

License Management, Autonomous Mode Activated

OPERATING INSTRUCTIONS

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1 Alarm Description

The alarm is raised when license information cannot be reached in NeLS.

`License Management, Autonomous Mode Activated` is a persistent alarm that remains on the alarm list while LM is operating in Autonomous mode. The alarm clears automatically when Autonomous mode ends.

Autonomous mode is time limited to a configurable period, usually 24 hours. If the situation is not resolved by the end of the Autonomous Mode period, LM automatically enters Locked mode and a `License Management, Key File Fault` alarm is raised.

Table 1 License Management, Autonomous Mode Activated Alarm Causes

Alarm Cause	Description	Fault Reason	Fault Location	Impact
Failing to reach license information in NeLS	The license server in the Managed Element (ME) fails to refresh license information from NeLS. The ME enters Autonomous mode	The NeLS server is unreachable or the relevant License Key File is corrupted or unavailable	NeLS server	Service is limited to the features and capacity granted to the ME when the connection was lost. If the fault duration exceeds the set time limit, usually 24 hours, the licensed services are affected (no availability or limited capacity) and alarm <i>License Management, Key File Fault</i> is raised.
			TLS configuration in ME	
			Possible IP network issue	
			Domain Name System (DNS) server	
			Network interface	

Note: The alarm can be raised as a result of maintenance activities.



2 Procedure

2.1 Handle Alarm License Management, Autonomous Mode Activated

Prerequisites

- This instruction references the following documents:
 - *Activate Emergency Unlock Mode*
 - *Data Collection Guideline*
 - *License Management, Key File Fault*
- No tools are required.
- The following conditions must apply:
 - The alarm is raised.
 - No ongoing maintenance activities are affecting the network or Network Elements.
 - The host address and port number of the NeLS server is known.
 - The ME has a working connection to NeLS.
 - If an operator tunnel is used for the connection to NeLS, the corresponding certificate is available.
 - The user has Linux® shell access to the System Controllers (SCs).
 - An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.

Steps

1. If there are any network-related alarms on the ME, act on them first.
2. In ECLI, check the status of the connection to NeLS in the *NeLSConfiguration* Managed Object (MO), for example:

```
>show ManagedElement=NODE06ST,SystemFunctions=1,Lm=1,NeLSConfiguration=1,connectionStatus
```

The following is an example output:

```
connectionStatus=NOT_CONNECTED
```



3. Select action according to the `connectionStatus` attribute value:

- If `UNDEFINED` or `NOT_CONNECTED`, proceed with Step 5.
- If `CONNECTED`, continue with the next step.

4. Check the alarm status. Is the alarm still active?

No: Proceed with Step 16.

Yes: Continue with the next step.

5. Verify that the `NeLSConfiguration` attributes of the *NeLSConfiguration* MO point to the correct host address and port number, for example:

```
>show ManagedElement=NODE06ST,SystemFunctions=1,Lm=1
,NeLSConfiguration=1,host
```

```
host=<IP_Address_or_FQDN>
```

```
>show ManagedElement=NODE06ST,SystemFunctions=1,Lm=1
,NeLSConfiguration=1,port
```

```
port=<Port_Number>
```

6. If necessary, update the connection parameters to NeLS:

```
>configure
```

```
(config)>ManagedElement=NODE06ST,SystemFunctions=1,Lm=1
,NeLSConfiguration=1
```

```
(config-NeLSConfiguration=1)>host=<IP_Address_or_FQDN>
```

```
(config-NeLSConfiguration=1)>port=<Port_Number>
```

```
(config-NeLSConfiguration=1)>commit
```

After committing the configuration changes, LM attempts to reconnect using the updated connection settings.

7. Check the connection status to NeLS:

```
>show ManagedElement=NODE06ST,SystemFunctions=1,Lm=1,Ne
LSConfiguration=1,connectionStatus
```

The following is an example output:

```
connectionStatus=CONNECTED
```

8. Is the `connectionStatus` attribute value `CONNECTED`?

Yes: Proceed with Step 13.



No: Continue with the next step.

9. From a Linux shell on the SC of the ME, use `ping` and `traceroute` to attempt to reach the NeLS host address.

If NeLS is unreachable, wait five minutes and retry the command. If the output is still the same, proceed with Step 14.

10. If NeLS was reachable, check the NeLS connection retry interval using the ECLI:

```
>show ManagedElement=1, SystemFunctions=1, Lm=1, NeLSConfiguration=1, retryInterval
```

The following is an example output:

```
replyInterval=30
```

Write down or memorize the current setting.

11. Wait for the retry interval to elapse. If necessary, update the attribute to a shorter interval with the following commands:

```
>configure
```

```
(config) >ManagedElement=NODE06ST, SystemFunctions=1, Lm=1, NeLSConfiguration=1
```

```
(config-NeLSConfiguration=1) >retryInterval=<seconds>
```

```
(config-NeLSConfiguration=1) >commit
```

12. After the retry interval has elapsed, wait another minute or so, then check the connection status:

```
>show ManagedElement=NODE06ST, SystemFunctions=1, Lm=1, NeLSConfiguration=1, connectionStatus
```

The following is an example output:

```
connectionStatus=CONNECTED
```

Note: If `retryInterval` was modified, revert the change to the original value using the commands in Step 11.

13. Check the alarm status. Is the alarm still active?

Yes: Continue with the next step.

No: Proceed with Step 16.

14. Perform data collection, refer to *Data Collection Guideline*.



Note: If resolving the issue is expected to take more than the configured time limit (usually 24 hours), Emergency Unlock can be used to prevent the system from entering Locked Mode. For more information on Emergency Unlock, refer to *Activate Emergency Unlock Mode*.

15. Consult the next level of maintenance support. Further actions are outside the scope of this instruction.
16. Job is completed.