core-5688-653: LBT-IPC Problem Opening Monitor Semaphore (%d) | The IPC source has received a connection request from an IPC receiver but has failed to open the Monitoring Semaphore. This could happen if the connection request is old and the receiver was already deleted or the source does not have permission to open the object. Please reference the OS error number given. | |
| Core-5688-654: LBT-IPC Problem Opening Monitor Mutex (%d) (%s) | The IPC source has received a connection request from an IPC receiver but has failed to open the Monitoring Mutex. This could happen if the connection request is old and the receiver was already deleted or the source does not have permission to open the object. Please reference the OS error number and object name given. | |
| Core-5688-692: topic level retransmission request index, %u, not found | A unicast immediate message was requested for retransmission, but the message was no longer stored. This may result in unrecoverable loss being reported at the receiving side. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-694: received retransmit request for unknown source. | UMS received retransmit request for unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-5688-696: received retransmit request for unknown source ip:port[%s:%d] | UMS received retransmit request for unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-5688-697: received lji request for unknown source. | UMS received Late Join Request message for unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-5688-699: received lji request for unknown source. | UMS received Late Join Request message for unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-5688-701: received PREG response for unknown source. | Each topic created and registered by a UMP context has a unique topic index. The UMP registration response handler for this context has received a response for a topic index not contained in the collection of sources currently being processed by the context. This is not a serious condition unless it continues to occur frequently and sources being handled by the context are not being successfully registered. | |
| Core-5688-702: received PREG response for unknown source. | Each topic created and registered by a UMP context has a unique topic index. The UMP registration response handler for this context has received a response for a topic index not contained in the collection of sources currently being processed by the context. This is not a serious condition unless it continues to occur frequently and sources being handled by the context are not being successfully registered. | |

| Message | Description | Resolution |
|---|---|---|
| Core-5688-703: received PREG response for unknown receiver. | Each topic created and registered by a UMP context has a unique topic index. The UMP registration response handler for this context has received a response for a topic index not contained in the collection of receivers currently being processed by the context. This is not a serious condition unless it continues to occur frequently and receivers being handled by the context are not being successfully registered. | |
| Core-5688-705: received UME Keepalive with unknown type %x | UMP received keepalive signal which the type cannot be determined. This is not a serious problem unless it happens frequently. | |
| Core-5867-19: Message selector parser error [%s] | An error was encountered parsing the message selector set for a receiver | Ensure the receiver has a valid message selector |
| Core-5867-20: Message selector parser error [Unterminated string %s] | An error was encountered parsing the message selector set for a receiver | Ensure the receiver has a valid message selector |
| Core-5867-21: Message selector parser error [Invalid character '%c'] | An error was encountered parsing the message selector set for a receiver | Ensure the receiver has a valid message selector |
| Core-5867-22: Message selector parser error [Error compiling pattern %s at offset %d: err %s] | An error was encountered parsing the message selector set for a receiver | Ensure the receiver has a valid message selector |
| Core-5867-23: Message selector parser error [Error compiling pattern %s at offset %d: err %s] | An error was encountered parsing the message selector set for a receiver | Ensure the receiver has a valid message selector |
| Core-5872-1: LBMR Topic Info Record Total Length too large. Dropping remainder. | This error is logged if the options portion of the received TIR packet would overflow the stack-allocated buffer. | This error indicates that packets with erroneous length fields are being received by UM. This could be due to applications sending to the incorrect IP and port, or by a malicious attack. |
| Core-5872-2: LBMR Queue Info Record Total Length too large. Dropping remainder. | This error is logged if the options portion of the received QIR packet would overflow the stack-allocated buffer. | This error indicates that packets with erroneous length fields are being received by UM. This could be due to applications sending to the incorrect IP and port, or by a malicious attack. |

| Message | Description | Resolution |
|---|---|---|
| Core-5894-1: lbm_timer_expire: Exceeded %d timer expirations in one iteration | UM encountered a condition where the specified number of timers were expiring at the same time. \nThis is undesirable and indicates a CPU burst usage. To prevent starvation of network processing, some timers\nare deferred for processing and network processing is resumed. All timers are eventually processed with a minor \ndelay - this is acceptable behavior. | Examine the configuration of this process to determine if there are timers likely to coincide in\ntheir expirations or if there are many sources created very quickly. If there are, this indicates\nthat the timers or source creation are staggered. If this message occurs frequently, contact Informatica support for further guidance. |
| Core-5894-2: lbm_timer_expire: Exceeded %d timer expirations in one iteration | UM encountered a condition where the specified number of timers were expiring at the same time. \nThis is undesirable and indicates a CPU burst usage. To prevent starvation of network processing, some timers\nare deferred for processing and network processing is resumed. All timers are eventually processed with a minor \ndelay - this is acceptable behavior. | Examine the configuration of this process to determine if there are timers likely to coincide in\ntheir expirations or if there are many sources created very quickly. If there are, this indicates\nthat the timers or source creation are staggered. If this message occurs frequently, contact Informatica support for further guidance. |
| Core-5927-1: Couldn't establish immediate message channel for destination %s:%d | A connection could not be established to send a unicast message. | Check the logs for previous messages indicating the actual cause, usually a socket error of some kind. |
| Core-5935-1: LBMC header with malformed length field. Dropping. Origin: %s:%d | An LBMC header was received with a malformed length field. | Check the originating IP and port for applications sending malformed data. |
| Core-5935-2: LBMC header with malformed length field. Dropping. Origin: %s:%d | An LBMC header was received with a malformed length field. | Check the originating IP and port for applications sending malformed data. |
| Core-5935-3: LBMC header with malformed length field. Dropping. Origin: %s:%d | An LBMC header was received with a malformed length field. | Check the originating IP and port for applications sending malformed data. |
| Core-5935-4: LBMC header with malformed length field. Dropping. Origin: %s:%d | An LBMC header was received with a malformed length field. | Check the originating IP and port for applications sending malformed data. |
| Core-5935-5: LBMC header with malformed length field. Dropping. Origin: %s:%d | An LBMC header was received with a malformed length field. | Check the originating IP and port for applications sending malformed data. |
| Core-5935-6: LBMC header with malformed length field. Dropping. Origin: %s:%d | An LBMC header was received with a malformed length field. | Check the originating IP and port for applications sending malformed data. |

| Message | Description | Resolution |
|---|---|---|
| Core-5936-1: LBMR optlen total_len malformed. Dropping packet. Origin: %s:%d | A topic resolution message was received with a length field that did not match the data received. | Inspect the originating IP and Port for applications sending malformed topic resolution messages. |
| Core-5937-1: Invalid 0-length LBMR option. Dropping packet. Origin: %s:%d | An LBMR packet was droppped because of a 0-length option field. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5937-2: LBMR Topic Query Record malformed. Dropping remainder. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5937-3: LBMR Topic Info Record malformed. Dropping remainder. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5937-4: LBMR Topic Management Record malformed. Dropping remainder. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5937-5: LBMR Topic Management Record malformed. Dropping remainder. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-5937-6: LBMR Topic Info Record option length invalid. Dropping Remainder. | UMS encountered a malformed LBMR packet and discarded it. | |
| Core-5937-7: LBMR Queue Info Record option length invalid. Dropping remainder. | A QIR packet was received that contained a 0-length option record. | |
| Core-5938-1: Header size is incorrect for header type. Dropping. Origin: %s:%d. | A malformed LBMC header was received. | Check the originating IP and port for an application sending incorrectly formed packets. |
| Core-5938-2: Header size is incorrect for header type. Dropping. Origin: %s:%d. | A malformed LBMC header was received. | Check the originating IP and port for an application sending incorrectly formed packets. |
| Core-5938-3: Received lbmc message with incorrect header length. Dropping. Origin: %s:%d. | A malformed LBMC header was received. | Check the originating IP and port for an application sending incorrectly formed packets. |
| Core-5957-1: %s: XInclude processing failed. | There was error processing XML includes. | Check your XML configuration file syntax. |
| Core-5957-2: XInclude processing failed. | There was error processing XML includes. | Check your XML configuration file syntax. |
| Core-5957-3: %s: Error removing xml:base attribute | There was error processing XML includes. | Check your XML configuration file syntax, or contact Informatica support. |

| Message | Description | Resolution |
|---|---|---|
| Core-5957-4: Error removing xml:base attribute | There was error processing XML includes. | Check your XML configuration file syntax, or contact Informatica support. |
| Core-5975-50: LBMC Route Info Neighbor header size incorrect. Dropping. Origin: %s:%d. | Route Info message header contains incorrect size. | Check source (IP:Port) for possible version mismatch or service attack. |
| Core-5988-1: Attempting to Respond to a Request from %s with port set to zero. | A response is being generated but the response port is zero so the data will not be delivered to the requester. | This occurs when the requester disables binding of the request port. See request_tcp_bind_request_port configuration option. |
| Core-5988-2: Source Side Filtering request from [%s] but response port set to zero. No messages will be received from this source. | The receiver is registering Source Side Filtering interest but the source response port is zero. The interest will not arrive at the source and therefore will not send this receiver any messages. | This occurs when the source disables binding of the request port. See request_tcp_bind_request_port configuration option. |
| Core-5988-3: Topic Advertisement [%s] contains UME Store info from %s but port is set to zero. Ignoring invalid UME Store Info. | A Topic Advertisement was received with UME Information but the store port was zero. The UME Information is being ignored. | This occurs when the Source or Store disables binding of the request port. See request_tcp_bind_request_port configuration option. |
| Core-5988-4: Topic Advertisement [%s] contains UME Source Info from %s but port is set to zero. Ignoring invalid UME Source Info. | A Topic Advertisement was received with UME Information but the source port was zero. The UME Information is being ignored. | This occurs when the Source or Store disables binding of the request port. See request_tcp_bind_request_port configuration option. |
| Core-5988-5: Topic Advertisement [%s] contains Late Join from %s but port is set to zero. Ignoring invalid Late Join setup. | A Topic Advertisement was received with Late Join Information but the source port was zero. The Late Join Information is being ignored. | This occurs when the Source disables binding of the request port. See request_tcp_bind_request_port configuration option. |
| Core-5988-6: Topic Advertisement [%s] contains UME Store Info from %s but port is set to zero. Ignoring invalid UME Store Info. | A Topic Advertisement was received with UME Information but the store port was zero. The UME Information is being ignored. | This occurs when the Source or Store disables binding of the request port. See request_tcp_bind_request_port configuration option. |
| Core-5988-7: Topic Advertisement [%s] contains ULB Info from %s but port is set to zero. Ignoring invalid ULB Info. | A Topic Advertisement was received with ULB Information but the source port was zero. The UME Information is being ignored. | This occurs when the Source disables binding of the request port. See request_tcp_bind_request_port configuration option. |
| Core-5990-1: UMQ command failed because the REQUIRED queue authentication failed.. cmd_type=0x %x | warning the user credential is not correct for authentication purpose | |

| Message | Description | Resolution |
|---|---|---|
| Core-6020-6: inflight bytes would be negative, resetting to 0 | A call to decrement the number of inflight bytes would set it to be negative. | Nothing, it is forcibly set to 0 in this case. |
| Core-6020-7: inflight bytes would be negative, resetting to 0 | Amount of bytes being decremented would cause inflight bytes to be negative | Current flight size could be incorrect due to unknown reasons, use the set flight size API to reset values |
| Core-6033-12: [LBMMON] Invalid statistics packet received | An invalid statistics packet was receiver. | Contact Informatica support. |
| Core-6033-13: [LBMMON] Format module source deserialize function returned %d, %s | A source statistics message was unable to be parsed. | Contact Informatica support. |
| Core-6033-14: [LBMMON] Format module receiver deserialize function returned %d, %s | A receiver transport statistics message was unable to be parsed. | Contact Informatica support. |
| Core-6033-15: [LBMMON] Format module event queue deserialize function returned %d, %s | An event queue statistics message was unable to be parsed. | Contact Informatica support. |
| Core-6033-16: [LBMMON] Format module context deserialize function returned %d, %s | A context statistics message was unable to be parsed. | Contact Informatica support. |
| Core-6033-17: [LBMMON] Format module receive function returned %d, %s | An error occured while receiving a statistics message. | Contact Informatica support. |
| Core-6033-26: [LBMMON] Error %d returned from transport module send function, %s | Failed to send a source transport statistics packet. | Contact Informatica support. |
| Core-6033-27: [LBMMON] Error %d returned from format module source serialize function, %s | Failed to format a source transport statistics packet. | Contact Informatica support. |
| Core-6033-28: [LBMMON] Error %d returned from transport module send function, %s | Failed to send a receiver transport statistics packet. | Contact Informatica support. |
| Core-6033-29: [LBMMON] Error %d returned from format module receiver serialize function, %s | Failed to format a receiver transport statistics packet. | Contact Informatica support. |
| Core-6033-30: [LBMMON] Error %d returned from transport module send function, %s | Failed to send an event queue statistics packet. | Contact Informatica support. |
| Core-6033-31: [LBMMON] Error %d returned from format module event queue serialize function, %s | Failed to format an event queue statistics packet. | Contact Informatica support. |

| Message | Description | Resolution |
|---|---|---|
| Core-6033-32: [LBMMON] Error %d returned from transport module send function, %s | Failed to send a context statistics packet. | Contact Informatica support. |
| Core-6033-33: [LBMMON] Error %d returned from format module context serialize function, %s | Failed to format a context statistics packet. | Contact Informatica support. |
| Core-6033-34: [LBMMON] Error %d returned from transport module send function, %s | Failed to send an IM source transport statistics packet. | Contact Informatica support. |
| Core-6033-35: [LBMMON] Error %d returned from format module source serialize function, %s | Failed to format an IM source transport statistics packet. | Contact Informatica support. |
| Core-6033-36: [LBMMON] Error %d returned from transport module send function, %s | Failed to send an IM receiver transport statistics packet. | Contact Informatica support. |
| Core-6033-37: [LBMMON] Error %d returned from format module receiver serialize function, %s | Failed to format an IM receiver transport statistics packet. | Contact Informatica support. |
| Core-6033-881: timer scheduled <= MIN_CLOCK_RES_MSEC (%lu ms) @@ [%ld.%ld]: Rescheduling for %d ms | The requested timer length was too small to be accurately applied based on the clock resolution, and has been forcibly increased so it does not execute immediately. | Use 0 for immediate timeout, or MIN_CLOCK_RES_MSEC for lowest pause before timeout |
| Core-6033-998: Requested retransmission queue is too big [%lu] | The requested retransmission queue size is too big | Consider reducing retransmission-request-processing-rate |
| Core-6033-999: malloc failure | Malloc failure | Box may be out of memory, consider reducing retransmission-request-processing-rate |
| Core-6036-1: LBMC stream corruption detected. Tearing down stream. Origin: %s:%d | Data was received in an inconsistent state from an LBMC TCP stream. | Investigate the listed IP and port for applications or network hardware that may be causing message corruption. |
| Core-6036-2: LBMC stream corruption detected. Tearing down stream. Origin: %s:%d | Data was received in an inconsistent state from an LBMC TCP stream. | Investigate the listed IP and port for applications or network hardware that may be causing message corruption. |
| Core-6056-1: Malformed fragment header detected, discarding. | A fragment header was detected with a malformed length field. | If this message is seen frequently, it may indicate that network hardware is corrupting packets, or that a program is generating spurious traffic directed at a port used by LBM. |

| Message | Description | Resolution |
|---|---|---|
| Core-6190-1: LBMR TIR contained inconsistent transport information. | UM encountered an advertisement indicating a transport that was already known, but the OTID did not match the known OTID. | The advertisement's originating IP and port will be logged in a subsequent message. Investigate that IP and port for an application generating spurious traffic. |
| Core-6190-2: LBMR Topic Info Record malformed. Dropping remainder. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-6238-1: PCRE exec [%s][%s] [%d] error %d | A receiver was configured with a invalid LIKE expression message selector | Fix the LIKE expression to be JMS compliant |
| Core-6238-2: PCRE compile [%s] [%s] error %d | A receiver was configured with a invalid LIKE expression message selector | Fix the LIKE expression to be JMS compliant |
| Core-6259-10: LBMR Topic Resolution Remote Domain Route packet malformed (%d:%d). Dropping. Origin: %s:%d | LBMR Data received contain invalid data. | Check the source (IP:Port) for possible version mismatch or service attack. |
| Core-6259-11: Too many domains for routing message %u; not sending message. | With the given number of domains, a domain routing message cannot be generated and traffic will not be routed properly. | The customer can increase the resolver_datagram_max_size. However, this message indicates a suspiciously large number of domains. |
| Core-6259-12: Failed sending Response: cannot find route to Remote Domain %u (%s:%d) | There is no known route to the given domain. This could happen momentarily as an LBM context learns the domain routes at startup. | This will be reported once per domain. A "route discovered to domain" should follow soon after. If not, the Gateway configuration should be examined for inconsistencies. |
| Core-6259-13: Failed sending Unicast Buffer: cannot find route to Remote Domain %u (%s:%d) | There is no known route to the given domain. This could happen momentarily as an LBM context learns the domain routes at startup. | This will be reported once per domain. A "route discovered to domain" should follow soon after. If not, the Gateway configuration should be examined for inconsistencies. |
| Core-6259-14: Failed sending Unicast Buffer: cannot find route to Remote Domain: %u (%s:%d) | There is no known route to the given domain. This could happen momentarily as an LBM context learns the domain routes at startup. | This will be reported once per domain. A "route discovered to domain" should follow soon after. If not, the Gateway configuration should be examined for inconsistencies. |
| Core-6259-15: Failed sending Unicast Control Message: cannot find route to Remote Domain %u (%s:%d) | There is no known route to the given domain. This could happen momentarily as an LBM context learns the domain routes at startup. | This will be reported once per domain. A "route discovered to domain" should follow soon after. If not, the Gateway configuration should be examined for inconsistencies. |

| Message | Description | Resolution |
|---|---|---|
| Core-6259-16: Failed sending Unicast Message: cannot find route to Remote Domain %u (%s:%d) | There is no known route to the given domain. This could happen momentarily as an LBM context learns the domain routes at startup. | This will be reported once per domain. A "route discovered to domain" should follow soon after. If not, the Gateway configuration should be examined for inconsistencies. |
| Core-6259-19: LBMC Topic Index header size incorrect. Dropping. Origin: %s:%d. | Topic Index message header contains incorrect size. | Check source (IP:Port) for possible version mismatch or service attack. |
| Core-6259-1: Re-routing Domain ID %u: old: %s:%d new: %s:%d | There was a change in the route to the given host. This can happen at startup, when a Gateway goes down, or when there is connectivity problem. | This is normal on occasion. Persistent messages could indicate a network or Gateway issue. |
| Core-6259-20: Domain ID discovered; context resides in Domain ID %u | Log message indicates a Domain ID discovery. | This is not an error. |
| Core-6259-21: Failed sending Response: cannot find route to Remote Domain %u (%s:%d) | There is no known route to the given domain. This could happen momentarily as an LBM context learns the domain routes at startup. | This will be reported once per domain. A "route discovered to domain" should follow soon after. If not, the Gateway configuration should be examined for inconsistencies. |
| Core-6259-22: Failed sending Response: cannot find route to Remote Domain %u (%s:%d) | There is no known route to the given domain. This could happen momentarily as an LBM context learns the domain routes at startup. | This will be reported once per domain. A "route discovered to domain" should follow soon after. If not, the Gateway configuration should be examined for inconsistencies. |
| Core-6259-23: Failed sending Response: cannot find route to Remote Domain %u (%s:%d) | There is no known route to the given domain. This could happen momentarily as an LBM context learns the domain routes at startup. | This will be reported once per domain. A "route discovered to domain" should follow soon after. If not, the Gateway configuration should be examined for inconsistencies. |
| Core-6259-24: Failed sending Response: cannot find route to Remote Domain %u (%s:%d) | There is no known route to the given domain. This could happen momentarily as an LBM context learns the domain routes at startup. | This will be reported once per domain. A "route discovered to domain" should follow soon after. If not, the Gateway configuration should be examined for inconsistencies. |
| Core-6259-25: Deserialize Response: Context in domain %u received response with no domain: %s:%d | A context that knows it's domain deserialized a response that contained no Domain ID. The response will likely not get back to the sender. This could happen momentarily as an LBM contexts learn their domain routes at startup. | If the warning persists, the Gateway configuration should be examined for inconsistencies. |

| Message | Description | Resolution |
|---|---|---|
| Core-6259-26: Route discovered to Domain ID %u through %s:%d | A new route to the given Domain ID was discovered. | This is normal upon startup of Gateways. |
| Core-6259-27: Unicast message arrived at Gateway from Local Domain via direct path. Source: %s:%u | A Unicast Message arrived at a Gateway destined for the local Domain. | A user has likely unicast a message directly to the Gateway. The user needs to Unicast the message to the final application. UMS will take care of the routing. |
| Core-6259-28: Unicast message arrived from Remote Domain (%u) via direct path. Source: %s:%u | A Unicast Message arrived with the destination domain different that the local domain (unicast direct). | A user has likely unicast a message directly to an application in a different domain. If this is desired, either specify a zero Domain ID or don't supply a Domain ID. Using the local Domain ID will not suffice. |
| Core-6259-29: Unicast message arrived at Gateway from Local Domain via direct path. Source: %s:%u | A Unicast Message arrived at a Gateway destined for the local Domain. | A user has likely unicast a message directly to the Gateway. The user needs to Unicast the message to the final application. UMS will take care of the routing. |
| Core-6259-2: Route discovered to Domain ID %u through %s:%d | A new route to the given Domain ID was discovered. | This is normal upon startup of Gateways. |
| Core-6259-30: Unicast message arrived from Remote Domain (%u) via direct path. Source: %s:%u | A Unicast Message arrived with the destination domain different that the local domain (unicast direct). | A user has likely unicast a message directly to an application in a different domain. If this is desired, either specify a zero Domain ID or don't supply a Domain ID. Using the local Domain ID will not suffice. |
| Core-6259-3: LBMC DESTINATION header size incorrect. Dropping. Origin: %s:%d. | Destination message header contains incorrect size. | Check source (IP:Port) for possible version mismatch or service attack. |
| Core-6259-4: LBMC DESTINATION header size incorrect. Dropping. Origin: %s:%d. | Destination message header contains incorrect size. | Check source (IP:Port) for possible version mismatch or service attack. |
| Core-6259-6: LBMR Domain ID option invalid len [%u]. Dropping packet. Origin: %s:%d | LBMR Data received contain invalid data. | Check the source (IP:Port) for possible version mismatch or service attack. |
| Core-6259-7: Domain ID discovered; context resides in Domain ID %u | Log message indicates a Domain ID discovery. | This is not an error. |
| Core-6259-8: LBMR Domain ID option contains a mismatched domain [%u:%u]. Dropping packet. Origin: %s:%d | LBMR Data received contain invalid data. | Check the source (IP:Port) for possible version mismatch or service attack. |

| Message | Description | Resolution |
|---|---|---|
| Core-6259-9: LBMR Topic Resolution Remote Domain Route packet malformed (%d:%d). Dropping. Origin: %s:%d | LBMR Data received contain invalid data. | Check the source (IP:Port) for possible version mismatch or service attack. |
| Core-6322-10: ULB receiver index reserve command response for unknown receiver. | UMS received a ULB receiver index reserve command response for an unknown receiver. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-11: ULB index command response error for unknown receiver. | UMS received a ULB index command response error for an unknown receiver. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-12: ULB index stop assignment command for unknown source. | UMS received a ULB index stop assignment command for an unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-13: ULB index start assignment command for unknown source. | UMS received a ULB index start assignment command for an unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-14: ULB index release command for unknown source. | UMS received a ULB index release command for an unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-15: ULB index reserve command for unknown source. | UMS received a ULB index reserve command for an unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-16: received ULB receiver registration error response for unknown receiver. | UMS received a ULB receiver registration error response, but did not register as a ULB receiver. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |

| Message | Description | Resolution |
|---|---|---|
| Core-6322-17: received ULB receiver registration response for unknown receiver. | UMS received a ULB receiver registration response, but did not register as a ULB receiver. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-18: received ULB receiver de-registration response for unknown receiver. | UMS received a ULB receiver de-registration response, but did not register as a ULB receiver. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-19: received ULB RCR for unknown receiver. | UMS received a ULB RCR, but did not register as a ULB receiver. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-1: received liveness keepalive for unknown source. | UMS received a liveness keepalive for an unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-20: received ULB unicast message for unknown receiver. | UMS received a ULB unicast message, but did not register as a ULB receiver. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-21: received UMQ command response for unknown command. | UMS received a UMQ command response for an unknown command. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-22: received UMQ index command response for unknown command. | UMS received a UMQ index command response for an unknown command. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-23: received UMQ registration response, but did not register with a queue. | UMS received a UMQ registration response, but did not register with a queue . This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |

| Message | Description | Resolution |
|---|---|---|
| Core-6322-24: received UMQ stability ACK for unknown source. | UMS received a UMQ stability ACK for an unknown source . This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-25: received UMQ RCR for unknown receiver. | UMS received a UMQ RCR for an unknown receiver . This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-26: received UMQ keepalive for unknown client. | UMS received a UMQ keepalive for an unknown client . This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-27: received ACK for unknown source. | UMS received ACK for unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-2: received ULB receiver registration for unknown source. | UMS received a ULB receiver registration, but was not configured as a ULB source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-3: received ULB receiver de-registration for unknown source. | UMS received a ULB receiver de-registration, but was not configured as a ULB source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-4: received ULB receiver ACK for unknown source. | UMS received a ULB receiver ACK, but was not configured as a ULB source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-5: received ULB RXREQ for unknown source. | UMS received a ULB RXREQ, but was not configured as a ULB source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |

| Message | Description | Resolution |
|---|---|---|
| Core-6322-6: received ULB keepalive or keepalive response, but not using ULB | UMS received a ULB keepalive, but was not configured as a ULB source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-7: ULB receiver index stop assignment command response for unknown receiver. | UMS received a ULB receiver index stop assignment command response for an unknown receiver. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-8: ULB receiver index start assignment command response for unknown receiver. | UMS received a ULB receiver index start assignment command response for an unknown receiver. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6322-9: ULB receiver index release command response for unknown receiver. | UMS received a ULB receiver index release command response for an unknown receiver. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-6340-1: Malformed config opt option encountered. Dropping. Origin: %s:%d. | A malformed LBMC header was received. | Check the originating IP and port for an application sending incorrectly formed packets. |
| Core-6340-2: Malformed config opt option encountered. Dropping. Origin: %s:%d. | A malformed LBMC header was received. | Check the originating IP and port for an application sending incorrectly formed packets. |
| Core-6340-3: Malformed config opt option encountered. Dropping. Origin: %s:%d. | A malformed LBMC header was received. | Check the originating IP and port for an application sending incorrectly formed packets. |
| Core-6340-4: Malformed config opt option encountered. Dropping. Origin: %s:%d. | A malformed LBMC header was received. | Check the originating IP and port for an application sending incorrectly formed packets. |
| Core-6361-125: received sri request for unknown source. | A context without a resolver module has received an SRI REQ. | This could be caused if a transport thread's is reusing a previous context's request port |
| Core-6361-126: received sri request for unknown source. | The context has handled an SRI request for an unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. This is typically caused by a UMP receiver attempting to join a transport for a UMP source that has been deleted. | This can happen under normal situations and should cease after sri request configuration. If they don't, check the system for other abnormal behavior (applications restarting etc) |

| Message | Description | Resolution |
|---|---|---|
| Core-6361-127: LBMC CNTL SRI REQ header size incorrect. Dropping. Origin: %s:%d. | Source Registration Information Request message header contains incorrect size. | Check source (IP:Port) for possible version mismatch or service attack. |
| Core-6361-128: LBMC CNTL SRI header size incorrect. Dropping. Origin: %s:%d. | Source Registration Information message header contains incorrect size. | Check source (IP:Port) for possible version mismatch or service attack. |
| Core-6361-129: LBMC CNTL UME store domain header size incorrect. Dropping. Origin: %s:%d. | Store Domain message header contains incorrect size. | Check source (IP:Port) for possible version mismatch or service attack. |
| Core-6361-130: LBMR Topic Info Record EXFUNC Option not correct size. Dropping remainder. | UM encountered a mismatch in the length of a received message and its headers, determining the rest of the message to be invalid. The remainder of the message is dropped. | Contact Informatica support if this message occurs frequently. |
| Core-6361-2: Topic Advertisement [%s] contains EXFUNC Info from %s but port is set to zero. Ignoring invalid EXFUNC Info. | A Topic Advertisement was received with EXFUNC Information but the source port was zero. The EXFUNC Information is being ignored. | This occurs when the Source disables binding of the request port. See request_tcp_bind_request_port configuration option. |
| Core-6361-3: late join available, but no OTID present | UM has encountered a source with late join enabled, but that has no OTID. This is likely caused by a version mismatch with an old version of UM. | Resolve the version mismatch. |
| Core-6361-4: OTID version mismatch - unable to provide late join | UM has encountered a source with a mismatched OTID version. This is likely caused by a UM version mismatch. | Resolve the version mismatch. |
| Core-6420-10: LBMC header data too long, dropping message. Origin: %s:%d | Parsing data past the end of the valid buffer. | Check the received message for possible wrong format or service attack. |
| Core-6420-11: LBMC header data too long. Dropping. Origin: %s:%d. | Parsing data past the end of the valid buffer | Check the received control message for possible wrong format or service attack. |
| Core-6420-12: LBMC basic header too short. Dropping. Origin: %s:%d. | Message header is less than the minimum size of LBMC header | Check the data being parsed for possbile wrong formats or service attack. |
| Core-6420-13: LBMC header data too long. Dropping. Origin: %s:%d. | Parsing data past the end of the valid buffer. | Check the received message for possible wrong format or service attack. |
| Core-6452-0: LBMC tid header size incorrect. Dropping. Origin: %s:%d. | The size of the TID header is incorrect. | This is an internal error. |

