



CHAPTER 6

Database Troubleshooting

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Introduction

This chapter provides the information needed for monitoring and troubleshooting database events and alarms. This chapter is divided into the following sections:

- [Database Events and Alarms](#)—Provides a brief overview of each database event and alarm
- [Monitoring Database Events](#)—Provides the information needed for monitoring and correcting the database events
- [Troubleshooting Database Alarms](#)—Provides the information needed for troubleshooting and correcting the database alarms

Database Events and Alarms

This section provides a brief overview of the database events and alarms for the Cisco BTS 10200 Softswitch; the event and alarms are arranged in numerical order. [Table 6-1](#) lists all of the database events and alarms by severity.


Note

Refer to the [“Obtaining Documentation and Submitting a Service Request”](#) section on [page 1](#) for detailed instructions on contacting Cisco TAC and opening a service request.


Note

Click the database message number in [Table 6-1](#) to display information about the event or alarm.

Table 6-1 Database Events and Alarms by Severity

Critical	Major	Minor	Warning	Information	Not Used
Database (3)	Database (6)	Database (7)	Database (2)	Database (1)	
Database (4)	Database (8)	Database (14)	Database (11)	Database (19)	
Database (5)	Database (10)	Database (21)	Database (18)		
Database (9)	Database (13)	Database (23)			
Database (12)	Database (15)				
Database (16)	Database (17)				
	Database (20)				
	Database (22)				
	Database (24)				
	Database (25)				
	Database (26)				
	Database (27)				

Database (1)

[Table 6-2](#) lists the details of the Database (1) informational event. For additional information, refer to the [“Test Report—Database \(1\)”](#) section on [page 6-24](#).

Table 6-2 Database (1) Details

Description	Test Report
Severity	Information
Threshold	10000
Throttle	0

Database (2)

Table 6-3 lists the details of the Database (2) warning event. To monitor and correct the cause of the event, refer to the “[Database Management Update Failure: Master/Slave Database Out of Sync—Database \(2\)](#)” section on page 6-24.

Table 6-3 Database (2) Details

Description	Database Management Update Failure: Master/Slave Database Out of Sync (DBM Update Failure: Master/Slave Database Out of Sync)
Severity	Warning
Threshold	100
Throttle	0
Datawords	Error Code—TWO_BYTES Error String—STRING [20] Provisioning String—STRING [80]
Primary Cause	The master database under Oracle control in the Element Management System (EMS) was successfully updated, but the subsequent update of the shared memory tables in the Call Agents (CAs) and/or Feature Servers (FSs) failed to complete.
Primary Action	Perform an audit of the database in question to correct the data stored in shared memory.
Secondary Action	Use command line interface (CLI) to show and delete the transaction queue, and to audit and manage the queue.

Database (3)

Table 6-4 lists the details of the Database (3) critical alarm. To troubleshoot and correct the cause of the alarm, refer to the [“There Are Errors In Element Management System Database DefError Queue; Contact Database Administrator—Database \(3\)”](#) section on page 6-31.

Table 6-4 Database (3) Details

Description	There Are Errors in Element Management System Database DefError Queue; Contact Database Administrator (There are Errors in EMS Database DefError Queue; Contact DBA)
Severity	Critical
Threshold	100
Throttle	0
Datawords	Host Name—STRING [30] Database Name—STRING [10] Error Count—ONE_BYTE Time Stamp—STRING [20]
Primary Cause	Replication data conflicts have occurred.
Primary Action	The replication data conflicts may require a manual update on the database tables. Contact the Cisco Technical Assistance Center (TAC).
Secondary Cause	An update or delete attempt on nonexisting data has occurred.
Ternary Cause	The unique constraint (primary key) has been violated.

Database (4)

Table 6-5 lists the details of the Database (4) critical alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Element Management System Database HeartBeat: Replication Push Job Broken—Database \(4\)](#)” section on page 6-32.

Table 6-5 Database (4) Details

Description	Element Management System Database HeartBeat: Replication Push Job Broken (EMS DB_Heart_Beat: Replication Push Job Broken)
Severity	Critical
Threshold	100
Throttle	0
Datawords	Host Name—STRING [30] Local Database—STRING [10] Remote Database—STRING [10] Job—STRING [5] Time Stamp—STRING [20]
Primary Cause	The remote database is not accessible.
Primary Action	Restart or restore the remote database.
Secondary Cause	The remote database is down.
Secondary Action	Restart the remote listener process.
Ternary Cause	The remote Oracle listener process has died.
Ternary Action	Correct the network connection problem.
Subsequent Cause	The network connection is broken.

Database (5)

Table 6-6 lists the details of the Database (5) critical alarm. To troubleshoot and correct the cause of the alarm, refer to the “Element Management System Database HeartBeat Process Died—Database (5)” section on page 6-32.

Table 6-6 Database (5) Details

Description	Element Management System Database HeartBeat Process Died (EMS DBHeartBeat Process Died)
Severity	Critical
Threshold	100
Throttle	0
Datawords	Host Name—STRING [30] Database Name—STRING [10] Time Stamp—STRING [20]
Primary Cause	The DBHeartBeat process has been terminated by the system manager program (SMG) or stopped by the platform.
Primary Action	Restart the DBHeartBeat process by entering the dbinit -H -i start command as an Oracle user, or by entering the platform start command as a root user.

Database (6)

Table 6-7 lists the details of the Database (6) major alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Element Management System Database Replication DefTranDest Queue Overloaded—Database \(6\)](#)” section on page 6-33.

Table 6-7 Database (6) Details

Description	Element Management System Database Replication DefTranDest Queue Overloaded (EMS Database Replication DefTranDest Queue Overloaded)
Severity	Major
Threshold	100
Throttle	0
Datawords	Host Name—STRING [30] Database Name—STRING [10] Threshold—FOUR_BYTES Time Stamp—STRING [20]
Primary Cause	The replication push job is broken.
Primary Action	Correct problems on the remote database.
Secondary Cause	The remote database is not accessible.
Secondary Action	Make sure that the DBHeartBeat process is up.
Ternary Cause	The database is overloaded.
Ternary Action	Troubleshoot the database performance.

Database (7)

Table 6-8 lists the details of the Database (7) minor alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Element Management System Database DefTran Queue Is Overloaded—Database \(7\)](#)” section on page 6-34.

