Watchdog Commands

This module describes commands used to monitor the memory states and thresholds of routers running Cisco IOS XR software.

show critmon context

To display information about the context for the wd-critical-mon process, use the **show critmon context** command in XR EXEC mode.

show critmon context {**all**| **deadline** [**client** *client-name*]| **ticker**| **watcher**} **location** {*node-id*| **all**}

Syntax Description

all	Displays all context information for the wd-critical-mon process.
deadline	Displays the context information for the deadline monitoring client application.
client	(Optional) Displays information only for the specified client.
client-name	Name of the client.
ticker	Displays information for the ticker context for the wd-critical-mon process.
watcher	Displays information for the watcher context for the wd-critical-mon process.
location	Specifies a node to filter.
node-id	Node ID. The *node-id* argument is entered in the *rack/slot/module* notation.
all	Specifies all locations.

Command Default

No default behavior or values

Command Modes

XR EXEC

Command History

Release	Modification
Release 5.0.0	This command was introduced.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Use the **show critmon context** command to display information about the context for the wd-critical-mon process.

Task ID

Task ID	Operations
cisco-support	read

Examples

The following sample output is from the **show critmon context** command:

```
RP/0/RP0/CPU0:router# show critmon context all location all

------------------------------------------------------------------------------
Ticker context info (Node: 0/5/CPU0)
------------------------------------------------------------------------------
 CPU#                      : 0
 Ticker counter            : 2245
 Ticker last ran timestamp : 02/10/2008 01:11:10


------------------------------------------------------------------------------
Watcher context info (Node: 0/5/CPU0)
------------------------------------------------------------------------------
 Watcher counter  : 751
 Watcher last ran : 02/10/2008 01:11:10


------------------------------------------------------------------------------
Deadline monitoring context info (Node: 0/5/CPU0)
------------------------------------------------------------------------------
 Client         : wdsysmon
 PunchTimestamp : 02/10/2008 01:11:09
 PunchCounter   : 226


------------------------------------------------------------------------------
Ticker context info (Node: 0/4/CPU0)
------------------------------------------------------------------------------
 CPU#                      : 0
 Ticker counter            : 74
 Ticker last ran timestamp : 02/10/2008 01:11:10


------------------------------------------------------------------------------
Watcher context info (Node: 0/4/CPU0)
------------------------------------------------------------------------------
 Watcher counter  : 24
 Watcher last ran : 02/10/2008 01:11:09


------------------------------------------------------------------------------
Deadline monitoring context info (Node: 0/4/CPU0)
------------------------------------------------------------------------------
 Client         : wdsysmon
 PunchTimestamp : 02/10/2008 01:11:10
 PunchCounter   : 8


------------------------------------------------------------------------------
Ticker context info (Node: 0/2/CPU0)
------------------------------------------------------------------------------
 CPU#                      : 0
 Ticker counter            : 61
 Ticker last ran timestamp : 02/10/2008 01:11:10
```

```
------------------------------------------------------------------------------
Watcher context info (Node: 0/2/CPU0)
------------------------------------------------------------------------------
 Watcher counter  : 21
 Watcher last ran : 02/10/2008 01:11:10


------------------------------------------------------------------------------
Deadline monitoring context info (Node: 0/2/CPU0)
------------------------------------------------------------------------------
 Client         : wdsysmon
 PunchTimestamp : 02/10/2008 01:11:09
 PunchCounter   : 6


------------------------------------------------------------------------------
Ticker context info (Node: 0/1/CPU0)
------------------------------------------------------------------------------
 CPU#                      : 0
 Ticker counter            : 2093
 Ticker last ran timestamp : 02/10/2008 01:11:10


------------------------------------------------------------------------------
Watcher context info (Node: 0/1/CPU0)
------------------------------------------------------------------------------
 Watcher counter  : 703
 Watcher last ran : 02/10/2008 01:11:10


------------------------------------------------------------------------------
Deadline monitoring context info (Node: 0/1/CPU0)
------------------------------------------------------------------------------
 Client         : wdsysmon
 PunchTimestamp : 02/10/2008 01:11:09
 PunchCounter   : 211
```

This table describes the significant fields shown in the display.

Table 1: show critmon context Field Descriptions

Field	Description
Ticker context info	wd-critical-mon process ticker context information for the node.
CPU	CPU number.
Ticker counter	Current counter for the wd-critical-mon ticker thread. The ticker counter field specifies the number of times the ticker thread was run.
Ticker last ran timestamp	Timestamp for the last time the wd-critical-mon ticker thread was run.
Watcher context info	wd-critical-mon watcher thread context information that is used for the node.

Field	Description
Watcher counter	Current counter for the wd-critical-mon watcher thread. The watcher counter field specifies the number of times the watcher thread was run
Watcher last ran	Timestamp that is used for the last run of the wd-critical-mon watcher thread.
Deadline monitoring context info	wd-critical-mon deadline monitoring information that is used for the node.
Client	Client name for deadline monitoring.
PunchTimestamp	Timestamp that is used for the last run of the client application.
PunchCounter	Current counter for the deadline monitoring client. This field specifies the number of times that the client application can punch the counter.

Related Commands

Command	Description
show critmon deadline, on page 6	Displays information about deadline monitoring.
show critmon statistics, on page 9	Displays information about the critical monitor statistics.
show critmon trace all, on page 17	Displays information about all traces for a critical monitor.
show critmon trace error, on page 20	Displays information about error traces for a critical monitor.
show critmon trace info, on page 22	Displays trace data for an information type for the critical monitor.
show critmon trace lib-error, on page 24	Displays information about the trace data for the library error for the critical monitor.
show critmon trace lib-info, on page 26	Displays trace data for the library information for the critical monitor.

show critmon deadline

To display information about deadline monitoring, use the **show critmon deadline** command in XR EXEC mode

show critmon deadline registration [**client** *client-name*] **location** {*node-id*| **all**}

Syntax Description

registration	Displays the deadline monitoring registration information.
client	(Optional) Displays information only for the specified client.
client-name	Name of the client.
location	Specifies a node to filter.
node-id	Node ID. The *node-id* argument is entered in the *rack/slot/module* notation.
all	Specifies all locations.

