



Configuring Secure Storage

Secure Storage feature allows you to secure critical configuration information by encrypting it. It encrypts VPN, IPSec, and other asymmetric key-pairs, pre-shared secrets, the type 6 password encryption key and certain credentials. An instance-unique encryption key is stored in the hardware trust anchor to prevent it from being compromised.

By default, this feature is enabled on platforms that come with a hardware trust anchor. This feature is not supported on platforms that do not have hardware trust anchor.

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Enabling Secure Storage

Before you begin

By default, this feature is enabled on a platform. Use this procedure on a platform where it is disabled.

SUMMARY STEPS

1. Config terminal
2. service private-config-encryption
3. do write memory

DETAILED STEPS

| | Command or Action | Purpose |
|--------|--|--|
| Step 1 | Config terminal Example: router#config terminal | Enters the configuration mode. |
| Step 2 | service private-config-encryption Example: | Enables the Secure Storage feature on your platform. |

| | Command or Action | Purpose |
|---------------|--|---|
| | <code>router(config)# service private-config-encryption</code> | |
| Step 3 | do write memory Example: <code>router(config)# do write memory</code> | Encrypts the private-config file and saves the file in an encrypted format. |

Example

The following example shows how to enable Secure Storage:

```
router#config terminal
router(config)# service private-config-encryption
router(config)# do write memory
```

Disabling Secure Storage

Before you begin

To disable Secure Storage feature on a platform, perform this task:

SUMMARY STEPS

1. Config terminal
2. no service private-config-encryption
3. do write memory

DETAILED STEPS

| | Command or Action | Purpose |
|---------------|--|--|
| Step 1 | Config terminal Example: <code>router#config terminal</code> | Enters the configuration mode. |
| Step 2 | no service private-config-encryption Example: <code>router(config)# no service private-config-encryption</code> | Disables the Secure Storage feature on your platform. |
| Step 3 | do write memory Example: <code>router(config)# do write memory</code> | Decrypts the private-config file and saves the file in plane format. |

Example

The following example shows how to disable Secure Storage:

```

router#config terminal
router(config)# no service private-config-encryption
router(config)# do write memory

```

Verifying the Status of Encryption

Use the **show parser encrypt file status** command to verify the status of encryption. The following command output indicates that the feature is available but the file is not encrypted. The file is in 'plain text' format.

```

router#show parser encrypt file status
Feature: Enabled
File Format: Plain Text
Encryption Version: Ver1

```

The following command output indicates that the feature is enabled and the file is encrypted. The file is in 'cipher text' format.

```

router#show parser encrypt file status
Feature: Enabled
File Format: Cipher Text
Encryption Version: Ver1

```

Verifying the Platform Identity

Use the **show platform sudi certificate** command to display the SUDI certificate in standard PEM format. The command output helps you verify the platform identity.

In the command output, the first certificate is the Cisco Root CA 2048 and the second is the Cisco subordinate CA (ACT2 SUDI CA). The third is the SUDI certificate.

```

router#show platform sudi certificate sign nonce 123
-----BEGIN CERTIFICATE-----
MIIDQzCCAiuGAWIBAgIQX/h7KctU3I1CoxW1aMmt/zANBgkqhkiG9w0BAQUFADA1
MRYwFAYDVQQKEw1DaXNjbyBTeXN0ZW1zMRswGQYDVQQDExJDAXNjbyBSb290IENB
IDIwNDgwHhcNMDQwNTE0MjAxNzEyWhcNMjkwNTE0MjAyNTQyWjA1MRYwFAYDVQQK
Ew1DaXNjbyBTeXN0ZW1zMRswGQYDVQQDExJDAXNjbyBSb290IENBIDIwNDgwggEg
MA0GCSqGSIb3DQEBAQUAA4IBDQAwggEIAoIBAQCWmrmp68Kd6f1cba0ZmKUeIhH
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FcjPFto1YYmUQ6iEqDGyeJu5Tm8sUxJszR2tKyS7McQr/4NEb7Y9JhcJ6r8qqB9q
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jWn0f84bcN5wGyDwbs2mAag8EtKpP6BrXruOIIt6ke01a06g58QBdKtCytKmg9L
Eg6CTy5j/e/rmxrbU6YTYK/CfdFhbBcl1HP7R2RQgYcUTOG/rksc35LtLgXfAgED
o1EwTzALBgNVHQ8EBAMCAYYwDwYDVR0TAAQh/BAUwAwEB/zAdBgNVHQ4EFgQUJ/PI
FR5umgIjFq0roIlgX9p7L6owEAYJKwYBBAGCNxUBBAMCAQAwDQYJKoZIhvcNAQEF
BQADggEBAJ2dhISjQa18dwy3U8pORFbi71R803UXHOjgXkhLtv5M0hmBvRbW7hmW
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cB7w4ovXsNgOnbFp1iqRe61JT37mjpXYgyC81WhJDtSd9i7rp77rMKSsH0T81asZ
Bvt9YaretIpjsJyp8qS5UwGH0GikJ3+r/+n6yUA4iGe00caEb1fJU9u6ju7AQ7L4
CYNu/2bPPu8Xs1gYJQk0XuPL1hs27PKSb3TkL4Eq1ZKR4OCXPDJoBYVL0fdx41Id
kxpUnwVwwEpxYB5DC2Ae/qPOgRnhCzU=
-----END CERTIFICATE-----

```

```

-----BEGIN CERTIFICATE-----
MIIEPCCAySgAwIBAgIKYQ1ufQAAAAAADANBgkqhkiG9w0BAQUFADA1MRYwFAYD
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0IFJZBGrooCRBjOSwFv8cpWCbmWdPaCQT2nwIjTfY8c=
-----END CERTIFICATE-----
-----BEGIN CERTIFICATE-----
MIIDhzCCAm+gAwIBAgIEAJT3DDANBgkqhkiG9w0BAQsFADANMQ4wDAYDVQQKEwVDA1
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Signature:
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```