Table 6-8 Database (7) Details

Description	Element Management System Database DefTran Queue is Overloaded (EMS Database DefTran Queue is Overloaded)
Severity	Minor
Threshold	100
Throttle	0
Datawords	Host Name—STRING [30] Database Name—STRING [10] Threshold—TWO_BYTES Time Stamp—STRING [20]
Primary Cause	The replication DefTranDest queue is overloaded.
Primary Action	Resume the replication activities.
Secondary Cause	There are too many errors in the DefError queue.
Secondary Action	Correct the replication errors.
Ternary Cause	The replication purge job is broken or overloaded.
Ternary Action	Enable the replication purge job.

Database (8)

Table 6-9 lists the details of the Database (8) major alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Element Management System Database Tablespace Is Out of Free Space—Database \(8\)](#)” section on page 6-34.

Table 6-9 Database (8) Details

Description	Element Management System Database Tablespace is Out of Free Space (EMS Database Tablespace is Out of Free Space)
Severity	Major
Threshold	100
Throttle	0
Datawords	Host Name—STRING [30] Database Name—STRING [10] Tablespace Name—STRING [30] Total Free Space—TWO_BYTES Time Stamp—STRING [20]
Primary Cause	An increase data volume or transactions has occurred.
Primary Action	Add more space to the tablespace.

Database (9)

Table 6-10 lists the details of the Database (9) critical alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Urgent: Element Management System Database Archive Log Directory Is Getting Full—Database \(9\)](#)” section on page 6-35.

Table 6-10 Database (9) Details

Description	Urgent: Element Management System Database Archive Log Directory is Getting Full (Urgent: EMS Database Archive Log Directory is Getting Full)
Severity	Critical
Threshold	100
Throttle	0
Datawords	Host Name—STRING [30] Database Name—STRING [10] Directory Name—STRING [100] Free Space—TWO_BYTES Time Stamp—STRING [20]
Primary Cause	The transaction volume has increased.
Primary Action	Back up and clean up the archive log files.
Secondary Action	Add more space to the archive log directory.

Database (10)

Table 6-11 lists the details of the Database (10) major alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Element Management System Database: Back Up Fails—Database \(10\)](#)” section on page 6-35.

Table 6-11 Database (10) Details

Description	Element Management System Database: Back Up Fails (EMS Database: Back Up Fails)
Severity	Major
Threshold	100
Throttle	0
Datawords	Host Name—STRING [30] Database Name—STRING [10] Message 1—STRING [200] Message 2—STRING [200] Time Stamp—STRING [20]
Primary Cause	The system or hardware is unstable.
Primary Action	Restart back up process.

Database (11)

Table 6-12 lists the details of the Database (11) major alarm. To troubleshoot and correct the cause of the alarm, refer to the “Element Management System Database Alert.log Alerts—Database (11)” section on page 6-35.

Table 6-12 Database (11) Details

Description	Element Management System Database Alert.log Alerts (EMS Database Alert.log Alerts)
Severity	Major
Threshold	100
Throttle	0
Datawords	Host Name—STRING [30] Database Name—STRING [10] Message 1—STRING [200] Message 2—STRING [200] Time Stamp—STRING [20]
Primary Cause	The probable cause of the ORA- errors report in alert.log file is documented in the \$ORACLE_HOME/rdbms/mesg/oraus.msg file. Log in to the EMS system as an oracle user (or su-oracle) to view this file. If more information is needed, contact Cisco TAC for database support, or query Oracle metalink library at http://metalink.oracle.com .
Primary Action	The corrective action is documented in the \$ORACLE_HOME/rdbms/mesg/oraus.msg file. Log in to the EMS system as an oracle user (or su-oracle) to view this file. If more information is needed, contact Cisco TAC for database support, or query Oracle Metalink library at http://metalink.oracle.com . The alert.log file is the global message file for errors issued by all Oracle background processes. The majority of error conditions might require administrator's investigation and manual correction.

Database (12)

Table 6-13 lists the details of the Database (12) critical alarm. To troubleshoot and correct the cause of the alarm, refer to the “Element Management System Database Process Died—Database (12)” section on page 6-35.

Table 6-13 Database (12) Details

Description	Element Management System Database Process Died (EMS Database Process Died)
Severity	Critical
Threshold	100
Throttle	0
Datawords	Host Name—STRING [30] Database Name—STRING [10] Error Source—STRING [40] Message—STRING [200] Time Stamp—STRING [20]
Primary Cause	Possible Error Source: 1. Process Name, if the local process is not running. 2. Cannot_connect_database if the local database (DB) is unreachable. 3. Cannot_connect if the remote DB is unreachable.
Primary Action	Restart the process.
Secondary Action	Contact Cisco TAC.

Database (13)

Table 6-14 lists the details of the Database (13) major alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Element Management System Database Performance Alert—Database \(13\)](#)” section on page 6-35.

Table 6-14 Database (13) Details

Description	Element Management System Database Performance Alert (EMS Database Performance Alert)
Severity	Major
Threshold	100
Throttle	0
Datawords	Host Name—STRING [30] Database Name—STRING [10] Stat Event Name—STRING [80] Value 1—STRING [50] Value 2—FOUR_BYTES Message—STRING [200] Time Stamp—STRING [20]
Primary Cause	See the Stat Event Name dataword.
Primary Action	Contact Cisco TAC.
Secondary Action	Perform a database performance tuning.

Database (14)

Table 6-15 lists the details of the Database (14) minor alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Table Size Exceeds Minor Threshold Limit—Database \(14\)](#)” section on page 6-36.

Table 6-15 Database (14) Details

Description	Table Size Exceeds Minor Threshold Limit
Severity	Minor
Threshold	100
Throttle	0
Datawords	Table Name—STRING [32]
Primary Cause	The preprovisioned size for the stated table is nearing the licensed limit on the number of entries it can hold.
Primary Action	Contact Cisco TAC to purchase additional entry space for this particular table.

Database (15)

Table 6-16 lists the details of the Database (15) major alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Table Size Exceeds Major Threshold Limit—Database \(15\)](#)” section on page 6-36.

Table 6-16 Database (15) Details

Description	Table Size Exceeds Major Threshold Limit
Severity	Major
Threshold	100
Throttle	0
Datawords	Table Name—STRING [32]
Primary Cause	The major threshold limit has been exceeded.
Primary Action	Not applicable.

Database (16)

Table 6-17 lists the details of the Database (16) critical alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Table Size Exceeds Critical Threshold Limit—Database \(16\)](#)” section on page 6-36.

Table 6-17 Database (16) Details

Description	Table Size Exceeds Critical Threshold Limit
Severity	Critical
Threshold	100
Throttle	0
Datawords	Table Name—STRING [32]
Primary Cause	The critical threshold limit has been exceeded.
Primary Action	Not applicable.

Database (17)

Table 6-18 lists the details of the Database (17) major alarm. To troubleshoot and correct the cause of the alarm, refer to the “Data Replication Failed—Database (17)” section on page 6-36.

