

Oracle® Communications
Network Charging and Control

Radius Control Agent Alarms Guide
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Alarm Topic Description

Alarm generation

Alarms on each configured node are written to the syslog and are then captured by the smsAlarmDaemon for entry in the SMF database.

For management of these alarms, refer to *SMS Technical Guide*.

Severity levels

This table describes the alarms severity levels.

| Level | Abbr | Description |
|----------|------|--|
| Critical | C | These alarms are raised when the application has encountered an error which indicates that the system is unable to function. |
| Error | E | These alarms indicate the application has encountered a serious problem completing a necessary task and could not complete the task. |
| Warning | W | Warnings are raised to indicate the application encountered a problem completing a non-mission critical task. |
| Notice | N | Notices are raised to indicate that the application has completed a task successfully. |

Alarm format

Alarms usually follow this format:

```
Mon DD 24:MM:SS hostname process name: [ID alarmID user.severity] process(PID)  
SEVERITY: Alarm text with possible variables
```

Where:

| Variable | Description |
|--------------|--|
| Mon DD | Month and date the alarm was logged. |
| 24:MM:SS | Time the alarm was logged in 24 hour format. |
| hostname | Name of the machine on which the alarm was generated. |
| process name | Name of the process which logged the alarm. |
| alarmID | ID number of the alarm. |
| severity | Alarm severity. |
| process | Name of the process which logged the alarm. |
| PID | Process ID of the process which logged the alarm. |
| SEVERITY | Alarm severity. |
| Alarm text | Alarm text. This may include variables such as node number. Note: In some cases the entire alarm text is generated from variables. |

Note: Some alarms from some subsystems may have a different format.

Example: This text shows an smsMaster alarm about pending update queues.

```
Mar 30 13:34:54 prodsmpl smsMaster: [ID 953149 user.warning] smsMaster(17833)  
WARNING: Pending queue now above 15 (Worst Node 317)
```

Alarm text and variables

The %d and %s symbols represent variables within the alarm text. These values are generated by the subsystem and added to the message when the alarm is raised.

Usually the %d is a number and the %s is text in the context of the message to complete the alarm message. Occasionally other % symbols are also used (for example, %u) for different variables.

Further information

For more information about:

- The SMS Alarms subsystem, see *SMS Technical Guide*
- Creating and maintaining the SMS Alarm Relay rule set, see *SMS User's Guide*

Radius Control Agent

Critical errors

This table defines the critical error messages for the Radius Control Agent.

| Alarm Text | Reason | Remedy |
|------------------------------------|---------------------------------|-------------------------------|
| Received reply to unknown request. | An internal error has occurred. | Contact Support with details. |
| Uncaught std::bad_alloc | An internal error has occurred. | Contact Support with details. |
| Uncaught std::bad_cast | An internal error has occurred. | Contact Support with details. |
| Uncaught std::bad_exception | An internal error has occurred. | Contact Support with details. |
| Uncaught std::bad_typeid | An internal error has occurred. | Contact Support with details. |
| Uncaught std::domain_error | An internal error has occurred. | Contact Support with details. |
| Uncaught std::exception | An internal error has occurred. | Contact Support with details. |
| Uncaught std::invalid_argument | An internal error has occurred. | Contact Support with details. |
| Uncaught std::ios_base::failure | An internal error has occurred. | Contact Support with details. |
| Uncaught std::length_error | An internal error has occurred. | Contact Support with details. |
| Uncaught std::logic_error | An internal error has occurred. | Contact Support with details. |
| Uncaught std::out_of_range | An internal error has occurred. | Contact Support with details. |
| Uncaught std::overflow_error | An internal error has occurred. | Contact Support with details. |
| Uncaught std::range_error | An internal error has occurred. | Contact Support with details. |
| Uncaught std::runtime_error | An internal error has occurred. | Contact Support with details. |
| Uncaught std::underflow_error | An internal error has occurred. | Contact Support with details. |
| Unknown exception caught. | An internal error has occurred. | Contact Support with details. |

Errors

This table defines the error messages for the Radius Control Agent.