Command Default

No default behavior or values

Command Modes

XR EXEC

Command History

Release	Modification
Release 5.0.0	This command was introduced.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Use the **show critmon deadline** command to display information about the deadline monitoring.

Task ID

Task ID	Operations
cisco-support	read

Examples

The following sample output is from the **show critmon deadline** command:

```
RP/0/RP0/CPU0:router# show critmon deadline registration location all

------------------------------------------------------------------------------
Deadline monitoring registration info (Node: 0/5/CPU0)
------------------------------------------------------------------------------
 ID ClientName               Activated  tick address  timeout vale(sec)
 -- -----------------------  ---------  ------------  ----------------
 0  wdsysmon                 Yes        0x6023d000    60


------------------------------------------------------------------------------
Deadline monitoring registration info (Node: 0/4/CPU0)
------------------------------------------------------------------------------
 ID ClientName               Activated  tick address  timeout vale(sec)
 -- -----------------------  ---------  ------------  ----------------
 0  wdsysmon                 Yes        0x38146000    60


------------------------------------------------------------------------------
Deadline monitoring registration info (Node: 0/2/CPU0)
------------------------------------------------------------------------------
 ID ClientName               Activated  tick address  timeout vale(sec)
 -- -----------------------  ---------  ------------  ----------------
 0  wdsysmon                 Yes        0x38146000    60


------------------------------------------------------------------------------
Deadline monitoring registration info (Node: 0/1/CPU0)
------------------------------------------------------------------------------
 ID ClientName               Activated  tick address  timeout vale(sec)
 -- -----------------------  ---------  ------------  ----------------
 0  wdsysmon                 Yes        0x38101000    60
```

This table describes the significant fields shown in the display.

Table 2: show critmon deadline Field Descriptions

Field	Description
Deadline monitoring registration info	Deadline monitoring registration information that is used for the node.
ID	Client ID that is internally managed by the wd-critical-mon process.
ClientName	Name of the client.
Activated	Field specifies that deadline monitoring is activated or not.
tick address	Tick memory address for the client application.
timeout vale(sec)	Deadline timeout value.

Related Commands

Command	Description
show critmon context, on page 2	Displays information about the context for the wd-critical-mon process.
show critmon statistics, on page 9	Displays information about the critical monitor statistics.
show critmon trace all, on page 17	Displays information about all traces for a critical monitor.
show critmon trace error, on page 20	Displays information about error traces for a critical monitor.
show critmon trace info, on page 22	Displays trace data for an information type for the critical monitor.
show critmon trace lib-error, on page 24	Displays information about the trace data for the library error for the critical monitor.
show critmon trace lib-info, on page 26	Displays trace data for the library information for the critical monitor.

show critmon statistics

To display information about the critical monitor statistics, use the **show critmon statistics** command in XR EXEC mode.

show critmon statistics {**all**| **congestion**| **deadline client** *client-name*| **ticker**| **watcher**} **last** *hours* **location** {*node-id*| **all**}

Syntax Description

all	Displays all the information for the critical monitor.
congestion	Displays all the CPU congestion information for the critical monitor.
deadline	Displays all the statistics information for the deadline monitor.
client	Displays information only for the specified client.
client-name	Name of the client.
ticker	Displays the ticker statistics for the wd-critical-mon process.
watcher	Displays the watcher statistics for the wd-critical-mon process.
last	Displays only the last number of hours.
hours	Number of last hours. The range is from 1 to 24.
location	Specifies a node to filter.
node-id	Node ID. The *node-id* argument is entered in the *rack/slot/module* notation.
all	Specifies all locations.

Command Default

No default behavior or values

Command Modes

XR EXEC

Command History

Release	Modification
Release 5.0.0	This command was introduced.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Use the**show critmon statistics** command to display information about the critical monitor statistics.