Table 6-18 Database (17) Details

Description	Data Replication Failed
Severity	Major
Threshold	100
Throttle	0
Datawords	Replication-Stage—STRING [40] Table Name—STRING [40] Index—FOUR_BYTES Table ID—TWO_BYTES
Primary Cause	The index size is out of range.
Secondary Cause	Record the index size mismatch.

Database (18)

Table 6-19 lists the details of the Database (18) warning event. To monitor and correct the cause of the event, refer to the “Unexpected Runtime Data Interaction—Database (18)” section on page 6-27.

Table 6-19 Database (18) Details

Description	Unexpected Runtime Data Interaction
Severity	Warning
Threshold	100
Throttle	0
Datawords	Internal/External In—STRING [10] Table Name—STRING [32] Table Entry—STRING [10] Table Field Name—STRING [32] Descriptive Data 1—STRING [64] Descriptive Data 2—STRING [64] Descriptive Data 3—STRING [64] Descriptive Data 4—STRING [64]
Primary Cause	An unexpected data interaction has been detected at the runtime in the call agent or the feature server.
Primary Action	Collect the logs and contact Cisco TAC.

Database (19)

Table 6-20 lists the details of the Database (19) informational event. For additional information, refer to the “[Daily Database Back Up Completed Successfully—Database \(19\)](#)” section on page 6-27.

Table 6-20 Database (19) Details

Description	Daily Database Back Up Completed Successfully
Severity	Information
Threshold	0
Throttle	0
Datawords	Host Name—STRING [60] ORACLE_SID—STRING [30] Process—STRING [60] Message 1—STRING [100] Message 2—STRING [100] Message 3—STRING [100]
Primary Cause	Normal operation.
Primary Action	Not applicable.

Database (20)

Table 6-21 lists the details of the Database (20) major alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Replication Data Flush Timeout During Switchover—Database \(20\)](#)” section on page 6-36.

Table 6-21 Database (20) Details

Description	Replication Data Flush Timeout During Switchover
Severity	Major
Threshold	100
Throttle	0
Datawords	Tables Failed—STRING [20]
Primary Cause	An replication module software problem has occurred.
Primary Action	The database restore procedure needs to be executed on the side of the system which goes active after the switchover. Any alarms should be cleared manually after the recovery action is taken.

Database (21)

Table 6-22 lists the details of the Database (21) minor alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Database Statistics Collection Exception—Database \(21\)](#)” section on page 6-36.

Table 6-22 Database (21) Details

Description	Database Statistics Collection Exception (DB Statistics Collection Exception)
Severity	Minor
Threshold	100
Throttle	0
Datawords	Host Name—STRING [30] Database Name—STRING [10] Schema Name—STRING [32] Object Name—STRING [64] Task Name—STRING [64] Exception—STRING [256]
Primary Cause	Check the messages in the Exception dataword field to identify the cause of the error.
Primary Action	The correction action varies and is determined by the type of exception. For more information about the ORA-xxxxx errors, execute the oerr ora xxxxx command as an Oracle user.

Database (22)

Table 6-23 lists the details of the Database (22) major alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Unprovisioned Language—Database \(22\)](#)” section on page 6-37.

Table 6-23 Database (22) Details

Description	Unprovisioned Language
Severity	Major
Threshold	100
Throttle	0
Datawords	Language ID—STRING [4]
Primary Cause	The operator has missed provisioning the language for this alarm in the language table on the EMS.
Primary Action	The operator has to provision the missing language and update the LANGUAGE table.

Database (23)

Table 6-24 lists the details of the Database (23) minor alarm. To troubleshoot and correct the cause of the alarm, refer to the “Element Management System Oracle Database—Minor Error—Database (23)” section on page 6-38.

Table 6-24 Database (23) Details

Description	Element Management System Oracle Database—Minor Error (EMS Oracle Database (ORA)—Minor Error)
Severity	Minor
Threshold	100
Throttle	0
Datawords	HostName—STRING [30] DatabaseName—STRING [10] Message1—STRING [200] Message2—STRING [200] TimeStamp—STRING [20]
Primary Cause	This ORA error is issued by an Oracle background process. The probable cause of the ORA- errors is documented in the \$ORACLE_HOME/rdbms/mesg/oraus.msg file. To view the file, log in to the EMS system as root, then su-oracle. If more information is needed, contact Cisco TAC for database support, or query the Oracle Metalink library at http://metalink.oracle.com .
Primary Action	The corrective action is documented in the \$ORACLE_HOME/rdbms/mesg/oraus.msg file. To view the file, log in to the EMS system as root, then su-oracle. If more information is needed, contact Cisco TAC for database support, or query the Oracle Metalink library at http://metalink.oracle.com . Many ORA- errors may need an administrator to investigate and resolve the problem. When the problem is resolved, this alarm should be manually cleared by the operator.

Database (24)

Table 6-25 lists the detail of the Database (24) major alarm. To troubleshoot and correct the cause of the alarm, refer to the “Element Management System Oracle Database—Major Error—Database (24)” section on page 6-39.

Table 6-25 Database (24) Details

Description	Element Management System Oracle Database—Major Error (EMS Oracle Database (ORA)—Major Error)
Severity	Major
Threshold	100
Throttle	0
Datawords	HostName—STRING [30] DatabaseName—STRING [10] Message1—STRING [200] Message2—STRING [200] TimeStamp—STRING [20]
Primary Cause	This ORA error is issued by an Oracle background process. The probable cause of the ORA- errors is documented in the \$ORACLE_HOME/rdbms/mesg/oraus.msg file. To view the file, log in to the EMS system as root, then su-oracle. If more information is needed, contact Cisco TAC for database support, or query the Oracle Metalink library at http://metalink.oracle.com .
Primary Action	The corrective action is documented in the \$ORACLE_HOME/rdbms/mesg/oraus.msg file. To view the file, log in to the EMS system as root, then su-oracle. If more information is needed, contact Cisco TAC for database support, or query the Oracle Metalink library at http://metalink.oracle.com . Many ORA- errors may need an administrator to investigate and resolve the problem. When the problem is resolved, this alarm should be manually cleared by the operator.

Database (25)

Table 6-26 lists the details of the Database (25) major alarm. To troubleshoot and correct the cause of the alarm, refer to the “[Secure File Transfer Protocol Transfer Failed—Database \(25\)](#)” section on page 6-39.