| Alarm Text | Reason | Remedy |
|---|--|--|
| bind (3SOCKET) error. | Unable to bind the socket to a port. | Ensure that the port is not in use already. |
| chdir (2) error. | Unable to change the working directory to the <i>configured working directory</i> /core directory. | Ensure that the RCA has access to the <i>configured working directory</i> /core directory. |
| Config option not found (mandatory parameter): | There is a missing configuration parameter for the RCA in eserv.config . | Correct the radiusControlAgent configuration in the eserv.config file. |
| Current call state does not support TCAP Event. | An internal error has occurred. | Contact Support with details. |

| Alarm Text | Reason | Remedy |
|--|--|---|
| Dialogue already exists for an interaction. | An internal error has occurred. | Contact Support with details. |
| fclose(3c): | An internal error has occurred. | Contact Support with details. |
| fopen (3C) error. | Unable to open a file required for the normal operation of the RCA. | Ensure the RCA can write to the file. |
| getopt error. Status: | An internal error has occurred. | Contact Support with details. |
| Incorrect config type (mandatory parameter, no default value): | A mandatory parameter for RCA is incorrectly configured in eserv.config . | Correct the radiusControlAgent configuration in the eserv.config file. |
| inet_pton (3socket): | An internal error has occurred. | Contact Support with details. |
| Initialisation failed. Exiting. | This is for information only. The reason for the error is provided in the messages output immediately before this message. | Contact Support with details. |
| Message timestamp exceeds acceptable window. Delay: | The message time stamp is too old. This could be due to a replay attack. | Contact Support with details. |
| Multiple observers assigned to one file descriptor. | An internal error has occurred. | Contact Support with details. |
| Not connected to oracle (DatabaseAccess class not initialised). | An internal error has occurred. | Contact Support with details. |
| Oracle error. | An internal error has occurred. | Contact Support with details. |
| Quota ID mismatch. | A RADIUS protocol error has occurred. | Check the PDSN or contact Support with details. |
| RADIUS messages received for terminated interaction. Ignored. | For information only. | No action required. |
| RCA has been configured to use Volume-based billing, which is not currently supported. | Your version of RCA does not support volume based billing. | Correct the configuration on the SMS screens. |
| Received unsupported TCAP Primitive type. Type: | An internal error has occurred. | Contact Support with details. |
| recvfrom (3SOCKET) error. | An internal error has occurred. | Contact Support with details. |
| select (3C) error. | An internal error has occurred. | Contact Support with details. |
| signal(3C) error. | An internal error has occurred. | Contact Support with details. |
| socket (3SOCKET) error. | Unable to create a socket. | Contact Support with details. |
| TCAP_ABORT received in state: | An internal error has occurred. | Contact Support with details. |
| Unable to connect to oracle. | Unable to connect to Oracle. | Ensure Oracle is running and the username and password supplied is correct. |
| Unable to create dialog. Destination service key: | An internal error has occurred. | Contact Support with details. |
| Unable to create timer dialog. | Unable to contact the timer interface. | Ensure the timer interface is running. |
| Unable to find interaction with dialog. | An internal error has occurred. | Contact Support with details. |

| Alarm Text | Reason | Remedy |
|--|--|---|
| Unable to move UDR to closed directory: | Unable to move UDR file | Ensure the RCA has permission to write to the configured UDR file. |
| Unable to obtain an instance of SLEE Application API. | An internal error has occurred. | Contact Support with details. |
| Unable to obtain timer interface handle. Handle name: | Unable to contact the timer interface. | Ensure the timer interface is running. |
| Unable to send event on dialog. Destination service key: | An internal error has occurred. | Contact Support with details. |
| Unknown event type received: | An unexpected non-TCAP type event was received instead of a TCAP event type. | Contact Support with details. |
| Unknown Tcap operation received. Operation ID: | The TCAP primitive received is not supported. | Add the TCAP primitive to the ignore list. |
| Unsupported config type used: | The configuration for the RCA in eserv.config is incorrect. | Correct the radiusControlAgent configuration in the eserv.config file. |
| Unsupported EventTypeBCSM: | The configuration for the RCA in eserv.config is incorrect. | Correct the radiusControlAgent configuration in the eserv.config file. |

Warnings

This table defines the warning messages for the Radius Control Agent.

| Alarm Text | Reason | Remedy |
|---|---|---|
| Accounting port number too large: | The configuration for the RCA in eserv.config is incorrectly set up. | Correct the radiusControlAgent configuration in the eserv.config file. |
| Attribute buffer overflow. Data truncated to | An internal error has occurred. | Contact Support with details. |
| BearerCapability "Coding Standard" out of range. Value: | The configuration for the RCA in eserv.config is incorrectly set up. | Correct the radiusControlAgent configuration in the eserv.config file. |
| BearerCapability "ITC" out of range. Value: | The configuration for the RCA in eserv.config is incorrectly set up. | Correct the radiusControlAgent configuration in the eserv.config file. |
| BearerCapability "ITR" out of range. Value: | The configuration for the RCA in eserv.config is incorrectly set up. | Correct the radiusControlAgent configuration in the eserv.config file. |
| BearerCapability "Transfer Mode" out of range. Value: | The configuration for the RCA in eserv.config is incorrectly set up. | Correct the radiusControlAgent configuration in the eserv.config file. |