Task ID

Task ID	Operations
cisco-support	read

Examples

The following sample output is from the **show critmon statistics** command:

```
RP/0/RP0/CPU0:router# show critmon statistics all last 5 location all

------------------------------------------------------------------------------
Ticker statistics info (Node: 0/5/CPU0)
------------------------------------------------------------------------------
 Period        SnapShotTimestamp               Frequency
 (min)  CPU#   MM/DD/YYYY hh:mm:ss  tick count  (count/min)
 ------ ------ -------------------  ----------  ------------
 15     cpu:0  10/22/2007 14:33:39  4478        298
 15     cpu:0  10/22/2007 14:48:39  4477        298
 15     cpu:0  10/22/2007 15:03:39  4478        298
 15     cpu:0  10/22/2007 15:18:39  4477        298
 15     cpu:0  10/22/2007 15:33:39  4478        298
 15     cpu:0  10/22/2007 15:48:39  4478        298
 15     cpu:0  10/22/2007 16:03:39  4477        298
 15     cpu:0  10/22/2007 16:18:39  4478        298
 15     cpu:0  10/22/2007 16:33:39  4477        298
 15     cpu:0  10/22/2007 16:48:39  4478        298
 15     cpu:0  10/22/2007 17:03:39  4477        298
 15     cpu:0  10/22/2007 17:18:39  4478        298
 15     cpu:0  10/22/2007 17:33:39  4477        298
 15     cpu:0  10/22/2007 17:48:39  4478        298
 15     cpu:0  10/22/2007 18:03:39  4477        298
 15     cpu:0  10/22/2007 18:18:39  4478        298
 15     cpu:0  10/22/2007 18:33:39  4478        298
 15     cpu:0  10/22/2007 18:48:39  4477        298
 15     cpu:0  10/22/2007 19:03:39  4477        298
 15     cpu:0  10/22/2007 19:18:39  4478        298


------------------------------------------------------------------------------
Watcher statistics info (Node: 0/5/CPU0)
------------------------------------------------------------------------------
 Period SnapShotTimestamp                Frequency
 (min)  MM/DD/YYYY hh:mm:ss  watch count  (count/min)
 ------ -------------------  -----------  ------------
 15     10/22/2007 14:33:39  1498         99
 15     10/22/2007 14:48:39  1497         99
 15     10/22/2007 15:03:39  1498         99
 15     10/22/2007 15:18:39  1497         99
 15     10/22/2007 15:33:39  1498         99
 15     10/22/2007 15:48:39  1497         99
 15     10/22/2007 16:03:39  1498         99
 15     10/22/2007 16:18:39  1497         99
 15     10/22/2007 16:33:39  1498         99
 15     10/22/2007 16:48:39  1497         99
 15     10/22/2007 17:03:39  1498         99
 15     10/22/2007 17:18:39  1497         99
 15     10/22/2007 17:33:39  1498         99
```

```
 15      10/22/2007 17:48:39  1497         99
 15      10/22/2007 18:03:39  1498         99
 15      10/22/2007 18:18:39  1497         99
 15      10/22/2007 18:33:39  1498         99
 15      10/22/2007 18:48:39  1497         99
 15      10/22/2007 19:03:39  1498         99
 15      10/22/2007 19:18:39  1497         99


--------------------------------------------------------------------------------
CPU congestion history (Node: 0/5/CPU0)
--------------------------------------------------------------------------------

 No congestion history


--------------------------------------------------------------------------------
Deadline monitoring statistics info (Node: 0/5/CPU0)
--------------------------------------------------------------------------------
 client                   SnapShotTimestamp                Frequency
 (name)                   MM/DD/YYYY hh:mm:ss  tick count  (count/min)
 ------------------------ -------------------  ----------  ------------
 wdsysmon                 10/22/2007 14:33:39  450         30
 wdsysmon                 10/22/2007 14:48:39  450         30
 wdsysmon                 10/22/2007 15:03:39  450         30
 wdsysmon                 10/22/2007 15:18:39  449         29
 wdsysmon                 10/22/2007 15:33:39  450         30
 wdsysmon                 10/22/2007 15:48:39  450         30
 wdsysmon                 10/22/2007 16:03:39  450         30
 wdsysmon                 10/22/2007 16:18:39  449         29
 wdsysmon                 10/22/2007 16:33:39  450         30
 wdsysmon                 10/22/2007 16:48:39  450         30
 wdsysmon                 10/22/2007 17:03:39  450         30
 wdsysmon                 10/22/2007 17:18:39  450         30
 wdsysmon                 10/22/2007 17:33:39  449         29
 wdsysmon                 10/22/2007 17:48:39  450         30
 wdsysmon                 10/22/2007 18:03:39  450         30
 wdsysmon                 10/22/2007 18:18:39  450         30
 wdsysmon                 10/22/2007 18:33:39  449         29
 wdsysmon                 10/22/2007 18:48:39  450         30
 wdsysmon                 10/22/2007 19:03:39  450         30
 wdsysmon                 10/22/2007 19:18:39  450         30


--------------------------------------------------------------------------------
Ticker statistics info (Node: 0/4/CPU0)
--------------------------------------------------------------------------------
 Period        SnapShotTimestamp                Frequency
 (min)  CPU#   MM/DD/YYYY hh:mm:ss  tick count  (count/min)
 ------ ------ -------------------  ----------  ------------
 15     cpu:0  10/22/2007 14:25:38  4454        296
 15     cpu:0  10/22/2007 14:40:38  4455        297
 15     cpu:0  10/22/2007 14:55:38  4454        296
 15     cpu:0  10/22/2007 15:10:37  4455        297
 15     cpu:0  10/22/2007 15:25:37  4454        296
 15     cpu:0  10/22/2007 15:40:37  4455        297
 15     cpu:0  10/22/2007 15:55:37  4454        296
 15     cpu:0  10/22/2007 16:10:37  4455        297
 15     cpu:0  10/22/2007 16:25:37  4455        297
 15     cpu:0  10/22/2007 16:40:37  4454        296
 15     cpu:0  10/22/2007 16:55:37  4455        297
 15     cpu:0  10/22/2007 17:10:37  4455        297
 15     cpu:0  10/22/2007 17:25:37  4455        297
 15     cpu:0  10/22/2007 17:40:37  4454        296
 15     cpu:0  10/22/2007 17:55:37  4455        297
 15     cpu:0  10/22/2007 18:10:37  4454        296
 15     cpu:0  10/22/2007 18:25:37  4454        296
 15     cpu:0  10/22/2007 18:40:37  4455        297
 15     cpu:0  10/22/2007 18:55:36  4455        297