| Message | Description | Resolution |
|---|---|---|
| Core-6488-1: WARNING: UMQ queue "%s" context reg ID 0x%x, session ID 0x%x queue state ignored | The source application context has a higher last-sent timestamp than the queue reports at registration; this usually means the queue missed a few messages the source sent either by being down or being too busy, etc., and is behind when the source application re-registers. | Check to see if the queue has failed or been restarted during operation, or if it is being reported as inactive for periods of time due to network problems, etc. |
| Core-6675-1: non-UMQ context received unicast UMQ message. | A context received a UMQ message (unicast immediate message or control message), but was not a UMQ context.\n This is not a serious problem and normally indicates a non-UMQ context has re-used a request port recently held by a UMQ\n context. | Check for frequent application restarts or other behavior that could cause ports to be re-used between different\n types of applications. |
| Core-6720-1: IPC Error: Creating Receiver Monitor Mutex (%d) (%s) | An IPC receiver could not create a shared monitoring Mutex. This could be caused by a permission error or the resource already exists. Please refer to the OS error number and resource name given. | |
| Core-6758-1: LBMC dropping packet containing deprecated PSER header. Origin: %s:%d | A packet containing a UME proxy source election record (PSER) was dropped because their use has been deprecated. | This indicates umestored processes of an older version are attempting to elect a proxy source on this topic resolution domain. |
| Core-6758-2: LBMC proxy election token header size incorrect. Dropping. Origin: %s:%d. | An LBMC proxy source election token was received from the specified Origin that contained the wrong length. The entire packet was dropped. | This is caused by malformed or forged packets. Use the Origin to detect where they are coming from to investigate further. |
| Core-6758-3: LBMR dropping packet containing deprecated proxy source election header. Origin: %s: %d | LBM resolver has dropped a deprecated proxy source election packet. Reported only once per resolver. | Indicates previous versions of the UME store hosting proxy elections on the shared topic resolution address, a possible misconfiguration. |
| Core-6759-10: Updated destination for remote context name '%s'. New destination: DomainID %u addr %s: %d | An informational message indicating an updated destination has been detected for a context name used by this application. | This message is issued every time a named context (E.g. a UMP store daemon) changes the DomainID, IP, and port for which it resolves to. Repeated occurances of this log message for the same context name may indicate that multiple contexts are assigned the same name and active at the same time, which is a mis-configuration. If this occurs, please ensure that context name usage is unique across all UM topic resolution domains. |

| Message | Description | Resolution |
|---|---|---|
| Core-6759-11: Duplicate context name '%s' detected. Origin: DomainID %u addr %s:%d | A named context has detected another context advertising the same name. | Advertised context names (E.g. store names) must be unique across topic resolution domains. Check the configuration to ensure only one store or named context with a given name is operational at any given time. The UM DomainID, IP address, and port of the advertised duplicate context name are given. |
| Core-6759-1: LBMR RCTXINFO packet malformed. Dropping. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-6759-2: LBMR RCTXINFO len malformed. Dropping. Origin: %s: %d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-6759-31: Error parsing LBMR RCTXINFO header flags %x. Ignoring. Origin: %s:%d | An LBMR RCTXINFO packet header was ignored because it could not be parsed, or the application failed to allocate memory. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-6759-3: LBMR RCTXINFO rec len malformed. Dropping. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-6759-4: LBMR RCTXINFO address opt malformed. Dropping. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-6759-5: LBMR RCTXINFO instance opt malformed. Dropping. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-6759-6: LBMR RCTXINFO odomain opt malformed. Dropping. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-6759-7: LBMR RCTXINFO name opt malformed. Dropping. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |
| Core-6759-8: LBMR RCTXINFO unknown opt 0x%02x. Dropping. Origin: %s:%d | An LBMR packet was droppped because it could not be parsed. | Investigate the listed IP and port for an application generating spurious traffic. |

| Message | Description | Resolution |
|---|---|---|
| Core-6759-9: Updated destination for remote context name '%s'. New destination: DomainID %u addr %s:%d | An informational message indicating an updated destination has been detected for a context name used by this application. | This message is issued every time a named context (E.g. a UMP store daemon) changes the DomainID, IP, and port for which it resolves to. Repeated occurances of this log message for the same context name may indicate that multiple contexts are assigned the same name and active at the same time, which is a mis-configuration. If this occurs, please ensure that context name usage is unique across all UM topic resolution domains. |
| Core-6837-1: LBMC Route Info header size incorrect. Dropping. Origin: %s:%d. | Route Info message header contains incorrect size. | Check source (IP:Port) for possible version mismatch or service attack. |
| Core-6856-0001: LBMC CNTL UME EXT store header size incorrect. Dropping. Origin: %s:%d. | Header length for a data type: lbmc_cntl_ume_store_ext_hdr_t is not right | The packet might have been corrupted. Please contact customer support |
| Core-6937-10: LBMC CNTL TCP SID header size incorrect. Dropping. Origin: %s:%d. | An LBMC Session ID control message for a TCP transport is the wrong size. | The IP address and port indicate the source of the erroneous traffic. |
| Core-6937-30: FD Register error when sending of Session ID; validation skipped (%p)(0x%x). | FD Register error when sending TCP Session ID to source for validation (transport_tcp_use_session_id enabled). | There is no immediate action. Validation is not required. If the error persists, however, check the system socket defaults. |
| Core-6937-31: Buffer allocation failure when sending Session ID (%p)(0x%x). | Buffer allocation error when sending TCP Session ID to source for validation (transport_tcp_use_session_id enabled). | A buffer allocation error usually is a symptom of running out of memory. |
| Core-6937-32: Topic Receiver sent message data on TCP connection. Ignoring. Origin: %s:%d | A TCP source received a data message from a client. This was unexpected. | Refer to the clients IP:Port for the source of the message |
| Core-6937-33: Topic Receiver sent invalid control message on TCP connection. Ignoring. Origin: %s:%d | A TCP source received a control message from a client that did not contain the expected information. | Refer to the clients IP:Port for the source of the message |
| Core-6938-1: Notice from src (RID: %u: (%s)): store %u:%s:%u reports it has not received SRI (but might have received TIR). Possible misconfiguration? | The UMP store has not yet received an SRI from this source, though it might have received a TIR. UMP registration sometimes occurs faster than topic resolution. This warning might occur during a store failover. This warning can also occur if the store is not configured to listen to the correct topic resolution channel. | If this warning persists, check the source initial delay and store configuration options. |

| Message | Description | Resolution |
|---|---|---|
| Core-6959-1: INFO: Receiver on topic "%s" has its use_late_join option disabled but has a persistent source on transport %s. To opt out of Late Join when subscribing to persistent sources, the ume_use_store option also must be disabled. Enabling use_late_join. | Receiver disabled late join with UMP. | Disabling late join with UMP is not allowed, so enable late join or disable ume_use_store to avoid this INFO message. |
| Core-6974-1: LBMC CTXINSTS header received without corresponding UME_STORE or UME_STORE_EXT header. Dropping. Origin: %s:%d. | A malformed LBMC packet was received. | Check the originating IP and port for applications sending malformed data. |
| Core-6974-2: LBMC STORENAME header received without corresponding UME_STORE or UME_STORE_EXT header. Dropping. Origin: %s:%d. | A malformed LBMC packet was received. | Check the originating IP and port for applications sending malformed data. |
| Core-6976-103: WARNING: LBT-SMX session exists and uses a different transport_lbtsmx_datagram_max_size [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtsmx_datagram_max_size setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-6976-104: WARNING: LBT-SMX session exists and uses a different transport_lbtsmx_sm_interval [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtipc_sm_interval setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-6976-105: WARNING: LBT-SMX session exists and uses a different transport_lbtsmx_transmission_window_size [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtsmx_transmission_window_size setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |
| Core-6976-106: WARNING: LBT-SMX session exists and uses a different transport_lbtsmx_maximum_receivers_per_transport [%d] than requested [%d]. | Once a source has created a transport session a subsequent source joining the same transport session cannot configure a different transport_lbtsmx_maximum_receivers_per_transport setting. Please refer to UMS Objects section of the Design Concepts in the documentation. | |

| Message | Description | Resolution |
|---|---|---|
| Core-6976-10: NOTICE: LBT-SMX transport does not support adaptive batching; option will be ignored. | The LBT-SMX transport does not support adaptive batching, but the user configured the source to use adaptive batching. | Do not configure an LBT-SMX source to use adaptive batching. |
| Core-6976-114: LBT-SMX Error: Joining transport; no more free receiver slots | The application tried joining a source's LBT-SMX transport session, but could not because no free receiver slots were available. | Check the transport_lbtsmx_maximum_receivers_per_transport config option setting on the source to see if it's large enough for the intended number of receivers. Also check for hung receiver clients. |
| Core-6976-117: LBTSMX receiver thread dropping receiver add with no matching transport | The LBT-SMX control source enqueued an add of a new receiver or receiver callback,\n but the LBT-SMX receiver thread has no knowledge of the transport the receiver is supposed to\n be added too; either the transport was never correctly added or it was removed. | |
| Core-6976-118: LBTSMX receiver thread dropping receiver remove with no matching transport | The LBT-SMX control source enqueued a delete of a receiver or receiver callback,\n but the LBT-SMX receiver thread has no knowledge of the transport the receiver is supposed to\n be removed from; either the transport was never correctly added or it was already removed. | |
| Core-6976-11: NOTICE: configured transport_lbtsmx_transmission_window_size (%u bytes) is not large enough to support at least two datagrams of the configured transport_lbtsmx_datagram_max_size (%u bytes). Transmission window size will be rounded up to %u bytes. | The configured LBT-SMX transmission window size is not large enough to accommodate the configured the max datagram size. We are automatically bumping up the transmission window size from the configured size so that it is large enough. | The user should simply configure their datagram max size and transmission window sizes appropriately; the transmission window size must be a power of 2, and it must be at least twice the configured max datagram size. |
| Core-6976-120: LBT-SMX receiver thread received unknown message type '%u' from transport LBTSMX_%x_%u. Further unknown message types received from this transport will not be reported. | The LBT-SMX receiver thread received a message type it does not understand. | Check for thread safety issues in the application with LBT-SMX-related API calls. |
| Core-6976-121: LBT-SMX receiver thread callback returned %d | An internal LBT-SMX control callback function failed. | Something has likely gone terribly wrong; memory corruption, etc. |
| Core-6976-122: LBT-SMX: locking problem detected in lbtsmx_txw_rcvr_node_alloc (%d) | An error occurred with the shared object used to ensure mutual exclusion when accessing SMX shared resources. Please refer to the OS error number given. | |

| Message | Description | Resolution |
|---|---|---|
| Core-6976-123: LBT-SMX: locking problem detected in lbtsmx_txw_rcvr_node_alloc (%d) | An error occurred with the shared object used to ensure mutual exclusion when accessing SMX shared resources. Please refer to the OS error number given. | |
| Core-6976-124: LBT-SMX: locking problem detected in lbtsmx_txw_lock_rcvr_nodes (%d) | An error occurred with the shared object used to ensure mutual exclusion when accessing SMX shared resources. Please refer to the OS error number given. | |
| Core-6976-125: LBT-SMX: locking problem detected in lbtsmx_txw_lock_rcvr_nodes (%d) | An error occurred with the shared object used to ensure mutual exclusion when accessing SMX shared resources. Please refer to the OS error number given. | |
| Core-6976-126: LBT-SMX: failed to open shared memory (%d) | The SMX shared memory region could not be opened for reading. This could occur if a receiver attempts to join an IPC transport after the source has been deleted. Please reference the OS error number given. | |
| Core-6976-127: LBT-SMX: failed to map shared memory (%d) | An error occurred trying to map a pointer to the SMX shared memory region. Please refer to the OS error number given. | |
| Core-6976-128: LBT-SMX: Transport Version Mismatch: Joining 0x%x from version 0x%x | The SMX shared memory region's version does not match our own; either the shared memory is corrupt or is not a version of LBT-SMX that we understand (it may be a newer or older version). | If different versions of the LBT-SMX transport have been used on the same machine, run their respective lbtsmx_resource_manager tools to reclaim and delete shared memory resources. Do not mix versions of LBT-SMX on the same machine. |
| Core-6976-129: LBT-SMX: failed to map shared memory (%d) | An error occurred trying to map a pointer to the SMX shared memory region. Please refer to the OS error number given. | |
| Core-6976-12: lbm_transport_lbtsmx_ctlr_delete: WFSO res=%d, GLE=%d | The WaitForSingleObject() Windows call return an error while waiting for the IPC Receiver thread to exit. Refer to the response and OS error number given. | |

| Message | Description | Resolution |
|---|---|---|
| Core-6976-130: LBT-SMX: can not open shared semaphore (%d) | The shared semaphore used to ensure mutual exclusion while accessing SMX shared resources could not be opened. This could occur if a receiver attempts to join an IPC transport after the source has been deleted. Please refer to the OS error number given. | |
| Core-6976-131: LBT-SMX: failed to open shared memory (%d) | The SMX shared memory region could not be opened for reading. This could occur if a receiver attempts to join an IPC transport after the source has been deleted. Please reference the OS error number given. | |
| Core-6976-132: LBT-SMX: failed to map shared memory (%d) | An error occurred trying to map a pointer to the SMX shared memory region. Please refer to the OS error number given. | |
| Core-6976-133: LBT-SMX: Transport Version Mismatch: Joining 0x%x from version 0x%x | The SMX shared memory region's version does not match our own; either the shared memory is corrupt or is not a version of LBT-SMX that we understand (it may be a newer or older version). | If different versions of the LBT-SMX transport have been used on the same machine, run their respective lbtsmx_resource_manager tools to reclaim and delete shared memory resources. Do not mix versions of LBT-SMX on the same machine. |
| Core-6976-134: LBT-SMX: failed to map shared memory (%d) | An error occurred trying to map a pointer to the SMX shared memory region. Please refer to the OS error number given. | |
| Core-6976-135: LBT-SMX: can not open shared Mutex (%d) | An error occurred trying to open the mutex that protects the LBT-SMX shared memory region - see the OS error code for more information. | |
| Core-6976-136: LBT-SMX Error: Getting Receiver Monitor Mutex (%d) | The LBT-SMX monitor thread could not acquire the shared monitoring Mutex. This could be caused by a permission error. Refer to the OS error number and resource name given. | |
| Core-6976-137: SMX Error: Creating Receiver Monitor Mutex (%d) (%s) | An SMX receiver could not create a shared monitoring Mutex. This could be caused by a permission error or the resource already exists. Refer to the OS error number and resource name given. | |

| Message | Description | Resolution |
|---|---|---|
| Core-6976-138: SMX Error: Creating Receiver Monitor Mutex (%d) (%s) | An SMX receiver could not create a shared monitoring Mutex. This could be caused by a permission error or the resource already exists. Refer to the OS error number and resource name given. | |
| Core-6976-139: Error: Creating Receiver Thread (%d) | An error occurred when the receiver attempted to create a thread for internal processing. Refer to the OS error number given. | |
| Core-6976-13: LBTSMX: error in sizing resource registry (%d) | An error occurred when attempting to set shared memory registry file to the correct size. The registry is used to store SMX shared objects that are in use. The OS error number is given. | |
| Core-6976-140: LBT-SMX Error: Joining transport; no more free receiver slots | An SMX receiver is attempting to join an SMX transport that has no more free slots for receivers. | Adjust the "transport_lbtsmx_maximum_receivers_per_transport" configuration attribute. |
| Core-6976-141: default thread stack size is perhaps too small, %u bytes. | The LBT-SMX receiver has created a thread for internal processing and the default stack size is too small. The size of the default stack size is dumped and will then be set to a larger size automatically. | |
| Core-6976-142: reset thread stack size to %u bytes. | The SMX receiver has created a thread for internal processing and the default stack size is too small and is reallocated. This message reports the new size of the stack. | |
| Core-6976-143: Error: Creating Receiver Thread (%d) | An error occurred when the SMX receiver attempted to create a thread for internal processing. Refer to the OS error number given. | |
| Core-6976-144: LBT-SMX Error: Joining transport; no more free receiver slots | An SMX receiver is attempting to join an SMX transport that has no more free slots for receivers. | Adjust the "transport_lbtsmx_maximum_receivers_per_transport" configuration attribute. |
| Core-6976-145: SMX Error: Creating Receiver Monitor Semaphore | An error occurred when an SMX receiver attempted to allocate a shared monitoring semaphore. This could be caused by a permission error or no more resources. Refer to the documentation for lbtsmx_resource_manager. | |

| Message | Description | Resolution |
|---|---|---|
| Core-6976-146: SMX Error: Initializing Receiver Monitor Semaphore (%d) | An error occurred when an SMX receiver attempted to initialize a shared monitoring semaphore. Refer to the OS error number given. | |
| Core-6976-147: SMX Error: Initializing Receiver Monitor Semaphore (%d) | An error occurred when an SMX receiver attempted to initialize a shared monitoring semaphore. Refer to the OS error number given. | |
| Core-6976-148: LBT-SMX Problem Opening Signal Semaphore (%d) | The SMX source has received a connection request from an SMX receiver and has failed to open the shared signaling semaphore. This could happen if the connection request is old and the receiver was already deleted or the source does not have permission to open the object. Please reference the OS error number given. | |
| Core-6976-149: LBT-SMX Problem Opening Event (%d) | The SMX source has received a connection request from an SMX receiver and has failed to open the shared Event. This could happen if the connection request is old and the receiver was already deleted or the source does not have permission to open the object. Please reference the OS error number given. | |
| Core-6976-14: LBTSMX: error mapping (initial) resource registry (%d) | An error occurred when attempting to map memory to the registry file. The registry is used to store SMX shared objects that are in use. The OS error number is given. | |
| Core-6976-150: LBT-SMX Problem Opening Monitor Semaphore (%d) | The SMX source has received a connection request from an SMX receiver but has failed to open the Monitoring Semaphore. This could happen if the connection request is old and the receiver was already deleted or the source does not have permission to open the object. Please reference the OS error number given. | |

| Message | Description | Resolution |
|---|---|---|
| Core-6976-151: LBT-SMX Problem Opening Monitor Mutex (%d) (%s) | The SMX source has received a connection request from an SMX receiver but has failed to open the Monitoring Mutex. This could happen if the connection request is old and the receiver was already deleted or the source does not have permission to open the object. Please reference the OS error number and object name given. | |
| Core-6976-15: LBTSMX: error creating registry semaphore (%d) | The semaphore used to ensure mutual exclusion while accessing the registry could not be initialized. The registry is used to store IPC shared objects that are in use. Refer to the documentation for lbtsmx_resource_manager. | |
| Core-6976-160: lbm_transport_lbtsmx_ctlr_delete: WFSO res=%d, GLE=%d | The WaitForSingleObject() Windows call return an error while waiting for the IPC Receiver thread to exit. Refer to the response and OS error number given. | |
| Core-6976-161: Could not create LBT-SMX control source; will not be able to join any LBT-SMX transports. Check permissions and reclaim any stale LBT-SMX resources. | The LBT-SMX internal control source could not be created; this probably means the user doesn't have permissions to create shared mutexes or semaphores, or we have run out of memory,\n or we have run out of our allowed number of semaphores. | Try running lbtsmx_resource_manager -reclaim to get rid of stale shared resources, and check permissions of the application to see if it is allowed to create shared mutexes, etc. |
| Core-6976-162: lbm_lbtsmx_block_wait failed | Waiting for the LBT-SMX receiver thread to complete an action failed; the receiver thread may or may not have completed the action. The application may potentially now be in an unstable state.\n This may be due to being out of memory or out of available semaphores. | Contact Informatica support. |
| Core-6976-163: lbm_lbtsmx_block_wait failed | Waiting for the LBT-SMX receiver thread to complete an action failed; the receiver thread may or may not have completed the action. The application may potentially now be in an unstable state.\n This is usually due to being out of memory or out of available semaphores and should normally not happen. | Contact Informatica support. |

| Message | Description | Resolution |
|---|---|---|
| Core-6976-164: lbm_lbtsmx_block_wait failed | Waiting for the LBT-SMX receiver thread to complete an action failed; the receiver thread may or may not have completed the action. The application may potentially now be in an unstable state.\n This is usually due to being out of memory or out of available semaphores and should normally not happen. | Contact Informatica support. |
| Core-6976-165: lbm_lbtsmx_block_wait failed | Waiting for the LBT-SMX receiver thread to complete an action failed; the receiver thread may or may not have completed the action. The application may potentially now be in an unstable state.\n This is usually due to being out of memory or out of available semaphores and should normally not happen. | Contact Informatica support. |
| Core-6976-166: lbm_lbtsmx_block_wait failed | Waiting for the LBT-SMX receiver thread to complete an action failed; the receiver thread may or may not have completed the action. The application may potentially now be in an unstable state.\n This is usually due to being out of memory or out of available semaphores and should normally not happen. | Contact Informatica support. |
| Core-6976-167: lbm_lbtsmx_block_wait failed | Waiting for the LBT-SMX receiver thread to complete an action failed; the receiver thread may or may not have completed the action. The application may potentially now be in an unstable state.\n This is usually due to being out of memory or out of available semaphores and should normally not happen. | Contact Informatica support. |
| Core-6976-16: LBTSMX: error initializing registry semaphore (%d) | The semaphore used to ensure mutual exclusion while accessing the registry could not be initialized. The registry is used to store IPC shared objects that are in use. Refer to the documentation for lbtsmx_resource_manager. | |
| Core-6976-17: LBTSMX: error opening resource registry (%d) | An error occurred when attempting to open or map memory to the registry file. The OS error number is given. | |
| Core-6976-18: LBTSMX: error mapping resource registry (%d) | An error occurred when attempting to open or map memory to the registry file. The OS error number is given. | |

| Message | Description | Resolution |
|---|---|---|
| Core-6976-19: LBTSMX: resource registry version mismatch: use lbtsmx_resource_manager to clean-up and delete registry. | An IPC registry file existed, and contained the wrong version. | For this to happen, a registry file with incorrect version information would have to be deliberately put in place. 3.5 and post3.5 use different naming schemes for registries, so this can't happen due to version mismatch. |
| Core-6976-20: LBTSMX: error re-mapping resource registry (entries: %d) (%d) | An error occurred when attempting to re-map memory to the registry file. The registry is used to store IPC shared objects that are in use. The size in entries and OS error number is given. | |
| Core-6976-21: LBTSMX: error opening/recreating registry semaphore (%d) | The semaphore used to ensure mutual exclusion while accessing the registry could not be created. The registry is used to store IPC shared objects that are in use. The OS error number is given. | |
| Core-6976-22: LBTSMX: error reinitializing registry semaphore (%d) | The semaphore used to ensure mutual exclusion while accessing the registry could not be initialized. The registry is used to store IPC shared objects that are in use. The OS error number is given. | |
| Core-6976-23: LBTSMX: error re-creating resource registry (%d) | The registry used to store IPC shared objects that are in use could not be created. The OS error number is given. | |
| Core-6976-24: LBTSMX: error in re-sizing resource registry (%d) | The registry used to store IPC shared objects that are in use could not be re-sized (expanded). The OS error number is given. | |
| Core-6976-25: LBTSMX: error re-mapping resource registry (%d) | An error occurred when attempting to re-map memory to the registry file (file expansion). The registry is used to store IPC shared objects that are in use. The OS error number is given. | |
| Core-6976-26: LBTSMX: No free semaphores could be found | A free semaphore required for the LBT-IPC transport could not be found. Refer to the documentation for lbtsmx_resource_manager. | |
| Core-6976-27: LBTSMX: error creating registry semaphore (%d) | An error occurred when attempting to create the LBT-SMX registry semaphore set. The OS error number is given. | |

| Message | Description | Resolution |
|---|---|---|
| Core-6976-28: LBTSMX: error opening semaphore (%d) | A free semaphore allocated for the LBT-IPC transport could not be opened. The OS error number is given. | |
| Core-6976-29: LBTSMX: error freeing semaphore; key 0x%x not found | A semaphore allocated for the LBT-IPC transport could not be freed due to an invalid internal key. | Contact Informatica support. |
| Core-6976-32: specified transport_lbtsmx_transmission_window_size of %u will be ignored in favor of the next highest power of two: %u | LBT-SMX transmission window size must be a power of 2; the user specified a non-power-of-2 size. | |
| Core-6976-6: NOTICE: LBT-SMX transport does not support UMP; option will be ignored. | The LBT-SMX transport does not support UMP, but the user configured the source as a UMP source. | Do not configure an LBT-SMX source to use UMP. |
| Core-6976-7: NOTICE: LBT-SMX transport does not support ULB; option will be ignored. | The LBT-SMX transport does not support ULB, but the user configured the source as a ULB source. | Do not configure an LBT-SMX source to use ULB. |
| Core-6976-84: an error occurred while canceling source buffers - possibly due to non thread-safe use of lbm_src_buffs_cancel; LBT-SMX shared memory may be in an inconsistent state | The user probably called a series of non-thread-safe buffer-based send API functions concurrently. | Code testing for race conditions & code inspection is advised. |
| Core-6976-8: NOTICE: LBT-SMX transport does not support UMQ; option will be ignored. | The LBT-SMX transport does not support UMQ, but the user configured the source as a UMQ source. | Do not configure an LBT-SMX source to use UMQ. |
| Core-6976-9: NOTICE: LBT-SMX transport does not support late join; option will be ignored. | The LBT-SMX transport does not support late join, but the user configured the source to use late join. | Do not configure an LBT-SMX source to use late join. |
| Core-7007-1: LBMC encountered more than 2 Destination headers. Origin: %s:%d. | Discovered too many duplicate LBMC Destination headers in the same packet. This should be harmless, but indicates an error in packet handling elsewhere. | Contact Informatica support. |
| Core-7007-2: LBMC encountered more than 2 Stream headers. Origin: %s:%d. | Discovered too many duplicate LBMC Stream headers in the same packet. This should be harmless, but indicates an error in packet handling elsewhere. | Contact Informatica support. |

| Message | Description | Resolution |
|---|---|---|
| Core-7049-1: NOTICE: Initiating proactive retransmissions for UME source on topic "%s" starting at sequence number 0x%x. | Proactive retransmissions are enabled and are being sent for a given source. | This probably means either stability ACKs from a store are not reaching the source application or the source's messages are not reaching the store. In either case, causes of\n loss or connectivity issues in each direction between the source and the store should be investigated. |
| Core-7144-1: WARNING: could not set unicast SO_SNDBUF to requested value %u | An error was returned from the OS while trying to set the socket option SO_SNDBUF. The requested buffer size has not been set. | |
| Core-7144-2: INFO: unicast rcv could only get SO_SNDBUF %u (desired %u) | An error was returned from the OS while trying to set the socket option SO_SNDBUF. The buffer size that was set is shown in the log message. Typically the OS will allocate the requested value or its configured maximum, whichever is smaller. | Increase the maximum send buffer size allowed by your OS. Refer to the configuration guide for instructions about changing the OS limits. |
| Core-7275-1: INFO: received PREG RESP that was not a deregistration response while the receiver is in the deregistering state | A registration response message that does not have the flag set to deregister was received from a store, but the source is in the deregistration state. | Client deregistered before all stores were fully registered with. This is a benign issue because messages could have crossed on the wire |
| Core-7322-1: lbm_unicast_message_buff() failed to reallocate message buffer to include additional headers (%p:%p:%p) | When sending a unicast message buffer, a buffer could not be re-allocated to include additional information. | This is an LBM buffer create error. This is likely due to running out of memory. |
| Core-7421-1: Source Side Filtering Init message with no return IP, using transport IP (%s) | The request_tcp_interface parameter was not configured on the source. | Configure the source to set request_tcp_interface. |
| Core-7427-1: received TSNI request for unknown source - ip:port[%s:%d]. | UMS received a TSNI request for unknown source. This is not a serious problem but indicates that there is a mismatch between this process and another. | Check the system for other abnormal behavior, such as applications restarting. |
| Core-7506-1: Delivery controller forced loss due to exceeding delivery_control_maximum_total_map_entries. | The delivery controller forced loss, because it exceeded the maximum number of total map entries. | |
| Core-7506-2: Delivery controller forced loss during late join or OTR due to exceeding delivery_control_maximum_total_map_entries. | The delivery controller forced loss during late join or OTR, because it exceeded the maximum number of total map entries. | |