Table 6-26 Database (25) Details

Description	Secure File Transfer Protocol Transfer Failed (SFTP Transfer Failed)
Severity	Major
Threshold	100
Throttle	0
Datawords	FileName - STRING [128] Error - STRING [50]
Primary Cause	Unable to connect between active and standby call agents.
Primary Action	Verify communication between primary and CA. On each CA, ping the other node.
Secondary Cause	Unable to log in to remote host.
Secondary Action	Verify that secure shell (SSH) keys have been preconfigured for user root on both active and standby call agents.
Ternary Cause	File transfer error.
Ternary Action	Check the Error dataword to see if it gives an indication of the kind of error that occurred. It could be a file-system error on the remote host, or a communication failure between the active and standby call agents.

Database (26)

Table 6-27 lists the details of the Database (26) major alarm. To troubleshoot and correct the cause of the alarm, refer to the “[File Write Error—Database \(26\)](#)” section on page 6-39.

Table 6-27 Database (26) Details

Description	File Write Error
Severity	Major
Threshold	100
Throttle	0
Datawords	Path Name - STRING [128]
Primary Cause	System error, may be out of file descriptors.
Primary Action	Contact Cisco TAC.

Database (27)

Table 6-28 list the details of the Database (27) major alarm. To troubleshoot and correct the cause of the alarm, refer to the [“Failure Setting the Index Table Soft Limit—Database \(27\)”](#) section on page 39.

Table 6-28 Database (27) Details

Description	Failure Setting the Index Table Soft Limit (Failure Setting the IDX Table Soft Limit)
Severity	Major
Threshold	100
Throttle	0
Datawords	Reason - STRING [200]
Primary Cause	A corruption of the IDX framework for the table has occurred.
Primary Action	Running the tiat command indicates whether there is corruption. Fix the corruption.

Monitoring Database Events

This section provides the information you need for monitoring and correcting database events. [Table 6-29](#) lists all of the database events in numerical order and provides cross-references to each subsection.


Note

Refer to the “[Obtaining Documentation and Submitting a Service Request](#)” section on [page 1](#) for detailed instructions on contacting Cisco TAC and opening a service request.

Table 6-29 Cisco BTS 10200 Database Events

Event Type	Event Name	Event Severity
Database (1)	Test Report—Database (1)	Information
Database (2)	Database Management Update Failure: Master/Slave Database Out of Sync—Database (2)	Warning
Database (3)	There Are Errors in Element Management System Database DefError Queue; Contact Database Administrator—Database (3)	Critical
Database (4)	Element Management System Database HeartBeat: Replication Push Job Broken—Database (4)	Critical
Database (5)	Element Management System Database HeartBeat Process Died—Database (5)	Critical
Database (6)	Element Management System Database Replication DefTranDest Queue Overloaded—Database (6)	Major
Database (7)	Element Management System Database DefTran Queue Is Overloaded—Database (7)	Minor
Database (8)	Element Management System Database Tablespace Is Out of Free Space—Database (8)	Major
Database (9)	Urgent: Element Management System Database Archive Log Directory Is Getting Full—Database (9)	Critical
Database (10)	Element Management System Database: Back Up Fails—Database (10)	Major
Database (11)	Element Management System Database Alert.log Alerts—Database (11)	Major
Database (12)	Element Management System Database Process Died—Database (12)	Critical
Database (13)	Element Management System Database Performance Alert—Database (13)	Major
Database (14)	Table Size Exceeds Minor Threshold Limit—Database (14)	Minor
Database (15)	Table Size Exceeds Major Threshold Limit—Database (15)	Major
Database (16)	Table Size Exceeds Critical Threshold Limit—Database (16)	Critical
Database (17)	Data Replication Failed—Database (17)	Major
Database (18)	Unexpected Runtime Data Interaction—Database (18)	Warning
Database (19)	Daily Database Back Up Completed Successfully—Database (19)	Information

Table 6-29 Cisco BTS 10200 Database Events (continued)

Event Type	Event Name	Event Severity
Database (20)	Replication Data Flush Timeout During Switchover—Database (20)	Major
Database (21)	Database Statistics Collection Exception—Database (21)	Minor
Database (22)	Unprovisioned Language—Database (22)	Major
Database (23)	Element Management System Oracle Database—Minor Error—Database (23)	Minor
Database (24)	Element Management System Oracle Database—Major Error—Database (24)	Major
Database (25)	Secure File Transfer Protocol Transfer Failed—Database (25)	Major
Database (26)	File Write Error—Database (26)	Major
Database (27)	Failure Setting the Index Table Soft Limit—Database (27)	Major

Test Report—Database (1)

The Test Report is for testing the database event category. The event is informational and no further action is required.

Database Management Update Failure: Master/Slave Database Out of Sync—Database (2)

The Database Management Update Failure: Master/Slave Database Out of Sync event functions as a warning that master and slave databases are out of sync. The primary cause of the event is that the master database under Oracle control in the EMS was successfully updated, but the subsequent update of the shared memory tables in the Call Agent (CA) servers and/or Feature Servers (FS) was not properly completed. To correct the primary cause of the event, perform an audit of the database in question to correct the data stored in shared memory. Additionally, use the CLI to show and delete the transaction queue, and to audit and manage the queue.

There Are Errors in Element Management System Database DefError Queue; Contact Database Administrator—Database (3)

The There Are Errors in Element Management System Database DefError Queue; Contact Database Administrator alarm (critical) indicates that there are errors in the EMS database DefError queue. To troubleshoot and correct the cause of the There Are Errors in Element Management System Database DefError Queue; Contact Database Administrator alarm, refer to the [“There Are Errors in Element Management System Database DefError Queue; Contact Database Administrator—Database \(3\)”](#) section on page 6-31.

Element Management System Database HeartBeat: Replication Push Job Broken—Database (4)

The Element Management System Database HeartBeat: Replication Push Job Broken alarm (critical) indicates that the replication push job is broken. To troubleshoot and correct the cause of the Element Management System Database HeartBeat: Replication Push Job Broken alarm, refer to the [“Element Management System Database HeartBeat: Replication Push Job Broken—Database \(4\)”](#) section on page 6-32.

Element Management System Database HeartBeat Process Died—Database (5)

The Element Management System Database HeartBeat Process Died alarm (critical) indicates that the EMS database heartbeat process has died. To troubleshoot and correct the cause of the Element Management System Database HeartBeat Process Died alarm, refer to the [“Element Management System Database HeartBeat Process Died—Database \(5\)”](#) section on page 6-32.

Element Management System Database Replication DefTranDest Queue Overloaded—Database (6)

The Element Management System Database Replication DefTranDest Queue Overloaded alarm (major) indicates that the EMS database replication DefTranDest queue is overloaded. To troubleshoot and correct the cause of the Element Management System Database Replication DefTranDest Queue Overloaded alarm, refer to the [“Element Management System Database Replication DefTranDest Queue Overloaded—Database \(6\)”](#) section on page 6-33.