 15     cpu:0  10/22/2007 19:10:36  4455        297


--------------------------------------------------------------------------------
```

```
Watcher statistics info (Node: 0/4/CPU0)
--------------------------------------------------------------------------------
 Period SnapShotTimestamp                  Frequency
 (min)  MM/DD/YYYY hh:mm:ss  watch count  (count/min)
 ------ -------------------  -----------  ------------
 15     10/22/2007 14:25:38  1496         99
 15     10/22/2007 14:40:38  1495         99
 15     10/22/2007 14:55:38  1495         99
 15     10/22/2007 15:10:37  1495         99
 15     10/22/2007 15:25:37  1495         99
 15     10/22/2007 15:40:37  1495         99
 15     10/22/2007 15:55:37  1495         99
 15     10/22/2007 16:10:37  1495         99
 15     10/22/2007 16:25:37  1495         99
 15     10/22/2007 16:40:37  1495         99
 15     10/22/2007 16:55:37  1495         99
 15     10/22/2007 17:10:37  1495         99
 15     10/22/2007 17:25:37  1495         99
 15     10/22/2007 17:40:37  1495         99
 15     10/22/2007 17:55:37  1495         99
 15     10/22/2007 18:10:37  1495         99
 15     10/22/2007 18:25:37  1495         99
 15     10/22/2007 18:40:37  1495         99
 15     10/22/2007 18:55:36  1495         99
 15     10/22/2007 19:10:36  1495         99


--------------------------------------------------------------------------------
CPU congestion history (Node: 0/4/CPU0)
--------------------------------------------------------------------------------

 No congestion history


--------------------------------------------------------------------------------
Deadline monitoring statistics info (Node: 0/4/CPU0)
--------------------------------------------------------------------------------
 client                   SnapShotTimestamp                Frequency
 (name)                   MM/DD/YYYY hh:mm:ss  tick count  (count/min)
 ------------------------ -------------------  ----------  ------------
 wdsysmon                 10/22/2007 14:25:38  449         29
 wdsysmon                 10/22/2007 14:40:38  450         30
 wdsysmon                 10/22/2007 14:55:38  449         29
 wdsysmon                 10/22/2007 15:10:37  450         30
 wdsysmon                 10/22/2007 15:25:37  449         29
 wdsysmon                 10/22/2007 15:40:37  450         30
 wdsysmon                 10/22/2007 15:55:37  449         29
 wdsysmon                 10/22/2007 16:10:37  450         30
 wdsysmon                 10/22/2007 16:25:37  449         29
 wdsysmon                 10/22/2007 16:40:37  450         30
 wdsysmon                 10/22/2007 16:55:37  449         29
 wdsysmon                 10/22/2007 17:10:37  450         30
 wdsysmon                 10/22/2007 17:25:37  449         29
 wdsysmon                 10/22/2007 17:40:37  450         30
 wdsysmon                 10/22/2007 17:55:37  449         29
 wdsysmon                 10/22/2007 18:10:37  450         30
 wdsysmon                 10/22/2007 18:25:37  449         29
 wdsysmon                 10/22/2007 18:40:37  450         30
 wdsysmon                 10/22/2007 18:55:36  449         29
 wdsysmon                 10/22/2007 19:10:36  450         30


--------------------------------------------------------------------------------
Ticker statistics info (Node: 0/2/CPU0)
--------------------------------------------------------------------------------
 Period        SnapShotTimestamp                Frequency
 (min)  CPU#   MM/DD/YYYY hh:mm:ss  tick count  (count/min)
 ------ ------ -------------------  ----------  ------------
 15     cpu:0  10/22/2007 14:25:41  4454        296
 15     cpu:0  10/22/2007 14:40:41  4455        297
 15     cpu:0  10/22/2007 14:55:41  4454        296
 15     cpu:0  10/22/2007 15:10:41  4455        297
 15     cpu:0  10/22/2007 15:25:41  4455        297
```

```
 15      cpu:0  10/22/2007 15:40:41  4454         296
 15      cpu:0  10/22/2007 15:55:41  4455         297
 15      cpu:0  10/22/2007 16:10:41  4454         296
 15      cpu:0  10/22/2007 16:25:41  4455         297
 15      cpu:0  10/22/2007 16:40:41  4454         296
 15      cpu:0  10/22/2007 16:55:40  4455         297
 15      cpu:0  10/22/2007 17:10:40  4455         297
 15      cpu:0  10/22/2007 17:25:40  4455         297
 15      cpu:0  10/22/2007 17:40:40  4454         296
 15      cpu:0  10/22/2007 17:55:40  4455         297
 15      cpu:0  10/22/2007 18:10:40  4454         296
 15      cpu:0  10/22/2007 18:25:40  4455         297
 15      cpu:0  10/22/2007 18:40:40  4454         296
 15      cpu:0  10/22/2007 18:55:40  4455         297
 15      cpu:0  10/22/2007 19:10:40  4455         297


------------------------------------------------------------------------------
Watcher statistics info (Node: 0/2/CPU0)
------------------------------------------------------------------------------
 Period SnapShotTimestamp                  Frequency
 (min)  MM/DD/YYYY hh:mm:ss  watch count  (count/min)
 ------ -------------------  -----------  ------------
 15     10/22/2007 14:25:41  1495         99
 15     10/22/2007 14:40:41  1495         99
 15     10/22/2007 14:55:41  1495         99
 15     10/22/2007 15:10:41  1495         99
 15     10/22/2007 15:25:41  1495         99
 15     10/22/2007 15:40:41  1495         99
 15     10/22/2007 15:55:41  1495         99
 15     10/22/2007 16:10:41  1495         99
 15     10/22/2007 16:25:41  1495         99
 15     10/22/2007 16:40:41  1496         99
 15     10/22/2007 16:55:40  1495         99
 15     10/22/2007 17:10:40  1495         99
 15     10/22/2007 17:25:40  1495         99
 15     10/22/2007 17:40:40  1495         99
 15     10/22/2007 17:55:40  1495         99
 15     10/22/2007 18:10:40  1495         99
 15     10/22/2007 18:25:40  1495         99
 15     10/22/2007 18:40:40  1495         99
 15     10/22/2007 18:55:40  1495         99
 15     10/22/2007 19:10:40  1495         99


------------------------------------------------------------------------------
CPU congestion history (Node: 0/2/CPU0)
------------------------------------------------------------------------------

 No congestion history


