

Configure Time-Based Scaling

MTAS

OPERATING INSTRUCTIONS

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1 Description

The time-based scaling is a possibility to start scaling workflows in a predefined time. It can be used for scaling a Virtual Network Function (VNF) capacity dynamically in a well known time slot of a day depending on the traffic load. The VNF Lifecycle Management (VNF-LCM) triggers the scale-out and scale-in workflows automatically based on the MTAS Time Based Scaling Alert that raises on the VNF at a predefined time of a day.

Table 1 describes the MTAS Time Based Scaling SNMP alert.

Table 1 MTAS Time-Based Scaling Alert Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	6619252
Managed Object Class	MtasScaling
Managed Object Instance	MtasFunction.applicationName=mtasFunction,MtasScaling.mtasScaling=default
Specific Problem	MtasScaling, MTAS Time Based Scaling
Event Type	ENVIRONMENTAL ALARM
Probable Cause	x733CommunicationsSubsystemFailure (306)
Additional Text	<ul style="list-style-type: none">• MTAS Time Based Scale Out=<numberOfPayload>• MTAS Time Based Scale In=<numberOfPayload>
Perceived Severity	N/A

The following environment must be deployed on OpenStack before using this function:

- ENM
- VNF-LCM
- Target VNF



2 Procedure

2.1 Configure Time-Based Scaling

Prerequisites

- No documents are required.
- No tools are required.
- The following conditions must apply:
 - The VNF is onboarded using the VNF-LCM.
 - VNF-LCM is available, using either Operations Support System for Radio and Core (OSS-RC) or Ericsson Network Manager (ENM).
 - Virtual Infrastructure Manager (VIM) vCenter Server 6.0 or 6.5 is used.
 - The VIM is configured in VNF-LCM:

The VIM configuration in VNF-LCM can be checked with the `vnflcm vim list` command. For more information on VIM configuration, see VNF Lifecycle Manager System Administrator Guide, 1543-APR 901 0578 Uen.
 - The version of the used VNF-LCM is 19.02 (the VNF Lifecycle Automation Framework (VNF-LAF) image is 4.9.15) or higher.

Steps

1. In ECLI, navigate to `MtasScaling` MO, for example:
`>ManagedElement=1,MtasFunction=MtasFunction,MtasScaling=default`
2. Enter Config mode:
`(MtasScaling=default)>configure`
3. Enable time-based scaling:
`(config-MtasScaling=default)>mtasScalingTimeBasedScalingEnabled=true`
4. Set scale times and the wanted number of PLs, using the format `<HHMM>: <number of PLs>`, where HHMM is the time in 24-hour format, for example:
`(config-MtasScaling=default)>mtasScalingScaleOut="1600:8"`
`(config-MtasScaling=default)>mtasScalingScaleIn="2200:4"`



This means that the node is scaled out to 8 PLs at 16:00 (2 SCs+8 PLs) and is scaled in to 4 PLs at 22:00 (2 SCs+4 PLs)

5. Verify the settings:

```
(config-MtasScaling=default)>show
```

The following is an example output:

```
MtasScaling=default
mtasScalingScaleIn="2200:4"
mtasScalingScaleOut="1600:8"
mtasScalingTimeBasedScalingEnabled=true
```

6. Commit the settings:

```
(config-MtasScaling=default)>commit
```

7. Exit ECLI.

```
(MtasScaling=default)>exit
```

8. Enable time-based automatic invocation of the Scale VNF WF (so-called time-based auto-scale WF):

- a. Copy `vmtas-time-based-scaling-autostart-rule.xml` included in the vMTAS Workflow Pack CXP9034815_1-`<R-state>.tar.gz` from the `autostart-rules` folder to `/vnflcm-ext/current/workflows/auto-start-rules`

- b. Restart Jboss:

```
sudo service jboss restart
```

2.2 Troubleshooting

Steps

1. Workflow log: the **Workflow Log** view in the VNF-LCM
2. If needed, increase the log level from INFO to DEBUG. For information on how to change log level, see VNF-Lifecycle Manager System Administration Guide, 1543-APR 901 0578.
3. Inspect the following logs to identify the cause of the failure:
 - Jboss Server log: `/ericsson/3pp/jboss/standalone/log/server.log`
 - System log: `/var/log/messages`
4. If a problem cannot be solved, consult the next level of maintenance support and provide the logs. Further actions are outside the scope of this instruction.