

Change Maximum Transmission Unit Size

MTAS

OPERATING INSTRUCTIONS

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Change Maximum Transmission Unit Size



1 Description

This instruction describes how to change the Maximum Transmission Unit (MTU) size. Default value is 1500 bytes, as the system internal IPv6 tunnels add an overhead of 48 bytes. The default value works for the widest variety of available Ethernet switching infrastructure hardware and there is no need to deviate from the default value.

Note: The highest verified MTU value is 2140. Changing the value in-service requires a cluster reboot, causing an interruption of service. If the change of MTU is done after an upgrade from 1.11.x or earlier, also perform the procedures in Section 3 on page 5.





2 Change the Cluster Configuration

Prerequisites

- No documents are required.
- No tools are required.
- The following conditions must apply:
 - The new MTU size is known.
 - The new MTU is same as underlying virtual network MTU.
 - The user has the System Security Administrator role.
 - The user is logged on to one of the system controllers.

Steps

1. Edit `/cluster/etc/cluster.conf` and add the wanted MTU value for each interface, for example:

```
interface 1 eth0 ethernet fa:16:3e:95:fd:69 mtu absolute 2140  
interface 1 eth1 ethernet fa:16:3e:95:fd:45 mtu absolute 2140  
...
```

2. Save the file.
3. Validate the new configuration:

```
SC-1:~ # lde-config --validate
```

4. Reload the cluster configuration:

```
SC-1:~ # cluster config -r -a -t
```





3 Post Upgrade Procedures

The procedures in this section must be performed if the change of MTU is done after an upgrade from 1.11.x or earlier release. If the MTU is reconfigured after a maiden installation, continue with Section 4 on page 7.

3.1 Change the eVIP Configuration

Prerequisites

- No documents are required.
- No tools are required.
- The following conditions must apply:
 - The user has the System Security Administrator role.
 - An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.

Steps

1. Navigate to an `EvipParam` managed object, for example:

```
>ManagedElement=NODE06ST,Transport=1,Evip=1,EvipParams=1,EvipParam=mtu
```

2. Enter Config mode:

```
(EvipParam=mtu)>configure
```

3. Change the MTU size to 0 (zero), meaning that the MTU value is retrieved from the network:

```
(config-EvipParam=mtu)>value=0
```

4. Commit the setting:

```
(config-EvipParam=mtu)>commit
```

3.2 Change the SS7 Configuration

The MTU in every SCTP profile must be updated. In the following example, the MTU is updated for profile 0 (which comes from the default configuration).

Prerequisites

- No documents are required.



- No tools are required.
- The following conditions must apply:
 - The user has the System Security Administrator role.
 - The user is logged on to one of the system controllers.

Steps

1. Open the **Signaling Manager**.
2. Go to **Tools > Configuration Mode > Initial** in “Expert Mode”.
3. Go to **Signaling System > SCTPs**.
4. Select Sctp End Point Profile#N.
5. Set the **PMTU** and **IPv6 PMTU** value to 0.

3.3

Activate the SS7 Configuration Changes

Steps

1. In the **Signaling Manager**, go to **Tools > Process view**.
2. Go to **Configure > Initial configuration** and click **OK**.
3. Select **Restart the stack**.

Wait until active indication is shown in the bottom left corner of the **Signaling Manager**.



4 Reboot the Cluster

Steps

1. Perform a cluster reboot:



Attention!

Risk of system malfunction or traffic disturbance.

Service is interrupted during a cluster reboot.

SC-1:~ #**cmw-cluster-reboot**

The following output is shown:

```
Do you really want to reboot the entire cluster (yes/no)?
```

2. Enter **yes** to reboot.





5 Verify the New Configuration

Steps

1. Verify the MTU size value on the vNICs:
 - a. On every virtual machine, verify that the new MTU size has been set in the global and eVIP front-end element (FEE) namespace.
 - b. Verify the new MTU on the Abstract Load Balancers (ALBs).

Suggested tools are `ifconfig` or `ip link show`.

2. Verify the MTU size value in SS7 for each SCTP profile:

```
SC-1:~ # ss7smcli
```

```
cli> connect;  
EXECUTED  
cli>
```

Execute to following command and look for “PMTU”, for example:

```
cli> STNF0:IID=1;
```

```
...  
PMTU: 1432  
...
```

On systems with `mtu 2140`, it is `PMTU: 2052`.