Element Management System Database DefTran Queue Is Overloaded—Database (7)

The Element Management System Database DefTran Queue Is Overloaded alarm (minor) indicates that the EMS database DefTran queue is overloaded. To troubleshoot and correct the cause of the Element Management System Database DefTran Queue Is Overloaded alarm, refer to the [“Element Management System Database DefTran Queue Is Overloaded—Database \(7\)”](#) section on page 6-34.

Element Management System Database Tablespace Is Out of Free Space—Database (8)

The Element Management System Database Tablespace Is Out of Free Space alarm (major) indicates that the EMS database table space is out of free space. To troubleshoot and correct the cause of the Element Management System Database Tablespace Is Out of Free Space alarm, refer to the [“Element Management System Database Tablespace Is Out of Free Space—Database \(8\)”](#) section on page 6-34.

Urgent: Element Management System Database Archive Log Directory Is Getting Full—Database (9)

The Urgent: Element Management System Database Archive Log Directory Is Getting Full alarm (critical) indicates that the EMS database archive log directory is getting full. To troubleshoot and correct the cause of the Urgent: Element Management System Database Archive Log Directory Is Getting Full alarm, refer to the [“Urgent: Element Management System Database Archive Log Directory Is Getting Full—Database \(9\)”](#) section on page 6-35.

Element Management System Database: Back Up Fails—Database (10)

The Element Management System Database: Back Up Fails alarm (major) indicates that the EMS database back up has failed. To troubleshoot and correct the cause of the Element Management System Database: Back Up Fails alarm, refer to the [“Element Management System Database: Back Up Fails—Database \(10\)”](#) section on page 6-35.

Element Management System Database Alert.log Alerts—Database (11)

The Element Management System Database Alert.log Alerts alarm (major) indicates that the EMS database alerts are being received and logged into the alert log. To troubleshoot and correct the cause of the Element Management System Database Alert.log Alerts alarm, refer to the [“Element Management System Database Alert.log Alerts—Database \(11\)”](#) section on page 6-35.

Element Management System Database Process Died—Database (12)

The Element Management System Database Process Died alarm (critical) indicates that the EMS database process has died. To troubleshoot and correct the cause of the Element Management System Database Process Died alarm, refer to the [“Element Management System Database Process Died—Database \(12\)”](#) section on page 6-35.

Element Management System Database Performance Alert—Database (13)

The Element Management System Database Performance Alert alarm (major) indicates that the EMS database performance has degraded. To troubleshoot and correct the cause of the Element Management System Database Performance Alert alarm, refer to the [“Element Management System Database Performance Alert—Database \(13\)”](#) section on page 6-35.

Table Size Exceeds Minor Threshold Limit—Database (14)

The Table Size Exceeds Minor Threshold Limit alarm (minor) indicates that the table size has exceeded the minor threshold crossing limit. To troubleshoot and correct the cause of the Table Size Exceeds Minor Threshold Limit alarm, refer to the [“Table Size Exceeds Minor Threshold Limit—Database \(14\)”](#) section on page 6-36.

Table Size Exceeds Major Threshold Limit—Database (15)

The Table Size Exceeds Major Threshold Limit alarm (major) indicates that the table size has exceeded the major threshold crossing limit. To troubleshoot and correct the cause of the Table Size Exceeds Major Threshold Limit alarm, refer to the [“Table Size Exceeds Major Threshold Limit—Database \(15\)”](#) section on page 6-36.

Table Size Exceeds Critical Threshold Limit—Database (16)

The Table Size Exceeds Critical Threshold Limit alarm (critical) indicates that the table size has exceeded the critical threshold crossing limit. To troubleshoot and correct the cause of the Table Size Exceeds Critical Threshold Limit alarm, refer to the [“Table Size Exceeds Critical Threshold Limit—Database \(16\)”](#) section on page 6-36.

Data Replication Failed—Database (17)

The Data Replication Failed alarm (major) indicates that the data replication failed. To troubleshoot and correct the cause of the Data Replication Failed alarm, refer to the [“Data Replication Failed—Database \(17\)”](#) section on page 6-36.

Unexpected Runtime Data Interaction—Database (18)

The Unexpected Runtime Data Interaction event functions as a warning that an unexpected runtime data interaction has occurred. The primary cause of the event is that an unexpected data interaction has been detected at runtime in the call agent or feature server. To correct the primary cause of the event, collect the logs and contact Cisco TAC.

Daily Database Back Up Completed Successfully—Database (19)

The Daily Database Back Up Completed Successfully event functions as an informational alert that the daily database back up has completed successfully. The event is informational and no further action is required.

Replication Data Flush Timeout During Switchover—Database (20)

The Replication Data Flush Timeout During Switchover alarm (major) indicates that the replication data flush timed out during a switchover. To troubleshoot and correct the cause of the Replication Data Flush Timeout During Switchover alarm, refer to the [“Replication Data Flush Timeout During Switchover—Database \(20\)”](#) section on page 6-36.

Database Statistics Collection Exception—Database (21)

The Database Statistics Collection Exception alarm (minor) indicates that the database statistics collection process had an exception. To troubleshoot and correct the cause of the Database Statistics Collection Exception alarm, refer to the [“Database Statistics Collection Exception—Database \(21\)”](#) section on page 6-36.

Unprovisioned Language—Database (22)

The Unprovisioned Language alarm (major) indicates that the operator has missed provisioning the language in this alarm in the language table on the EMS. To troubleshoot and correct the cause of the Unprovisioned Language alarm, refer to the [“Unprovisioned Language—Database \(22\)”](#) section on page 6-37.

Element Management System Oracle Database—Minor Error—Database (23)

The Element Management System Oracle Database—Minor Error alarm (minor) indicates that a minor error has occurred in an Oracle background process. To troubleshoot and correct the cause of the Element Management System Oracle Database—Minor Error alarm, refer to the [“Element Management System Oracle Database—Minor Error—Database \(23\)”](#) section on page 6-38.

Element Management System Oracle Database—Major Error—Database (24)

The Element Management System Oracle Database—Major Error alarm (major) indicates that a major error has occurred in an Oracle background process. To troubleshoot and correct the cause of the Element Management System Oracle Database—Major Error alarm, refer to the [“Element Management System Oracle Database—Major Error—Database \(24\)”](#) section on page 6-39.