| Message | Description | Resolution |
|---|---|---|
| Core-7521-7: Could not close LBT-SMX shared memory | Closing a shared transmission window failed; this likely indicates an internal error and should really never happen. | |
| Core-7582-2: DRO does not allow the LBT-SMX source transport to be configured; changing source transport to TCP. Topic (%s) | The DRO does not support the LBT-SMX source transport. The source transport will automatically be changed to TCP. | The customer should use a different source transport when the DRO is configured. Please reconfigure the source transport type. |
| Core-7699-2: Socket error setting SO_EXCLUSIVEADDRUSE: %s | An error was returned from the OS while trying to set the SO_EXCLUSIVEADDRUSE (Windows Only) option on a socket. | Refer to the OS error number and message given to determine cause of the failure. |
| Core-7725-1: WARNING: LBT-SMX source "%s" matches HFX receiver on topic "%s", but HFX receivers are not supported for LBT-SMX transports. Messages from this source will not be delivered to any HFX receivers. | The LBT-SMX transport does not support HFX receivers, but the user has created an HFX receiver on a topic matching an SMX source. | |
| Core-7839-10: Callback service time stats for receiver topic "%s" are disabled because %s | Callback service time stats are enabled for this context, however this receiver will not be included in those stats because an event queue is in use or MTT is enabled. | If callback timing stats are not desired for this receiver, this message can be ignored. If stats are desired and an event queue is in use, the event queue service time statistics can be used to monitor the receiver callback time. Callback service time stats are not currently supported with MTT receivers. |
| Core-7839-11: Callback service time stats for wildcard receiver pattern "%s" are disabled because %s | Callback service time stats are enabled for this context, however this wildcard receiver will not be included in those stats because an event queue is in use or MTT is enabled. | If callback timing stats are not desired for this wildcard receiver, this message can be ignored. If stats are desired and an event queue is in use, the event queue service time statistics can be used to monitor the wildcard receiver callback time. Callback service time stats are not currently supported with MTT wildcard receivers. |
| Core-7839-12: Callback service time stats for wildcard receiver pattern "%s" are disabled because %s | Callback service time stats are enabled for this context, however this wildcard receiver will not be included in those stats because an event queue is in use or MTT is enabled. | If callback timing stats are not desired for this wildcard receiver, this message can be ignored. If stats are desired and an event queue is in use, the event queue service time statistics can be used to monitor the wildcard receiver callback time. Callback service time stats are not currently supported with MTT wildcard receivers. |

| Message | Description | Resolution |
|---|---|---|
| Core-7839-17: [LBMMON] Format module receiver topic deserialize function returned %d, %s | A receiver topic statistics message was unable to be parsed. | Contact Informatica support. |
| Core-7839-18: [LBMMON] Format module wildcard receiver deserialize function returned %d, %s | A wildcard receiver statistics message was unable to be parsed. | Contact Informatica support. |
| Core-7839-31: failed to update monitoring Domain ID | Monitoring failure: could not update domain id. | This is an internal error and is usually caused by running out of memory. |
| Core-7839-33: failed to remove source monitoring | Failure to unmonitor a source. | This is an internal error and is usually caused by running out of memory. |
| Core-7839-34: [LBMMON] Error %d returned from transport module send function, %s | Failed to send a receiver topic statistics packet. | Contact Informatica support. |
| Core-7839-35: [LBMMON] Error %d returned from format module receiver serialize function, %s | Failed to format a receiver topic statistics packet. | Contact Informatica support. |
| Core-7839-36: [LBMMON] Error %d returned from transport module send function, %s | Failed to send a wildcard receiver statistics packet. | Contact Informatica support. |
| Core-7839-37: [LBMMON] Error %d returned from format module receiver serialize function, %s | Failed to format a wildcard receiver statistics packet. | Contact Informatica support. |
| Core-7839-8: Callback service time stats for hot failover receiver topic "%s" are disabled because %s | Callback service time stats are enabled for this context, however this hot failover receiver will not be included in those stats because an event queue is in use or MTT is enabled. | If callback timing stats are not desired for this hot failover receiver, this message can be ignored. If stats are desired and an event queue is in use, the event queue service time statistics can be used to monitor the receiver callback time. Callback service time stats are not currently supported with MTT hot failover receivers. |
| Core-7839-9: Callback service time stats for receiver topic "%s" are disabled because %s | Callback service time stats are enabled for this context, however this receiver will not be included in those stats because an event queue is in use or MTT is enabled. | If callback timing stats are not desired for this receiver, this message can be ignored. If stats are desired and an event queue is in use, the event queue service time statistics can be used to monitor the receiver callback time. Callback service time stats are not currently supported with MTT receivers. |

| Message | Description | Resolution |
|---|---|---|
| Core-7911-1: Onload extensions API has been dynamically loaded | The Onload library (libonload.so) was found in the library path and has been loaded. This library is required to selectively accelerate transport sockets via onload_set_stackname. | If you do not wish to use this feature or automatically load the library, export LBM_SUPPRESS_ONLOAD=1. |
| Core-7911-2: [errno:%d] Error calling onload_set_stackname | There was an error setting the onload stack name. | Refer to the Solarflare Onload documentation for onload_set_stackname with the given errno. |
| Core-7911-3: Attempting to set Onload Stackname, but Onload is not available | A source or receiver has set onload_acceleration_stack_name but the Onload library was not dynamically loaded by Ultra Messaging. | If you don't want onload acceleration, ensure that onload_acceleration_stack_name is NULL. If you do, ensure that the envrionment variable LBM_SUPPRESS_ONLOAD is unset and that the Onload library is in your library path. |
| Core-8034-1: [LBMMON] Dropping monitoring message that is larger than the maximum allowed size of %d (size=%d) | The monitoring message received is larger than the maximum allowed size given. | This is a hard coded maximum. |
| Core-8034-2: [LBMMON] Dropping monitoring message that is larger than the maximum allowed size of %d (size=%d) | The monitoring message received is larger than the maximum allowed size given. | This is a hard coded maximum. |
| Core-8034-3: [LBMMON] Dropping monitoring message that is larger than the maximum allowed size of %d (size=%d) | The monitoring message received is larger than the maximum allowed size given. | This is a hard coded maximum. |
| Core-8243-10: unknown message type (%d) present in message bundle | An unhandled message type was placed in a message bundle for delivery; this is an internal error that indicates a serious problem. | Contact Informatica support. |
| Core-8243-12: message receiver function returned -1 | The user's receiver callback returned -1, indicating an error. | User should check their receiver callback for possible error returns. |
| Core-8243-13: rcv batching callback returned error %u [%s] | An error ocurred while processing a batch of messages. This may be due to an out-of-memory condition. | Contact Informatica support. |
| Core-8243-15: Multi-threaded transports (MTT) are not currently compatible with receive-side batching; receive-side batching will be disabled for receivers configured to use MTT. | The user configured both MTT and receive-side batching, which do not currently work together. | Do not enable both MTT and receive-side batching for the same receiver. |

| Message | Description | Resolution |
|---|---|---|
| Core-8243-16: unknown message type (%d) present in message bundle | An unhandled message type was placed in a message bundle for delivery; this is an internal error that should not happen and indicates a serious problem. | Contact Informatica support. |
| Core-8243-17: rcv batching event queue enqueue returned error %u [%s] | An error ocurred while enqueueing a batch of messages. This may be due to an out-of-memory condition. | Contact Informatica support. |
| Core-8243-18: lbm_context_deliver_waiting_bundles returned error %u [%s] | Internal handling of message bundles failed. This indicates a severe problem (out of memory, etc.). | Contact Informatica support. |
| Core-8243-19: lbm_context_deliver_waiting_bundles returned error %u [%s] | Internal handling of message bundles failed. This indicates a severe problem (out of memory, etc.). | Contact Informatica support. |
| Core-8243-20: lbm_context_deliver_waiting_bundles returned error %u [%s] | Internal handling of message bundles failed. This likely indicates a severe problem (out of memory, etc.). | Contact Informatica support. |
| Core-8243-21: lbm_context_deliver_waiting_bundles returned error %u [%s] | Internal handling of message bundles failed. This likely indicates a severe problem (out of memory, etc.). | Contact Informatica support. |
| Core-8243-22: lbm_context_deliver_waiting_bundles returned error %u [%s] | Internal handling of message bundles failed. This likely indicates a severe problem (out of memory, etc.). | Contact Informatica support. |
| Core-8243-23: rcv batching event queue enqueue returned error %u [%s] | An error ocurred while enqueueing a batch of messages. This may be due to an out-of-memory condition. | Contact Informatica support. |
| Core-8243-40: semaphore_timedwait failure | Waiting on a queue size semaphore failed; this probably means the size is incorrect. | Contact Informatica support. |
| Core-8243-9: message receiver function returned -1 | The user's receiver callback returned -1, indicating an error. | User should check their receiver callback for possible error returns. |
| Core-8321-1: lbm_context_deliver_waiting_bundles returned error %u [%s] | Internal handling of message bundles failed. This indicates a severe problem (out of memory, etc.). | Contact Informatica support. |
| Core-8321-2: lbm_context_deliver_waiting_bundles returned error %u [%s] | Internal handling of message bundles failed. This indicates a severe problem (out of memory, etc.). | Contact Informatica support. |

| Message | Description | Resolution |
|---|---|---|
| Core-8321-3: lbm_context_deliver_waiting_bundles returned error %u [%s] | Internal handling of message bundles failed. This indicates a severe problem (out of memory, etc.). | Contact Informatica support. |
| Core-8321-4: lbm_context_deliver_waiting_bundles returned error %u [%s] | Internal handling of message bundles failed. This indicates a severe problem (out of memory, etc.). | Contact Informatica support. |
| Core-8342-1: HFX receivers are not currently compatible with receive-side batching; receive-side batching will be disabled for all HFX receivers. | The user is creating an HFX receiver with receive-side batching turned on, which is not currently supported. | This is not really an error; if the user doesn't need receive-side batching for non-HFX receivers, suggest turning it off. |
| Core-8562-1: INFO: could not set SO_SNDBUF %u for UDP socket | The desired socket send buffer could not be set on a UDP socket. | Check configured system limits or permissions to make sure the request socket buffer size is allowed. |
| Core-8562-2: INFO: could not set SO_SNDBUF %u for UDP socket | The desired socket send buffer could not be set on a UDP socket. | Check configured system limits or permissions to make sure the request socket buffer size is allowed. |
| Core-8562-3: could not set SO_SNDBUF %u for UDP socket | The desired socket send buffer could not be set on a UDP socket. | Check configured system limits or permissions to make sure the request socket buffer size is allowed. |
| Core-8576-1: Reducing otr_message_caching_threshold [%u] to ume_application_outstanding_maximum [%u] for topic [%s] | The OTR message caching threshold cannot be higher than the configured "ume_application_outstanding_maximum". | Update the configuration (either increase ume_application_outstanding_maximum or decrease otr_message_caching_threshold\n so that otr_message_caching_threshold <= ume_application_outstanding_maximum. |
| Core-8576-2: Throttled recovery is requested but OTR is disabled for topic [%s]. Only initial recovery will be throttled. | Throttled recovery only works for receivers configured to use OTR. | Turn on OTR for the receiver, or turn off throttled recovery. |
| Core-8576-3: OTR enabled and otr message caching threshold is less than cache proximity. Reducing rx_cache_proximity [%u] to half of otr_message_caching_threshold [%u] for topic [%s]. | When OTR is enabled, cache proximity must be set to a smaller value than message caching threshold. | Set cache proximity less than message caching threshold |

| Message | Description | Resolution |
|---|---|---|
| Core-8781-1: late join info destination index %u is invalid, dropping | A Late Join Info message with an invalid destination index was received for an outstanding rx request. This indicates that ports may be re-used between application restarts. It may also indicate non-UM traffic is being directed at UM applications. | Try disabling tcp reuseaddr and/or segregating application request_tcp_port ranges. |
| Core-8781-2: late join info low_sqn %u is invalid for loss rec sqn %u, dropping | A Late Join Info message with an invalid sequence number was received for an outstanding rx request. This indicates that ports may be re-used between application restarts. It may also indicate non-UM traffic is being directed at UM applications. | Try disabling request_tcp_reuseaddr and/or segregating application request_tcp_port ranges. |
| Core-8787-1: WARNING: could not set SO_KEEPALIVE on TCP connection socket: %s | SO_KEEPALIVE was requested on the source end of TCP connection, but was not able to be set on the socket. This could be because the OS is not Windows or Linux, or because there was an error in the OS system call to set the socket options. | |
| Core-8787-7: Source TCP activity timeout set, but TCP keepalives are not supported on this platform; option will have no effect. | The source's transport_tcp_activity_interval option is set, but SO_KEEPALIVE is not supported on this OS. | Don't set the transport_tcp_activity_interval option on this OS. |
| Core-8787-8: Source TCP activity timeout set lower than minimum supported value; increasing to %u milliseconds. | The source's configured transport_tcp_activity_interval option is lower than the minimum supported value on this OS. | Set the TCP activity interval option to a higher value. |
| Core-8840-3: Could not create automon controller: %s | Automatic monitoring could not be turned on for a context. | Check automatic monitoring configuration for errors; if none are found, contact support. |

# UM Core API Messages

The following table lists log messages from the UM API.

You may find searching on the Log Message ID the most effective method to find the message's description.

