# 如何在Sx350和Sx550X系列交換器上匯入憑證

## 目標

本文的目的是提供使用圖形使用者介面(GUI)和命令列介面(CLI)在Sx350和Sx550X系列交換機上成功匯入證書的步驟。

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在Sx350和Sx550X交換機上匯入證書時遇到的一個問題是,使用者面臨金鑰標頭丟失和/或無法載 入公鑰錯誤。本文說明如何克服這些錯誤以成功匯入證書。證書是一種電子文檔,用於標識個人、 伺服器、公司或其他實體,並將該實體與公鑰相關聯。證書用於網路中,以提供安全訪問。證書可 以由外部證書頒發機構(CA)自簽名或數位簽章。如名稱所示,自簽名證書由自己的建立者簽名。 CA管理證書請求並向參與實體(如主機、網路裝置或使用者)頒發證書。CA簽名的數位證書被視 為行業標準和更安全。

## 適用裝置和軟體版本

- SG350版本2.5.0.83
- SG350X版本2.5.0.83
- SG350XG版本2.5.0.83
- SF350版本2.5.0.83
- SG550X版本2.5.0.83
- SF550X版本2.5.0.83
- SG550XG版本2.5.0.83
- SX550X版本2.5.0.83

## 必要條件

您必須具有自簽名或證書頒發機構(CA)證書。本文包含獲取自簽名證書的步驟。要瞭解有關CA證書 的詳細資訊,請按一下<u>此處</u>。

## 使用GUI匯入

### 步驟1

輸入Username和Password以登入交換器的GUI。按一下「Log In」。



### 步驟2

在GUI右上角的Display Mode中,使用下拉選項選擇Advanced。



### 步驟3

導覽至Security > SSL Server > SSL Server Authentication。



## 步驟4

選擇其中一個證書為*Auto Generated*。選擇*Certificate ID* 1或2,然後按一下**Edit**按鈕。 SSL Server Authentication Settings

| SS | SSL Active Certificate Number:   1  2                               |             |                   |                   |          |       |         |             |             |                    |
|----|---|-------------|-------------------|-------------------|----------|-------|---------|-------------|-------------|--------------------|
|    | Apply Cancel  |             |                   |                   |          |       |         |             |             |                    |
| SS | L Server Key Ta   | ble         |                   |                   |          |       |         |             |             |                    |
|    | Certificate ID  | Common Name | Organization Unit | Organization Name | Location | State | Country | Valid From  | Valid To    | Certificate Source |
|    | 1   | 0.0.0.0     |                   |                   |          |       |         | 2015-Dec-10 | 2016-Dec-09 | Auto Generated     |
|    | 2 2   | 0.0.0       |                   |                   |          |       |         | 2015-Dec-10 | 2016-Dec-09 |                    |
| C  | Edit Generate Certificate Request Import Certificate Details Delete |             |                   |                   |          |       |         |             |             |                    |

要生成自簽名證書,請在新的彈出視窗中啟用Regenerate RSA Key並輸入以下引數:

金鑰長度

公用名

組織單位

組織名稱

位置

狀態

國家/地區

持續時間

按一下「Generate」。

| A Not secure   192.1 | 68.1.254/csf94298e9/mt                           | s/ssl/ssl_serverauth_e_jq.htm            |
|----------------------|--|--|
| Certificate ID:      | <ul> <li>1</li> <li>● 2</li> </ul>               |  |
| Regenerate RSA Key:  |  | •  |
| Key Length:          | <ul> <li>2048 bits</li> <li>3072 bits</li> </ul> |  |
| 🜣 Common Name:       | Cisco  | (5/64 characters used; Default: 0.0.0.0) |
| Organization Unit:   | US   | (2/64 characters used)                   |
| Organization Name:   | Cisco  | (5/64 characters used)                   |
| Location:            | San Jose   | (8/64 characters used)                   |
| State:               | California                                       | (10/64 characters used)                  |
| Country:             | US   | 3072 bits                                |
| Duration: 3          | 365  | Days (Range: 30 - 3650, Default: 365)    |
| Generate Close       |  |  |

您也可以從第三方CA建立憑證。

#### 步驟6

現在您可以在*SSL Server Key Table*下看到*User Defined*證書。選擇新建立的證書,然後按一下 Details。

| SSL Server Authentication Settings                                  |                   |                   |          |            |         |             |             |                    |
|---|-------------------|-------------------|----------|------------|---------|-------------|-------------|--------------------|
| SSL Active Certificate Number:   1  2                               |                   |                   |          |            |         |             |             |                    |
| Apply Cancel  | Apply Cancel      |                   |          |            |         |             |             |                    |
| SSL Server Key Table  |                   |                   |          |            |         |             |             |                    |
| Certificate ID Common Name  | Organization Unit | Organization Name | Location | State      | Country | Valid From  | Valid To    | Certificate Source |
| 1 0.0.00  |                   |                   |          |            |         | 2017-Nov-08 | 2018-Nov-08 | Auto Generated     |
| 2 Cisco   | US                | Cisco             | San Jose | California | US      | 2019-Mar-13 | 2020-Mar-12 | User Defined       |
| Edit Generate Certificate Request Import Certificate Details Delete |                   |                   |          |            |         |             |             |                    |
|   |                   |                   | 2        |            |         |             |             |                    |