------------------------------------------------------------------------------
Deadline monitoring statistics info (Node: 0/2/CPU0)
------------------------------------------------------------------------------
 client                  SnapShotTimestamp               Frequency
 (name)                  MM/DD/YYYY hh:mm:ss  tick count  (count/min)
 ----------------------- -------------------  ----------  ------------
 wdsysmon                10/22/2007 14:25:41  449         29
 wdsysmon                10/22/2007 14:40:41  450         30
 wdsysmon                10/22/2007 14:55:41  449         29
 wdsysmon                10/22/2007 15:10:41  450         30
 wdsysmon                10/22/2007 15:25:41  449         29
 wdsysmon                10/22/2007 15:40:41  450         30
 wdsysmon                10/22/2007 15:55:41  449         29
 wdsysmon                10/22/2007 16:10:41  450         30
 wdsysmon                10/22/2007 16:25:41  449         29
 wdsysmon                10/22/2007 16:40:41  450         30
 wdsysmon                10/22/2007 16:55:40  449         29
 wdsysmon                10/22/2007 17:10:40  450         30
 wdsysmon                10/22/2007 17:25:40  449         29
 wdsysmon                10/22/2007 17:40:40  450         30
 wdsysmon                10/22/2007 17:55:40  449         29
```

```
 wdsysmon                10/22/2007 18:10:40  450         30
 wdsysmon                10/22/2007 18:25:40  449         29
 wdsysmon                10/22/2007 18:40:40  450         30
 wdsysmon                10/22/2007 18:55:40  449         29
 wdsysmon                10/22/2007 19:10:40  450         30


-------------------------------------------------------------------------------
Ticker statistics info (Node: 0/1/CPU0)
-------------------------------------------------------------------------------
 Period        SnapShotTimestamp                Frequency
 (min)  CPU#   MM/DD/YYYY hh:mm:ss  tick count  (count/min)
 ------ ------ ------------------  ----------  ------------
 15     cpu:0  10/22/2007 14:33:53  4456        297
 15     cpu:0  10/22/2007 14:48:53  4455        297
 15     cpu:0  10/22/2007 15:03:53  4456        297
 15     cpu:0  10/22/2007 15:18:53  4455        297
 15     cpu:0  10/22/2007 15:33:53  4455        297
 15     cpu:0  10/22/2007 15:48:53  4456        297
 15     cpu:0  10/22/2007 16:03:53  4455        297
 15     cpu:0  10/22/2007 16:18:52  4456        297
 15     cpu:0  10/22/2007 16:33:52  4455        297
 15     cpu:0  10/22/2007 16:48:52  4456        297
 15     cpu:0  10/22/2007 17:03:52  4455        297
 15     cpu:0  10/22/2007 17:18:52  4456        297
 15     cpu:0  10/22/2007 17:33:52  4455        297
 15     cpu:0  10/22/2007 17:48:52  4455        297
 15     cpu:0  10/22/2007 18:03:52  4456        297
 15     cpu:0  10/22/2007 18:18:52  4455        297
 15     cpu:0  10/22/2007 18:33:52  4456        297
 15     cpu:0  10/22/2007 18:48:52  4455        297
 15     cpu:0  10/22/2007 19:03:52  4456        297
 15     cpu:0  10/22/2007 19:18:52  4455        297


-------------------------------------------------------------------------------
Watcher statistics info (Node: 0/1/CPU0)
-------------------------------------------------------------------------------
 Period SnapShotTimestamp                 Frequency
 (min)  MM/DD/YYYY hh:mm:ss  watch count  (count/min)
 ------ ------------------  -----------  ------------
 15     10/22/2007 14:33:53  1495         99
 15     10/22/2007 14:48:53  1495         99
 15     10/22/2007 15:03:53  1495         99
 15     10/22/2007 15:18:53  1495         99
 15     10/22/2007 15:33:53  1495         99
 15     10/22/2007 15:48:53  1495         99
 15     10/22/2007 16:03:53  1495         99
 15     10/22/2007 16:18:52  1495         99
 15     10/22/2007 16:33:52  1496         99
 15     10/22/2007 16:48:52  1495         99
 15     10/22/2007 17:03:52  1495         99
 15     10/22/2007 17:18:52  1495         99
 15     10/22/2007 17:33:52  1495         99
 15     10/22/2007 17:48:52  1495         99
 15     10/22/2007 18:03:52  1495         99
 15     10/22/2007 18:18:52  1495         99
 15     10/22/2007 18:33:52  1495         99
 15     10/22/2007 18:48:52  1495         99
 15     10/22/2007 19:03:52  1495         99
 15     10/22/2007 19:18:52  1495         99


-------------------------------------------------------------------------------
CPU congestion history (Node: 0/1/CPU0)
-------------------------------------------------------------------------------

 No congestion history


-------------------------------------------------------------------------------
Deadline monitoring statistics info (Node: 0/1/CPU0)
-------------------------------------------------------------------------------
```

```
client                  SnapShotTimestamp               Frequency
(name)                  MM/DD/YYYY hh:mm:ss  tick count  (count/min)
----------------------- -------------------  ----------  ------------
wdsysmon                10/22/2007 14:33:53  449         29
wdsysmon                10/22/2007 14:48:53  450         30
wdsysmon                10/22/2007 15:03:53  449         29
wdsysmon                10/22/2007 15:18:53  450         30
wdsysmon                10/22/2007 15:33:53  449         29
wdsysmon                10/22/2007 15:48:53  450         30
wdsysmon                10/22/2007 16:03:53  450         30
wdsysmon                10/22/2007 16:18:52  449         29
wdsysmon                10/22/2007 16:33:52  450         30
wdsysmon                10/22/2007 16:48:52  449         29
wdsysmon                10/22/2007 17:03:52  450         30
wdsysmon                10/22/2007 17:18:52  449         29
wdsysmon                10/22/2007 17:33:52  450         30
wdsysmon                10/22/2007 17:48:52  449         29
wdsysmon                10/22/2007 18:03:52  450         30
wdsysmon                10/22/2007 18:18:52  450         30
wdsysmon                10/22/2007 18:33:52  449         29
wdsysmon                10/22/2007 18:48:52  450         30
wdsysmon                10/22/2007 19:03:52  449         29
wdsysmon                10/22/2007 19:18:52  450         30
```

