

Compute Resource Threshold Value Exceeded

Virtual Multimedia Resource Function

Operating Instructions

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Compute Resource Threshold Value Exceeded



1 Overview

This instruction concerns alarm handling.

1.1 Compute Resource Threshold Value Exceeded Alarm Description

The alarm is a primary alarm. The severity of the alarm is Minor. The alarm is issued by the `MrfInstance` MO.

The Compute Resource Threshold Value Exceeded alarm indicates that the vMRF VM is running out of allocated compute resources. The following resources are monitored every 10 seconds:

- storage disk space used (%)
- memory used (%)

The alarm is raised if one of the monitored compute resources exceeds its fixed high threshold value. The fixed threshold values are shown in [Table 1](#).

Table 1 Compute Resource Threshold Values

Compute Resource	High Threshold Value	Low Threshold Value
Storage disk space	50%	45%
Memory	80%	75%

The compute resource type exceeding the threshold value is indicated in the `Additional Text` field of the alarm.

The possible alarm causes and alarm locations are explained in [Table 2](#).

Table 2 Alarm Causes

Alarm Cause	Description	Fault Reason	Fault Location	Impact
High threshold for vMRF instance compute resource has been exceeded.	The vMRF instance is soon running out of allocated compute resources.	At least 50% of the available storage disk space is used. At least 80% of the available memory is used.	vMRF VM	No traffic impact, storage of new files on the disk might fail. Call failures can occur if memory use



Alarm Cause	Description	Fault Reason	Fault Location	Impact
				further increases.

The alarm is updated in the following case:

- A compute resource type that is not yet in the `Additional Text` field exceeds its high threshold value. The compute resource is added to `Additional Text`.
- A compute resource type that is in the `Additional Text` field goes below its low threshold value. The compute resource is removed from `Additional Text`.

The alarm is ceased in the following case:

- Both compute resource types are below their low threshold values for at least 30 seconds.

The alarm attributes are listed and explained in [Table 3](#).

Table 3 Alarm Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	5308427
Managed Object Class	MrfInstance
Managed Object Instance	ManagedElement=1,MediaResourceFunction=1,MrfResource=1,MrfInstance=<mrf_instance>
Specific Problem	Compute Resource Threshold Value Exceeded.
Event Type	QualityOfServiceAlarm (3)
Probable Cause	ResourceAtOrNearingCapacity (343)
Additional Text	Unhealthy value range has been reached for: <List of exceeded thresholds for disk used [%], memory used [%]>; uuid: <uuid> ⁽¹⁾
Perceived Severity	minor (5)

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



2 Cease the Compute Resource Threshold Value Exceeded Alarm

The following procedure describes how to cease the Compute Resource Threshold Value Exceeded alarm.

Prerequisites

- You have logged into the node.

Steps

1. See details for the alarm Compute Resource Threshold Value Exceeded. Check the Additional Text field of the alarm.
 - If the Additional Text includes disk used, compare the value of the `diskSize` counter against the storage requirements in [vMRF Infrastructure Requirements](#). If the allocated disk space is below the required value, allocate more storage space to meet requirements. If the alarm is ceased, continue to [Perform Concluding Routines](#) on page 4.
 - If the Additional Text includes memory used, compare the value of the `memoryTotal` counter against the compute requirements in [vMRF Infrastructure Requirements](#). If the allocated memory is below the required value, allocate more memory to meet requirements. If the alarm is ceased, continue to [Perform Concluding Routines](#) on page 4.
2. If the alarm is still active, depending on the Additional Text field, do the following:
 - If the Additional Text includes disk used, open an SSH connection to the VM from which the alarm is issued and clean up disk space by removing possible core dumps from `/cluster/storage/dumps/` and tracing-related files from `/cluster/storage/collectdata`. If the alarm is ceased, continue to [Perform Concluding Routines](#) on page 4.
 - If the Additional Text includes memory used, monitor memory use by checking the `memoryUsed` counter and compare the results with other VMs. If high memory use only appears in the monitored VM, lock and restart the VM issuing the alarm.

If the alarm is ceased, continue to [Perform Concluding Routines](#) on page 4.
3. If the alarm is still active, contact Ericsson support. Further actions are outside the scope of this instruction. Continue to [Perform Concluding Routines](#) on page 4.



2.1 Perform Concluding Routines

Steps

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