**Table 2. UM Core API Log Messages**

| Message | Description | Resolution |
|---|---|---|
| CoreApi-3288-1: optlen incorrect size | Attempted to set wildcard receiver attribute "hf_receiver" using the wrong size optlen. | The parameter "optlen" must be the size of an integer. |
| CoreApi-3288-2: optval must be 0 or 1 | Attempted to set wildcard receiver attribute "hf_receiver" using an invalid value. | The only valid values are 0 and 1. |
| CoreApi-3288-3: optval not numeric | Attempted to set wildcard receiver attribute "hf_receiver" using a string that is not a number. | The parameter "optval" must be a string representation of a number. |
| CoreApi-3288-4: optval must be 0 or 1 | Attempted to set wildcard receiver attribute "hf_receiver" using an invalid value. | The only valid values are 0 and 1. |
| CoreApi-3288-5: optlen incorrect size | Attempted to get wildcard receiver attribute "hf_receiver" using the wrong size optlen. | The parameter "optlen" must be the size of an integer. |
| CoreApi-3288-6: optlen too small | Attempted to get wildcard receiver attribute "hf_receiver" using a string length that is too long. | The parameter "optlen" must be less than 80. |
| CoreApi-5230-10: invalid ume_message_stability_timeout_behavior specified | invalid ume_message_stability_timeout_behavior setting | currently the only valid setting is 0 |
| CoreApi-5230-11: optval not numeric | optval not numeric | optval is not a number |
| CoreApi-5230-12: invalid ume_message_stability_timeout_behavior specified | invalid ume_message_stability_timeout_behavior setting | currently the only valid setting is 0 |
| CoreApi-5230-13: optlen incorrect size | optlen incorrect size | optlen should be of size lbm_uint8_t |
| CoreApi-5230-14: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-5230-1: optlen incorrect size | optlen incorrect size | Should have passed in a lbm_uint32_t. |
| CoreApi-5230-2: optval not numeric | optval not numeric | optval must be a number. |
| CoreApi-5230-3: optlen incorrect size | optlen incorrect size | optlen must be a lbm_uint32_t. |
| CoreApi-5230-4: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-5230-5: optlen incorrect size | optlen incorrect size | should have passed in a lbm_uint32_t |
| CoreApi-5230-6: optval not numeric | optval not numeric | optval must be a number. |
| CoreApi-5230-7: optlen incorrect size | optlen incorrect size | optlen must be a lbm_uint32_t |
| CoreApi-5230-8: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-5230-9: optlen incorrect size | optlen incorrect size | optlen should be a lbm_uint8_t |
| CoreApi-5243-1: TCP server socket: %s | An error was returned from the OS while trying to create a socket (TCP). Refer to the OS error number and message given after the UMS message "TCP server socket". | |
| CoreApi-5243-2: TCP server listen: %s | An error was returned from the OS while trying to listen to a socket (TCP). Refer to the OS error number and message given after the UMS message "TCP server listen". | |
| CoreApi-5243-3: TCP server getsockname: %s | An error was returned from the OS while trying to get the name of a socket (TCP). Refer to the OS error number and message given after the UMS message "TCP server getsockname". | |
| CoreApi-5333-1: ttl value %d invalid, must be between 0 and 255. | Value passed in for resolver_multicast_ttl was not a valid value. | Review the configuration file and specify a valid value (0 - 255). |
| CoreApi-5402-2: src must be valid | Send was called using a NULL src pointer. | Use a valid source pointer to send calls. |
| CoreApi-5402-3: exinfo flags cannot have both HF 32 and HF 64 set | Hot failover send was called using an exinfo that had both HF 32 and HF 64 bit flags set. | Ensure exinfo is valid and has one or neither HF bit size flag set before calling send |
| CoreApi-5402-4: 32 bit hf src cannot send non-32bit sequence number | A source that previously sent 32 bit hot failover sequence numbers is attempting to send a non-32 bit hot failover sequence number. | Ensure that the parameter "exinfo" has the correct HF flags set |
| CoreApi-5402-5: 64 bit hf src cannot send non-64bit sequence number | A source that previously sent 64 bit hot failover sequence numbers is attempting to send a non-64 bit hot failover sequence number. | Ensure that the parameter "exinfo" has the correct HF flag set |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-5434-1: Can't allocate memory [%s:%d] | UMQ ran out of memory while creating a queue name string. | |
| CoreApi-5434-2: Can't allocate memory [%s:%d] | UMQ ran out of memory while creating a queue message list callback object. | |
| CoreApi-5434-3: Can't allocate memory [%s:%d] | UMQ ran out of memory while creating a queue name string. | |
| CoreApi-5434-4: Can't allocate memory [%s:%d] | UMQ ran out of memory while creating a queue message retrieve callback object. | |
| CoreApi-5434-5: Could not create source string [%s:%d] | UMQ ran out of memory while creating a source string. | |
| CoreApi-5434-6: Could not create topic string [%s:%d] | UMQ ran out of memory while creating a topic string. | |
| CoreApi-5434-7: Can't allocate memory [%s:%d] | UMQ ran out of memory while creating a queue name string. | |
| CoreApi-5434-8: Can't allocate memory [%s:%d] | UMQ ran out of memory while creating a queue topic list callback object. | |
| CoreApi-5480-10: could not create inactive_loss_rec_queue [%s:%d] | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-11: could not create active_loss_rec_queue [%s:%d] | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-12: could not create unavailable_loss_rec_queue [%s:%d] | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-13: rxr_ctlr destination list is NULL | Internal error. Specified rxr_ctlr has not been fully created. | Contact Informatica support. |
| CoreApi-5480-14: lbm_rxr_request_t already cancelled | Internal error. Attempted duplicate request cancellation. | Contact Informatica support. |
| CoreApi-5480-15: unable to insert loss_rec into loss_rec_map | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-5480-16: unable to insert loss_rec into inactive loss rec queue | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-17: unable to insert loss_rec into inactive loss rec queue | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-18: unable to insert loss_rec into loss_rec_map | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-19: unable to insert loss_rec into inactive loss rec queue | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-20: unable to insert loss_rec into inactive loss rec queue | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-21: unable to insert loss_rec into inactive loss rec queue | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-22: unable to insert loss_rec into inactive loss rec queue | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-23: unable to insert loss_rec into loss rec queue | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-24: unable to insert loss_rec into inactive loss rec queue | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-25: unable to reschedule rxr_ctlr timer | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-26: unable to insert loss_rec into unavailable loss rec queue | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-5480-27: could not create loss ASL [%s:%d] | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5480-28: could not insert rcvdc_loss_rec ASL map [%s:%d] | Internal error while handling a detected gap in data. | Contact Informatica support. |
| CoreApi-5480-5: unable to insert o_entry into omap->asl | Internal error while attempting to handle an out of order message. | Contact Informatica support. |
| CoreApi-5480-7: unable to insert o_entry into omap->asl | Internal error while attempting to handle detected loss. | Contact Informatica support. |
| CoreApi-5480-8: min_unavailable_delay must be smaller than the request_generation_ivl | Internal error while creating an rxr_ctlr. Should never happen. | Contact Informatica support. |
| CoreApi-5480-9: could not create rxr_loss_rec_map ASL [%s:%d] | Internal error while attempting to create an internal data structure. Most likely the result of insufficient memory. | Contact Informatica support. |
| CoreApi-5539-1: Can't allocate per-send object node; message not sent [%s:%d] | Could not set up source per send data in jni when calling HF send reset. | Ensure that correct exinfo is being used and that sufficient memory is available. |
| CoreApi-5688-1246: session id not a number | The provided session ID was invalid. | Specify a session ID that fits one of the following formats: A hexadecimal value prefixed by 0x, an octal value prefixed by 0, or a decimal value. The value must be smaller than 0xFFFFFFFFFFFFFFFF regardless of representation. |
| CoreApi-5688-1390: session id not a number | The provided session ID was invalid. | Specify a session ID that fits one of the following formats: A hexadecimal value prefixed by 0x, an octal value prefixed by 0, or a decimal value. The value must be smaller than 0xFFFFFFFFFFFFFFFF regardless of representation. |
| CoreApi-5688-2014: optval not numeric | Value passed in for resolver_multicast_ttl was not numeric. | Review the configuration file and specify a valid numeric value for the option (0 - 255). |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-5688-2767: session id not a number | The provided session ID was invalid. | Specify a session ID that fits one of the following formats: A hexadecimal value prefixed by 0x, an octal value prefixed by 0, or a decimal value. The value must be smaller than 0xFFFFFFFFFFFFFFFF regardless of representation. |
| CoreApi-5688-2859: context name too long | The supplied context name is invalid because it is too long. | Context names must not exceed 128 characters in length. |
| CoreApi-5688-3040: Can not specify a negative number for inflight messages | Attempting to set the flight size of messages to a negative number | Ensure a positive integer for inflight messages is returned from the set flight size callback |
| CoreApi-5688-3041: Cannot specify a negative number for inflight messages | Attempting to set the flight size of messages to a negative number | Ensure a positive integer for inflight messages is returned from the set flight size callback |
| CoreApi-5688-3043: inflight must be valid | inflight parameter was NULL | inflight must be a valid pointer |
| CoreApi-5688-3139: Round-Robin must have no groups specified | Store groups have been specified, but the ume_store_behavior option is set to Round-Robin. | Change the ume_store_behavior option to quorum-consensus or remove any settings specifying ume_store_group. |
| CoreApi-5688-3140: Store %u has invalid address | INADDR_ANY (0.0.0.0) was set for the ume_store configuration option. | Specify a valid IP address as configured in the umestored daemon's config file. |
| CoreApi-5688-3226: TCP server socket: %s | An error was returned from the OS while trying to create a socket (TCP). Refer to the OS error number and message given after the UMS message "could not create TCP server socket". | |
| CoreApi-5688-3227: TCP server SO_REUSEADDR: %s | An error was returned from the OS while trying to set option of a socket (TCP). Refer to the OS error number and message given after the UMS message "TCP server SO_REUSEADDR". | |
| CoreApi-5688-3229: TCP server SO_EXCLUSIVEADDR: %s | An error was returned from the OS while trying to set option of a socket (TCP). Refer to the OS error number and message given after the UMS message "TCP server SO_EXCLUSIVEADDR". | |
| CoreApi-5688-3230: could not find open TCP server port in range [%d-%d] | An error was returned from the OS while trying to bind a socket (TCP)". | |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-5688-3231: TCP server bind (port=%d): %s | An error was returned from the OS while trying to bind a socket (TCP)". | |
| CoreApi-5688-3232: TCP server getsockname: %s | An error was returned from the OS while trying to get the name of a socket (TCP). Refer to the OS error number and message given after the UMS message "TCP server getsockname". | |
| CoreApi-5688-3233: TCP server listen: %s | An error was returned from the OS while trying to listen to a socket (TCP). Refer to the OS error number and message given after the UMS message "TCP server listen". | |
| CoreApi-5688-3268: multicast receive bind (port = %d, multicast group = %s): %s | An error occurred while trying to bind to the requested ip and port. The last part of this message contains the OS error code and associated text. | Consult your OS documentation for resolutions based on the error code. |
| CoreApi-5688-3287: could not find open unicast source port in range [%d-%d] | Could not bind to a unicast port due to ports already being used in the given range. | Update the UM configuration file to modify or include different ports for the options transport_lbtrm_source_port_low and/or transport_lbtrm_source_port high. |
| CoreApi-5688-3320: lbm_socket_recv recv/recvfrom: %s | An error was returned from the OS while trying a recv or recvfrom socket call. Refer to the OS error number and message. | |
| CoreApi-5688-3337: lbm_socket_sendb send/sendto: %s | An error occurred while sending. The message will contain addition specific information, supplied by the operating system. | This is a platform specific error; please use the operating system's error code and description to further understand the circumstances of the error. |
| CoreApi-5688-3545: wildcard pattern type %d not supported | The specified pattern type for the wildcard receiver was invalid. | Refer to pattern_type in the configuration guide, set the appropriate value and retry the application. |
| CoreApi-5688-3772: FD event already defined | Trying to register a handle with event flag(s) (LBM_FD_EVENT_*) already registered for that same handle. | If using lbm_register_fd/ lbm_cancel_fd APIs in UM application, review usage logic. Otherwise, contact Informatica support. |
| CoreApi-5688-4093: error parsing XML data | The XML configuration received from UMM could not be parsed. | Previous error messages should contain the reason for the error. Correct the configuration in UMM and retry the application. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-5688-4094: error parsing application name '%s' | The XML configuration for the application received from UMM could not be parsed. | Previous error messages should contain the reason for the error. Correct the configuration in UMM and retry the application. |
| CoreApi-5688-4110: no default multicast interface available | Application exits when multicast interface is not specified in configuration file. | To avoid the application exiting, a default multicast interface must be specified and if there is none, setting it to 127.0.0.1 allows the application to continue to work. |
| CoreApi-5688-4243: lbm_src_topic_attr_" #name "_set: %s | An error was returned when an attempt was made to set an attribute.\n The error message returned is included in the text of this message. | |
| CoreApi-5688-4499: Can't allocate memory of %u bytes [%s:%d] | Host machine is likely running out of memory. | Monitor memory usage of host machine to confirm this. If that's not the case, please contact Informatica support. |
| CoreApi-5688-4554: Can't allocate memory [%s:%d] | The LBM JNI library could not allocate a string object. | This usually indicates a severe out of memory condition. |
| CoreApi-5688-606: LBT-IPC: failed to allocate shared memory (%d) | A shared memory object for the IPC transport could not be created. This could be caused by a permission error or no more resources. Please refer to the OS error number given. | |
| CoreApi-5688-608: LBT-IPC: failed to map shared memory (%d) | An error occurred trying to map a pointer to the IPC shared memory region. Please refer to the OS error number given. | |
| CoreApi-5688-610: LBT-IPC: can not initialize shared semaphore (%d) | An error occurred when initializing the shared semaphore used to ensure mutual exclusion while accessing the IPC shared memory region. Please refer to the OS error number given. | |
| CoreApi-5688-611: LBT-IPC: failed to allocate shared memory (%d) | A shared memory object for the IPC transport could not be created. This could be caused by a permission error or no more resources. Please refer to the OS error number given. | |
| CoreApi-5688-612: LBT-IPC: failed to map shared memory (%d) | An error occurred trying to map a pointer to the IPC shared memory region. Please refer to the OS error number given. | |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-5688-613: LBT-IPC: can not create shared Mutex (%d) | The shared Mutex used to ensure mutual exclusion while accessing the IPC shared memory region could not be created. Please refer to the OS error number given. | |
| CoreApi-5760-1: receiver must be an observer receiver (set umq_queue_participation to 2) | lbm_rcv_umq_queue_msg_retrieve was called using a normal receiver for the rcv parameter. Only observer receivers (receivers with the "receiver umq_queue_participation" option set to "2") may be used with this API. | |
| CoreApi-5760-2: receiver must be an observer receiver (set umq_queue_participation to 2) | lbm_rcv_umq_queue_msg_list was called using a normal receiver for the rcv parameter. Only observer receivers (receivers with the "receiver umq_queue_participation" option set to "2") may be used with this API. | |
| CoreApi-5867-14: error occurred parsing message selector string < %s> | The message selector string is invalid or could not be parsed. | Check the UM Documenation for valid syntax. |
| CoreApi-5867-15: error occurred evaluating message selector string due to unknown property type [%d] for property [%s] | Message property type was invalid. | Verify that the message properties have not been corrupted. |
| CoreApi-5867-16: rcv cannot be configured with both message selector and spectrum channel behavior | A receiver was configured with both a message selector and channel behavior | Remove either the message selector or the channel behavior from the receiver attributes |
| CoreApi-5867-17: rcv cannot be configured with both message selector and spectrum channel | A receiver was configured with both a message selector and channel | Remove either the message selector or the channel |
| CoreApi-5867-18: rcv cannot be configured with both message selector and spectrum channel behavior | A receiver was configured with both a message selector and channel behavior | Remove either the message selector or the channel behavior from the receiver attributes |
| CoreApi-5867-1: optval must not be NULL | The optval passed in was a NULL pointer. | Ensure NULL is not passed as the value of the optval pointer because this is where the data will be copied |
| CoreApi-5867-2: optlen must not be NULL | The optlen passed in was a NULL pointer. | Ensure NULL is not passed as the value of the optlen pointer because this is needed to make sure the data can be copied |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-5867-3: optval is not long enough | Based on the optlen passed in, the data cannot be copied into optval due to its size | Ensure optval is large enought to hold the data (check the update optlen for the needed size) |
| CoreApi-6001-10: async operation canceled because connection with queue was lost | An outstanding asynchronous operation was canceled because the connection with the queue was lost,\n rendering the outstanding async operation unlikely to ever complete on its own. | This is normal behavior if a queue has been brought down on purpose; otherwise, check to see if \n the queue is overloaded and unresponsive or if there is a connectivity problem between the client application and the queue. |
| CoreApi-6001-11: could not allocate lbm_umq_rcvdc_t waiting command list [%s:%d] | The UMQ delivery controller's waiting command list could not be created. | This usually indicates severe resource exhaustion; check for out of memory errors. |
| CoreApi-6001-1: optlen incorrect size | The size of the option passed in is not the correct size for this option. | This is usually a coding mistake; check that the correct type is being used for this option. |
| CoreApi-6001-2: optval must be greater than 0 | The UMQ command outstanding max passed in was 0, which is not a valid value. | Make sure the value given is > 0. |
| CoreApi-6001-3: UMQ command outstanding max not a number | The string representing the UMQ command outstanding max could not be parsed to find a number. | Check the string being passed in, make sure it's a number > 0. |
| CoreApi-6001-4: optval must be greater than 0 | The string representing the UMQ command outstanding max was 0, which is not a valid value. | Check the string being passed in, make sure it's a number > 0. |
| CoreApi-6001-5: optlen incorrect size | The size of the option passed in is not the correct size for this option. | This is usually a coding mistake; check that the correct type is being used for this option. |
| CoreApi-6001-6: optlen too small | The size of the buffer passed in was less than the minimum buffer size required. | Make sure the buffer is large enough - at least LBM_MIN_SGET_OPTLEN bytes in size. |
| CoreApi-6001-7: could not allocate lbm_umq_queue_t waiting cmd ID list [%s:%d] | UMS could not allocate a queue controller waiting command list. This probably means malloc failed or the system is otherwise out of resources. | This is likely the result of severe resource exhaustion; contact Informatica support. |
| CoreApi-6001-8: could not insert lbm_umq_queue_t CMD WAITING LIST [%s:%d] | A waiting command could not be enqueued onto the queue's waiting command list. | This is a severe problem and usually indicates resource exhaustion; check for out of memory conditions. |
| CoreApi-6001-9: could not insert lbm_umq_queue_t CMD ASL [%s:%d] | Attemping to take a waiting command off the waiting command list and put it in the active\n commands list failed. | This usually indicates resource exhaustion; check for out of memory conditions. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6020-10: Cannot increase inflight messages or bytes while decreasing the other | Attempting to increase the flight size messages or bytes and decrease the other. | Ensure that the inflight set callback returns a valid inflight structure, or call the method twice to set each one individually. |
| CoreApi-6020-11: Cannot increase inflight messages or bytes while decreasing the other | Attempting to increase the flight size messages or bytes and decrease the other. | Ensure that the inflight set callback returns a valid inflight structure, or call the method twice to set each one individually. |
| CoreApi-6020-12: Payload exceeds flight size bytes maximum, can not send. | Attempted to send a single message with payload length greater than the configured maximum allowed limit | Send smaller messages or increase source ume_flight_size_bytes |
| CoreApi-6020-13: inflight parameter must be a valid pointer | inflight parameter was NULL | inflight must be a valid pointer |
| CoreApi-6020-14: RPP sources must also configure a non-zero value for ume_flight_size_bytes | Attempted to create a RPP enabled source without specifying a valid flight size bytes | Set "source ume_flight_size_bytes" to be non-zero |
| CoreApi-6020-1: optlen incorrect size | optlen parameter is not the correct size | optlen should be the size of an lbm_uint64_t |
| CoreApi-6020-2: opval not numeric | optval parameter was not a string representation of a number | Ensure that the optval string is a unsigned number |
| CoreApi-6020-3: optval not a number | optval parameter was not a string representation of a number | Ensure that the optval string is a unsigned number |
| CoreApi-6020-4: optlen incorrect size | optlen parameter is not the correct size | optlen should be size of lbm_uint64_t |
| CoreApi-6020-5: optlen too small | optlen parameter too small | Increase optlen size |
| CoreApi-6020-8: exinfo properties must be valid when LBM_SRC_SEND_EX_FLAG_PROPERTIES is set | Attempted send with message properties flag set, but exinfo->properties was NULL | Turn off message properties flag or set exinfo->properties correctly. |
| CoreApi-6020-9: Payload exceeds flight size bytes maximum, unable to send. | Attempted to send a single message with payload length greater than the maximum limit while using UMP flight size blocking behavior | Send smaller messages or increase source ume_flight_size_bytes |
| CoreApi-6034-2: session id not a number | The provided session ID was invalid. | Specify a session ID that fits one of the following formats: A hexadecimal value prefixed by 0x, an octal value prefixed by 0, or a decimal value. The value must be smaller than 0xFFFFFFFFFFFFFFFF regardless of representation. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6111-0: optlen incorrect size | optlen is not the correct size | optlen should be the size of a lbm_uint8_t |
| CoreApi-6111-10: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-6111-11: optlen incorrect size | optlen too small | optlen should be size_t |
| CoreApi-6111-12: optval not numeric | optval is not numeric | optval needs to be numeric |
| CoreApi-6111-13: optval not a number | optval not a number | optval needs to be a number |
| CoreApi-6111-14: optlen incorrect size | optlen incorrect size | optlen should be size_t |
| CoreApi-6111-15: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-6111-16: optlen incorrect size | optlen incorrect size | optlen should be of size lbm_uint64_t |
| CoreApi-6111-17: optval not numeric | optval not numeric | optval should be numeric |
| CoreApi-6111-18: optval not a number | optval not a number | optval needs to be a number |
| CoreApi-6111-19: optlen incorrect size | optlen incorrect size | optlen incorrect size.. should be a lbm_uint64_t |
| CoreApi-6111-1: invalid ume_receiver_paced_persistence setting | Invalid setting for rpp | Valid settings are 0 and 1 |
| CoreApi-6111-20: optlen too small | optlen too small | optlen should be LBM_MIN_SGET_OPTLEN |
| CoreApi-6111-21: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint32_t |
| CoreApi-6111-22: optval not numeric | optval not numeric | optval is not a number |
| CoreApi-6111-23: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint32_t |
| CoreApi-6111-24: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-6111-25: optlen incorrect size | optlen incorrect size | optlen should be size of lbm_uint8_t |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6111-26: invalid ume_repository_ack_on_reception setting | invalid ume_repository_ack_on_recepeptio n setting | value should be 0 or 1 |
| CoreApi-6111-27: optval not numeric | optval not numeric | optval is not a number |
| CoreApi-6111-28: invalid ume_repository_ack_on_reception setting | invalid ume_repository_ack_on_reception setting | optval should be 0 or 1 |
| CoreApi-6111-29: optlen incorrect size | optlen incorrect size | optlen should be of size lbm_uint8_t |
| CoreApi-6111-2: optval not numeric | optval is not numeric | optval must be numeric |
| CoreApi-6111-30: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-6111-31: optlen incorrect size | size of the option is incorrect | optlen must be a lbm_uint8_t |
| CoreApi-6111-32: invalid ume_receiver_paced_persistence setting | ume_receiver_paced_persistence set to invalid value | ume_receiver_paced_persistence should be 0 or 1 |
| CoreApi-6111-33: optval not numeric | optval is not a number | optval needs to be numeric only |
| CoreApi-6111-34: invalid ume_receiver_paced_persistence setting | ume_receiver_paced_persistence set to invalid value | ume_receiver_paced_persistence must be 0 or 1 |
| CoreApi-6111-35: optlen incorrect size | optlen is not a lbm_uint8_t | optlen should be a lbm_uint8_t |
| CoreApi-6111-36: optlen too small | optlen is too small | optlen needs to be at least 80 |
| CoreApi-6111-3: invalid ume_receiver_paced_persistence setting | optval not a valid value | optval must be 0 or 1 |
| CoreApi-6111-4: optlen incorrect size | optval is incorrect size | optval must be a lbm_uint8_t size |
| CoreApi-6111-5: optlen too small | optlen is too small | optlen must be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-6111-6: optlen incorrect size | optlen incorrect size | optlen must be a size_t |
| CoreApi-6111-7: optval not numeric | optval is not numeric | optval must be a number |
| CoreApi-6111-8: optval not a number | optval is not a number | optval needs to be a number |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6111-9: optlen incorrect size | optlen incorrect size | optlen should be a size_t |
| CoreApi-6117-100: rcv must be valid | lbm_rcv_ume_deregister was called with a null rcv. | Don't deregister your receiver after you've deleted it. |
| CoreApi-6117-101: not registered with any stores. | Tried to deregister from stores when you were never registered with any. | Don't call deregister if you've never registered to any stores. |
| CoreApi-6186-1: ctx must be valid | Passed NULL for lbm_context_t* argument of lbm_deserialize_response API. | lbm_deserialize_response API lbm_context_t* argument must not be NULL. |
| CoreApi-6186-2: serialized response must be valid | Passed NULL for lbm_serialized_response_t* argument of lbm_deserialize_response API. | lbm_deserialize_response API lbm_serialized_response_t* argument must not be NULL. |
| CoreApi-6254-20: Can't allocate memory [%s:%d] | UMQ ran out of memory while creating a message selector string. | |
| CoreApi-6254-21: Can't allocate memory [%s:%d] | UMQ ran out of memory while creating a message selector. | |
| CoreApi-6259-17: Unicast Immediate Message failed: cannot find route to Remote Domain: %u: %s:%d | There is no known route to the given domain. This could happen momentarily as an LBM context learns the domain routes at startup. | If the warning persists, the Gateway configuration should be examined for inconsistencies. |
| CoreApi-6259-18: Unicast Immediate Request failed: cannot find route to Remote Domain: %u: %s:%d | There is no known route to the given domain. This could happen momentarily as an LBM context learns the domain routes at startup. | If the warning persists, the Gateway configuration should be examined for inconsistencies. |
| CoreApi-6273-1: Cannot enable RPP with round-robin stores | Cannot enable receiver-paced persistence with round-robin stores | Only use Q/C with RPP |
| CoreApi-6298-1: src could not deregister from store | source failed trying to deregister from a store. | try again, unicast control channel between source a store may be down |
| CoreApi-6298-2: src is already deregistering from the stores | source is already deregistered. | don't call lbm_src_ume_deregister multiple times passing in the same source. |
| CoreApi-6435-1: msg must be valid | Message Pointer is NULL | |
| CoreApi-6435-2: msg has no fragment information | Message doesn't have any fragment information | |
| CoreApi-6452-10: optval must 0 or 1 | The auto_create_transaction_mgr passed in value was not 0 or 1, which is not a valid value. | Make sure the value given is 0 or 1. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6452-11: auto_create_transaction_mgr optval must 0 or 1 | The string representing the auto_create_transaction_mgr could not be parsed to find a number. | Check the string being passed in, make sure it's a number 0 or 1. |
| CoreApi-6452-12: auto_create_transaction_mgr optval must be 0 or 1 | The string representing the auto_create_transaction_mgr was not 0 or 1, which is not a valid value. | Check the string being passed in, make sure it's a number 0 or 1. |
| CoreApi-6452-13: optlen incorrect size | The size of the option passed in is not the correct size for this option. | This is usually a coding mistake; check that the correct type is being used for this option. |
| CoreApi-6452-14: optval must be between 0 or 3 | The transaction_mgr_role passed in value was not between 0 and 3, which is not a valid value. | Make sure the value given between 0 and 3. |
| CoreApi-6452-15: optlen incorrect size | The string representing the transaction_mgr_role could not be parsed. | Check the string being passed in, make sure it's one of the following: PROPOSER, ACCEPTOR, LEARNER, NONE |
| CoreApi-6452-16: optlen incorrect size | The size of the option passed in is not the correct size for this option. | This is usually a coding mistake; check that the correct type is being used for this option. |
| CoreApi-6452-17: optlen too small | The size of the buffer passed in was less than the minimum buffer size required. | Make sure the buffer is large enough - at least LBM_MIN_SGET_OPTLEN bytes in size. |
| CoreApi-6452-18: optlen incorrect size | The size of the option passed in is not the correct size for this option. | This is usually a coding mistake; check that the correct type is being used for this option. |
| CoreApi-6452-19: optval must be between 0 or 2 | The transaction_mgr_type passed in value was between 0 and 2, which is not a valid value. | Make sure the value given be between 0 and 2. |
| CoreApi-6452-20: optlen incorrect size | The string representing the transaction_mgr_type could not be parsed. | Check the string being passed in, make sure it's one of the following: PROPOSER, ACCEPTOR, LEARNER, NONE |
| CoreApi-6452-21: optlen incorrect size | The size of the option passed in is not the correct size for this option. | This is usually a coding mistake; check that the correct type is being used for this option. |
| CoreApi-6452-22: optlen too small | The size of the buffer passed in was less than the minimum buffer size required. | Make sure the buffer is large enough - at least LBM_MIN_SGET_OPTLEN bytes in size. |
| CoreApi-6452-3: optlen too small | Invalid Attribute | Change attribute to a valide value. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6452-4: optlen incorrect size | Invalid Attribute | Change attribute to a valide value. |
| CoreApi-6452-5: optval must be -1, 0 or 1 | Invalid Attribute | Change attribute to a valide value. |
| CoreApi-6452-6: optval not numeric | Invalid Attribute | Change attribute to a valide value. |
| CoreApi-6452-7: optval must be -1, 0 or 1 | Invalid Attribute | Change attribute to a valide value. |
| CoreApi-6452-8: optlen incorrect size | Invalid Attribute | Change attribute to a valide value. |
| CoreApi-6452-9: optlen incorrect size | The size of the option passed in is not the correct size for this option. | This is usually a coding mistake; check that the correct type is being used for this option. |
| CoreApi-6755-1: ip string is malformed | The ip string passed into ume_store is malformed. | The ume_store ip_string must be in an a.b.c.d dotted decimal format. |
| CoreApi-6759-12: context name too long | The supplied context name is invalid because it is too long. | Context names must not exceed 128 characters in length. |
| CoreApi-6759-13: optlen incorrect size | The oplen parameter is incorrect. | Optlen must be sizeof(lbm_ulong_t). |
| CoreApi-6759-14: optval not numeric | Optval is not numeric. | The optval string must consist of numbers only. |
| CoreApi-6759-15: optlen incorrect size | The oplen parameter is incorrect. | Optlen must be sizeof(lbm_ulong_t). |
| CoreApi-6759-16: optlen too small | Optlen is too small. | Optlen should be at least LBM_MIN_SGET_OPTLEN. |
| CoreApi-6759-17: optlen incorrect size | The oplen parameter is incorrect. | Optlen must be sizeof(lbm_ulong_t). |
| CoreApi-6759-18: optval not numeric | Optval is not numeric. | The optval string must consist of numbers only. |
| CoreApi-6759-19: optlen incorrect size | The oplen parameter is incorrect. | Optlen must be sizeof(lbm_ulong_t). |
| CoreApi-6759-20: optlen too small | Optlen is too small. | Optlen should be at least LBM_MIN_SGET_OPTLEN. |
| CoreApi-6759-21: optlen incorrect size | The oplen parameter is incorrect. | Optlen must be sizeof(lbm_uint64_t). |
| CoreApi-6759-22: optval not numeric | Optval is not numeric. | The optval string must consist of numbers only. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6759-23: optval not a valid value | Optval is not numeric. | The optval string must consist of numbers only and fit in a 64 bit value. |
| CoreApi-6759-24: optlen incorrect size | The oplen parameter is incorrect. | Optlen must be sizeof(lbm_uint64_t). |
| CoreApi-6759-25: optlen too small | Optlen is too small. | Optlen should be at least LBM_MIN_SGET_OPTLEN. |
| CoreApi-6759-26: optlen incorrect size | The oplen parameter is incorrect. | Optlen must be sizeof(lbm_uint64_t). |
| CoreApi-6759-27: optval not numeric | Optval is not numeric. | The optval string must consist of numbers only. |
| CoreApi-6759-28: optval not a valid value | Optval is not numeric. | The optval string must consist of numbers only and must fit in a 64 bit value. |
| CoreApi-6759-29: optlen incorrect size | The oplen parameter is incorrect. | Optlen must be sizeof(lbm_uint64_t). |
| CoreApi-6759-30: optlen too small | Optlen is too small. | Optlen should be at least LBM_MIN_SGET_OPTLEN. |
| CoreApi-6856-10: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint32_t |
| CoreApi-6856-11: optval not numeric | optval not numeric | optval is not a number |
| CoreApi-6856-12: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint32_t |
| CoreApi-6856-13: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-6856-2: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint16_t |
| CoreApi-6856-3: optval not numeric | optval not numeric | optval is not a number |
| CoreApi-6856-4: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint16_t |
| CoreApi-6856-5: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-6856-6: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint32_t |
| CoreApi-6856-7: optval not numeric | optval not numeric | optval is not a number |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6856-8: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint32_t |
| CoreApi-6856-9: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-6898-0: optlen incorrect size | umq_explicit_ack_only needs to be 0 or 1.: | Set umq_explicit_ack_only to 0 or 1. |
| CoreApi-6898-1: optval must be 0 or 1 | umq_explicit_ack_only needs to be 0 or 1. | Set umq_explicit_ack_only to 0 or 1. |
| CoreApi-6898-2: optval not numeric | umq_explicit_ack_only needs to be 0 or 1. | Set umq_explicit_ack_only to 0 or 1. |
| CoreApi-6898-3: optval must be 0 or 1 | umq_explicit_ack_only needs to be 0 or 1. | Set umq_explicit_ack_only to 0 or 1. |
| CoreApi-6898-4: optlen incorrect size | lbm_rcv_topic_attr_umq_exack_only_get requires an Interger. | Pass a pointer to a Integer to lbm_rcv_topic_attr_umq_exack_only_get |
| CoreApi-6898-5: optlen too small | lbm_rcv_topic_attr_umq_exack_only_sget requires an Interger. | Pass a pointer to a Integer to lbm_rcv_topic_attr_umq_exack_only_sget |
| CoreApi-6898-6: must have explicit acks enabled | Explicit Acks must be set to 1 before calling sendExplicitAck. | Set umq_explicit_ack_only to 1. |
| CoreApi-6898-7: msg must be valid | Invalid Message. | lbm_msg_umq_send_explicit_ack must be called with a valid message. |
| CoreApi-6898-8: msg must be valid | Invalid Message. | lbm_msg_umq_can_send_explicit_ack must be called with a valid message. |
| CoreApi-6932-11: optlen incorrect size | The size of the option was too large and/or too small | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-12: optval must be greater than 0 | The option value submitted was zero (0); this value must be greater than 0. | While 1 is an acceptable minimum; a larger value provides redundancy. |
| CoreApi-6932-13: optval not numeric | The option value string submitted contains non numeric characters. | Be sure there are no trailing non numeric characters such as spaces and that the number is not in hexadecimal. |
| CoreApi-6932-14: optval not a number | The option value string submitted could not be converted into a number | Be sure that the size (magnitude) of the value is correct for an lbm_ulong_t |
| CoreApi-6932-15: optval must be greater than 0 | The option value submitted was zero (0); this value must be greater than 0. | While 1 is an acceptable minimum; a larger value provides redundancy. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6932-16: optlen incorrect size | The size of the option was too large and/or too small | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-17: optlen too small | The size of the option buffer was too small to contain the option. | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-1: optlen incorrect size | The size of the option was too large and/or too small | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-21: optlen incorrect size | The size of the option was too large and/or too small | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-22: optval must be greater than 0 | The option value submitted was zero (0); this value must be greater than 0. | While 1 is an acceptable minimum; a larger value provides redundancy. |
| CoreApi-6932-23: optval not numeric | The option value string submitted contains non numeric characters. | Be sure there are no trailing non numeric characters such as spaces and that the number is not in hexadecimal. |
| CoreApi-6932-24: optval not a number | The option value string submitted could not be converted into a number | Be sure that the size (magnitude) of the value is correct for an lbm_ulong_t |
| CoreApi-6932-25: optval must be greater than 0 | The option value submitted was zero (0); this value must be greater than 0. | While 1 is an acceptable minimum; a larger value provides redundancy. |
| CoreApi-6932-26: optlen incorrect size | The size of the option was too large and/or too small | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-27: optlen too small | The size of the option buffer was too small to contain the option. | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-2: optval must be greater than 0 | The option value submitted was zero (0); this value must be greater than 0. | While 1 is an acceptable minimum; a larger value provides redundancy. |
| CoreApi-6932-31: optlen incorrect size | The size of the option was too large and/or too small | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-32: optval must be greater than 0 | The option value submitted was zero (0); this value must be greater than 0. | While 1 is an acceptable minimum; a larger value provides redundancy. |
| CoreApi-6932-33: optval not numeric | The option value string submitted contains non numeric characters. | Be sure there are no trailing non numeric characters such as spaces and that the number is not in hexadecimal. |
| CoreApi-6932-34: optval not a number | The option value string submitted could not be converted into a number | Be sure that the size (magnitude) of the value is correct for an lbm_ulong_t |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6932-35: optval must be greater than 0 | The option value submitted was zero (0); this value must be greater than 0. | While 1 is an acceptable minimum; a larger value provides redundancy. |
| CoreApi-6932-36: optlen incorrect size | The size of the option was too large and/or too small | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-37: optlen too small | The size of the option buffer was too small to contain the option. | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-3: optval not numeric | The option value string submitted contains non numeric characters. | Be sure there are no trailing non numeric characters such as spaces and that the number is not in hexadecimal. |
| CoreApi-6932-41: optlen incorrect size | The size of the option was too large and/or too small | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-42: optval must be greater than 0 | The option value submitted was zero (0); this value must be greater than 0. | While 1 is an acceptable minimum; a larger value provides redundancy. |
| CoreApi-6932-43: optval not numeric | The option value string submitted contains non numeric characters. | Be sure there are no trailing non numeric characters such as spaces and that the number is not in hexadecimal. |
| CoreApi-6932-44: optval not a number | The option value string submitted could not be converted into a number | Be sure that the size (magnitude) of the value is correct for an lbm_ulong_t |
| CoreApi-6932-45: optval must be greater than 0 | The option value submitted was zero (0); this value must be greater than 0. | While 1 is an acceptable minimum; a larger value provides redundancy. |
| CoreApi-6932-46: optlen incorrect size | The size of the option was too large and/or too small | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-47: optlen too small | The size of the option buffer was too small to contain the option. | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-4: optval not a number | The option value string submitted could not be converted into a number | Be sure that the size (magnitude) of the value is correct for an lbm_ulong_t |
| CoreApi-6932-51: optlen incorrect size | The size of the option was too large and/or too small | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-52: optval must be greater than 0 | The option value submitted was zero (0); this value must be greater than 0. | While 1 is an acceptable minimum; a larger value provides redundancy. |
| CoreApi-6932-53: optval not numeric | The option value string submitted contains non numeric characters. | Be sure there are no trailing non numeric characters such as spaces and that the number is not in hexadecimal. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6932-54: optval not a number | The option value string submitted could not be converted into a number | Be sure that the size (magnitude) of the value is correct for an lbm_ulong_t |
| CoreApi-6932-55: optval must be greater than 0 | The option value submitted was zero (0); this value must be greater than 0. | While 1 is an acceptable minimum; a larger value provides redundancy. |
| CoreApi-6932-56: optlen incorrect size | The size of the option was too large and/or too small | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-57: optlen too small | The size of the option buffer was too small to contain the option. | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-5: optval must be greater than 0 | The option value submitted was zero (0); this value must be greater than 0. | While 1 is an acceptable minimum; a larger value provides redundancy. |
| CoreApi-6932-6: optlen incorrect size | The size of the option was too large and/or too small | sri_request_interval is an lbm_ulong_t |
| CoreApi-6932-7: optlen too small | The size of the option buffer was too small to contain the option. | sri_request_interval is an lbm_ulong_t |
| CoreApi-6937-1: optlen incorrect size | The size of the option was too large or too small | transport_tcp_use_session_id is an int |
| CoreApi-6937-2: optval must be 0 or 1 | transport_tcp_use_session_id can either be set "ON" or "OFF" | Please use "0" to indicate "OFF" and "1" to indicate "ON" |
| CoreApi-6937-3: optval not numeric | The option value string submitted contains non numeric characters. | Be sure there are no trailing non numeric characters such as spaces and that the number is not in hexadecimal. |
| CoreApi-6937-4: optval must be 0 or 1 | transport_tcp_use_session_id can either be set "ON" or "OFF" | Please use "0" to indicate "OFF" and "1" to indicate "ON" |
| CoreApi-6937-5: optlen incorrect size | The size of the option was too large or too small | transport_tcp_use_session_id is an int |
| CoreApi-6937-6: optlen too small | The size of the option buffer was too small to contain the option. | transport_tcp_use_session_id is an int |
| CoreApi-6976-100: optval not understood | The value is not a supported operational mode - either embedded or sequential. | |
| CoreApi-6976-101: optlen incorrect size | The value of optlen passed in does not match the size of the option type. | |
| CoreApi-6976-102: optlen too small | The value of optlen passed in is too small to hold the option type. | |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6976-107: optlen incorrect size | Value of optlen passed in is not equal to the size of the option. | |
| CoreApi-6976-108: optval not numeric | Value of the option passed in does not appear to be a number - and it needs to be. | |
| CoreApi-6976-109: optval not a number | Value of the option passed in does not appear to be a number - and it needs to be. | |
| CoreApi-6976-110: optlen incorrect size | Value of optlen passed in is not equal to the size of the option. | |
| CoreApi-6976-111: optlen too small | Value of optlen passed in is not big enough to store the option type. | |
| CoreApi-6976-112: lbm_imbq_create CreateMutex | We failed to create a mutex on Windows; this probably indicates resource exhaustion. | Check machine for excessive memory use or excessive open handles (both can be viewed in Task Manager) |
| CoreApi-6976-113: lbm_imbq_create CreateSemaphore | We failed to create a semaphore on Windows; this probably indicates resource exhaustion. | Check machine for excessive memory use or excessive open handles (both can be viewed in Task Manager) |
| CoreApi-6976-115: The LBT-SMX transport type does not support Hot Failover sources | User attempted to create a hot failover source with an LBT-SMX transport, which is not supported. | |
| CoreApi-6976-116: optval either not a number or a negative number | The value passed in does not appear to be a number, or it is a negative number. | |
| CoreApi-6976-119: Configured LBT-SMX transport_lbtsmx_id_low (%u) is greater than configured transport_lbtsmx_id_high (%u) | The configured "context transport_lbtsmx_id_low" option is higher than the configured "context transport_lbtsmx_id_high" option, which is not allowed. | |
| CoreApi-6976-152: LBT-SMX: failed to allocate shared memory (%d) | A shared memory object for the SMX transport could not be created. This could be caused by a permission error or no more resources. Please refer to the OS error number given. | |
| CoreApi-6976-153: LBT-SMX: failed to allocate shared memory of size configured %d, rcvrs: %d (%d) | A shared memory object for the SMX transport could not be created. This could be caused by a permission error or no more resources. Please refer to the OS error number given. | |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6976-154: LBT-SMX: failed to map shared memory (%d) | An error occurred trying to map a pointer to the SMX shared memory region. Please refer to the OS error number given. | |
| CoreApi-6976-155: LBT-SMX: can not get shared semaphore | A shared memory object for the SMX transport could not be created. This could be caused by a permission error or no more resources. Please refer to the OS error number given. | |
| CoreApi-6976-156: LBT-SMX: can not initialize shared semaphore (%d) | An error occurred when initializing the shared semaphore used to ensure mutual exclusion while accessing the SMX shared memory region. Please refer to the OS error number given. | |
| CoreApi-6976-157: LBT-SMX: failed to allocate shared memory (%d) | A shared memory object for the SMX transport could not be created. This could be caused by a permission error or no more resources. Please refer to the OS error number given. | |
| CoreApi-6976-158: LBT-SMX: failed to map shared memory (%d) | An error occurred trying to map a pointer to the SMX shared memory region. Please refer to the OS error number given. | |
| CoreApi-6976-159: LBT-SMX: can not create shared Mutex (%d) | The shared Mutex used to ensure mutual exclusion while accessing the SMX shared memory region could not be created. Please refer to the OS error number given. | |
| CoreApi-6976-1: buff_acquire would block | A non-blocking lbm_src_buff_acquire would block. | This is perfectly normal from time to time. If it happens every send call or very frequently, a receiver may be still alive, but hung. |
| CoreApi-6976-2: requested buffer length plus headers is higher than configured transport_lbtsmx_datagram_max_size (%u bytes) for source | A length parameter was passed to lbm_src_buff_acquire that was greater than the configured maximum datagram size; this is a user error. | Application code should be fixed to not call buff_acquire with a length parameter that is too big. |
| CoreApi-6976-30: LBT-SMX not supported | The user is trying to set a config option or perform a function with a library that does not support the LBT-SMX transport. | |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6976-31: lbm_send_request and lbm_send_request_ex are not supported with transport type LBT-SMX | User tried to send a request via a source set to use the SMX transport; this is not currently supported. | Don't send requests on LBT-SMX sources. |
| CoreApi-6976-33: optlen incorrect size | The optlen parameter passed in does not match the size of the option type. | |
| CoreApi-6976-34: LBT-SMX transmission window size must be at least %d bytes | The user tried to configure the LBT-SMX transmission window size smaller than the minimum required size. | Change configuration to specify a larger LBT-SMX transmission window size. |
| CoreApi-6976-35: optval not numeric | The value passed in does not appear to be a number - and it should be. | |
| CoreApi-6976-36: optval not a number | The value passed in does not appear to be a number - and it should be. | |
| CoreApi-6976-37: LBT-SMX transmission window size must be at least %d bytes | The user tried to configure the LBT-SMX transmission window size smaller than the minimum required size. | Change configuration to specify a larger LBT-SMX transmission window size. |
| CoreApi-6976-38: optlen incorrect size | The optlen parameter passed in does not match the size of the option type. | |
| CoreApi-6976-39: optlen too small | The optlen parameter passed in specifies a size that is too small to hold the option value. | |
| CoreApi-6976-3: LBT-SMX: too many outstanding buffs; call lbm_src_buffs_complete before acquiring more | The LBT-SMX transport session currently has too many outstanding buffers; if another was acquired now, the receivers could never catch up and the buff_acquire call would block forever. | Application code should be fixed to not call buff_acquire too many times without calling buffs_complete. |
| CoreApi-6976-40: optlen incorrect size | The optlen parameter passed in does not match the size of the option type. | |
| CoreApi-6976-41: LBT-SMX maximum receivers optval not a valid size | LBT-SMX max receivers must be set to at least 1; 0 is not supported (or sensible). | |
| CoreApi-6976-42: optval not numeric | The value passed in does not appear to be a number - and it should be. | |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6976-43: LBT-SMX maximum receivers optval not a valid size | LBT-SMX max receivers must be set to at least 1; 0 is not supported (or sensible). | |
| CoreApi-6976-44: optlen incorrect size | The optlen parameter passed in does not match the size of the option type. | |
| CoreApi-6976-45: optlen too small | The optlen parameter passed in does not match the size of the option type. | |
| CoreApi-6976-46: optlen incorrect size | The optlen parameter passed in does not match the size of the option type. | |
| CoreApi-6976-47: optval not a valid interval | The LBT-SMX session message interval must be > 0; zero is not a valid value. | |
| CoreApi-6976-48: optval not numeric | The value passed in does not appear to be a number - and it should be. | |
| CoreApi-6976-49: optval not a number | The value passed in does not appear to be a number - and it should be. | |
| CoreApi-6976-4: LBT-SMX: too many outstanding buffs; call lbm_src_buffs_complete before acquiring more | The LBT-SMX transport session currently has too many outstanding buffers; if another was acquired now, the receivers could never catch up and the buff_acquire call would block forever. | Application code should be fixed to not call buff_acquire too many times without calling buffs_complete. |
| CoreApi-6976-50: optval not a valid interval | The LBT-SMX session message interval must be > 0; zero is not a valid value. | |
| CoreApi-6976-51: optlen incorrect size | The optlen parameter passed in does not match the size of the option type. | |
| CoreApi-6976-52: optlen too small | The optlen parameter passed in specifies a size that is too small to hold the option value. | |
| CoreApi-6976-53: optlen incorrect size | The optlen parameter passed in does not match the size of the option type. | |
| CoreApi-6976-54: optval not numeric | The value passed in does not appear to be a number - and it should be. | |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6976-55: optlen incorrect size | The optlen parameter passed in does not match the size of the option type. | |
| CoreApi-6976-56: optlen too small | The optlen parameter passed in specifies a size that is too small to hold the option value. | |
| CoreApi-6976-57: LBT-SMX is not supported | User is trying to configure the lbtsmx_datagram_max_size on a build that doesn't support LBT-SMX. | |
| CoreApi-6976-58: optlen incorrect size | The optlen parameter passed in does not match the size of the option type. | |
| CoreApi-6976-59: value must be greater than or equal to %d | The datagram max size for LBT-SMX must be >= the maximum header size. | |
| CoreApi-6976-5: LBT-SMX: too many outstanding buffs; call lbm_src_buffs_complete before acquiring more | The LBT-SMX transport session currently has too many outstanding buffers; if another was acquired now, the receivers could never catch up and the buff_acquire call would block forever. | Application code should be fixed to not call buff_acquire too many times without calling buffs_complete. |
| CoreApi-6976-60: LBT-SMX is not supported | The user tried to set or get lbtsmx_datagram_max_size using a build that does not support LBT-SMX. | |
| CoreApi-6976-61: datagram size not a number | The value passed in does not appear to be a number - and it should be. | |
| CoreApi-6976-62: value must be greater than or equal to %d | The datagram max size for LBT-SMX must be >= the maximum header size. | |
| CoreApi-6976-63: LBT-SMX is not supported | The user tried to set or get lbtsmx_datagram_max_size using a build that does not support LBT-SMX. | |
| CoreApi-6976-64: optlen incorrect size | The optlen parameter passed in does not match the size of the option type. | |
| CoreApi-6976-65: LBT-SMX is not supported | The user tried to set or get lbtsmx_datagram_max_size using a build that does not support LBT-SMX. | |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6976-66: optlen too small | The optlen parameter passed in specifies a size that is too small to hold the option value. | |
| CoreApi-6976-67: could not allocate new buffer to retain lbm_msg_t | A buffer to hold message data could not be allocated; usually this means malloc failed due to being out of memory. | Check machine for excessive memory use. |
| CoreApi-6976-68: src cannot be NULL | User passed NULL for the source parameter. NULL is not a valid source. | |
| CoreApi-6976-69: LBT-SMX sources do not lbm_src_send_ex_info_t options; exinfo must be NULL | LBT-SMX does not support any of the options that can be specified with an lbm_src_send_ex_info_t object. Therefore, the exinfo parameter when sending with an LBT-SMX source should always be NULL. | |
| CoreApi-6976-70: source transport type does not support sending with lbm_src_buff_acquire | The current build does not support LBT-SMX, but the user is trying to call the new LBT-SMX-related send API calls. | |
| CoreApi-6976-71: src must not be NULL | The user specified a NULL pointer for the source argument to lbm_src_buff_acquire, which is invalid. | |
| CoreApi-6976-72: bufp must not be NULL | The user specified a NULL pointer for the bufp argument to lbm_src_buff_acquire, which is invalid. | |
| CoreApi-6976-73: only LBT-SMX sources support sending with lbm_src_buff_acquire | The user called a new LBT-SMX-related send API call using a source that is not LBT-SMX source; this is unsupported. | |
| CoreApi-6976-74: source transport type does not support sending with lbm_src_buffs_complete | The current build does not support LBT-SMX, but the user is trying to call the new LBT-SMX-related send API calls. | |
| CoreApi-6976-75: src must not be NULL | The user specified a NULL pointer for the source argument to lbm_src_buffs_complete, which is invalid. | |
| CoreApi-6976-76: only LBT-SMX sources support sending with lbm_src_buffs_complete | The user called a new LBT-SMX-related send API call using a source that is not LBT-SMX source; this is unsupported. | |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6976-77: source transport type does not support sending with lbm_src_buffs_complete_and_acquire | The current build does not support LBT-SMX, but the user is trying to call the new LBT-SMX-related send API calls. | |
| CoreApi-6976-78: src must not be NULL | The user specified a NULL pointer for the source argument to lbm_src_buffs_complete_and_acquire, which is invalid. | |
| CoreApi-6976-79: bufp must not be NULL | The user specified a NULL pointer for the bufp argument to lbm_src_buffs_complete_and_acquire, which is invalid. | |
| CoreApi-6976-80: only LBT-SMX sources support sending with lbm_src_buffs_complete_and_acquire | The user called a new LBT-SMX-related send API call using a source that is not LBT-SMX source; this is unsupported. | |
| CoreApi-6976-81: source transport type does not support lbm_src_buffs_cancel | The current build does not support LBT-SMX, but the user is trying to call the new LBT-SMX-related send API calls. | |
| CoreApi-6976-82: src must not be NULL | The user specified a NULL pointer for the source argument to lbm_src_buffs_cancel, which is invalid. | |
| CoreApi-6976-83: only LBT-SMX sources support canceling outstanding buffers with lbm_src_buffs_cancel | The user called a new LBT-SMX-related send API call using a source that is not LBT-SMX source; this is unsupported. | |
| CoreApi-6976-85: an error occurred while canceling source buffers - possibly due to non thread-safe use of lbm_src_buffs_cancel; LBT-SMX shared memory may be in an inconsistent state | The user probably called a series of non-thread-safe buffer-based send API functions concurrently. | Code testing for race conditions & code inspection is advised. |
| CoreApi-6976-86: optlen incorrect size | The value of optlen passed in does not match the size of the option type. | |
| CoreApi-6976-87: optval not a valid ID | Transport ID 0 is reserved for internal use for LBT-SMX, so configuring a 0 is not allowed. | |
| CoreApi-6976-88: optval not numeric | The value given does not appear to be a number - and it needs to be. | |
| CoreApi-6976-89: optval not a valid ID | Transport ID 0 is reserved for internal use for LBT-SMX, so configuring a 0 is not allowed. | |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6976-90: optlen incorrect size | The value of optlen passed in does not match the size of the option type. | |
| CoreApi-6976-91: optlen too small | The value of optlen passed in is too small to hold the option type. | |
| CoreApi-6976-92: optlen incorrect size | The value of optlen passed in does not match the size of the option type. | |
| CoreApi-6976-93: optval not a valid ID | Transport ID 0 is reserved for internal use for LBT-SMX, so configuring a 0 is not allowed. | |
| CoreApi-6976-94: optval not numeric | The value given does not appear to be a number - and it needs to be. | |
| CoreApi-6976-95: optval not a valid ID | Transport ID 0 is reserved for internal use for LBT-SMX, so configuring a 0 is not allowed. | |
| CoreApi-6976-96: optlen incorrect size | The value of optlen passed in does not match the size of the option type. | |
| CoreApi-6976-97: optlen too small | The value of optlen passed in is too small to hold the option type. | |
| CoreApi-6976-98: optlen incorrect size | The value of optlen passed in does not match the size of the option type. | |
| CoreApi-6976-99: optval not supported | The value is not a supported operational mode - either embedded or sequential. | |
| CoreApi-6986-1: ume_sri_inter_sri_interval can not be zero | ume_sri_inter_sri_interval is set to zero | ume_sri_inter_sri_interval can not be zero |
| CoreApi-6986-2: ume_sri_inter_sri_interval can not be zero | ume_sri_inter_sri_interval is set to zero | ume_sri_inter_sri_interval can not be zero |
| CoreApi-6986-3: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint32_t |
| CoreApi-6986-4: ume_source_timer_minimum_interval can not be zero | ume_src_timer_min_ivl is set to zero | ume_src_timer_min_ivl can not be zero |
| CoreApi-6986-5: optval not numeric | optval not numeric | optval is not a number |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-6986-6: ume_source_timer_minimum_interval can not be zero | ume_src_timer_min_ivl is set to zero | ume_src_timer_min_ivl can not be zero |
| CoreApi-6986-7: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint32_t |
| CoreApi-6986-8: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-6993-1: optval not numeric | optval not numeric | optval is not a number |
| CoreApi-6993-2: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint32_t |
| CoreApi-6993-3: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-6993-4: optval not numeric | optval not numeric | optval is not a number |
| CoreApi-6993-5: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint32_t |
| CoreApi-6993-6: optlen too small | optlen too small | optlen should be at least LBM_MIN_SGET_OPTLEN |
| CoreApi-6993-7: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint32_t |
| CoreApi-6993-8: optlen incorrect size | optlen incorrect size | optlen should be lbm_uint32_t |
| CoreApi-7160-10: optval not numeric | Attempted to set receiver otr_request_message_timeout to a non numeric value | optval must be a string representation of a number |
| CoreApi-7160-11: optval not a number | Could not parse string optval into a number | optval must be a number |
| CoreApi-7160-12: optval must be greater than 0 | timeout value cannot be negative | Change configuration to provide a positive value |
| CoreApi-7160-13: optlen incorrect size | optlen contained an incorrect size | optlen should be sizeof(lbm_ulong_t) |
| CoreApi-7160-14: optlen too small | optlen was too small | increase size of optlen |
| CoreApi-7160-1: optlen incorrect size | optlen value contained the incorrect length | optlen should be sizeof(lbm_ulong_t) |
| CoreApi-7160-2: optval must be greater than 0 | optval contained a negative integer | optval must be a positive integer |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-7160-3: optval not numeric | Attempted to set receiver retransmit_request_message_time out to a non numeric value | optval must be a string representation of a number |
| CoreApi-7160-4: optval not a number | Could not parse string optval into a number | optval must be a number |
| CoreApi-7160-5: optval must be greater than 0 | receiver retransmit_request_message_time out cannot be negative | Change configuration to provide a positive value |
| CoreApi-7160-6: optlen incorrect size | optlen contained an incorrect size | optlen should be sizeof(lbm_ulong_t) |
| CoreApi-7160-7: optlen too small | optlen was too small | increase size of optlen |
| CoreApi-7160-8: optlen incorrect size | optlen value contained the incorrect length | optlen should be sizeof(lbm_ulong_t) |
| CoreApi-7160-9: optval must be greater than 0 | optval contained a negative integer | optval must be a positive integer |
| CoreApi-7175-10: optlen too small | The size of the option buffer was too small to contain the option. | ume_application_outstanding_maximum is an lbm_ulong_t |
| CoreApi-7175-1: optlen incorrect size | The size of the option was too large and/or too small | otr_message_caching_threshold is an lbm_ulong_t |
| CoreApi-7175-2: optval not numeric | The option value string submitted contains non numeric characters. | Be sure there are no trailing non numeric characters such as spaces and that the number is not in hexadecimal. |
| CoreApi-7175-3: optval not a number | The option value string submitted could not be converted into a number | Be sure that the size (magnitude) of the value is correct for an lbm_ulong_t |
| CoreApi-7175-4: optlen incorrect size | The size of the option was too large and/or too small | otr_message_caching_threshold is an lbm_ulong_t |
| CoreApi-7175-5: optlen too small | The size of the option buffer was too small to contain the option. | otr_message_caching_threshold is an lbm_ulong_t |
| CoreApi-7175-6: optlen incorrect size | The size of the option was too large and/or too small | ume_application_outstanding_maximum is an lbm_ulong_t |
| CoreApi-7175-7: optval not numeric | The option value string submitted contains non numeric characters. | Be sure there are no trailing non numeric characters such as spaces and that the number is not in hexadecimal. |
| CoreApi-7175-8: optval not a number | The option value string submitted could not be converted into a number | Be sure that the size (magnitude) of the value is correct for an lbm_ulong_t |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-7175-9: optlen incorrect size | The size of the option was too large and/or too small | ume_application_outstanding_maximum is an lbm_ulong_t |
| CoreApi-7521-1: optlen incorrect size | Incorrect length used for setting integer options | length must be sizeof int |
| CoreApi-7521-2: optval must be 0 or 1 | Invalid value for optval | optval must be 0 or 1 |
| CoreApi-7521-3: optval not numeric | Option string was not a number | Provide number as a string |
| CoreApi-7521-4: optval must be 0 or 1 | Invalid value for optval | optval must be 0 or 1 |
| CoreApi-7521-5: optlen incorrect size | Size of optlen was incorrect | optlen size must be size of int |
| CoreApi-7521-6: optlen too small | Size of optlen was too small | Size of optlen must be at least 80 |
| CoreApi-7563-1: optlen incorrect size | The size of the option passed in is not the correct size for this option | |
| CoreApi-7563-2: Resolver Event function must be valid | The function pointer the the function is invalid. | Check parameters. |
| CoreApi-7563-3: str_setopt not supported for option | str_setopt is not supported | |
| CoreApi-7563-4: optlen incorrect size | The size of the option passed in is not the correct size for this option | |
| CoreApi-7563-5: str_getopt not supported for option | String Get option is not supported | |
| CoreApi-7699-1: Socket error setting SO_EXCLUSIVEADDRUSE: %s | An error was returned from the OS while trying to set the SO_EXCLUSIVEADDRUSE (Windows Only) option on a socket. | Refer to the OS error number and message given to determine cause of the failure. |
| CoreApi-7839-13: optlen incorrect size | The size of the option buffer was too small to contain the option. | monitor_interval is an lbm_ulong_t |
| CoreApi-7839-14: optval not numeric | The option value string submitted could not be converted into a number | Be sure that the size (magnitude) of the value is correct for an lbm_ulong_t |
| CoreApi-7839-15: optlen incorrect size | The size of the option was too large and/or too small | monitor_interval is an lbm_ulong_t |
| CoreApi-7839-16: optlen too small | The size of the option buffer was too small to contain the option. | monitor_interval is an lbm_ulong_t |
| CoreApi-7839-19: receiver must be valid | An internal error was encountered while auto-monitoring a receiver topic. | Contact Informatica support. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-7839-1: optlen incorrect size | Attempted to set option receiver_callback_service_time_enabled with an incorrect optlen size. | Optlen must be size of int. |
| CoreApi-7839-20: receiver must be valid | An internal error was encountered while auto-monitoring a receiver topic. | Contact Informatica support. |
| CoreApi-7839-21: receiver must be valid | An internal error was encountered while auto-monitoring a receiver topic. | Contact Informatica support. |
| CoreApi-7839-22: receiver must be valid | An internal error was encountered while auto-monitoring a receiver topic. | Contact Informatica support. |
| CoreApi-7839-23: Error initializing auto-monitoring | An internal error was encountered while auto-monitoring a receiver topic. | Contact Informatica support. |
| CoreApi-7839-24: automatic monitoring of receiver failed [%d] [%s] | Unable to monitor receiver. | This is an internal error usually caused by running out of memory. |
| CoreApi-7839-25: automatic unmonitoring of receiver failed [%d] [%s] | Unable to unmonitor receiver. | This is an internal error usually caused by running out of memory. |
| CoreApi-7839-26: wildcard receiver must be valid | An internal error was encountered while auto-monitoring a wildcard receiver. | Contact Informatica support. |
| CoreApi-7839-27: wildcard receiver must be valid | An internal error was encountered while auto-monitoring a wildcard receiver. | Contact Informatica support. |
| CoreApi-7839-28: Error initializing auto-monitoring | An internal error was encountered while auto-monitoring a wildcard receiver. | Contact Informatica support. |
| CoreApi-7839-29: automatic monitoring of wildcard receiver failed [%d] [%s] | Unable to monitor receiver. | This is an internal error usually caused by running out of memory. |
| CoreApi-7839-2: optval must be 0 or 1 | Attempted to set option receiver_callback_service_time_enabled with an invalid optval. | Optval must be 0 or 1. |
| CoreApi-7839-30: automatic unmonitoring of wildcard receiver failed [%d] [%s] | Unable to unmonitor wildcard receiver. | This is an internal error usually caused by running out of memory. |
| CoreApi-7839-32: automatic monitoring of source failed [%d] [%s] | Unable to monitor source. | This is an internal error usually caused by running out of memory. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-7839-38: Context must be valid | An internal error was encountered while updating the domain ID for an auto-monitored context. | Contact Informatica support. |
| CoreApi-7839-39: context must be valid | An internal error was encountered while auto-monitoring a context. | Contact Informatica support. |
| CoreApi-7839-3: optval not numeric | Attempted to set option receiver_callback_service_time_enabled with an invalid optval. | Optval must be numeric. |
| CoreApi-7839-40: monitor_transport option is not supported | Invalid monitor_transport is configured. | User needs to select a valid option for monitor_transport |
| CoreApi-7839-41: optlen incorrect size | Attempted to set wildcard receiver attribute "monitor_interval" using the wrong size optlen. | The parameter "optlen" must be the size of an lbm_ulong_tr. |
| CoreApi-7839-42: optval not numeric | Attempted to set wildcard receiver attribute "monitor_interval" using a string that is not a number. | The parameter "optval" must be a string representation of a number. |
| CoreApi-7839-43: optlen incorrect size | Attempted to get wildcard receiver attribute "monitor_interval" using the wrong size optlen. | The parameter "optlen" must be the size of an lbm_ulong_t. |
| CoreApi-7839-44: optlen too small | Attempted to get wildcard receiver attribute "monitor_interval" using a string length that is too short. | The parameter "optlen" must be at least 80. |
| CoreApi-7839-45: Error initializing auto-monitoring | An internal error was encountered while auto-monitoring a context. | Contact Informatica support. |
| CoreApi-7839-4: optval not a number | Attempted to set option receiver_callback_service_time_enabled with an invalid optval. | Optval must be numeric. |
| CoreApi-7839-5: optval must be 0 or 1 | Attempted to set option receiver_callback_service_time_enabled with an invalid optval. | Optval must be 0 or 1. |
| CoreApi-7839-6: optlen incorrect size | Attempted to retrieve option receiver_callback_service_time_enabled with an incorrect optlen size. | Optlen must be size of int. |
| CoreApi-7839-7: optlen too small | Attempted to retrieve option receiver_callback_service_time_enabled with an incorrect optlen size. | Optlen must be greater than LBM_MIN_SGET_OPTLEN. |
| CoreApi-7863-1: could not allocate new buffer to retain lbm_msg_t | A buffer to hold message data could not be allocated; usually this means malloc failed due to being out of memory. | Check machine for excessive memory use. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-7875-1: optval cannot contain multiple values | The value for resolver_unicast_daemon contained a separator. Each call to set resolver_unicast_daemon can contain only a single value. | Remove the separator and extra values. Additional values for resolver_unicast_daemon can be added with repeated sets of the option. |
| CoreApi-7911-10: optval must not be NULL | optval parameter cannot be NULL | |
| CoreApi-7911-11: optlen must not be NULL | optlen parameter cannot be NULL | |
| CoreApi-7911-12: optval is not large enough | Provided optlen was not large enough to contain stackname string | optlen now contains the minimum necessary size. |
| CoreApi-7911-13: Onload stackname is not supported | This platform does not support setting the onload stackname. | Check documentation for list of platforms that support onload. |
| CoreApi-7911-14: Onload stack name must be 8 characters or less | Onload stackname is limited to 8 characters or less. | Optlen value must be 8 or less. |
| CoreApi-7911-15: optval must not be NULL | optval parameter cannot be NULL | |
| CoreApi-7911-16: optlen must not be NULL | optlen parameter cannot be NULL | |
| CoreApi-7911-17: optval is not large enough | Provided optlen was not large enough to contain stackname string | optlen now contains the minimum necessary size. |
| CoreApi-7911-4: Onload stackname is not supported | This platform does not support setting the onload stackname. | Check documentation for list of platforms that support onload. |
| CoreApi-7911-5: Onload stack name must be 8 characters or less | Onload stackname is limited to 8 characters or less. | Optlen value must be 8 or less. |
| CoreApi-8209-1: optlen incorrect size | Setting of the compatibility_include_pre_um_6_0_behavior configuration option is using the wrong size. Size is "int". | User needs to use the correct size when setting the configuration option. |
| CoreApi-8209-2: optval must be 0 or 1 | The compatibility_include_pre_um_6_0_behavior configuration option must be a 0 or 1. | The user should set the option to 0 or 1. |
| CoreApi-8209-3: optval not numeric | Setting of the compatibility_include_pre_um_6_0_behavior configuration option is using a string value that is not a number. | The user needs to pass a number in the string. |
| CoreApi-8209-4: optval must be 0 or 1 | The compatibility_include_pre_um_6_0_behavior configuration option must be a 0 or 1. | The user should set the option to 0 or 1. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-8209-5: optlen incorrect size | Getting the compatibility_include_pre_um_6_0_behavior configuration option is using the wrong size. Size is "int". | User needs to use the correct size when getting the configuration option. |
| CoreApi-8209-6: optlen too small | Getting the compatibility_include_pre_um_6_0_behavior configuration option is using a string that is too small. Minimum string size is 80 bytes. | User needs to use the correct string size when getting the configuration option. |
| CoreApi-8243-1: optlen incorrect size | Attempted to set option delivery_control_message_batching with an incorrect optlen size. | Optlen must be size of int. |
| CoreApi-8243-29: Can't allocate memory [%s:%d] | The LBM JNI library could not create a new jni_rcv_t. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-2: optval must be 0 or 1 | Attempted to set option delivery_control_message_batching with an invalid optval. | Optval must be 0 or 1. |
| CoreApi-8243-30: Can't allocate memory [%s:%d] | The LBM JNI library could not create a managed ref to a receiver object. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-31: Can't allocate memory [%s:%d] | The LBM JNI library could not create a receiver clientd object. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-32: Can't allocate memory [%s:%d] | The LBM JNI library could not allocate a client callback object. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-33: Can't allocate memory [%s:%d] | The LBM JNI library could not allocate a client callback object. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-34: Can't allocate memory [%s:%d] | The LBM JNI library could not allocate global reference. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-35: Can't allocate memory [%s:%d] | The LBM JNI library could not allocate a client callback object. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-36: Can't allocate memory [%s:%d] | The LBM JNI library could not allocate a client callback object. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-37: Can't allocate memory [%s:%d] | The LBM JNI library could not allocate a jni_rcv_t object. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-38: Can't allocate memory [%s:%d] | The LBM JNI library could not create a new global reference. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-39: Can't allocate memory [%s:%d] | The LBM JNI library could not create a new global reference. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-3: optval not numeric | Attempted to set option delivery_control_message_batching with an invalid optval. | Optval must be numeric. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-8243-41: Can't allocate memory [%s:%d] | The LBM JNI library could not allocate a client callback object. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-42: Can't allocate memory [%s:%d] | The LBM JNI library could not allocate a client callback object. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-43: Can't allocate memory [%s:%d] | The LBM JNI library could not allocate global reference. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-44: Can't allocate memory [%s:%d] | The LBM JNI library could not allocate global reference. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-45: Can't allocate memory [%s:%d] | The LBM JNI library could not allocate receiver clientd. | This usually indicates a severe out of memory condition. |
| CoreApi-8243-46: Can't allocate receiver topic attributes [%s:%d] | Receiver topic attributes could not be created; this probably indicates an out of memory condition. | This usually indicates a severe out of memory condition; check application memory use. |
| CoreApi-8243-4: optval not a number | Attempted to set option delivery_control_message_batching with an invalid optval. | Optval must be numeric. |
| CoreApi-8243-5: optval must be 0 or 1 | Attempted to set option delivery_control_message_batching with an invalid optval. | Optval must be 0 or 1. |
| CoreApi-8243-6: optlen incorrect size | Attempted to retrieve option delivery_control_message_batching with an incorrect optlen size. | Optlen must be size of int. |
| CoreApi-8243-7: optlen too small | Attempted to retrieve option delivery_control_message_batching with an incorrect optlen size. | Optlen must be greater than LBM_MIN_SGET_OPTLEN. |
| CoreApi-8608-1: could not insert lbm_hf_order_rec_t sqn %x into order ASL [%s:%d] | An attempt to update an internal data structure resulted in an error, probably due to lack of available memory. | Please contact Informatica Support and ensure your application has enough memory available to it. |
| CoreApi-8787-2: optlen incorrect size | The user passed in a value of optlen that did not match up to the option's expected type's size. | Check the application code to be sure the correct option type (int, long, etc.) is being passed in. |
| CoreApi-8787-3: optval not numeric | A number was expected for this config option, but something else was pased in. | Check the code or config file that sets this option; make sure it is passing in a string with a number in it. |
| CoreApi-8787-4: optval not a number | A number was expected for this config option, but something else was pased in. | Check the code or config file that sets this option; make sure it is passing in a string with a number in it. |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-8787-5: optlen incorrect size | The user passed in a value of optlen that did not match up to the option's expected type's size. | Check the application code to be sure the correct option type (int, long, etc.) is being passed in. |
| CoreApi-8787-6: optlen too small | The buffer given is too small to write the option value to. | Check that the size of the buffer being passed in is at least LBM_MIN_SGET_OPTLEN bytes. |
| CoreApi-8812-1: Configured request_tcp_port_low (%u) is greater than configured request_tcp_port_high (%u) | The configured "context request_tcp_port_low" option is higher than the configured "context request_tcp_port_high" option, which is not allowed. | Correct configuration to specify "context request_tcp_port_low" <= "context request_tcp_port_high" |
| CoreApi-8812-2: Configured LBT-TCP transport_tcp_port_low (%u) is greater than configured transport_tcp_port_high (%u) | The configured "context transport_tcp_port_low" option is higher than the configured "context transport_tcp_port_high" option, which is not allowed. | Correct configuration to specify "context transport_tcp_port_low" <= "context transport_tcp_port_high" |
| CoreApi-8812-3: Configured LBMD resolver_unicast_port_low (%u) is greater than the configured resolver_unicast_port_high (%u) | The configured "context resolver_unicast_port_low" option is higher than the configured "context resolver_unicast_port_high" option, which is not allowed. | Correct configuration to specify "context resolver_unicast_port_low" <= "context resolver_unicast_port_high" |
| CoreApi-8812-4: Configured LBT-RM transport_lbtrm_source_port_low (%u) is greater than configured transport_lbtrm_source_port_high (%u) | The configured "context transport_lbtrm_source_port_low" option is higher than the configured "context transport_lbtrm_source_port_high" option, which is not allowed. | Correct configuration to specify "context transport_lbtrm_source_port_low" <= "context transport_lbtrm_source_port_high" |
| CoreApi-8812-5: Configured LBT-RM transport_lbtrm_multicast_address _low (%s) is greater than configured transport_lbtrm_multicast_address _high (%s) | The configured "context transport_lbtrm_multicast_address _low" option is higher than the configured "context transport_lbtrm_multicast_address _high" option, which is not allowed. | Correct configuration to specify "context transport_lbtrm_multicast_address _low" <= "context transport_lbtrm_multicast_address _high" |
| CoreApi-8812-6: Configured LBT-RU transport_lbtru_port_low (%u) is greater than the configured transport_lbtru_port_high (%u) | The configured "context transport_lbtru_port_low" option is higher than the configured "context transport_lbtru_port_high" option, which is not allowed. | Correct configuration to specify "context transport_lbtru_port_low" <= "context transport_lbtru_port_high" |
| CoreApi-8812-7: Configured LBT-IPC transport_lbtipc_id_low (%u) is greater than configured transport_lbtipc_id_high (%u) | The configured "context transport_lbtipc_id_low" option is higher than the configured "context transport_lbtipc_id_high" option, which is not allowed. | Correct configuration to specify "context transport_lbtipc_id_low" <= "context transport_lbtipc_id_high" |

