

MRF Instance 80% Capacity Limit Exceeded

Virtual Multimedia Resource Function

Operating Instructions

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MRF Instance 80% Capacity Limit Exceeded



1 Overview

This instruction concerns alarm handling.

1.1 MRF Instance 80% Capacity Limit Exceeded Alarm Description

This alarm is a primary alarm. The alarm is issued by the `MrfInstance` Managed Object (MO). The severity of the alarm is Warning.

The MRF Instance 80% Capacity Limit Exceeded alarm is received when 80% of the available processing capacity is used in MRF instance functions. The following functions are monitored:

- MRF Application processor load
- Media Stream Processing load
- IP Pipeline load
- IP Pipeline vSwitch load

The alarm detects MRF instance functions that are limiting the call handling capacity. It indicates that new virtual machines must be created for MRF. If the alarm does not cease after a short period, the cluster reached the upper limit of virtual machines.

The possible alarm cause and alarm locations are explained in the table below.

Table 1 Alarm Causes

Cause	Description	Reason	Location	Impact
The amount of MRF traffic is over 80% of the available processing capacity.	Traffic has exceeded 80% of the available processing capacity.	High volume of MRF traffic. Possible reasons include disturbance in a network or incorrect network dimensioning.	Network.	No impact.

The alarm is updated in the following cases:

- A function that is not yet in `additionalText` goes over the 80% limit. The function is added to `additionalText`.



- A function that is in `additionalText` goes below the 70% limit. The function is removed from `additionalText`.
- A function that triggered the alarm earlier goes below 80% load, but is still above 70%. The function is added to `additionalText`.
- A change occurs in the load of the overloaded entities, and the new status lasts at least 30 seconds.

The alarm is ceased in any of the following cases:

- The MRF instance functions (MRF Application, Media Stream Processing, IP Pipeline, and IP Pipeline vSwitch) that triggered the alarm are running under 70% of available processing capacity for at least 30 seconds.

The following are the consequences for the node if the alarm is not solved:

- Possible traffic congestion in the future.

The alarm attributes are listed and explained in [Table 2](#).

Table 2 Alarm Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	5308421
Managed Object Class	MrfInstance
Managed Object Instance	ManagedElement=1,MediaResourceFunction=1,MrfResource=1,MrfInstance=<mrf_instance>
Specific Problem	MRF Instance 80% Capacity Limit Exceeded
Event Type	QualityOfServiceAlarm (3)
Probable Cause	systemResourcesOverload (207)
Additional Text	80% of MRF instance capacity is used. Detected in: <List of MRF instance functions>; uuid:<uuid> ⁽¹⁾
Perceived Severity	Warning (6)
isStateful	true

(1) <uuid> is the identity of the Virtual Machine from which the alarm is issued.



2 Procedure

The following procedure describes how to cease a MRF Instance 80% Capacity Limit Exceeded alarm.

2.1 Cease the MRF Instance 80% Capacity Limit Exceeded Alarm

Prerequisites

You have logged in to the node.

Steps

1. View currently active alarms and browse the alarm log.
2. Check if other nodes in the network handling the same type of traffic are functioning correctly and there are no factors that temporarily cause heavy traffic, for example, public events. If a clear reason for increased traffic is found, consider to expand the capacity by adding more VMs to the cluster. If it is also possible to estimate when the situation disappears, consider removing the added VMs from the cluster after traffic went back to normal. If the situation is resolved, go to [Perform Concluding Routines](#) on page 3.
3. Create a measurement job with the appropriate PM counters, and compare the results with the available processing capacity. Follow the counters periodically, and if the counter value shows an increase in MRF traffic that seems permanent, go to [Step 4](#). If the readings show a temporary peak, go to [Perform Concluding Routines](#) on page 3.
4. Consider to add additional VMs to the cluster to increase processing capacity. If the needed capacity is over the agreed capacity limit, contact the Cloud Administrator for capacity expansion, and contact Ericsson support.
5. If the alarm does not cease, consult the next level of maintenance support. Further actions are outside the scope of this instruction.

2.2 Perform Concluding Routines

Steps

1. Make a report.
2. The job is completed.