Secure File Transfer Protocol Transfer Failed—Database (25)

The Secure File Transfer Protocol Transfer Failed alarm (major) indicates that a SFTP file transfer has failed. To troubleshoot and correct the cause of the Secure File Transfer Protocol Transfer Failed alarm, refer to the [“Secure File Transfer Protocol Transfer Failed—Database \(25\)”](#) section on page 6-39.

File Write Error—Database (26)

The File Write Error alarm (major) indicates that a file write error has occurred. To troubleshoot and correct the cause of the File Write Error alarm, refer to the [“File Write Error—Database \(26\)”](#) section on page 6-39.

Failure Setting the Index Table Soft Limit—Database (27)

The Failure Setting the Index Table Soft Limit alarm (major) indicates that a corruption of the IDX framework for the table has occurred. To troubleshoot and correct the cause of the Failure Setting the Index Table Soft Limit alarm, refer to the [“Failure Setting the Index Table Soft Limit—Database \(27\)” section on page 6-39](#).

Troubleshooting Database Alarms

This section provides the information you need for monitoring and correcting database alarms. [Table 6-30](#) lists all of the database alarms in numerical order and provides cross-references to each subsection.


Note

Refer to the “[Obtaining Documentation and Submitting a Service Request](#)” section on [page 1](#) for detailed instructions on contacting Cisco TAC and opening a service request.

Table 6-30 Cisco BTS 10200 Database Alarms

Alarm Type	Alarm Name	Alarm Severity
Database (3)	There Are Errors In Element Management System Database DefError Queue; Contact Database Administrator—Database (3)	Critical
Database (4)	Element Management System Database HeartBeat: Replication Push Job Broken—Database (4)	Critical
Database (5)	Element Management System Database HeartBeat Process Died—Database (5)	Critical
Database (6)	Element Management System Database Replication DefTranDest Queue Overloaded—Database (6)	Major
Database (7)	Element Management System Database DefTran Queue Is Overloaded—Database (7)	Minor
Database (8)	Element Management System Database Tablespace Is Out of Free Space—Database (8)	Major
Database (9)	Urgent: Element Management System Database Archive Log Directory Is Getting Full—Database (9)	Critical
Database (10)	Element Management System Database: Back Up Fails—Database (10)	Major
Database (11)	Element Management System Database Alert.log Alerts—Database (11)	Major
Database (12)	Element Management System Database Process Died—Database (12)	Critical
Database (13)	Element Management System Database Performance Alert—Database (13)	Major
Database (14)	Table Size Exceeds Minor Threshold Limit—Database (14)	Minor
Database (15)	Table Size Exceeds Major Threshold Limit—Database (15)	Major
Database (16)	Table Size Exceeds Critical Threshold Limit—Database (16)	Critical
Database (17)	Data Replication Failed—Database (17)	Major
Database (20)	Replication Data Flush Timeout During Switchover—Database (20)	Major
Database (21)	Database Statistics Collection Exception—Database (21)	Minor
Database (22)	Unprovisioned Language—Database (22)	Major

Table 6-30 Cisco BTS 10200 Database Alarms (continued)

Alarm Type	Alarm Name	Alarm Severity
Database (23)	Element Management System Oracle Database—Minor Error—Database (23)	Minor
Database (24)	Element Management System Oracle Database—Major Error—Database (24)	Major
Database (25)	Secure File Transfer Protocol Transfer Failed—Database (25)	Major
Database (26)	File Write Error—Database (26)	Major
Database (27)	Failure Setting the Index Table Soft Limit—Database (27)	Major

There Are Errors In Element Management System Database DefError Queue; Contact Database Administrator—Database (3)

The There Are Errors In Element Management System Database DefError Queue; Contact Database Administrator alarm (critical) indicates that there are errors in the EMS database DefError queue. The primary cause of the alarm is that replication data conflicts have occurred. The additional causes of the alarm are that a request for update or delete on nonexisting data occurred, or a unique constraint (primary key) was violated. Correcting the cause of the alarm may require a manual update on database tables. Contact Cisco TAC for assistance.

Prior to contacting Cisco TAC, collect the following information:

On one EMS server:

```
su - oracle
dbadm -C rep
```

On both EMS servers:

```
nodestat
dbadm -r get_deferror
dbadm -r get_deferr
dbadm -r get_deftrandest
dbadm -r get_defcall_order
```



Note

Do not perform an EM01 switchover until the deferrers are removed.

Element Management System Database HeartBeat: Replication Push Job Broken—Database (4)

The Element Management System Database HeartBeat: Replication Push Job Broken alarm (critical) indicates that the replication push job is broken. The primary cause of the alarm is that the remote database is down or the remote database is not accessible. To correct the primary cause of the alarm, restart or restore remote database. The secondary cause of the alarm is that a network connection is broken. To correct the secondary cause of the alarm, correct the network connection problem. The tertiary cause of the alarm is that the remote Oracle Listener process died. To correct the tertiary cause of the alarm, restart the remote Listener process.

For additional troubleshooting information, execute the following:

On one EMS server:

```
su - oracle
dbadm -C rep
```

On both EMS servers:

```
nodestat
dbadm -r get_deferror
dbadm -r get_deferr
dbadm -r get_deftrandest
dbadm -r get_defcall_order
```



Note

Do not perform an EM01 switchover until the deferrors are removed.

Element Management System Database HeartBeat Process Died—Database (5)

The Element Management System Database HeartBeat Process Died alarm (critical) indicates that the EMS database heartbeat process has died. The primary cause of the alarm is that the EMS DBHeartBeat Process was terminated by SMG, or stopped by the platform. To correct the primary cause of the alarm, restart the DBHeartBeat by executing the **dbinit -h -i start** command as an Oracle user, or by executing the **platform start** command as a root user.

For additional troubleshooting information, execute the following:

On one EMS server:

```
su - oracle
dbadm -C rep
```

On both EMS servers:

```
nodestat
dbadm -r get_deferror
dbadm -r get_deferr
dbadm -r get_deftrandest
dbadm -r get_defcall_order
```



Note

Do not perform an EM01 switchover until the deferrors are removed.

Element Management System Database Replication DefTranDest Queue Overloaded—Database (6)

The Element Management System Database Replication DefTranDest Queue Overloaded alarm (major) indicates that the EMS database replication DefTranDest queue is overloaded. The primary cause of the alarm is that the replication PUSH job is broken. To correct the primary cause of the alarm, correct the problems on remote database. The secondary cause of the alarm is that the remote database is not accessible. To correct the secondary cause of the alarm, verify that the db_heart_beat process is up. The tertiary cause of the alarm is that the database is overloaded. To correct the tertiary cause of the alarm, troubleshoot database performance.