| Message | Description | Resolution |
|---|---|---|
| CoreApi-8812-8: Configured LBT-RDMA transport_lbtrdma_port_low (%u) is greater than configured transport_lbtrdma_port_high (%u) | The configured "context transport_lbtrdma_port_low" option is higher than the configured "context transport_lbtrdma_port_high" option, which is not allowed. | Correct configuration to specify "context transport_lbtrdma_port_low" <= "context transport_lbtrdma_port_high" |
| CoreApi-8812-9: Configured LBT-RU transport_lbtru_port_low (%u) is greater than the configured transport_lbtru_port_high (%u) | The configured "receiver transport_lbtru_port_low" option is higher than the configured "receiver transport_lbtru_port_high" option, which is not allowed. | Correct configuration to specify "receiver transport_lbtru_port_low" <= "receiver transport_lbtru_port_high" |
| CoreApi-8840-1: event queue monitor transport opts value cannot start with a '"' | The event queue monitor transport options string is malformed. | Remove the quote marks from the event queue monitor transport options string, if any. |
| CoreApi-8840-2: event queue monitor transport opts value cannot start with a '"' | The event queue monitor transport options string is malformed. | Remove the quote marks from the event queue monitor transport options string, if any. |
| CoreApi-8840-4: context monitor transport opts value cannot start with a '"' | The context monitor transport options string is malformed. | Remove the quote marks from the context monitor transport options string, if any. |
| CoreApi-8840-5: context monitor transport opts value cannot start with a '"' | The context monitor transport options string is malformed. | Remove the quote marks from the context monitor transport options string, if any. |