This table describes the significant fields shown in the display.

Table 3: show critmon statistics Field Descriptions

Field	Description
Ticker statistics info	Ticker thread statistics information that is used for the node.
Period	Statistics sampling period.
CPU	CPU number.
SnapShotTimestamp	Timestamp that the statistics is saved.
tick count	Ticker counter for the sampling period
Frequency	Frequency for ticker or watcher punch count.
Watcher statistics info	Watcher thread statistics information that is used for the node.
watch count	Watcher count that is used for the sampling period.
CPU congestion history	History of CPU congestion.
Deadline monitoring statistics info	Deadline monitoring statistics information that is used for the node.
client	Name of deadline monitoring client.

Related Commands

Command	Description
show critmon context, on page 2	Displays information about the context for the wd-critical-mon process.
show critmon deadline, on page 6	Displays information about deadline monitoring.
show critmon trace all, on page 17	Displays information about all traces for a critical monitor.
show critmon trace error, on page 20	Displays information about error traces for a critical monitor.
show critmon trace info, on page 22	Displays trace data for an information type for the critical monitor.
show critmon trace lib-error, on page 24	Displays information about the trace data for the library error for the critical monitor.
show critmon trace lib-info, on page 26	Displays trace data for the library information for the critical monitor.

show critmon trace all

To display information about all traces for a critical monitor, use the **show critmon trace all** command in XR EXEC mode.

show critmon trace all [**file** *filename* **original**] **[hexdump]** [**last** *entries*] **[reverse] [stats] [tailf] [unique] [verbose] [usec][wide][wrapping]** [**location** {*node-id*| **all**}]

Syntax Description

file	(Optional) Displays a specific file.
filename	Name of a specific file.
original	Specifies the original location of the file.
hexdump	(Optional) Displays traces in hexadecimal format.
last	(Optional) Displays trace information for a specific number of entries
entries	Number of entries. Replace entries with the number of entries you want to display. For example, if you enter 5, the display shows the last 5 entries in the trace data. The range is from 1 to 4294967295.
reverse	(Optional) Displays the latest traces first.
stats	(Optional) Displays the statistics in the command output.
tailf	(Optional) Displays the new traces as they are added in the command output.
unique	(Optional) Displays the unique entries with counts in the command output.
verbose	(Optional) Displays the information for internal debugging in the command output.
usec	(Optional) Displays timestamp w/usec detail.
wide	(Optional) Do not display buffer name, node name, thread-id.
wrapping	(Optional) Displays the wrapping entries in the command output.

location *node-id*	(Optional) Specifies a node. The *node-id* argument is entered in the *rack/slot/module* notation.
all	Specifies all locations.

Command Default

No default behavior or values

Command Modes

XR EXEC

Command History

Release	Modification
Release 5.0.0	This command was introduced.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID

Task ID	Operations
cisco-support	read

Examples

The following sample output is from the **show critmon trace all** command:

```
RP/0/RP0/CPU0:router# show critmon trace all hexdump

1 wrapping entries (768 possible, 0 filtered, 1 total)
Oct 11 03:18:11.584 wd-critical-mon/lib/info 0/5/CPU0 t10 tp0x00000302000000a0

Oct 11 03:18:11.584 wd-critical-mon/lib/info 0/5/CPU0 t10 critmon_deadline_regin
```

Related Commands

Command	Description
show critmon context, on page 2	Displays information about the context for the wd-critical-mon process.
show critmon deadline, on page 6	Displays information about deadline monitoring.
show critmon statistics, on page 9	Displays information about the critical monitor statistics.
show critmon trace error, on page 20	Displays information about error traces for a critical monitor.

Command	Description
show critmon trace info, on page 22	Displays trace data for an information type for the critical monitor.
show critmon trace lib-error, on page 24	Displays information about the trace data for the library error for the critical monitor.
show critmon trace lib-info, on page 26	Displays trace data for the library information for the critical monitor.

show critmon trace error

To display information about error traces for a critical monitor, use the **show critmon trace error** command in XR EXEC mode.

show critmon trace error [**file** *filename* **original**] **[hexdump]** [**last** *entries*] **[reverse] [stats] [tailf] [unique] [verbose] [usec][wide][wrapping]** [**location** {*node-id*| **all**}]

Syntax Description

file	(Optional) Displays a specific file.
filename	Name of a specific file.
original	Specifies the original location of the file.
hexdump	(Optional) Displays traces in hexadecimal format.
last	(Optional) Displays the last numbered entries.
entries	Number of entries. The range is from 1 to 4294967295.
reverse	(Optional) Displays the latest traces first.
stats	(Optional) Displays the statistics.
tailf	(Optional) Displays the new traces as they are added.
unique	(Optional) Displays the unique entries with counts.
verbose	(Optional) Displays the information for internal debugging.
usec	(Optional) Displays timestamp w/usec detail.
wide	(Optional) Do not display buffer name, node name, thread-id.
wrapping	(Optional) Displays the wrapping entries in the command output.
location	(Optional) Specifies a node.
node-id	Node ID. The *node-id* argument is entered in the *rack/slot/module* notation.
all	Specifies all locations.

Command Default

No default behavior or values

Command Modes

XR EXEC

Command History

Release	Modification
Release 5.0.0	This command was introduced.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID

Task ID	Operations
cisco-support	read

Examples

The following example shows how to use the **show critmon trace error** command:

```
RP/0/RP0/CPU0:router# show critmon trace error
```

Related Commands

Command	Description
show critmon context, on page 2	Displays information about the context for the wd-critical-mon process.
show critmon deadline, on page 6	Displays information about deadline monitoring.
show critmon statistics, on page 9	Displays information about the critical monitor statistics.
show critmon trace all, on page 17	Displays information about all traces for a critical monitor.
show critmon trace info, on page 22	Displays trace data for an information type for the critical monitor.
show critmon trace lib-error, on page 24	Displays information about the trace data for the library error for the critical monitor.
show critmon trace lib-info, on page 26	Displays trace data for the library information for the critical monitor.