| Alarm Text | Reason | Remedy |
|---|---|---|
| | | file. |
| BearerCapability "User Information layer protocol 1" out of range. Value: | The configuration for the RCA in eserv.config is incorrectly set up. | Correct the radiusControlAgent configuration in the eserv.config file. |
| Calling party category too large: | The configuration for the RCA in eserv.config is incorrectly set up. | Correct the radiusControlAgent configuration in the eserv.config file. |
| Core port number too large: | The configuration for the RCA in eserv.config is incorrectly set up. | Correct the radiusControlAgent configuration in the eserv.config file. |
| Dynamic authorisation port number too large: | The configuration for the RCA in eserv.config is incorrectly set up. | Correct the radiusControlAgent configuration in the eserv.config file. |
| Incorrect config type (default value used): | The configuration for the RCA in eserv.config is incorrectly set up. | Correct the radiusControlAgent configuration in the eserv.config file. |
| Incorrect config type (value ignored): Path: | The configuration for the RCA in eserv.config is incorrectly set up. | Correct the radiusControlAgent configuration in the eserv.config file. |
| Message timestamp set to the future. Rejecting message. | Message time stamp is set to the future. | Synchronize the system clocks. |
| Missing argument for | A mandatory argument for the command was not supplied. | Correct the command line option. |
| NoA out of range: | The configuration for the RCA in eserv.config is incorrectly set up. | Correct the radiusControlAgent configuration in the eserv.config file. |
| Received unsupported PPAQ Update-Reason: | A RADIUS protocol error has occurred. | Contact Support with details. |
| Sending a RADIUS message type that RCA should receive, not send. | An internal error has occurred. | Contact Support with details. |
| Unable to allocate new prefix tree. | An internal error has occurred. | Contact Support with details. |
| Unknown command line option | Incorrect command line option specified. | Correct the command line option. |

Notices

This table defines the notices messages for the Radius Control Agent.

| Alarm Text | Reason | Remedy |
|------------------------|------------------------------------|---|
| All subsystem stopped. | Information only. | No action required. |
| Bad message received: | Malformed RADIUS message received. | Check the PDSN and the network configuration. |

| Alarm Text | Reason | Remedy |
|---|---|--|
| Current call state does not support RADIUS message. State: | An internal error has occurred. | Contact Support with details. |
| Initialising configuration subsystem. | Information only. | No action required. |
| Initialising database access layer subsystem. | Notice only. | No action required. |
| Initialising Interaction state machine subsystem. | Notice only. | No action required. |
| Initialising SLEE Interface API. | Notice only. | No action required. |
| Initialising SLEE Timer Interface Handle. | Notice only. | No action required. |
| Non-Accounting RADIUS message received on accounting message port | Non-accounting message sent to the accounting port. | Check the PDSN and the network configuration. |
| Non-core RADIUS message received on core message port | Unknown message sent to the core port. | Check the PDSN and the network configuration. |
| Non-Dynamic Authorisation RADIUS message received on dynamic authorisation message port | Non-dynamic authorization message sent to the dynamic authorization port. | Check the PDSN and the network configuration. |
| Non-SLEE event type with no dialog. Type: | An internal error has occurred. | Contact Support with details. |
| sendto (3SOCKET) error: | An internal error has occurred. | Contact Support with details. |
| Service disabled: | The specified service has been disabled. | Information only. No action required. |
| Service enabled: | The specified service has been enabled. | Information only. No action required. |
| Setting up signal handlers. | Information only. | No action required. |
| SLEE: APPLICATION_END. | Information only. | No action required. |
| SLEE: APPLICATION_KILL. | Information only. | No action required. |
| SLEE: INTERFACE_END. | Information only. | No action required. |
| SLEE: INTERFACE_KILL. | Information only. | No action required. |
| SLEE: Re-reading configuration - no effect | Information only. | No action required. |
| SLEE: Unknown SLEE event type received. Type: | A SLEE application/Interface has sent an event to the Radius Control Agent with an unrecognized event type. | This most likely to be caused by the SLEE being misconfigured. Check the SLEE configuration. Contact Support with details. |
| SLEE: WatchDog event. | Information only. | No action required. |
| Startup: initialising all subsystems. | Information only. | No action required. |
| Startup successful. | The Radius Control Agent service started successfully. | Information only, no action required. |
| Using configuration file: | Information only. | No action required. |
| Using configuration section: | Information only. | No action required. |