# UM Dynamic Routing Log Messages

The following table lists log messages from UM Dynamic Routing functionality.

You may find searching on the Log Message ID the most effective method to find the message's description.

**Table 3. UM Dynamic Routing Log Messages**

| Message | Description | Resolution |
|---|---|---|
| Gwd-5975-1: error in PCRE pattern offset %d: %s | UMS detected a malformed PCRE expression while handling a wildcard receiver pattern. | Contact Informatica support if this message occurs frequently or if topic resolution appears to be failing. |
| Gwd-5975-2: illegal regex: %s | UMS detected a malformed REGEX expression while handling a wildcard receiver pattern. | Contact Informatica support if this message occurs frequently or if topic resolution appears to be failing. |

| Message | Description | Resolution |
|---|---|---|
| Gwd-5975-3: peer portal [%s] failed to create control buffer (send EOS) [%d]: %s | Failed to create a control buffer needed to indicate EOS across the Peer link. | Failure to create buffers usually indicates a serious memory issue. Configuration settings may be causing excessive memory allocation. |
| Gwd-5975-4: tnwg_peer_propagate_cb: portal [%s] failed to create buffer [%d]: %s | Failed to create a control buffer needed to propagate route information through the Peer link. | Failure to create buffers usually indicates a serious memory issue. Configuration settings may be causing excessive memory allocation. |
| Gwd-5975-5: peer portal [%s] failed to schedule recalc timer [%d]: %s | An error occurred while attempting to schedule an internal timer. | Contact Informatica Support |
| Gwd-5975-6: peer portal [%s] failed to create raw buffer (send fragment) [%d]: %s | Failed to create a control buffer needed to propagate MIM traffic through the Peer link. | Failure to create buffers usually indicates a serious memory issue. Configuration settings may be causing excessive memory allocation. |
| Gwd-5975-7: peer portal [%s] failed to schedule peer shutdown timer [%d]: %s | An error occurred while attempting to schedule an internal timer. | Contact Informatica Support |
| Gwd-5975-8: TMgr [%s] sourcemap size of zero is not allowed, using default (%d). | The sourcemap size config option can not be zero. Setting it to the default. | User should update their configuration file. |
| Gwd-5975-9: TMgr [%s] sourcemap size must be a power of two, adjusting size from %d to %d | The sourcemap size config option must be a power of two. Setting it to the next highest power of two. | User should update their configuration file. |
| Gwd-6033-353: endpoint portal [%s] received one or more UIM control messages with no stream information - these will be dropped | This gateway has received messages from a client using an earlier version of the library that does not include stream information. | If this is expected behavior, this message can be ignored; otherwise the client should have its library upgraded. |
| Gwd-6033-367: endpoint portal [%s] source context lbm_context_process_events() failed [%d]: %s | The call to lbm_context_process_events() for the source context has returned an error. The LBM error number and message has been supplied in the output. | Use the LBM error number and message as a cross reference to determine cause and resolution. |
| Gwd-6033-368: endpoint portal [%s] receive context lbm_context_process_events() failed [%d]: %s | The call to lbm_context_process_events() for the receive context has returned an error. The LBM error number and message has been supplied in the output. | Use the LBM error number and message as a cross reference to determine cause and resolution. |

| Message | Description | Resolution |
|---|---|---|
| Gwd-6033-593: peer portal [%s] received one or more UIM control messages with no stream information - these will be dropped | This gateway has received messages from a client using an earlier version of the library that does not include stream information. | If this is expected behavior, this message can be ignored; otherwise the client should have its library upgraded. |
| Gwd-6033-618: peer portal [%s] %s | A Peer connection error occurred. The error message has been supplied in the output. | Use the error message as a cross reference to determine cause and resolution. |
| Gwd-6259-50: Message received with no routing information; dropping. Topic (%s) Source (%s) | A message was received by a Gateway that contains no routing information and therefore was dropped. | This is likely due to a version mismatch. The Topic and Source string are given in the message. |
| Gwd-6259-51: Message received with unusually high hop count (%d). Topic (%s) Source (%s) | A message was received by a Gateway that contains a high hop count (given in message). | The customer needs to evaluate their network topology. |
| Gwd-6259-52: Control message received with no routing information; dropping. Origin: %s: %d | A control message was received by a Gateway that contains no routing information and therefore was dropped. | This is likely due to a version mismatch. The origin is given in the message. |
| Gwd-6259-53: Control message received with unusually high hop count (%d). Origin: %s:%d | A message was received by a Gateway that contains a high hop count (given in message). | The customer needs to evaluate their network topology. |
| Gwd-6259-54: endpoint portal [%s] failed to send unicast [%d]: %s to %u:%s:%d | A failure occured trying to send a unicast message. | This failure is usually a result of not being able to connect to the destination or an unexpected disconnect which could indicate network issues. The specific LBM error message is given. |
| Gwd-6259-55: Message received with too many hops (255); dropping . Topic (%s) Source (%s) | A message was received by a Gateway that contains a high hop count (given in message). | The customer needs to evaluate their network topology. |
| Gwd-6259-56: Control message received with too many hops (255); dropping . Origin: %s:%d | A message was received by a Gateway that contains a high hop count (given in message). | The customer needs to evaluate their network topology. |
| Gwd-6259-57: endpoint portal [%s] failed to create buffer (send topic control packet) [%d]: %s | When forwarding Topic Control Data, a buffer could not be allocated. | This is an LBM buffer create error. The LBM error number and message is given. Please cross reference this information. |
| Gwd-6259-58: endpoint portal [%s] failed to send raw (send topic control packet) [%d]: %s | An error occurred while attempting to send a message fragment. | This is an LBM send error. The LBM error number and message is given. Please cross reference this information. |

| Message | Description | Resolution |
|---|---|---|
| Gwd-6259-59: tnwg_peer_psm_deliver_uim_packet_cb: portal [%s] failed to create buffer [%d]: %s | Failed to create a control buffer needed to send UIM across the Peer link. | Failure to create buffers usually indicates a serious memory issue. Configuration settings may be causing excessive memory allocation. |
| Gwd-6259-60: tnwg_peer_psm_deliver_cntl_packet_cb: portal [%s] failed to create buffer [%d]: %s | Failed to create a control buffer needed to send UIM across the Peer link. | Failure to create buffers usually indicates a serious memory issue. Configuration settings may be causing excessive memory allocation. |
| Gwd-6361-100: failed to schedule the source delete timer: %s | An error occurred while attempting to schedule an internal timer. | Contact Informatica Support. |
| Gwd-6361-101: Unable to enqueue a source entry onto the blocked queue: %s | An error occurred while attempting to enqueue data on to an internal queue. | Contact Informatica Support. |
| Gwd-6361-102: Unable to enqueue a source entry onto the wakeup queue: %s | An error occurred while attempting to enqueue data on to an internal queue. | Contact Informatica Support. |
| Gwd-6361-103: An error occurred while processing a source notification: %s | An error occurred while attempting to process a source create/delete notification. | Contact Informatica Support. |
| Gwd-6361-104: An error occurred while attempting to create a source on topic [%s] | An error occurred while creating a proxy source. No data will be forwarded for that source. | Look for a prior error in the gateway log indicating what may have gone wrong. |
| Gwd-6361-105: Unable to enqueue a source entry onto the delete queue: %s | An error occurred while attempting to enqueue data on to an internal queue. | Contact Informatica Support. |
| Gwd-6361-106: psm %p failed to create sqn set [%d]: %s | An error occurred while attempting to create a sqn set, used for duplicate detection. | Contact Informatica Support. |
| Gwd-6361-10: endpoint portal [%s] remote domain topic interest check failed [%d]: %s | An error occurred while checking topic interest from remote domains. | Contact Informatica Support |
| Gwd-6361-111: an error occurred while processing link state information from another gateway: %s | An error occurred while processing an incoming route information packet. | Contact Informatica Support. |
| Gwd-6361-112: unable to set pdm field [node_name] for link state propagation: [%s] | An error occurred while setting PDM field in an internal PDM message. | Contact Informatica Support. |
| Gwd-6361-116: failed to create an internal domain list: %s | An error occurred while creating an internal domain list. | Contact Informatica Support. |

| Message | Description | Resolution |
|---|---|---|
| Gwd-6361-117: unable to read pdm field [%s]: [%s] | An error occurred while reading a PDM field in a PDM message. | Contact Informatica Support. |
| Gwd-6361-118: unable to read pdm field vec [%s]: [%s] | An error occurred while reading a PDM field vec in a PDM message. | Contact Informatica Support. |
| Gwd-6361-119: unable to set pdm field [%s] for link state forwarding: [%s] | An error occurred while setting a PDM field in a PDM message. | Contact Informatica Support. |
| Gwd-6361-11: endpoint portal [%s] failed to schedule remote domain topic check timer [%d]: %s | An error occurred while attempting to schedule an internal timer. | Contact Informatica Support |
| Gwd-6361-123: portal [%s] could not find path to domain %u. Dropping UIM packet. | UIM traffic destined for a particular domain arrived at a portal that is not setup to forward to the domain in question. | Contact Informatica Support. |
| Gwd-6361-124: Received UIM packet before initial route calculations completed. Dropping. | UIM traffic was sent to the gateway before it had completed it's first round of route calculations. | This can happen briefly when a gateway is restarted. If the message persists, contact Informatica Support. |
| Gwd-6361-12: endpoint portal [%s] remote domain PCRE pattern interest check failed [%d]: %s | An error occurred while checking pattern interest from remote domains. | Contact Informatica Support |
| Gwd-6361-132: endpoint portal [%s] failed to schedule rcv_ctx recalc timer [%d]: %s | An error occurred while attempting to schedule an internal timer. | Contact Informatica Support |
| Gwd-6361-133: Received MIM packet with no odomain header. Dropping. | MIM traffic was sent to the gateway without an ODOMAIN header. | This is likely caused by running an older version of UM. |
| Gwd-6361-134: Received MIM packet with no odomain header. Dropping. | MIM traffic was sent to the gateway without an ODOMAIN header. | This is likely caused by a gateway version mismatch. |
| Gwd-6361-13: endpoint portal [%s] remote domain REGEX pattern interest check failed [%d]: %s | An error occurred while checking pattern interest from remote domains. | Contact Informatica Support |
| Gwd-6361-14: endpoint portal [%s] failed to schedule remote domain pattern check timer [%d]: %s | An error occurred while attempting to schedule an internal timer. | Contact Informatica Support |
| Gwd-6361-15: endpoint portal [%s] failed to dup rcv attributes (rcv create) [%d]: %s | An error occurred while attempting to duplicate receiver attributes during receiver creation. | Contact Informatica Support |
| Gwd-6361-16: endpoint portal [%s] failed to set rcv attribute [source_notification_function] (rcv create) [%d]: %s | An error occurred while attempting to set receiver attributes during receiver creation. | Contact Informatica Support |

| Message | Description | Resolution |
|---|---|---|
| Gwd-6361-17: endpoint portal [%s] failed to lookup topic (rcv create) [%d]: %s | An error occurred while attempting to lookup a topic during receiver creation. | Contact Informatica Support |
| Gwd-6361-18: endpoint portal [%s] failed to create receiver (rcv create) [%d]: %s | An error occurred while attempting to create a receiver. | Contact Informatica Support |
| Gwd-6361-19: endpoint portal [%s] failed to alloc resolver topic message [%d]: %s | UM has failed to allocate required memory for the purposes of constructing an interest list message. | Acquire more memory |
| Gwd-6361-20: endpoint portal [%s] failed to delete receiver (rcv delete) [%d]: %s | An error occurred while attempting to delete a receiver. | Contact Informatica Support |
| Gwd-6361-21: endpoint portal [%s] failed to dup wrcv attributes (wrcv create) [%d]: %s | An error occurred while attempting to duplicate wildcard receiver attributes during wildcard receiver creation. | Contact Informatica Support |
| Gwd-6361-22: endpoint portal [%s] failed to set wrcv attribute [receiver_create_callback] (wrcv create) [%d]: %s | An error occurred while attempting to set wildcard receiver attributes during receiver creation. | Contact Informatica Support |
| Gwd-6361-23: endpoint portal [%s] failed to set wrcv attribute [receiver_delete_callback] (wrcv create) [%d]: %s | An error occurred while attempting to set wildcard receiver attributes during receiver creation. | Contact Informatica Support |
| Gwd-6361-24: endpoint portal [%s] failed to set wrcv attribute [pattern_type] (wrcv create) [%d]: %s | An error occurred while attempting to set wildcard receiver attributes during receiver creation. | Contact Informatica Support |
| Gwd-6361-25: endpoint portal [%s] failed to create wildcard receiver (wrcv create) [%d]: %s | An error occurred while attempting to create a wildcard receiver. | Contact Informatica Support |
| Gwd-6361-26: endpoint portal [%s] failed to delete wildcard receiver (wrcv delete) [%d]: %s | An error occurred while attempting to delete a wildcard receiver. | Contact Informatica Support |
| Gwd-6361-27: endpoint portal [%s] failed to properly handle wildcard receiver receiver create [%d]: %s | An error occurred while attempting to process a wildcard receiver receiver create. | Contact Informatica Support |
| Gwd-6361-28: endpoint portal [%s] failed to properly handle wildcard receiver receiver delete [%d]: %s | An error occurred while attempting to process a wildcard receiver receiver delete. | Contact Informatica Support |
| Gwd-6361-29: endpoint portal [%s] received TransportOpts with no OTID for SourceName [%s] topic [%s], source ignored (rcvdc create) | UM encountered a source with no OTID. This is likely caused by a version mismatch with an old versin of UM. | Resolve the version mismatch. |

| Message | Description | Resolution |
|---|---|---|
| Gwd-6361-30: endpoint portal [%s] failed to create prm o_entry (rcvdc_create) [%d]: [%s] | An error occurred while attempting to process a delivery controller create. | Contact Informatica Support |
| Gwd-6361-31: endpoint portal [%s] unable to delete NULL src_clientd (rcvdc_delete) | UM encountered an unexpected NULL source clientd while attempting to handle a delivery controller delete. | Contact Informatica Support |
| Gwd-6361-32: endpoint portal [%s] failed to properly handle a delivery controller delete [%d]: %s | An error occurred while attempting to process a delivery controller delete. | Contact Informatica Support |
| Gwd-6361-33: endpoint portal [%s] received advertisement for topic [%s] source [%s] with no transport options - this source will never be forwarded | UM encountered a source with no transport opts. This is likely caused by a version mismatch with an old version of UM. | Resolve the version mismatch. |
| Gwd-6361-34: endpoint portal [%s] received advertisement for topic [%s] source [%s] with no OTID - this source will never be forwarded | UM encountered a source with no OTID. This is likely caused by a version mismatch with an old version of UM. | Resolve the version mismatch. |
| Gwd-6361-35: endpoint portal [%s] failed to schedule src_ctx recalc timer [%d]: %s | An error occurred while attempting to schedule an internal timer. | Contact Informatica Support |
| Gwd-6361-36: endpoint portal [%s] failed to duplicate src attr (src create) [%d]: %s | An error occurred while attempting to duplicate source attributes during source creation. | Contact Informatica Support |
| Gwd-6361-37: endpoint portal [%s] failed to allocate source topic (src create) [%d]: %s | An error occurred while attempting to allocate a topic during source creation. | Contact Informatica Support |
| Gwd-6361-38: endpoint portal [%s] failed to create source (src create) [%d]: %s | An error occurred while attempting to create a source. | Contact Informatica Support |
| Gwd-6361-39: endpoint portal [%s] failed to flush source (src delete) [%d]: %s | An error occurred while attempting to flush a source prior to source deletion. | Contact Informatica Support |
| Gwd-6361-40: endpoint portal [%s] failed to delete source (src delete) [%d]: %s | An error occurred while attempting to delete a source. | Contact Informatica Support |
| Gwd-6361-41: endpoint portal [%s] failed to create raw buffer (send fragment) [%d]: %s | An error occurred while attempting to create a message buffer for sending. | Contact Informatica Support |

| Message | Description | Resolution |
|---|---|---|
| Gwd-6361-42: endpoint portal [%s] unable to send: datagram size mismatch. transport_XXX_datagram_max_size must be properly configured. This is a configuration error. | Attempting to send a fragment that is larger than this egress portal's max size. | Resolve the datagram max size mismatch |
| Gwd-6361-43: endpoint portal [%s] failed to send raw (send fragment) [%d]: %s | An error occurred while attempting to send a message fragment. | Contact Informatica Support |
| Gwd-6361-44: endpoint portal [%s] failed to create raw buffer (IM) (send fragment) [%d]: %s | An error occurred while attempting to create a message buffer for sending. | Contact Informatica Support |
| Gwd-6361-45: endpoint portal [%s] unable to multicast immediate: datagram size mismatch. transport_lbtrm_datagram_max_size must be properly configured. This is a configuration error. | Attempting to send a fragment that is larger than this egress portal's max size. | Resolve the datagram max size mismatch |
| Gwd-6361-46: endpoint portal [%s] failed to multicast immediate raw (send fragment) [%d]: %s | An error occurred while attempting to send a message fragment. | Contact Informatica Support |
| Gwd-6361-47: endpoint portal [%s] failed to handle topic/pattern leave entry [%d]: [%s] | An error occurred while attempting to process local interest. | Contact Informatica Support |
| Gwd-6361-48: endpoint portal [%s] failed to handle pattern interest entry [%d]: [%s] | An error occurred while attempting to process remote interest. | Contact Informatica Support |
| Gwd-6361-49: endpoint portal [%s] failed to enqueue topic interest entry [%d]: [%s] | An error occurred while attempting to process remote interest. | Contact Informatica Support |
| Gwd-6361-50: endpoint portal [%s] failed to allocate resolver buffer [%d]: %s | An error occurred while attempting to allocate a topic resolution buffer. | Contact Informatica Support |
| Gwd-6361-51: endpoint portal [%s] failed to generate portal list (topic res req) [%d]: %s | An error occurred while attempting to generate a list of portals. | Contact Informatica Support |
| Gwd-6361-52: endpoint portal [%s] failed to allocate resolver buffer [%d]: %s | An error occurred while attempting to allocate a topic resolution buffer. | Contact Informatica Support |
| Gwd-6361-56: rm failed to join ctx thread, %s | UM was unable to join an internal thread. | Contact Informatica Support. |
| Gwd-6361-57: rm failed to join evq thread, %s | UM was unable to join an internal thread. | Contact Informatica Support. |

| Message | Description | Resolution |
|---|---|---|
| Gwd-6361-5: endpoint portal [%s] failed to schedule remote domain topic check timer [%d]: %s | An error occurred while attempting to schedule an internal timer. | Contact Informatica Support |
| Gwd-6361-61: overriding 'interest' based route decisions on portal %d | Route decisions are now overriden regarding whether or not to propagate interest on the specified portal. | Don't set the TNWG_PORTAL_ROUTE_OVERRIDE env variable. |
| Gwd-6361-62: overriding 'receiver' based route decisions on portal %d | Route decisions are now overriden regarding whether or not to create a receiver on the specified portal. | Don't set the TNWG_PORTAL_ROUTE_OVERRIDE env variable. |
| Gwd-6361-63: overriding 'source' based route decisions on portal %d | Route decisions are now overriden regarding whether or not to propagate sources on the specified portal. | Don't set the TNWG_PORTAL_ROUTE_OVERRIDE env variable. |
| Gwd-6361-67: portal [%s] failed to join psm evq thread, %s | UM has failed to join an event queue dispatch thread. | Contact Informatica Support. |
| Gwd-6361-69: portal [%s] psm evq lbm_event_dispatch() failed, %s | An error occurred while attempting to process events off an internal event queue. | Contact Informatica Support. |
| Gwd-6361-6: endpoint portal [%s] failed to schedule remote domain topic check timer [%d]: %s | An error occurred while attempting to schedule an internal timer. | Contact Informatica Support |
| Gwd-6361-71: portal [%s] failed to join prm evq thread, %s | UM has failed to join an internal event queue dispatch thread. | Contact Informatica Support. |
| Gwd-6361-72: TNWG PRM processing failed [%d]: %s | An error occurred while attempting to process an internal interest notification. | Contact Informatica Support. |
| Gwd-6361-73: portal [%s] prm evq lbm_event_dispatch() failed, %s | An error occurred while attempting to process events off an internal event queue. | Contact Informatica Support. |
| Gwd-6361-74: route recalculation took %u.%06u seconds | Running route recalculations took the indicated amount of time to complete. | Nothing. This is purely informational. |
| Gwd-6361-75: route recalculation backoff has exceeded the specified threshold | Your network topology has failed to converge within the specified threshold. | Attempt to identify the gateway or peer link that is causing the instability in your topology. |
| Gwd-6361-77: loop count == %d | You're running a build of the gateway with TNWG_RM_LOOP_COUNT defined in tnwgrm.c. | Contact Informatica Support |
| Gwd-6361-78: rm evq lbm_event_dispatch() failed, %s | An error occurred while attempting to process events off an internal event queue. | Contact Informatica Support |

| Message | Description | Resolution |
|---|---|---|
| Gwd-6361-79: rm ctx lbm_context_process_events() failed, %s | An error occurred while attempting to process events on an internal context. | Contact Informatica Support |
| Gwd-6361-7: endpoint portal [%s] failed to schedule remote domain pattern check timer [%d]: %s | An error occurred while attempting to schedule an internal timer. | Contact Informatica Support |
| Gwd-6361-81: TNWG PRM domain processing failed [%d]: %s | An error occurred while attempting to process an internal domain notification. | Contact Informatica Support. |
| Gwd-6361-84: unable to parse link state buffer | An error occurred while deserializing an incoming link state packet. | Contact Informatica Support. |
| Gwd-6361-85: unable to read pdm field [node_name] for link state forwarding: [%s] | An error occurred while reading a field in an internal PDM message. | Contact Informatica Support. |
| Gwd-6361-86: unable to create neighbor asl: %s | UM was unable to create an internal data structure. | Contact Informatica Support. |
| Gwd-6361-87: unable to set pdm field [%s] for link state propagation: [%s] | An error occurred while setting PDM field in an internal PDM message. | Contact Informatica Support. |
| Gwd-6361-88: unable to set pdm field vec [%s] for link state propagation: [%s] | An error occurred while setting PDM field vec in an internal PDM message. | Contact Informatica Support. |
| Gwd-6361-89: unable to create pdm message for link state propagation: [%s] | An error occurred while creating internal PDM message. | Contact Informatica Support. |
| Gwd-6361-8: endpoint portal [%s] failed to schedule remote domain pattern check timer [%d]: %s | An error occurred while attempting to schedule an internal timer. | Contact Informatica Support |
| Gwd-6361-91: route recalculation is taking longer than the route info propagation interval | Running route recalculations took longer than the specified route info propagation interval. | Adjust appropriate configuration options |
| Gwd-6361-93: shortest path from %u to %u not found | Unable to find an expected internal data structure. | Contact Informatica Support. |
| Gwd-6361-94: failed to add node [%u] to an internal domain list: %s | An error occurred while creating an internal domain list. | Contact Informatica Support. |
| Gwd-6361-97: psm %p failed to propagate a message [%d]: %s | An error occurred while attempting to forward a message. | Contact Informatica Support. |
| Gwd-6361-98: Unable to enqueue a source entry onto the wakeup queue: %s | An error occurred while attempting to enqueue data on to an internal queue. | Contact Informatica Support. |