show critmon trace info

To display trace data for an information type for the critical monitor, use the **show critmon trace info** command in XR EXEC mode.

show critmon trace info [**file** *filename* **original**] **[hexdump]** [**last** *entries*] **[reverse] [stats] [tailf] [unique] [verbose] [usec][wide][wrapping]** [**location** {*node-id*| **all**}]

Syntax Description

file	(Optional) Displays a specific file.
filename	Name of a specific file.
original	Specifies the original location of the file.
hexdump	(Optional) Displays traces in hexadecimal format.
last	(Optional) Displays the last numbered entries.
entries	Number of entries. The range is from 1 to 4294967295.
reverse	(Optional) Displays the latest traces first.
stats	(Optional) Displays the statistics.
tailf	(Optional) Displays the new traces as they are added.
unique	(Optional) Displays the unique entries with counts.
verbose	(Optional) Displays the information for internal debugging.
usec	(Optional) Displays timestamp w/usec detail.
wide	(Optional) Do not display buffer name, node name, and thread-id.
wrapping	(Optional) Displays the wrapping entries in the command output.
location *node-id*	(Optional) Specifies a node. The *node-id* argument is entered in the *rack/slot/module* notation.
location all	Specifies all locations.

Command Default

No default behavior or values

Command Modes

XR EXEC

Command History

Release	Modification
Release 5.0.0	This command was introduced.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID

Task ID	Operations
cisco-support	read

Examples

The following shows how to use the **show critmon trace info** command:

```
RP/0/RP0/CPU0:router# show critmon trace info
```

Related Commands

Command	Description
show critmon context, on page 2	Displays information about the context for the wd-critical-mon process.
show critmon deadline, on page 6	Displays information about deadline monitoring.
show critmon statistics, on page 9	Displays information about the critical monitor statistics.
show critmon trace all, on page 17	Displays information about all traces for a critical monitor.
show critmon trace error, on page 20	Displays information about error traces for a critical monitor.
show critmon trace lib-error, on page 24	Displays information about the trace data for the library error for the critical monitor.
show critmon trace lib-info, on page 26	Displays trace data for the library information for the critical monitor.

show critmon trace lib-error

To display information about the trace data for the library error for the critical monitor, use the **show critmon trace lib-error** command in XR EXEC mode.

show critmon trace lib-error [**file** *filename* **original**] **[hexdump]** [**last** *entries*] **[reverse] [stats] [tailf] [unique] [verbose] [usec][wide][wrapping]** [**location** {*node-id*| **all**}]

Syntax Description

file	(Optional) Displays a specific file.
filename	Name of a specific file.
original	Specifies the original location of the file.
hexdump	(Optional) Displays traces in hexadecimal format.
last	(Optional) Displays the last numbered entries.
entries	Number of entries. The range is from 1 to 4294967295.
reverse	(Optional) Displays the latest traces first.
stats	(Optional) Displays the statistics.
tailf	(Optional) Displays the new traces as they are added.
unique	(Optional) Displays the unique entries with counts.
verbose	(Optional) Displays the information for internal debugging.
usec	(Optional) Displays timestamp w/usec detail.
wide	(Optional) Do not display buffer name, node name, and thread-id.
wrapping	(Optional) Displays the wrapping entries in the command output.
location *node-id*	(Optional) Specifies a node. The *node-id* argument is entered in the *rack/slot/module* notation.
location all	Specifies all locations.

Command Default

No default behavior or values

Command Modes

XR EXEC

Command History

Release	Modification
Release 5.0.0	This command was introduced.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID

Task ID	Operations
cisco-support	read

Examples

The following shows how to use the **show critmon trace lib-error** command:

```
RP/0/RP0/CPU0:router# show critmon trace lib-error
```

Related Commands

Command	Description
show critmon context, on page 2	Displays information about the context for the wd-critical-mon process.
show critmon deadline, on page 6	Displays information about deadline monitoring.
show critmon statistics, on page 9	Displays information about the critical monitor statistics.
show critmon trace all, on page 17	Displays information about all traces for a critical monitor.
show critmon trace error, on page 20	Displays information about error traces for a critical monitor.
show critmon trace info, on page 22	Displays trace data for an information type for the critical monitor.
show critmon trace lib-info, on page 26	Displays trace data for the library information for the critical monitor.

show critmon trace lib-info

To display trace data for the library information for the critical monitor, use the **show critmon trace lib-info** command in XR EXEC mode.

show critmon trace lib-info [**file** *filename* **original**] **[hexdump]** [**last** *entries*] **[reverse] [stats] [tailf] [unique] [verbose] [usec][wide][wrapping]** [**location** {*node-id*| **all**}]

Syntax Description

file	(Optional) Displays a specific file.
filename	Name of a specific file.
original	Specifies the original location of the file.
hexdump	(Optional) Displays traces in hexadecimal format.
last	(Optional) Displays the last numbered entries.
entries	Number of entries. The range is from 1 to 4294967295.
reverse	(Optional) Displays the latest traces first.
stats	(Optional) Displays the statistics.
tailf	(Optional) Displays the new traces as they are added.
unique	(Optional) Displays the unique entries with counts.
verbose	(Optional) Displays the information for internal debugging.
usec	(Optional) Displays timestamp w/usec detail.
wide	(Optional) Do not display buffer name, node name, and thread-id.
wrapping	(Optional) Displays the wrapping entries in the command output.

location *node-id*	(Optional) Specifies a node. The *node-id* argument is entered in the *rack/slot/module* notation.
location all	(Optional) Specifies all locations.

Command Default

No default behavior or values

Command Modes

XR EXEC

Command History

Release	Modification
Release 5.0.0	This command was introduced.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID

Task ID	Operations
cisco-support	read

Examples

The following example shows how to use the **show critmon trace lib-info** command:

```
RP/0/RP0/CPU0:router# show critmon trace lib-info
```

Related Commands

Command	Description
show critmon context, on page 2	Displays information about the context for the wd-critical-mon process.
show critmon deadline, on page 6	Displays information about deadline monitoring.
show critmon statistics, on page 9	Displays information about the critical monitor statistics.
show critmon trace all, on page 17	Displays information about all traces for a critical monitor.
show critmon trace error, on page 20	Displays information about error traces for a critical monitor.