For additional troubleshooting information, execute the following:

On one EMS server:

```
su - oracle
dbadm -C rep
```

On both EMS servers:

```
nodestat
dbadm -r get_deferror
dbadm -r get_deferr
dbadm -r get_deftrandest
dbadm -r get_defcall_order
```



Note

Do not perform an EM01 switchover until the deferrors are removed.

Element Management System Database DefTran Queue Is Overloaded—Database (7)

The Element Management System Database DefTran Queue Is Overloaded alarm (minor) indicates that the EMS database DefTran queue is overloaded. The primary cause of the alarm is that the replication DefTranDest queue is overloaded. To correct the primary cause of the alarm, resume replication activities. The secondary cause of the alarm is that there are too many errors in DefError queue. To correct the secondary cause of the alarm, correct the replication errors. The tertiary cause of the alarm is the replication PURGE job is broken or overloaded. To correct the tertiary cause of the alarm, enable the replication PURGE job.

For additional troubleshooting information, execute the following:

On one EMS server:

```
su - oracle
dbadm -C rep
```

On both EMS servers:

```
nodestat
dbadm -r get_deferror
dbadm -r get_deferr
dbadm -r get_deftrandest
dbadm -r get_defcall_order
```



Note

Do not perform an EM01 switchover until the deferrors are removed.

Element Management System Database Tablespace Is Out of Free Space—Database (8)

The Element Management System Database Tablespace Is Out of Free Space alarm (major) indicates that the EMS database table space is out of free space. The primary cause of the alarm is that there has been an increase in data volume or transactions. To correct the primary cause of the alarm, add more space to the tablespace.

For additional troubleshooting information, execute the following:

On one EMS server:

```
su - oracle
dbadm -C rep
```

On both EMS servers:

```
nodestat
dbadm -r get_deferror
dbadm -r get_deferr
dbadm -r get_deftrandest
dbadm -r get_defcall_order
```



Note

Do not perform an EM01 switchover until the deferrors are removed.

Urgent: Element Management System Database Archive Log Directory Is Getting Full—Database (9)

The Urgent: Element Management System Database Archive Log Directory Is Getting Full alarm (critical) indicates that the EMS database archive log directory is getting full. The primary cause of the alarm is that transaction volume has increased. To correct the primary cause of the alarm, back up and clean up the archive log files. Additionally, add more space to archive log directory.

Element Management System Database: Back Up Fails—Database (10)

The Element Management System Database: Back Up Fails alarm (major) indicates that the EMS database back up has failed. The primary cause of the alarm is that the system or hardware is unstable. To correct the primary cause of the alarm, restart the back up process.

Element Management System Database Alert.log Alerts—Database (11)

The Element Management System Database Alert.log Alerts alarm (major) indicates that the EMS database alerts are being received and logged into the alert log. The probable cause of the ORA- errors report in alert.log file is documented in the \$ORACLE_HOME/rdbms/msg/oraus.msg file. Log in to the EMS system as an oracle user (or su - oracle) to view this file. If more information is needed, contact Cisco TAC for database support, or query Oracle metalink library at <http://metalink.oracle.com>. The corrective action is documented in the \$ORACLE_HOME/rdbms/msg/oraus.msg file. Log in to the EMS system as an oracle user (or su - oracle) to view this file. If more information is needed, contact Cisco TAC for database support, or query the Oracle metalink library at <http://metalink.oracle.com>. The alert.log file is the global message file for errors issued by all Oracle background processes. The majority of error conditions may require an administrator's investigation and manual correction. Thus the administrator should manually clear this alarm.

Element Management System Database Process Died—Database (12)

The Element Management System Database Process Died alarm (critical) indicates that the EMS database process has died. The primary possible causes of the alarm are:

- Process Name, if local process is not running
- “Cannot_connect_database” if local DB is unreachable
- “Cannot_connect_” if remote DB is unreachable

To correct the possible causes of the alarm, restart process and contact Cisco TAC.

Element Management System Database Performance Alert—Database (13)

The Element Management System Database Performance Alert alarm (major) indicates that the EMS database performance has degraded. To identify the primary cause of the alarm, check the “StatEventName” dataword information. To correct the primary cause of the alarm, perform database performance tuning and contact Cisco TAC.

Table Size Exceeds Minor Threshold Limit—Database (14)

The Table Size Exceeds Minor Threshold Limit alarm (minor) indicates that the table size has exceeded the minor threshold crossing limit. The primary cause of the alarm is that the preprovisioned size for the stated table is nearing the licensed limit on the number of entries it can hold. To correct the primary cause of the alarm, contact Cisco TAC to purchase additional entry space for this particular table.

Prior to contacting Cisco TAC, collect the following information:

```
show db-usage table_name=<string>
```

Table Size Exceeds Major Threshold Limit—Database (15)

The Table Size Exceeds Major Threshold Limit alarm (major) indicates that the table size has exceeded the major threshold crossing limit. The primary cause of the Table Size Exceeds Major Threshold Limit alarm is the major threshold crossing limit has been exceeded. No further action is required.

Table Size Exceeds Critical Threshold Limit—Database (16)

The Table Size Exceeds Critical Threshold Limit alarm (critical) indicates that the table size has exceeded the critical threshold crossing limit. The primary cause of the alarm is that the critical threshold limit was exceeded. No corrective action is required.

Data Replication Failed—Database (17)

The Data Replication Failed alarm (major) indicates that the data replication failed. The primary cause of the alarm is that an index is out of range. The secondary cause of the alarm is that a record size mismatch occurred. No corrective action is required.

Replication Data Flush Timeout During Switchover—Database (20)

The Replication Data Flush Timeout During Switchover alarm (major) indicates that the replication data flush timed out during a switchover. The primary cause of the alarm is that a Replication Module software problem has occurred. To correct the primary cause of the alarm, a database restore procedure needs to be executed on the side which goes active after a switchover. The alarm should be cleared manually after recovery action is taken.

Database Statistics Collection Exception—Database (21)

The Database Statistics Collection Exception alarm (minor) indicates that the database statistics collection process had an exception. To identify the primary cause of the alarm, check the information listed in the “Exception” dataword field. The correction action varies and is determined by the type of exception. For more information about the ORA-xxxxx errors, execute an **oerr ora xxxxx** command as an Oracle user.

Unprovisioned Language—Database (22)

The Unprovisioned Language alarm (major) indicates that the operator has missed provisioning the language in this alarm in the language table on the EMS. To correct the cause of the alarm, the operator has to provision the missing language and update the LANGUAGE table.

Use the following procedures to correct the cause of the Unprovisioned Language alarm:

This section describes general troubleshooting procedures.

