

# Certificate Management, the Certificate is to Expire

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## OPERATING INSTRUCTIONS

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# 1 Alarm Description

The alarm is raised when a certificate renewal is needed to prevent a secure service failure. The alarm is raised only if the node credential can cause interruption to the secure service.

*Table 1 Certificate Management, the Certificate is to Expire Alarm Causes*

Alarm Cause	Description	Fault Reason	Fault Location	Impact
The certificate is about to expire and is to be renewed	The number of days until the certificate expires is equal to or less than defined by the attribute <code>expiryAlarmThreshold</code>	The threshold for certificate expiration time has been crossed	Node credential	Secured service can fail, for example, Internet Protocol Security connection authenticated by expired certificate can fail

## 2 Procedure

### 2.1 Handle Alarm Certificate Management, the Certificate is to Expire

#### Prerequisites

- This instruction references the following documents:
  - *Certificate Management, a Valid Certificate is Not Available*
  - *Certificate Management, Automatic Enrollment Failed*
  - *Data Collection Guideline*
  - *Install or Renew Node Credential by CSR*
  - *Install or Renew Node Credential by PKCS 12*
  - *Renew Node Credential Online*
- No tools are required.



- The following conditions must apply:
  - The alarm is raised.
  - The user has the System Security Administrator role.
  - The user is familiar with the security policy and environment of the organization. The user knows what mechanism is appropriate to use to install and renew node credentials (online, PKCS#12, or CSR).
  - If online renewal of node credentials is used, the correct configuration information for enrollment server groups and enrollment authorities is obtained from the IT or security administrator.
  - No ongoing maintenance activities are affecting the network or network elements.
  - An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.

## Steps

1. Navigate to the *NodeCredential* managed object given in the alarm, for example:

```
>ManagedElement=NODE06ST, SystemFunctions=1, SecM=1, CertM=1, NodeCredential=1
```

2. Check attribute `renewalMode`.

```
(NodeCredential=1)>show renewalMode
```

The following is an example output:

```
renewalMode=MANUAL
```

3. Select the appropriate action based on the result:
  - **MANUAL** – The alarm can be cleared by performing certificate renewal for the enrolled *NodeCredential* MO.
  - **AUTOMATIC** – Continue according to the instruction *Certificate Management, Automatic Enrollment Failed* instead. Further actions are outside the scope of this instruction.
4. Based on the security policy, use the appropriate operation among the following to renew the node credential:
  - *Renew Node Credential Online*
  - *Install or Renew Node Credential by PKCS 12* (follow the instructions for renewal)



- *Install or Renew Node Credential by CSR* (follow the instructions for renewal)
5. Is the alarm cleared?  
Yes: Proceed with Step 8.  
No: Continue with the next step.
  6. Perform data collection, refer to *Data Collection Guideline*.
  7. Consult the next level of maintenance support. Further actions are outside the scope of this instruction.
  8. Job is completed.