| Message | Description | Resolution |
|---|---|---|
| Gwd-6361-99: Unable to enqueue a source wakeup event on to an event queue: %s | An error occurred while attempting to enqueue a wakeup event on to an internal event queue. | Contact Informatica Support. |
| Gwd-6361-9: endpoint portal [%s] remote domain %s check ivl dropped below threshold of %d. Reseting to %d | Desired configuration for the interest timeout threshold in conjunction with the current number of symbols has caused UM to calculate a check interval lower than the threshold of 50 milliseconds. | Adjust the appropriate configuration parameters to check each symbol less often. |
| Gwd-6814-10: invalid ingress-cost value [%s] | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-11: egress-cost must not be blank | Must specify a valid numeric value. | |
| Gwd-6814-12: invalid egress-cost value [%s] | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-13: source-deletion-delay must not be blank | Must specify a valid numeric value. | |
| Gwd-6814-14: invalid source-deletion-delay value [%s] | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-15: The late-join element has been deprecated and will be ignored | The specified element has been deprecated. | Remove the element from the config file. |
| Gwd-6814-16: The topic-purge element has been deprecated and will be ignored | The specified element has been deprecated. | Remove the element from the config file. |
| Gwd-6814-17: The topic-interest-generate element has been deprecated and will be ignored | The specified element has been deprecated. | Remove the element from the config file. |
| Gwd-6814-18: The topic-domain-activity element has been deprecated and will be ignored | The specified element has been deprecated. | Remove the element from the config file. |
| Gwd-6814-19: The pattern-purge element has been deprecated and will be ignored | The specified element has been deprecated. | Remove the element from the config file. |
| Gwd-6814-20: The pattern-interest-generate element has been deprecated and will be ignored | The specified element has been deprecated. | Remove the element from the config file. |

| Message | Description | Resolution |
|---|---|---|
| Gwd-6814-21: The pattern-domain-activity element has been deprecated and will be ignored | The specified element has been deprecated. | Remove the element from the config file. |
| Gwd-6814-22: size value [%s] for sourcemap is invalid | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-23: check interval value [%s] for remote-topic is invalid | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-24: max topics value [%s] for remote-topic is invalid | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-25: timeout value [%s] for remote-topic is invalid | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-26: check interval value [%s] for remote-pattern is invalid | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-27: max patterns value [%s] for remote-pattern is invalid | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-28: timeout value [%s] for remote-pattern is invalid | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-29: The topic-use-check element has been deprecated and will be ignored | The specified element has been deprecated. | Remove the element from the config file. |
| Gwd-6814-30: The pattern-use-check element has been deprecated and will be ignored | The specified element has been deprecated. | Remove the element from the config file. |
| Gwd-6814-3: invalid min-interval value [%s] | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-4: invalid max-interval value [%s] | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-5: invalid min-interval value [%s] | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-6: invalid max-interval value [%s] | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |

| Message | Description | Resolution |
|---|---|---|
| Gwd-6814-7: invalid min-interval value [%s] | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-8: invalid max-interval value [%s] | The specified value is either non-numeric or the value is out of range. | Please specify a valid value. |
| Gwd-6814-9: ingress-cost must not be blank | Must specify a valid numeric value. | |
| Gwd-6873-1: endpoint portal [%s] failed to allocate resolver buffer [%d]: %s | An error occurred while attempting to allocate a topic resolution buffer. | Contact Informatica Support |
| Gwd-6945-1: Portal [%s] began enqueueing data | The named portal began enqueueing data due to LBM_EWOULDBLOCK. | This is an informational message only. The message traffic is higher than can be handled. Check config or network load. |
| Gwd-6945-2: Portal [%s] dropping data due to high volume | The named portal is dropping data. This is due to the message queue being full or disabled. Message is throttled and code may be dropping at a higher rate than indicated by log message. Check Web Monitor stats. | This is an informational message only. The message traffic is higher than can be handled. Check config or network load. |
| Gwd-6945-3: Portal [%s] completed flushing queue | The named portal completed dequeueing the data previoused enqueued. | This is an informational message only. The message traffic has slowed so that the queue could be emptied. |
| Gwd-7079-5: unable to create route manager [%d]: %s | An error occurred while attempting to create an internal component. | Contact Informatica Support. |
| Gwd-7097-1: peer portal [%s] has just established a connection to gateway named: [%s] with node id: %u | A peer connection has just been established to the specified gateway. | |
| Gwd-7097-3: peer portal [%s] failed to properly connect to gateway with node id: %u [%d]: %s | The gateway failed to establish a logical connection to the gateway at the other end of the peer link. The link will remain up, but no traffic will flow. | This is usually caused by having more than one peer connection to the same gateway, which is an unsupported configuration. |
| Gwd-7097-4: peer portal [%s] failed to properly connect to gateway named: [%s] with node id: %u [%d]: %s | The gateway failed to establish a logical connection to the gateway at the other end of the peer link. The link will remain up, but no traffic will flow. | This is usually caused by having more than one peer connection to the same gateway, which is an unsupported configuration. |
| Gwd-7122-1: Gateway named [%s] with node id: %u has started. | Your gateway has just started. | |

| Message | Description | Resolution |
|---|---|---|
| Gwd-7136-1: Ultra Messaging Gateway version %s | Printed at startup. | |
| Gwd-7136-2: %s | Printed at startup. | |
| Gwd-7136-3: EXPERIMENTAL BUILD - NOT FOR PRODUCTION USE | Printed at startup. | |
| Gwd-7155-1: Gateways can not have more than %d portals | The gateway had too many portals specified. | Specify fewer portals. |
| Gwd-8239-1: peer portal [%s] failed to enqueue connect abort [%d]: %s | An error occurred while handling a peer connection failure. | Contact Informatica Support |
| GwdApi-5688-4702: failed to set portal source option [%s] to [%s]: %s | The portal was unable to set a source option | |
| GwdApi-5688-4703: failed to set portal receiver option [%s] to [%s]: %s | The portal was unable to set a receiver option | |
| GwdApi-6103-0001: failed to set portal source option [%s] to [%s]: %s | The portal was unable to set a source option | |
| GwdApi-6103-0002: failed to set portal receiver option [%s] to [%s]: %s | The portal was unable to set a receiver option | |
| GwdApi-6361-110: unable to create pdm definition: %s | An error occurred while creating an internal PDM definition. | Contact Informatica Support. |
| GwdApi-6361-113: unable to add pdm field definition [%s]: [%s] | An error occurred while adding a PDM field to an internal PDM definition. | Contact Informatica Support. |
| GwdApi-6361-114: failed to create psm delete q | UM has failed to create an internal queue. | Contact Informatica Support. |
| GwdApi-6361-120: must not set the route recalculation backoff interval greater than the route recalculation warning interval | The backoff interval must be less than the warning interval, otherwise the warning will fire at least once for each recalculation. | Adjust the configuration. |
| GwdApi-6361-121: failed to propagate source creation: %s | An error occurred while attempting to propagate the need to create a proxy source to another portal. | Contact Informatica Support. |
| GwdApi-6361-122: failed to propagate source creation: %s | An error occurred while attempting to propagate the need to create a proxy source to another portal. | Contact Informatica Support. |
| GwdApi-6361-53: failed to create rm ctx attr: %s | UM was unable to create context attributes. | Contact Informatica Support. |

| Message | Description | Resolution |
|---|---|---|
| GwdApi-6361-54: failed to set rm context option [%s] to [%s]: %s | UM was unable to set the specified context attributes. | Contact Informatica Support. |
| GwdApi-6361-55: failed to create rm ctx: %s | UM was unable to create an internal reactor only context. | Contact Informatica Support. |
| GwdApi-6361-58: failed to create rm evq thread [%d] | UM was unable to create an internal thread. | Contact Informatica Support. |
| GwdApi-6361-59: failed to create rm ctx thread [%d] | UM was unable to create an internal thread. | Contact Informatica Support. |
| GwdApi-6361-60: unable to schedule rm timer | UM was unable to schedule an internal timer. | Contact Informatica Support. |
| GwdApi-6361-64: failed to create psm evq thread [%d] | UM has failed to create an internal thread. | Contact Informatica Support. |
| GwdApi-6361-65: failed to create psm wakeup q | UM has failed to create an internal queue. | Contact Informatica Support. |
| GwdApi-6361-66: failed to create psm blocked q | UM has failed to create an internal queue. | Contact Informatica Support. |
| GwdApi-6361-70: failed to create prm evq thread [%d] | UM has failed to create an internal event queue dispatch thread. | Contact Informatica Support. |
| GwdApi-6361-76: unable to schedule rm timer | An error occurred while attempting to schedule an internal timer. | Contact Informatica Support |
| GwdApi-6361-80: could not insert o_entry into otid_list [%s:%d] | An error occurred while attempting to insert a data entry into an internal data structure. | Contact Informatica Support. |
| GwdApi-6361-82: unable to finalize pdm definition: [%s] | An error occurred while finalizing an internal PDM definition. | Contact Informatica Support. |
| GwdApi-6361-83: unable to create pdm message for link state forwarding: [%s] | An error occurred while creating an internal PDM message. | Contact Informatica Support. |
| GwdApi-6361-90: the specified gateway name exceeds the max name length of %d | The gateway name is too long. | Pick a shorter name. |
| GwdApi-6361-92: failed to propagate source creation: %s | An error occurred while attempting to propagate the need to create a proxy source to another portal. | Contact Informatica Support. |
| GwdApi-6361-95: received a source delete for an unkown source on topic [%s] | Unable to locate the source entry for the topic in question. | Contact Informatica Support. |
| GwdApi-6814-1: topic interest max interval must be greater than the min interval | The topic-interest min-interval must be less than the topic-interest max-interval. | Set the min/max intervals appropriately. |

| Message | Description | Resolution |
|---|---|---|
| GwdApi-6814-2: pattern interest max interval must be greater than the min interval | The pattern-interest min-interval must be less than the topic-interest max-interval. | Set the min/max intervals appropriately. |
| GwdApi-7097-2: duplicate adjacent node id detected: %u | A portal is adjacent to either a topic resolution domain or another gateway to which another portal on this gateway is already adjacent. | Adjust configuration so that no two portals on any gateway are adjacent to the same topic resolution domain or the same gateway. |
| GwdApi-7582-10: failed to get portal source transport option (%s) | The portal was unable to get a source transport option. | This is an LBM error. Please refer to the given LBM error message. |
| GwdApi-7582-3: the DRO does not allow LBT-SMX to be the default source transport. | The DRO does not support the LBT-SMX source transport. This is a configuration failure and the DRO will exit. | The customer should use a different source transport when the DRO is configured. Please reconfigure the source transport type. |

# UM Lbmrd Log Messages

The following table lists log messages from Ultra Messaging Topic Resolution daemon (lbmrd) functionality.

You may find searching on the Log Message ID the most effective method to find the message's description.

**Table 4. UM Lbmrd Log Messages**

| Message | Description | Resolution |
|---|---|---|
| Lbmrd-5466-1: LBMR Extended Type 0x%x incorrect (%s.%d len %d). [%s]. Dropping. | Received a LBMR message with an unrecognized value in the extended type field. | Check if the port range of other LBM protocols like RU overlaps with those used by LBMR. |
| Lbmrd-5688-4674: LBMR Topic Query Record malformed. Dropping remainder. | UMS encountered a mismatch in the length of a received message and its headers, determining the rest of the message to be invalid. The remainder of the message is dropped. | Contact Informatica support if this message occurs frequently. |
| Lbmrd-5688-4675: LBMR Topic Info Record malformed. Dropping remainder. | UMS encountered a mismatch in the length of a received message and its headers, determining the rest of the message to be invalid. The remainder of the message is dropped. | Contact Informatica support if this message occurs frequently. |

# UM Persistent Store Log Messages

The following table lists log messages from UM Persistent Store (`umestored`) functionality.

You may find searching on the Log Message ID the most effective method to find the message's description.

**Table 5. UM Persistent Store Log Messages**

| Message | Description | Resolution |
|---|---|---|
| Store-5116-2: WARNING: aio_proactor aio_error %u | An AIO system error encountered. This could happen when asynchronous read or write to the disk fails. | Check the store log file for a detailed error description. |
| Store-5230-15: Store "%s" received retransmission from %s for unknown regid 0x%x | The UMP store received a unicast proactive retransmission for an unknown reg ID. | Depending on timing, this could just mean the source has been timed out and cleaned up by the store before the proactive retransmission was\n sent or handled. This is usually not a serious issue and can usually be ignored, however it may indicate a UMP store or source that is overloaded. |
| Store-5230-16: Store "%s" received retransmission from %s for receiver regid 0x%x | The UMP store received a unicast proactive retransmission for a reg ID that doesn't belong to a source. | Find out where the proactive retransmissions are being sent from; a duplicate reg ID could be in use between a source and a receiver. |
| Store-5688-4914: queue "%s" ReadFile read %u nbytes %u %u | The Store has attempted to read the sinc file for the specified number of bytes but was unable to read the entire amount. | Please check the errno and take appropriate actions. |
| Store-5688-4915: queue "%s" aio_read returned %u nbytes %u %u | The Store has attempted to read the sinc file for the specified number of bytes but was unable to read the entire amount. | Please check the errno and take appropriate actions. |
| Store-5688-5070: default thread stack size is perhaps too small, %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small. The size of the default stack size is dumped and will then be set to a larger size automatically. | |
| Store-5688-5071: reset thread stack size to %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small and is reallocated. This message reports the new size of the stack. | |
| Store-5688-5243: store "%s" aio_write returned %u nbytes %u %u | Number of bytes returned by AIO write is different than expected | |

| Message | Description | Resolution |
|---|---|---|
| Store-5688-5261: default thread stack size is perhaps too small, %u bytes. | The store has created a thread for internal processing and the default stack size is too small. The size of the default stack size is dumped and will then be set to a larger size automatically. | |
| Store-5688-5262: reset thread stack size to %u bytes. | The store has created a thread for internal processing and the default stack size is too small and is reallocated. This message reports the new size of the stack. | |
| Store-5688-5290: store "%s" SesnID 0x%x RegID %u repository-type forced to disk | Enforcing disk repository. It is currently configured as not disk. | |
| Store-5688-5294: store "%s" receiver SesnID 0x%x RegID %u Indices %u.%u [%u %s.%u] deleted | The receiver with the specified session ID and registration ID has been deleted. This can be due to several different things: the receiver's state-lifetime timing out, the state-lifetime for the source the receiver is subscribed to timing out, or the receiver using the "deregister" API. | This message is encountered during normal operation, and does not need to be addressed. |
| Store-5688-5296: store "%s" source SesnID 0x%x RegID %u Re-Registered and moved to Indices %u.%u [%u %s.%u]%s | An old UMP receiver re-registered with the store on new transport and topic indices | No action required. |
| Store-5688-5297: store "%s" receiver SesnID 0x%x RegID %u Re-Registered and moved to Indices %u.%u [%u %s.%u]%s | An old UMP receiver re-registered with the store on new transport and topic indices. | No action required. |
| Store-5688-5332: AUDIT: queue "%s" topic "%s" enqueued " UMQ_MSGID_FORMAT " | A message was written to disk that was received directly from a source. | This is an info message and provided for informational purposes when 'log audit trail' is enabled. |
| Store-5688-5333: AUDIT: queue "%s" topic "%s" resubmitted " UMQ_MSGID_FORMAT " | A message was written to disk that was not received directly from a source. | This is an info message and provided for informational purposes when 'log audit trail' is enabled. |
| Store-5688-5382: store "%s" topic "%s" Failed to cancel election timer, %s | The store could not cancel a proxy election interval timer due to an internal lbm error. | This error message will contain an additional internal lbm error message which will give the exact problem encountered in the library. |
| Store-5688-5383: store "%s" topic "%s" SesnID 0x%x RegID %u Failed to delete proxy source, %s | The store has failed to delete a proxy source due to internal lbm errors. | The log message will contain additional information about the exact reason, investigate those errors. |

| Message | Description | Resolution |
|---|---|---|
| Store-5688-5384: store "%s" topic "%s" SesnID 0x%x RegID %u Proxy source deleted | Information log entry that states the store has successfully deleted a proxy source. | This log is expected under normal operation when proxy sources are enabled. |
| Store-5688-5385: store "%s" topic "%s" Failed to schedule election timer, %s | The store could not schedule a proxy source election timer due to an internal lbm error. | The error message of this log contains additional information as to the specific reason the timer schedule failed. |
| Store-5688-5442: An error was encountered. See the message above for details. | An error was encountered in the ume configuration. See the "CRITICAL" error message before this line for details. | |
| Store-5688-5478: WARNING: store "%s" existing SesnID 0x%x RegID %u cache file could not be recreated. Renaming files. | Failure to recreate repository, possible data corruption or insufficient memory on the machine | Look at the Store log for additional information |
| Store-5688-5480: NOTICE: store "%s" topic "%s" source SesnID 0x %x RegID %u duplicate sqn %x%s; dropping duplicate%s | The UMP store daemon received a duplicate copy of a message fragment it had already previously received. | If the log message contains "received via retransmission", the duplicate sequence number is likely due to a\n proactive retransmission being sent by the source; this most likely means the store received the \n message, but the source never got the store's stability ACK for it. If this happens frequently,\n check for TCP connectivity or firewall issues from the store back to the source's request port.\n If the log does _not_ end with "received via retransmission", something more serious is wrong; the\n source and the store may be out of sync with each other with respect to what sequence number\n the source should be sending. |
| Store-5688-5481: store "%s" topic "%s" source SesnID 0x%x RegID %u unrecoverable loss %x (%u not reported) | A messages was declared unrecoverably lost by the store's receiver's underlying delivery controller. | See store log for more details. |
| Store-5688-5483: NOTICE: store "%s" topic "%s" source SesnID 0x %x RegID %u sqn 0x%x (UL insert) | A message fragment was declared unrecoverably lost by the store's receiver, but an entry for the fragment was already present in the store's repository. | This can happen if there has been data loss on an original source transport and a new or proxy source has re-registered with the store. |
| Store-5688-5484: store "%s" topic "%s" source SesnID 0x%x RegID %u unrecoverable loss burst %x | A burst of messages were declared unrecoverably lost by the store's receiver's underlying delivery controller. | See store log for more details. |

| Message | Description | Resolution |
|---|---|---|
| Store-5688-5562: WARNING: Store "%s" existing state file [%s] malformed. Renaming files. | While reading in the store's state file for a source, the store detected the file to be corrupt. The file will be renamed and the store will continue to initialize. | The state and cache files can be corrupt if the store was improperly shutdown. |
| Store-5688-5571: Store "%s" source SesnID 0x%x RegID %u source persistence registration received while in unknown state %d | Source registration received in unknown state | no resolution |
| Store-5688-5574: Store "%s" Receiver Persistence Registration received without topic resolution ad. Source RegID %u | Received preg request before TIR | check tir configs |
| Store-5688-6526: umestore_retx_create failed: shutting down %s | Possible Malloc Failure or too big queue size requested | Look at the log file for other failures |
| Store-5820-1: releasing sinc msg ID [ %x : %x ] but could not find in SINC queue msg list | A message was previously added to an internal list for queue browsing support, but was not found in that list upon dequeueing the message. | |
| Store-5820-2: msg [ %x : %x ] was already present in SINC msg list; removing old | A newly received message was already present in an internal message list used for queue browsing support. | |
| Store-5820-3: msg [ %x : %x ] was already present in SINC msg list; removing old | A newly received message was already present in an internal message list used for queue browsing support. | |
| Store-5867-4: could not create skipped msg list | An internal error occurred during ASL creation | Look for previous error messages in the log such as a malloc error |
| Store-5867-5: could not create skipped msg list | An internal error occurred during ASL creation | Look for previous error messages in the log such as a malloc error |
| Store-5867-8: error occurred while evaluating message selector %s | An error occurred while evaluating the message selector during assignment for this receiver and message | Look for previous error messages in the log regarding message selector evaluation problems |
| Store-5867-9: error occurred while evaluating message selector %s | An error occurred while evaluating the message selector during assignment for this receiver and message | Look for previous error messages in the log regarding message selector evaluation problems |
| Store-5891-12: source RegID %u disk-cache file contains duplicate sqn %x | Duplicate sequence number is detected for the repository being processed | |

| Message | Description | Resolution |
|---|---|---|
| Store-5891-13: Could not initialize %s Repository: %s | Key Value Store subsystem failed to start | |
| Store-5891-14: Store "%s" could not shutdown %s subsystem properly. | Store could not shutdown reduced-fd subsystem | Contact customer support with the log file. |
| Store-5891-15: Store "%s" could not activate the %s subsystem | Reduced-fd subsystem is initialized, but can not be activated due to failure activation message send error. | Contact customer support. |
| Store-5891-17: could not create disk_info_t for the repo[SesnID 0x %x RegID %u] | If the log message is preceded by NULL ptr errors, Store is attempting to create a structure when it should not. Otherwise, system is out of memory. | Report a bug report if the message is preceded by NULL ptr error. Otherwise, root cause of memory problem should be investigated. |
| Store-5891-18: WARNING: store "%s" existing SesnID 0x%x RegID %u disk metadata and/or msgs in repository(for non-shutdown) can be removed in a clean way | Store can not delete reduced-fd repository from disk. Error occurred during the submission of delete requests of the messages that belong to repository being deleted to the thread responsible for deleting messages from the disk. | Contact customer support. |
| Store-5891-21: sanity check failed [%s:%d] | Function is called in state that is not expected by the function. | Contact customer support |
| Store-5891-22: sanity check failed [%s:%d] | Function is called in state that is not expected by the function. | Contact customer support |
| Store-5891-23: store "%s" %s store write returned: %s with error code: %d | Reduced-fd subsystem can not persist message(s) to disk. Return message and error code give more details. | Contact customer support with the log message printed. |
| Store-5891-24: store "%s" %s store write returned error code: %d | Reduced-fd subsystem can not persist message(s) to disk. Error code give more details. | Contact customer support with the log message printed |
| Store-5891-2: could not submit to control-queue 0x%x [%s:%d] | Can not enqueue control event to key/value worker threads control queue | |
| Store-5891-30: error in closing the state_fd after re-start is completed for the repo | Reduced-fd repository state file descriptor can not be closed. This is an operating system error. | Contact customer support with the store log file. |
| Store-5891-32: Store Recovery: key length mismatch read key length: %u does not match 8-byte key | While recovering reduced-fd repository, corrupted message is read from the disk. The length of the key that is used to store messages to disk is always 8 bytes. Store is going to discard this message. | Contact customer support with the store log file. |

| Message | Description | Resolution |
|---|---|---|
| Store-5891-33: Store Recovery: value pointer is null | While recovering reduced-fd repository, message contents are missing for a key value. | Contact customer support with the store log file. |
| Store-5891-34: key pointer is NULL | While recovering reduced-fd repository, a message without a key value is detected. Store is going to discard this message. | Contact customer support with the store log file. |
| Store-5891-35: Store Recovery: Duplicate sequence # is detected, deleting the entry with key: %u | During the re-start ( following a crash or shutdown ), for reduced-fd repositories, while processing messages previously written to disk, the message being processed has a duplicate sequence number---another message with the same sequence number was processed previously. Store is going to discard this message. | Contact customer support with the store log file. |
| Store-5891-36: Store Recovery: internal error when processing the entry with key: %u | During the re-start ( following a crash or shutdown), for reduced-fd repositories, while processing messages previously written to disk, an internal error ( resource creation, or memory error) occurred. | Contact customer support with the store log file. |
| Store-5891-38: Can not create %s repo thread | On windows platform, creation of the thread responsible for processing reduced-fd I/O requests failed. | Contact customer support with store log file. |
| Store-5891-39: Can not open %s repository | The reduced-fd store can not open/ create reduced-fd folder. This error is FATAL. | Contact customer support. Please provide the execution environment, i.e. OS details. |
| Store-5891-40: Can not create %s worker thread info holder structure | The thread information structure that holds vital information that is needed for reduced-fd I/O requests can not be created due to lack of memory | The root cause of the low memory needs to be found, store can not function in this state. |
| Store-5891-41: Can not get %s repository attribute values | The function responsible for gathering reduced-fd subsystem parameters failed. | Contact customer support with the store log file. |
| Store-5891-42: Can not create %s dispatch thread | The thread responsible for calling callback functions for the previously submitted reduced-fd I/O requests can not created. | Contact customer support with store log file. |
| Store-5891-43: FATAL: Can not open %s repository: %s: Error %s | The reduced-fd store can not open/ create the reduced-fd folder. This error is FATAL. | Contact customer support. Please provide the execution environment, i.e. OS details. |

| Message | Description | Resolution |
|---|---|---|
| Store-5891-44: Rename/or Delete the repository directory: %s | The reduced-fd store can not open/ create the reduced-fd folder within the cache folder. | Failure to open reduced-fd folder is a serious error. Try running store with an empty cache folder, if error persists, contact customer support |
| Store-5891-45: %s worker thread can not pass the read record to dispatch thread | Reduced-fd subsystem error. Requested message writes requests are processed, i.e. either messages are persisted to disk, or error code is returned, however, request call back is not going to be called due to error in sending the status code to call back dispatch thread | Contact customer support with the store log file. |
| Store-5891-46: %s worker thread can not commit message deletes: err: %s | When store is shutting down, the reduced-fd subsystem can not delete messages from disk. Possible failure reasons are reduced-fd-api error, memory error, or NULL pointer might have been passed to delete function. | Contact customer support with the store log file. |
| Store-5891-47: %s worker thread can not commit message deletes during shutdown: err: %s | When store is shutting down, reduced-fd subsystem can not delete messages from disk. Possible failure reasons are leveldb-api error, memory error, or NULL pointer might have been passed to delete function. | Contact customer support with the store log file. |
| Store-5891-48: %s worker thread can not commit batch deletes: err: %s | Reduced-fd subsystem can not delete messages from disk. Possible failure reasons are reduced-fd-api error, memory error, or NULL pointer might have been passed to delete function. | Contact customer support with the store log file. |
| Store-5891-49: %s worker thread can not commit batch deletes: err: %s | Reduced-fd subsystem can not delete messages from disk. Possible failure reasons are reduced-fd-api error, memory error, or NULL pointer might have been passed to delete function. | Contact customer support with the store log file. |
| Store-5891-4: NULL ptr [%s:%d] | Null pointer detected | |
| Store-5891-50: %s worker thread can not read msg from %s repository err_code: %u | A message belonging to a reduced-fd repository can not be retrieved from the disk. There are multiple causes that lead to this error. | The error code in this log message provides more information regarding to why message can not be retrieved. Contact customer support with the store log file. |

| Message | Description | Resolution |
|---|---|---|
| Store-5891-51: %s worker thread can not pass write request status to dispatch thread err_code: %u | Reduced-fd subsystem error. Requested message writes requests are processed, i.e. either messages are persisted to disk, or error code is returned, however, request call back is not going to be called due to error in sending the status code to call back dispatch thread | Contact custormer support with the store log file. |
| Store-5891-52: %s worker thread can not commit the write request err_code: %u err: %s | Reduced-fd repository can not persist message(s) to disk due to internal failure. Error code is printed to log file. | Contact custormer support with the store log file. |
| Store-5891-54: Can not delete repository from %s repository | Store can not delete reduced-fd repository from disk. Error occurred during the submission of delete requests of the messages that belong to repository being deleted to the thread responsible for deleting messages from the disk. | Contact customer support with store log file. |
| Store-5891-55: Can not delete half constructed repository | This error is reported when a reduced-fd repository is being deleted. The function that deletes a part of the repository resources has been called in a wrong state, i.e. the function must have been asked to clean a resource that does not exist. | Contact customer support with store log file. |
| Store-5891-56: Can not create msg info for sqn: %u msgid: %u regid: %u | During the re-start ( following a crash or shutdown ), while processing messages written to disk for reduced-fd repositories, store can not allocate memory for holding message information. System is low in memory. | The root cause of the low memory needs to be found, store can not function in this state. |
| Store-5891-57: Delete a repository from %s repository failed | Store can not delete reduced-fd repository from disk. Error occurred during the submission of delete requests of the messages that belong to repository being deleted to the thread responsible for deleting messages from the disk. | Contact customer support with store log file. |

| Message | Description | Resolution |
|---|---|---|
| Store-5891-58: %s repository delete failed | Store can not delete reduced-fd repository from disk. This error might have occured during the submission of delete requests of the messages that belong to repository being deleted to the thread responsible for deleting messages from the disk. This error might also have occured if the function that deletes reduced-fd repository in a wrong state. | Contact customer support with the store log file. |
| Store-5891-59: %s worker thread can not commit deletes: err: %s | The thread that is responsible for processing reduced-fd I/O requests can not delete messages from the disk. The logged message provides more information regarding to nature of the error. | Contact customer support with the store log file. |
| Store-5891-5: NULL ptr [%s:%d] | Null pointer detected | |
| Store-5891-6: NULL ptr [%s:%d] | Null pointer detected | |
| Store-5891-7: default thread stack size is perhaps too small, %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small. The size of the default stack size is dumped and will then be set to a larger size automatically. | |
| Store-5891-8: reset thread stack size to %u bytes. | The IPC receiver has created a thread for internal processing and the default stack size is too small and is reallocated. This message reports the new size of the stack. | |
| Store-5892-1: retx thread dequeued node of unknown type: %u | An unexpected internal value was encountered. | Please contact support. |
| Store-5892-2: retx thread error occurred while processing node type: %u, %s | An error was encountered while sending a retransmission or unicast control message. | Check store machine for oversubscription. |
| Store-6007-1: Reclaiming Message Event: store "%s" topic "%s" source SesnID 0x%x RegID %u | display the information on the reclaimed message: the topic name and source ID | |
| Store-6007-2: Reclaiming Message Event: store "%s" topic "%s" source SesnID 0x%x RegID %u receiver SesnID 0x%x RegID %u | display the information on the reclaimed message: the topic name and source ID and receiver IDs | |
| Store-6007-4: unknown type of logging message: type=%d | unknown logging messages. | |