Command	Description
show critmon trace info, on page 22	Displays trace data for an information type for the critical monitor.
show critmon trace lib-error, on page 24	Displays information about the trace data for the library error for the critical monitor.

show reboot history

To display reboot information for the last graceful reboot, use the show reboot history command in XR EXEC mode.

show reboot history [reverse] location *node-id*

Syntax Description

reverse	(Optional) Displays the reverse in chronological order.
location	Specifies a node.
node-id	Node ID. The *node-id* argument is entered in the *rack/slot/module* notation.

Command Modes

XR EXEC

Command History

Release	Modification
Release 5.0.0	This command was introduced.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

The reboot history shows all reboot causes that is stored for the previous node resets.

Task ID

Task ID	Operations
system	read

Examples

The following sample output is from the **show reboot history** command:

```
RP/0/RP0/CPU0:router# show reboot history location 0/1/CPU0

No  Time                        Cause Code  Reason
--------------------------------------------------------------------------------
01  Mon Jul 30 19:27:05 2007  0x2000004f  Cause: MBI-HELLO reloading node on rec
                                          eiving reload notification
                                            Process: mbi-hello

                                                 Traceback: fc15b1a0 fc15b290 482
                                          0020c fc1d5fb0 0 0
02  Thu Aug 16 16:32:35 2007  0x21000106  Cause: All fabric links down on Fabric
```

```
                                          q
                                            Process: fabricq_mgr

                                                 Traceback: fc15b1a0 fc15b290 fc9
                                          9ded4 fc99ae00 fc99affc fc99affc
03  Thu Aug 16 17:05:20 2007  0x2000004f  Cause: MBI-HELLO reloading node on rec
                                          eiving reload notification
                                            Process: mbi-hello

                                                 Traceback: fc15b1a0 fc15b290 482
                                          0020c fc1d5fb0 0 0
04  Mon Sep 10 21:01:34 2007  0x21000106  Cause: All fabric links down on Fabric
                                          q
                                            Process: fabricq_mgr

                                                 Traceback: fc15b1a0 fc15b290 fc9
                                          a3f00 fc9a0e10 fc9a100c fc9a100c
05  Mon Sep 10 21:36:10 2007  0x2000004f  Cause: MBI-HELLO reloading node on rec
                                          eiving reload notification
                                            Process: mbi-hello

                                                 Traceback: fc1601a0 fc160290 482
                                          0020c fc1dcfb0 0 0
06  Wed Oct 10 18:28:53 2007  0x21000106  Cause: All fabric links down on Fabric
                                          q
                                            Process: fabricq_mgr

                                                 Traceback: fc1601a0 fc160290 fc9
                                          d9f48 fc9d6e58 fc9d7054 fc9d7054
07  Wed Oct 10 19:04:02 2007  0x2000004f  Cause: MBI-HELLO reloading node on rec
                                          eiving reload notification
                                            Process: mbi-hello

                                                 Traceback: fc160c38 fc160d34 482
                                          0020c fc1ddfb0 0 0
08  Wed Oct 10 20:19:39 2007  0x0000004f  Cause: HBAgent reloading node on recei
                                          ving reload notification
                                            Process: hbagent

                                                 Traceback: fc160c38 fc160d34 482
                                          00228 fc1ddfb0 0 0
09  Wed Oct 10 20:45:53 2007  0x0000004f  Cause: HBAgent reloading node on recei
                                          ving reload notification
                                            Process: hbagent

                                                 Traceback: fc160c38 fc160d34 482
                                          00228 fc1ddfb0 0 0
10  Thu Oct 11 19:15:55 2007  0x0000004f  Cause: HBAgent reloading node on recei
                                          ving reload notification
                                            Process: hbagent

                                                 Traceback: fc160c38 fc160d34 482
                                          00228 fc1ddfb0 0 0
```

Related Commands

Command	Description
show reboot first	Displays reboot information for a node first.
show reboot graceful	Displays reboot information for the last graceful reboot for a node.
show reboot last	Displays the latest crash information.
show reboot pcds	Displays Persistent Critical Data Store critical information for the last ungraceful reboot.

show watchdog

To display information about the memory state or threshold memory, use the **show watchdog** command in XR EXEC mode.

show watchdog [**memory-state**| **overload state location** *node-id*| **trace**] [**threshold memory** {**configured**| **defaults**} **location** *node-id*] [**location** *node-id*]

Syntax Description

memory-state	(Optional) Displays the memory state.
threshold memory	(Optional) Displays the memory thresholds.
configured	Displays the configured memory thresholds.
defaults	Displays the default system memory thresholds.
location *node-id*	(Optional) Specifies a node. The *node-id* argument is entered in the *rack/slot/module* notation. The **location** *node-id* keyword and argument must be specified if the **threshold memory** keywords are selected.
overload state	(Optional) Displays the overload control state information.
trace	(Optional) Displays the watchdog trace data.

Command Default

The command output is not compressed.

Command Modes

XR EXEC

Command History

Release	Modification
Release 5.0.0	This command was introduced.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Use the **show watchdog** command to display information about the memory states or thresholds for a specified location. You can display the default or configured memory thresholds.

Task ID

Task ID	Operations
basic-services	read

Examples

The following sample output is from the **show watchdog** command:

```
RP/0/RP0/CPU0:router# show watchdog memory-state

Wed Nov  4 00:18:59.575 UTC
Memory information:
    Physical Memory: 4096     MB
    Free Memory:     2623.671 MB
    Memory State:         Normal
```

Related Commands

Command	Description
watchdog threshold memory	Configures the value of memory available for each alarm threshold.