

# Install Node Credential Online

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## OPERATING INSTRUCTIONS

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# 1 Introduction

This document describes how to install a node credential online.

Installation of a node credential online includes an initial online enrollment of the node credential.

As shown in Figure 1, node credential installation with online enrollment consists of the following main steps:

1. Enrollment data preparation in the Managed Element (ME).
2. The online enrollment starts with a Managed Object (MO) action from the ME. The ME communicates with the enrollment servers at the Certification Authority (CA)/Registration Authority (RA) and installs the node credential.

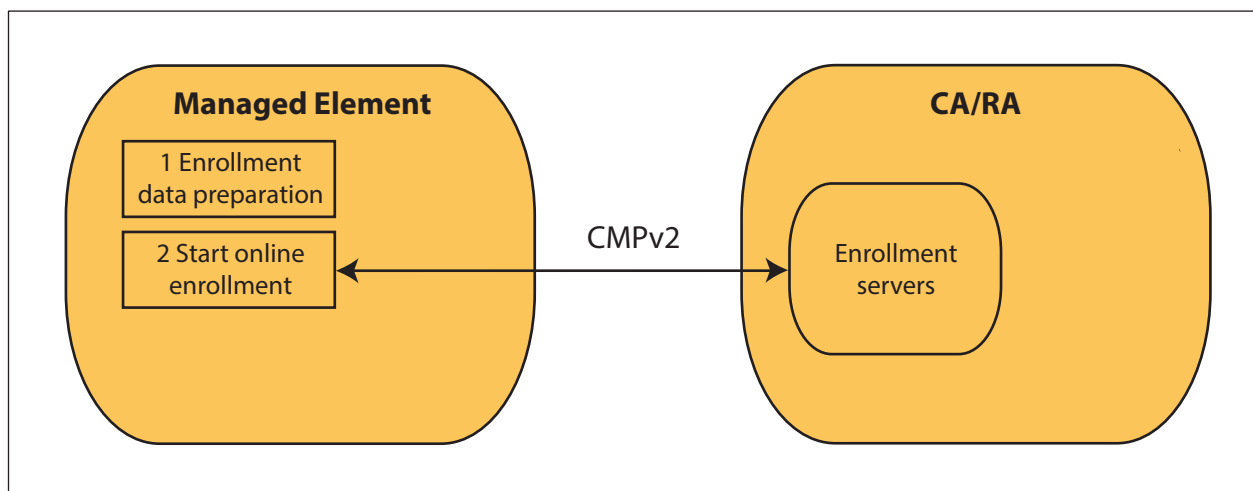


Figure 1 Installation of a Node Credential Online

For more information on how to configure an enrollment server group, refer to *Configure Enrollment Server Group Together with Enrollment Servers*.

## 1.1 Prerequisites

This section describes the prerequisites, which must be fulfilled before using the procedure.

### 1.1.1 Conditions

The following conditions must apply:

- The user has the System Security Administrator role.



- The challenge password is known.
- An *EnrollmentAuthority* MO exists.
- An *EnrollmentServerGroup* MO with at least one *EnrollmentServer* MO exists.
- An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.



## 2 Procedure

### Enrollment Data Preparation in ME

To prepare enrollment data in the ME:

1. Navigate to the *CertM* MO, for example:

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

2. Enter Config mode:

```
(CertM=1) >configure
```

3. Create the *NodeCredential* MO:

```
(config-CertM=1) >NodeCredential=1
```

4. Set attribute *subjectName*, for example:

```
(config-NodeCredential=1) >subjectName="C=SE, O=Ericsson, CN=node06st.ericsson.com"
```

**Note:** The only mandatory Relative Distinguished Name (RDN) required in the Distinguished Name (DN) is the Common Name (CN).

The value `CN=node06st.ericsson.com` is an example value. From a certificate syntax point of view, also other values such as `CN=NODE06ST` are valid. The value that is to be configured in the CN depends on the security policy in the organization for which the ME is installed. It also depends on the information the peer expects to receive in a certificate from the ME when the peer tries to connect to the ME using the service for which this node credential is used.

5. Set attribute *keyInfo*, for example:

```
(config-NodeCredential=1) >keyInfo=RSA_2048
```

**Note:** Only RSA keys are currently supported for online enrollment.

6. Set attribute *enrollmentServerGroup*, for example:

```
(config-NodeCredential=1) >enrollmentServerGroup="ManagedElement=NODE06ST, SystemFunctions=1, SecM=1, CertM=1, EnrollmentServerGroup=1"
```

7. Set attribute *enrollmentAuthority*, for example:



```
(config-NodeCredential=1)>enrollmentAuthority="ManagedElement=NODE06ST,SystemFunctions=1,SecM=1,CertM=1,EnrollmentAuthority=1"
```

8. Modify the default enrollmentTimer value, if needed, for example:

```
(config-NodeCredential=1)>enrollmentTimer=90
```

**Note:** The default value for attribute enrollmentTimer is 60 minutes.

9. Commit the settings:

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

10. Verify the settings:

```
(NodeCredential=1)>show -v
```

The following is an example output:

```
NodeCredential=1
[...]
  enrollmentAuthority="ManagedElement=NODE06ST,SystemFunctions=1,⇒
SecM=1,CertM=1,EnrollmentAuthority=1"
  enrollmentServerGroup="ManagedElement=NODE06ST,SystemFunctions=1,⇒
SecM=1,CertM=1,EnrollmentServerGroup=1"
  enrollmentTimer=90
  expiryAlarmThreshold=30 <default>
  keyInfo=RSA_2048
  nodeCredentialId="1"
  renewalMode=MANUAL <default>
  reservedByUser=[] <empty> <read-only>
  subjectName="C=SE,O=Ericsson,CN=node06st.ericsson.com"
  userLabel=[] <empty>
  certificateContent=[] <empty> <read-only>
[...]
```

## Start Online Enrollment

11. Start the enrollment together with parameter challengePassword, for example:

```
(NodeCredential=1)>startOnlineEnrollment --challengePassword enrollmentChallengePassw
```

The system returns output true or false.

**Note:** An online initial enrollment requires a shared secret between the node and the enrollment authority. If a challenge password is used as a shared secret, action startOnlineEnrollment must be called together with the password.





12. Verify the result information of the `nodeCredentialId` enrollment:

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

At a successful online start, the system returns the following:

```
[...]  
result=SUCCESS  
resultInfo="installed from the online service"  
[...]
```

If an error occurs during the execution of the online start, attribute `enrollmentProgress` shows `result=FAILURE` and attribute `resultInfo` shows the cause of the failure. Repair the failure and restart the enrollment if needed.