| Message | Description | Resolution |
|---|---|---|
| Store-6007-5: [umestore repository] reclamation apply_criteria() failed. | errors occur when applying the criteria to log reclaimed messages | |
| Store-6034-11: queue "%s" client re-create error: client reg ID %x could not be re-created | A client could not be re-created upon reading a context registration event from the SINC log. Something probably went really wrong - malloc failed, etc. | Contact Informatica support. |
| Store-6034-3: queue "%s" receiver registration error: topic "%s" could not create receiver | A UMQ receiver could not be created - this probably means malloc failed or something else went terribly wrong. | Contact Informatica support. |
| Store-6034-4: could not create queue SID ctlr | The UMQ session ID controller could not be created; this probably means malloc failed. | Contact Informatica support. |
| Store-6034-5: queue "%s" log read RCV REG topic RCR_IDX %x unknown | A receiver registration event was read in from the SINC log file that is for a topic that is\n not currently configured in the queue. | Did the configured topics change in between runs of the queue? Changing queue configuration\n in between runs without clearing out old SINC log files is not supported. If configured topics did\n not change, contact Informatica support. |
| Store-6034-6: queue "%s" receiver recreate error: registration ID not found | A receiver registration event was read in from the SINC log file without a corresponding initial\n client registration - most likely the SINC log file is corrupt. | Contact Informatica support. |
| Store-6034-7: queue "%s" receiver re-create error: topic "%s" receiver-type ID %u not understood | A receiver registration event was read in from the SINC log file that is for a receiver type ID that is\n not currently configured in the queue. | Did the configured receiver type IDs change in between runs of the queue? Changing queue configuration\n in between runs without clearing out old SINC log files is not supported. If configured receiver type IDs did\n not change, contact Informatica support. |
| Store-6034-8: queue "%s" receiver re-create error: topic "%s" receiver assign ID %x could not be re-created | A receiver could not be re-created upon reading a receiver registration event from the SINC log. Something probably went really wrong - malloc failed, etc. | Contact Informatica support. |
| Store-6199-1: ldb disp thread dequeued node of unknown type: %u | An unexpected internal value was encountered. | Please contact support. |
| Store-6199-2: ldb disp thread error occurred while processing node type: %u, %s | An error was encountered while sending stability ack or retransmission | Check store machine for oversubscription. |

| Message | Description | Resolution |
|---|---|---|
| Store-6199-3: lbm_shutdown_log: WFSO res=%d, GLE=%d | An unexpected error encountered while shutdown | Contact support |
| Store-6233-1: Store %p "%s" read error: message with id %u does not exist. | An asynchronous reduced-fd repo read error occurred because the message could not be found. | |
| Store-6233-2: Store %p "%s" read error: message had an unexpected length. | An asynchronous reduced-fd repo error occurred because the message had an unexpected length. | |
| Store-6233-3: Store %p "%s" generic read error. | An asynchronous reduced-fd repo generic read error occurred. | |
| Store-6233-4: Store %p "%s" unknown asynchronous read error (%u) | An asychronous reduced-fd repo read reported an unknown error code, possible memory corruption or garbage pointer. | |
| Store-6241-3: error occurred while evaluating message selector %s | An error occurred while evaluating the message selector during assignment for this receiver and message | Look for previous error messages in the log regarding message selector evaluation problems |
| Store-6246-100: Store "%s" topic "%s" source SesnID 0x%x RegID %u registering with an invalid ume_flightsz_bytes value. | registration with invalid ume_flightsz_bytes value | check config |
| Store-6246-1: Store "%s" topic "%s" source SesnID 0x%x RegID %u re-registering with a different ume_flightsz_bytes value. | reregistration with invalid ume_flightsz_bytes value | cannot change config values and re-register |
| Store-6246-2000: store "%s" topic "%s" source SesnID 0x%x RegID %u repository-size-threshold is greater than repository-size-limit | Repository size threshold is greater than repository size limit | Check config |
| Store-6246-200: store "%s" topic "%s" source SesnID 0x%x RegID %u registering with an invalid ume_repository_size_threshold value. | Reregistration with invalid ume_repository_size_threshold value | Check config |
| Store-6246-2100: store "%s" topic "%s" source SesnID 0x%x RegID %u repository-size-limit is greater than 90% of repository-disk-file-size-limit | Repository size limi tis greather than 90% repository disk file size limit | Check config |

| Message | Description | Resolution |
|---|---|---|
| Store-6246-2200: store "%s" topic "%s" source SesnID 0x%x RegID %u registering and trying to set the ume_repository_disk_file_size_limit when the repository is not a disk repository. | Reregistration with disk file size limit when repo is memory | Check config |
| Store-6246-22: store "%s" topic "%s" source SesnID 0x%x RegID %u reregistering and trying to set the ume_repository_disk_file_size_limit when the repository is not a disk repository. | Reregistration with ume_repository_size_threshold value but not a disk store | Cannot change config values and reregister |
| Store-6246-2: Store "%s" topic "%s" source SesnID 0x%x RegID %u registering as a rpp source but rpp is not allowed. | rpp source registering to a non-rpp repo. | check configs. |
| Store-6246-3000: store "%s" topic "%s" source SesnID 0x%x RegID %u repository-size-threshold must be greater than the ume_flight_size | Repository size threshold less than flight size in bytes | Check config |
| Store-6246-300: Store "%s" topic "%s" source SesnID 0x%x RegID %u registering with an invalid ume_repository_size_limit value. | registration with invalid ume_repository_size_limit value | check config |
| Store-6246-3: Store "%s" topic "%s" source SesnID 0x%x RegID %u re-registering with a different ume_repository_size_limit value. | reregistration with invalid ume_repository_size_limit value | cannot change config values and re-register |
| Store-6246-400: Store "%s" topic "%s" source SesnID 0x%x RegID %u registering with an invalid ume_repository_disk_file_size_limit value. | registering with invalid ume_repository_disk_file_size_limit value | check config |
| Store-6246-4: Store "%s" topic "%s" source SesnID 0x%x RegID %u re-registering with a different ume_repository_disk_file_size_limit value. | reregistration with invalid ume_repository_disk_file_size_limit value | cannot change config values and re-register |
| Store-6246-500: Store "%s" topic "%s" source SesnID 0x%x RegID %u registering with an invalid ume_write_delay value. | registering with invalid ume_write_delay value | check config |
| Store-6246-5: Store "%s" topic "%s" source SesnID 0x%x RegID %u re-registering with a different ume_write_delay value. | reregistering with invalid ume_write_delay value | cannot change config values and re-register |

| Message | Description | Resolution |
|---|---|---|
| Store-6246-600: Store "%s" topic "%s" source SesnID 0x%x RegID %u registering with an invalid ume_repository_ack_on_reception value. | registering with an invalid ume_repository_ack_on_reception value | check config |
| Store-6246-6: Store "%s" topic "%s" source SesnID 0x%x RegID %u re-registering with a different ume_repository_ack_on_reception value. | reregistering with invalid ume_repository_ack_on_reception value | cannot change config values and re-register |
| Store-6246-700: store "%s" topic "%s" source SesnID 0x%x RegID %u registering with an unknown configuration option "%s". | Reregistration with unknown config options | Version mismatch |
| Store-6246-7: Store "%s" toic "%s" source SesnID 0x%x RegID %u registering with an unknown configuration option "%s". | registering with an unknown configuration option | version mismatch |
| Store-6246-8: store "%s" topic "%s" source SesnID 0x%x RegID %u registering with as a RPP source but RPP is not allowed. | Registering as RPP but RPP is not allowed | Check configs |
| Store-6246-900: Store "%s" topic "%s" source SesnID 0x%x RegID %u registering with an invalid ume_repository_size_threshold value. | registration with invalid ume_repository_size_threshold value | check config |
| Store-6246-9: Store "%s" topic "%s" source SesnID 0x%x RegID %u re-registering with a differnt ume_repository_size_threshold value. | reregistration with invalid ume_repository_size_threshold value | cannot change config values and re-register |
| Store-6254-0001: queue "%s" received message list request with message selector string, but can not create message selector object. | can not create internal msg selector object. | |
| Store-6298-10: Store "%s" source SesnID 0x%x RegID %u deregistered %s.%u | source has deregistered | source deregistered |
| Store-6298-11: Store "%s" attempting to deregister a source SesnID 0x%x RegID %u that has already deregistered | source is trying to deregister even though it was already deregistered | preg response for deregistration may have been lost. |
| Store-6298-12: Store "%s" receiver SesnID 0x%x RegID %u deregistered %s.%u | receiver is deregistering | receiver has deregistered |

| Message | Description | Resolution |
|---|---|---|
| Store-6298-13: Store "%s" attempting to deregister a receiver SesnID 0x%x RegID %u that has already deregistered | a deregistered seceiver is trying to deregister | preg response for deregistration may have been lost. |
| Store-6298-14: Store "%s" attempting to deregister a client SesnID 0x%x RegID %u that does not exist | deregistering something that does not exist | a client is attempting to deregister even after it's lifetime / activity timeout has expired. |
| Store-6300-1: Store "%s" Non-RPP receiver attempting to register to a RPP topic | non-RPP receiver registering to a rpp topic | check receiver config and turn on rpp |
| Store-6301-1: Store "%s" topic "%s" source SesnID 0x%x RegID %u re-registering as a normal source when it was previously registered as a rpp source. | spp source re-registering when previously registered as rpp | turn on rpp at the source |
| Store-6301-2: Store "%s" topic "%s" rpp source SesnID 0x%x RegID %u re-registering when previously registered as a non-rpp source. | rpp source re-registering when previously registered as spp | turn off rpp at the source |
| Store-6318-4: Unmap error: %s | An operating system error was encountered when attempting to clean up the state file mapping | Check the log message for the system error code and investigate further. |
| Store-6353-1: store "%s" Original Receiver Paced Persistence (RPP) receiver attempting to re-register to a RPP topic as a non-RPP receiver | An a receiver that has registered as an RPP receiver is currently attempting to re-register as a non-RPP receiver. This is not allowed. | The receiver is misconfigured. |
| Store-6356-1: store "%s" topic "%s" Proxy creation failed to set receiver paced persistence options, %s | An error occurred setting receiver paced options on proxy source attributes which are required for registration. Proxy source cannot be created. | Check error message for exact cause and consult the configuration guide. |
| Store-6375-1: Can not commit the special delete request | Key value worker thread can not commit the special delete request | |
| Store-6375-2: Can not commit the special delete request | Key value worker thread can not commit the special delete request | |
| Store-6375-3: %s worker thread can not commit the special delete request err_code: %u | A message belongs to reduced-fd repository can not be deleted from the disk. | The error code in this log message provides more information regarding to why message can not be deleted. Contact customer support with the store log file. |

| Message | Description | Resolution |
|---|---|---|
| Store-6375-4: %s worker thread can not commit the special delete request err: %s | A message belongs to reduced-fd repository can not be deleted from the disk. | The error code ( followed by err:) in this log message provides more information regarding to why message can not be deleted. Contact customer support with the store log file. |
| Store-6395-116: Ack adjustment failed | In a reduced-fd RPP repository, during the re-start( following a shutdown, or crash), the function that calculates, for each message in the repository, number of receivers that need that message failed. | Contact customer support with the log file. |
| Store-6397-1: store "%s" source SesnID 0x%x [RegID %u] [%s repo] [message-sqn %x] CKSUM failed %x[cksum on recovered msg] | During the re-start ( following crash, or a re-start), for a reduced-fd repository message read from the disk, checksum failed. Message must have been corrupted. | Contact customer support with the store log file. |
| Store-6397-2: Repository check-sum check function failed on src regid: %u | The function resposible for check sum processing is called in a wrong state, i.e., one or many of the resource are missing (NULL). The checksum of the messages is not checked. | Contact customer support with the store log file. |
| Store-6417-2: INFO: Store "%s" could not open existing cache file [%s] | The store can not open repository cache file. The file might have been deleted, or for some other reason store can not open it. | Contact customer support with the store log file, and list of files in state and cache directory. |
| Store-6417-3: Can not find the max sqn of rcv [regid: %u] | The function that is responsible for finding maximum sequence number of the current receivers failed. | Contact customer support with the store log file. |
| Store-6417-4: Repo:%u has no messages on disk, and sqn adjustment failed | During the re-start ( following shutdown, or crash), sequence number adjustment of empty repository failed. Note that, in RPP mode, if all the receivers are keeping up with the source, repository can be empty. | This error message is preceded with other related error messages. Contact customer support with the store log file. |
| Store-6417-5: could not initialize %s repository: %s | Reduced-fd subsystem can not be initialized. | This error message is preceded with other related error messages. Contact customer support with the store log file. |
| Store-6417-6: INFO: Store "%s"cache file [%s] exist, and repo is marked as reduced fd repo in state file. invalid repo state | Inconsistent state has been detected. For a particular repository, there is cache file, and the repository is marked as reduced-fd repository. | Contact customer support with store log file, and the list of files in state and cache directory. |

| Message | Description | Resolution |
|---|---|---|
| Store-6417-7: INFO: Store "%s" RegID: %u triggered late reduced-fd system initialization | This is an information message. Late initialization is triggered when a configuration file is changed such that all the reduced-fd repositories are deleted or changed to disk. If there is a state file for the repositories whose type is changed from reduced-fd to disk, then original repository type--reduced-fd-- is enforced, and late initialization is triggered. | Remove the disk cache file or restore the configured repository type to reduced-fd |
| Store-6425-1: store "%s" SesnID 0x%x RegID %u Configured repo type: %u is different than the original type: %u Forcing the original type | During the restart ( following crash or shutdown), a repository type is changed, however, this is not allowed before the source deregistration. Store is going to enforce original repository type. | Remove the store∩┐╨s state and cache files or restore the configured repository type to the original value. |
| Store-6492-1: Store "%s" topic "%s" source SesnID 0x%x RegID %u registering and trying to set the ume_repository_disk_file_size_limit when the repository is not a disk or reduced_fd repository. | registration setting disk size limit when you aren't a disk or a reduced_fd store | Check configuration. |
| Store-6492-2: Store "%s" topic "%s" source SesnID 0x%x RegID %u registering and trying to set the ume_repository_disk_file_size_limit when the repository is not a disk or reduced_fd repository. | registration setting disk size limit when you aren't a disk or a reduced_fd store | Check configuration. |
| Store-6492-3: Store "%s" topic "%s" source SesnID 0x%x RegID %u repository-size-threshold is greater than repository-size-limit | Repository size threshold is greater than repository size limit | Check config |
| Store-6492-4: Store "%s" topic "%s" source SesnID 0x%x RegID %u repository-size-limit is greater than 90%% of repository-disk-file-size-limit | Repository size limit is greater than 90% repository disk file size limit | Check config |
| Store-6492-5: Store "%s" topic "%s" source SesnID 0x%x RegID %u repository-size-threshold must be greater than ume_flight_size_bytes | Repository size threshold less than flight size in bytes | Check config |
| Store-6524-1: msg_size_on_disk is called for a unrecoverable lost sqn: %u | The function that calculates the message size in disk for reduced-fd repositories is called for a loss message. Function handles the case correctly, however, this function is not supposed to be called for the loss messages. | Contact customer support. |

| Message | Description | Resolution |
|---|---|---|
| Store-6543-1: could not lseek cache file RegID %u: %s | During the creation of repository cache file, system call to change the file offset to the beginning of the cache file failed. | Contact customer support |
| Store-6543-2: could not write cache file RegID %u: %s | During the creation of repository cache file, special marker can not be written to the cache file. | Contact customer support |
| Store-6557-1: store "%s" source SesnID 0x%x RegID %u Re-Registered and moved to Indices %u.%u [%s.%u] RPP | RPP source reregistered | RPP source reregistered |
| Store-6557-2: store "%s" receiver SesnID 0x%x RegID %u Re-Registered and moved to Indices %u.%u [%s.%u] RPP | RPP receiver re-registered | RPP receiver re-registered |
| Store-6589-2: WARNING: msync EIO from umestore_state_update_rcv_timers | write all modified data to the disk. | |
| Store-6607-1: queue "%s" observer receiver registration error: topic "%s" could not create observer receiver | A UMQ observer receiver could not be created - this probably means malloc failed or something else went terribly wrong. | Contact Informatica support. |
| Store-6607-2: queue "%s" receiver registration error: assign ID 0x%x could not re-create receiver | A UMQ receiver could not be re-created - this probably means malloc failed or something else went terribly wrong. | Contact Informatica support. |
| Store-6620-1: INFO: Could not rename file [%s] to [%s]: %s | The system failed to rename a corrupted cache or state file. | Review the system error string and resolve the system issue before restarting the store. |
| Store-6652-1: umestore_retx_timer_check : retx_ctrl is not allocated | Retransmission Control Structure is not allocated | View Store log for errors |
| Store-6807-1: lbm_shutdown_log: WFSO res=%d, GLE=%d | An error was encountered while Shutting Down Umestore | Check store log of other errors |
| Store-6975-1: source registered with zero RegID or no store information was found - proxy source disabled | A source attempted to register to a store with proxy sources enabled but did not have explicit regstration IDs or session IDs enabled, or did not send store configuration information with the registration. | Check the source to make sure registration IDs or session IDs are explicitly specified, or check that compatible versions of source and store applications are used. |
| Store-7000-1: lbm_context_attr_str_setopt - context_name: %s | Failed to set the context name on the main store context. | Check for resource exhaustion, out of memory errors, etc. |

| Message | Description | Resolution |
|---|---|---|
| Store-7000-2: lbm_context_attr_str_setopt - context_name: %s | Failed to set the context name on the proxy store context. | Check for resource exhaustion, out of memory errors, etc. |
| Store-7046-1: store "%s" topic "%s" transport %s tidx %u SesnID 0x%x RegID %u RA | A repository has gained association (RA) with a source and will now retain that source's messages. | None |
| Store-7049-2: NOTICE: store "%s" topic "%s" source SesnID 0x%x RegID %u sqn 0x%x reported as unrecoverably lost via normal transport, but was successfully received earlier via retransmission | A message fragment was declared unrecoverably lost by the store's receiver's underlying delivery controller, but the fragment was already previously recovered (probably by proactive retransmission). | Check for data loss on the source's transport between the source and the store. This message indicates that the store _did_ actually receive the message data (it did NOT lose it), it just didn't do so through the preferred means. |
| Store-7049-3: Store "%s" received retransmission of sequence number 0x%x for source RegID %u from %s | The UMP store received a unicast proactive retransmission. | This probably indicates loss of either the message data from the source to the store, or of stability ACKs from the store to the source. Sources\n of loss should be investigated. |
| Store-7216-1: For: %s queue-management-join-request-timeout [%u] can not be less than twice the queue-management-master-activity-timeout [%u]. Overriding queue-management-join-request-timeout value to %u | queue-management-join-request-timeout is configured less than its minimum value, i.e. 2 x queue-management-master-activity-timeout, this configuration can lead to multiple master queues. | Configure queue-management-join-request-timeout value greater than twice the queue-management-master-activity-timeout. |
| Store-7239-1: Store "%s" [ src SesnID 0x%x src RegID %u rcv SesnID: 0x%x rcv RegID: %u ] failed to define | Store can not assign receiver its previous RegID. This can happen (i) State file corruption leads to earlier assignment of receiver's RegID (ii) Memory error | Contact customer support |
| Store-7239-2: Store "%s" can not re-create rcv [ SesnID: 0x%x RegID %u ] for src [ SesnID 0x%x RegID %u] | Store can not recreate a receiver due to memory error from state file. | Contact customer support |
| Store-7256-1: Store "%s" source RegID %u Keepalive ignored, client invalid | The store received a keepalive that could not be associated with a source or receiver client | This may indicate some internal errors regarding managing source and receiver clients. |
| Store-7256-2: LBMC Error handling registration request. %s | There was an error handling a persistent registration request at the store | Look in the store log for previous errors that might indicate why this would fail. |
| Store-7256-3: LBMC Error handling retransmit request. %s | There was an error handling a retransmit request at the store | Look in the store log for previous errors that might indicate why this would fail. |
| Store-7256-4: LBMC Error handling acknowledgement. %s | There was an error handling a message acknowledgement at the store | Look in the store log for previous errors that might indicate why this would fail. |

| Message | Description | Resolution |
|---|---|---|
| Store-7256-5: LBMC Error handling keepalive. %s | There was an error handling a source or receiver keepalive at the store | Look in the store log for previous errors that might indicate why this would fail. |
| Store-7297-1: store "%s" topic "%s" Received proxy source PREG from self with invalid topic and transport indicies, ignoring. | A PREG request from a proxy source was received with an election token matching the proxy source hosted by this store. This PREG request is ignored. | This can occur if the store context thread has fallen behind in processing incoming PREG requests from the socket buffer, to the point where the store is processing PREG requests for proxy sources that no longer exist. Take steps to reduce the load on the store such as reducing the number of sources registered. |
| Store-8223-1: Could not add new regid %x to ctlr: %s | The store was unable to add a new source to its list of clients. | Typically this message indicates that something else has gone wrong previously. Check for additional error messages. |
| Store-8223-2: Could not create ASL: %s | The store was unable to create a client list for a source. | Typically this message indicates that something else has gone wrong previously. Check for errors indicating that the system is out of memory. |
| Store-8223-3: Could not create add new topic entry for regid %d: %s | The store was unable to create a new entry for a source. | Typically this message indicates that something else has gone wrong previously. Check for errors indicating that the system is out of memory. |
| Store-8223-4: Set RegID seed to %u | The next RegID the store will assign has been set to the specified value. | This is purely an informational message, and requires no action on the user's part. |
| Store-8223-5: Reset RegID seed to %u | The next RegID the store will assign has been set to the specified value. | This is purely an informational message, and requires no action on the user's part. |
| Store-8223-6: Could not cleanly unwind client %p when attempting source registration. | The store was unable to clean up after a source failed to register. | Typically this message indicates that something else has gone wrong previously. Check for previous error messages. |
| Store-8269-1: lbm_context_attr_setopt - compatibility_include_pre_um_6_0 _behavior: %s | Failed to turn off pre 6.0 compatibility mode on the proxy store context. | Check for resource exhaustion, out of memory errors, etc. |
| Store-8269-2: store "%s" topic "%s" proxy creation failed to set transport_tcp_use_session_id 0: %s | An error occurred setting transport_tcp_use_session_id for a proxy source being created with pre 6.0 compatibility enabled. | Check the error message for exact cause and consult the configuration guide |

| Message | Description | Resolution |
|---|---|---|
| Store-8764-1: Store "%s" failed to register source: %s | A source attempted to register, but an error occurred while trying to add it to the store's list of known clients. | Check for included log message for details. |
| Store-8808-1: settings other than 1 for repository-disk-max-write-async-cbs are no longer allowed due to the possibility of data corruption. Ignoring requested value of %d | Multiple outstanding async IO callbacks have been found to cause cache file corruption in some cases and are no longer allowed as a result. | Change the store's XML configuration file to specify a value of 1 for repository-disk-max-write-async-cbs . |

# UM Persistent Store API Log Messages

The following table lists log messages from UM Persistent Store API (umestored) functionality.

You may find searching on the Log Message ID the most effective method to find the message's description.

**Table 6. UM Persistent Store API Log Messages**

| Message | Description | Resolution |
|---|---|---|
| StoreApi-5867-10: error occurred parsing message selector string < %s> | The message selector string is invalid or could not be parsed. | Please check the UM Documentation for valid syntax. |
| StoreApi-5867-11: parsing error occurred while updating the message selector with string <%s> | The message selector string is invalid or could not be parsed. | Please check the UM Documentation for valid syntax. |
| StoreApi-5867-12: parsing error occurred while creating a message selector with string <%s> | The message selector string is invalid or could not be parsed. | Please check the UM Documentation for valid syntax. |
| StoreApi-5867-6: could not insert umq_topic_appset_t skipped rcv list ASL [%s:%d] | An internal error occurred during ASL insertion | Look for previous error messages in the log such as a malloc error |
| StoreApi-5867-7: could not insert umq_topic_appset_t skipped rcv list ASL [%s:%d] | An internal error occurred during ASL insertion | Look for previous error messages in the log such as a malloc error |
| StoreApi-5891-10: could not create recovery asl | Memory error during the ASL creation | |
| StoreApi-5891-11: could not create repo ASL | Memory error: repository message asl creation is failed | |
| StoreApi-5891-19: Repository async read submit error | There was an error submitting an async read operation to the queue. | This usually results from malloc failure, ensure host machine has sufficient resources. |

| Message | Description | Resolution |
|---|---|---|
| StoreApi-5891-1: could not create tl queue [%s:%d] | Key value repo worker thread's queue creation failed | |
| StoreApi-5891-28: umestore_state_new_rcv re-opening state file failed. %s | Can not re-open state file | |
| StoreApi-5891-29: umestore_state_new_rcv closing fd after re-opening failed. %s | Can not close the file descriptor after reopening it. | |
| StoreApi-5891-37: could not create repo ASL | Memory error: repository message asl creation is failed | |
| StoreApi-5891-3: could not allocate %u bytes [%s:%d] | MALLOC error | |
| StoreApi-5891-53: could not create repo rcv_ack_cache | Repo rcv ack cache creation failed | |
| StoreApi-5891-60: umestore_state_create closing fd failed: %s | Can not close the file descriptor | |
| StoreApi-5891-9: pthread_create: %d | Key value repo worker thread creation failed | |
| StoreApi-6007-12: could not create repo log | some errors occured when creating the reclamation log. | |
| StoreApi-6034-10: could not insert umq_topic_rcv_t into appset active_rcv_assign_q [%s:%d] | A UMQ receiver could not be placed in an application set's internal list of receivers with\n non-empty per-receiver assignment queues. This probably means malloc failed. | Contact Informatica support. |
| StoreApi-6034-9: could not create receiver assign_q [%s:%d] | The per-receiver assignment queue could not be created - this probably means malloc failed. | Contact Informatica support. |
| StoreApi-6118-100: could not create repo rcv_ack_cache | Could not create rcv ack cache | out of memory |
| StoreApi-6318-1: Failed to unmap file. System error (%d) | The operating system call to unmap the state file returned an error. | Check the system error code and determine why it would happen |
| StoreApi-6318-2: Failed to close state file mapping handle. System error (%d) | The operating system call to close the state file mapping handle returned an error. | Check the system error code and determine why it would happen |
| StoreApi-6318-3: Failed to unmap state file. System error (%d) | The operating system call to unmap the state file returned an error. | Check the system error code and determine why it would happen |

| Message | Description | Resolution |
|---|---|---|
| StoreApi-6333-1: Attempting to delete NULL disk info, file was not created. | The store was deleting a repository and the disk info holder was NULL. There were most likely errors when the store attempted to create the disk. | Investigate why the store could not create the disk info properly. Usually this occurs when the process has hit the file descriptor limit. |
| StoreApi-6333-2: Attempting to delete NULL state file. State file was not created. | The store was deleting a repository and the state file was NULL. There were most likely errors when the store attempted to create the file. | Investigate why the store could not create the state file properly. Usually this occurs when the process has hit the file descriptor limit. |
| StoreApi-6417-1: could not create repo ASL | Memory error: repository message asl creation is failed | |
| StoreApi-6543-3: umestore_repository_write_rec_marker CreateEvent: %s | Can not create event for rec marker | There is not resolution to this |
| StoreApi-6543-4: umestore_repository_write_rec_marker: WriteFile: %s | umestore_repository_write_rec_marker: GetLastError Failed | Get last error failed |
| StoreApi-6543-5: umestore_repository_write_rec_marker GetOverlappedResult: %s | GetOverlappedResult function failed | no resolution |
| StoreApi-6589-1: umestore_state_update_rcv_timers FlushViewOfFile: %s | write to disk the mapping view of the state file. | |
| StoreApi-6589-3: umestore_state_update_rcv_timers msync: %s | write to disk the mapping view of the state file. | |
| StoreApi-8804-1: umestore_state_update_rcv_timers index of receiver entry in state file was negative | The store attempted to update the activity and state lifetime of a receiver, but that receiver's entry index in the state file was negative. | This can be seen when there is a problem writing or reading the state file. Check the store log for disk error log messages. |
| StoreApi-8840-11: Could not register client [%x:%u] on topic %s. RegID mismatch with [%x:%u] | A duplicate session ID is in use between two clients on the same topic. | Check for duplication session IDs in application configuration files. Applications should usually explicitly specify a session ID\n rather than relying on the store to generate one. |

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