Ensure the subscriber has MLS using report billing_record:

```
DIALEDDIGITS=*56
CALLTERMINATIONCAUSE=NORMAL_CALL_CLEARING
```

*56 is the VSC entered by the subscriber to start MLS. NORMAL_CALL_CLEARING shows the IVR successfully completed its service.

If NORMAL_CALL_CLEARING does not return, check both the service and subscriber_service_profile tables:

```
btsadmin> show service id=mlstest
ID=mlstest
FNAME1=MLS

btsadmin> show subscriber_service_profile sub-id=2212437211
SUB_ID=2212437211
SERVICE_ID=mlstest
```

If you hear a reorder-tone from a SIP phone, ensure the status of the Cisco BTS 10200 announcement table is all of the following:

```
btsadmin> status tt tgn-id=889; cic=all
889 1 ADMIN_INS TERM_ACTIVE_IDLE ACTV IDLE NON_FAULTY
```

If you hear a click from an MGCP phone, ensure the status of the Cisco BTS 10200 announcement table is all of the following:

```
btsadmin> status tt tgn-id=889;cic=all
889 1 ADMIN_INS TERM_ACTIVE_IDLE ACTV IDLE NON_FAULTY
```

If you hear a reorder tone instead of audio, ensure the release_cause table routes to correct MS:

```
btsadmin> show release_cause
ID=1
ANNC_ID=18
btsadmin> show announcement
...
ANNOUNCEMENT_FILE=ann_id_18.au
ROUTE_GUIDE_ID=10013
```

Ensure the IVR script points to the correct MS and that the MLS has an FNAME:

```
btsadmin> show ivr_script_profile
FNAME=MLS
IVR_ACCESS_MODE=IVR
IVR_ROUTE_GUIDE_ID=10013
IVR_SCRIPT_PKG_TYPE=BAU
```

Ensure the annc-tg-profile table is correct:

```
ANNC_LANG_FORMAT_SUPPORTED=N for IPUnity
ANNC_LANG_FORMAT_SUPPORTED=Y for Cognitronics
```

Turn on trace in the Cisco BTS 10200 Call Agent (CA) for MLS, set MGCP on the CA to info5 level, and examine the BAU code from the MS:

```
TC_11.3.1_CA.log:..          MGA    00-00.          |<<<< RECV FROM: 10.1.31.2
FROM-PORT=2427 TO-PORT=2727 <<<<|

TC_11.3.1_CA.log-..          MGA    00-00.          |ntfy 717
annc/1@sj-mls1-s4.sjc-devtest.com MGCP 1.0 NCS 1.0^M|

TC_11.3.1_CA.log-..          MGA    00-00.          |X: 2B00000007^M|

TC_11.3.1_CA.log-..          MGA    00-00.          |O: A/of(rc=601)^M|
TC_11.3.1_CA.log-..          MGA    00-00.          ||snd_rcv.c:260
```

Error: NEED

Explanation:

The mls-annc-mult-factor token value is lower than the number of announcements existing on the MS.

Recommended Action:

Provision the mls-annc-mult-factor token value greater than the number of announcements on the MS.

Error: Return Code 601: File not found

Explanation:

MSs are limited to 40 character filenames. These 40 characters include the extension (typically a wav) and the announcement-file-prefix: for example fra_, eng_ and spa_.

Recommended Action:

Change the filename length to less than 40 characters.

Element Management System Oracle Database—Minor Error—Database (23)

The Element Management System Oracle Database—Minor Error alarm (minor) indicates that a minor error has occurred in an Oracle background process. The probable cause of the ORA- errors report in alert.log file is documented in the \$ORACLE_HOME/rdbms/mesg/oraus.msg file. Log in to the EMS system as an oracle user (or su - oracle) to view this file. If more information is needed, contact Cisco TAC for database support, or query the Oracle metalink library at <http://metalink.oracle.com>. The corrective action is documented in the \$ORACLE_HOME/rdbms/mesg/oraus.msg file. Log in to the EMS system as an oracle user (or su - oracle) to view this file. If more information is needed, contact Cisco TAC for database support, or query the Oracle metalink library at <http://metalink.oracle.com>. The alert.log file is the global message file for errors issued by all Oracle background processes. The majority of error conditions may require an administrator's investigation and manual correction. Thus the administrator should manually clear this alarm.

Element Management System Oracle Database—Major Error—Database (24)

The Element Management System Oracle Database—Major Error alarm (major) indicates that a major error has occurred in an Oracle background process. The probable cause of the ORA- errors report in alert.log file is documented in the \$ORACLE_HOME/rdbms/msg/oraus.msg file. Log in to the EMS system as an oracle user (or su - oracle) to view this file. If more information is needed, contact Cisco TAC for database support, or query the Oracle metalink library at <http://metalink.oracle.com>. The corrective action is documented in the \$ORACLE_HOME/rdbms/msg/oraus.msg file. Log in to the EMS system as an oracle user (or su - oracle) to view this file. If more information is needed, contact Cisco TAC for database support, or query the Oracle metalink library at <http://metalink.oracle.com>. The alert.log file is the global message file for errors issued by all Oracle background processes. The majority of error conditions may require an administrator's investigation and manual correction. Thus the administrator should manually clear this alarm.

Secure File Transfer Protocol Transfer Failed—Database (25)

The Secure File Transfer Protocol Transfer Failed alarm (major) indicates that a secure file transfer has failed. The primary cause of the alarm is that the SFTP was unable to establish a communication channel between the active and the standby call agent. To troubleshoot and correct the primary cause of the alarm, check the communication channel between the primary and the secondary call agent (CA). On each CA, ping the other node. The secondary cause of the alarm is that the system was unable to log in to the remote host. To troubleshoot and correct the secondary cause of the alarm, verify that the SSH keys have been preconfigured for user root on both active and standby call agents. The tertiary cause of the alarm is that a file transfer error has occurred. To troubleshoot and correct the tertiary cause of the alarm, check the Error dataword to see if it gives an indication of the kind of error that occurred. It could be a file-system error on the remote host, or a communication failure between the active and standby call agents.

File Write Error—Database (26)

The File Write Error alarm (major) indicates that a file write error has occurred. The primary cause of the alarm is that a system error has occurred and that the system may be out of file descriptors. To troubleshoot and correct the primary cause of the alarm, call Cisco TAC technical support.

Failure Setting the Index Table Soft Limit—Database (27)

The Failure Setting the Index Table Soft Limit alarm (major) indicates that a corruption of the IDX framework for the table has occurred. To troubleshoot and correct the primary cause of the alarm, run the **tia** command to verify that a corruption has occurred. Once the corruption is verified, fix the corruption.