### 第7步

在彈出視窗中,您可以看到*Certificate、Public Key and Private Key(Encrypted)*詳細資訊。您可以 在單獨的記事本檔案中複製它們。按一下**Display Sensitive Data as Plaintext**。

| Not secure   192.16      | 68.1.254/csf94298e9/mts/ssl/ssl_serverauth_d_jq.htm  |   |
|--------------------------|--|---|
| Certificate ID:          | 2  |   |
| Certificate:             | BEGIN CERTIFICATE<br>MIIDRzCCAi8CEE90bzMCJXp/nT+78tBROt8wDQYJKoZIhvcNAQELBQAwYJELMAkG<br>A1UEBhMCVVMxEzARBgNVBAgMCkNBTEIGT1JOSUExETAPBgNVBAcMCFNhbiBKb3NI<br>MQ4wDAYDVQQDDAVDaXNjbzEOMAwGA1UECgwFQ2IzY28xCzAJBgNVBAsMAIVTMB4X<br>DTE5MDYxODA1NTc1NioXDTIwMDYxNzA1NTc1NiowYJELMAkGA1UEBhMCVVMxEzAR<br>BgNVBAgMCkNBTEIGT1JOSUExETAPBgNVBAcMCFNhbiBKb3NIMQ4wDAYDVQQDDAVD  | • |
| Public Key:              | BEGIN RSA PUBLIC KEY<br>MIIBCgKCAQEAuxUF71CPBJ6asoghDOEZbiFnXhflPSFDIu0SGDtwQHJ7doPp6XVMh7ZZC1TuVWdV5jpe0Jp<br>8CFuMH/Azj9JDR1fsVqBAFU2v0L+jhPS5VDN63iUHjeAhlCMmAx1pegbLvb/A+gInieTgB/Z2EL3eT2xjJT0MyqFI<br>mBPNuL4awjvtt9E7IEXhBt1HL0Nr/cuWTLmAOIDmImKN2CRHuz2cxjp0+uA2bY85bNefQoJbE3G6wxACel2n4d<br>mK4GFQv0xzS0A5PcsKUMEfaeF/afcBvRcpyv+y88P/DQ/Spg4xsBwjrZUDafqt2aSkIr8L8yHSSD1BWB09X5fjv1<br>0QNAMQ+QIDAQAB   | • |
| Fingerprint(Hex):        | 4F:49:F5:A0:36:C5:AC:C8:F5:A1:E1:62:4F:AD:05:B8:E7:CC:5A:D6  |   |
| Private Key (Encrypted): | BEGIN RSA ENCRYPTED PRIVATE KEY<br>olAbmqdHV/WOCsWTno8EsO1FXk81mva9RGX2rBMhCDJjzeZjmj6aa8y4rDJmcrF98ri5CBJ+WV5KbjvH3UsR<br>Km1b7W0jcoh7CYBkGlAxe5p24pgXf5QWPH2830A0qY0dAiinwlZkwPat9BUkVV913eY1tHzHFN/1kvOpvKgguS<br>oO85U5FqFMFUpFD94YDqQ+Xpp+LDuiVPjgFh6DCXq2wBnFBzws7doSHMBU77LHOFnWybmzzmT63DNFN<br>goUlp0nwskdPoigiHLjrtESSJ5x/tlzkfJx2rGreHz2AMwa1urtJv/+ysGu+R4T0++1RkiUJISCYZW7kmtwFdlchMBv1<br>YJWPQZ0I9znTXOXgZQbtR1MGl5NqrTb1V11Osltb63dqRQKJ4XUdTldQpRPgrhTrXUwXHgegCpBtqLg1D6Hp | • |
| Close Display S          | ensitive Data as Plaintext   |   |

## 步驟8

將會開啟一個彈出視窗,確認私鑰顯示為明文,然後按一下OK。



Don't show me this again



#### 步驟9

## 現在,您將能夠以明文形式檢視私鑰。將明文輸出複製到記事本檔案。按一下「Close」。

| Not secure   192.        | 168.1.254/csf94298e9/mts/ssl/ssl_serverauth_d_jq.htm   |
|--------------------------|--|
| Certificate ID:          | 2  |
| Certificate:             | BEGIN CERTIFICATE MIIDRzCCAi8CEE90bzMCJXp/nT+78tBROt8wDQYJKoZIhvcNAQELBQAwYjELMAkG A1UEBhMCVVMxEzARBgNVBAgMCkNBTEIGT1JOSUExETAPBgNVBAcMCFNhbiBKb3NI MQ4wDAYDVQQDDAVDaXNjbzEOMAwGA1UECgwFQ2lzY28xCzAJBgNVBAsMAIVTMB4X DTE5MDYxODA1NTc1NIoXDTIwMDYxNzA1NTc1NIowYjELMAkGA1UEBhMCVVMxEzAR BgNVBAgMCkNBTEIGT1JOSUExETAPBgNVBAcMCFNhbiBKb3NIMQ4wDAYDVQQDDAVD   |
| Public Key:              | BEGIN RSA PUBLIC KEY<br>MIIBCgKCAQEAuxUF71CPBJ6asoghDOEZbiFnXhflPSFDIu0SGDtwQHJ7doPp6XVMh7ZZC1TuVWdV5jpe0Jp<br>8CFuMH/Azj9JDR1fsVqBAFU2v0L+jhPS5VDN63iUHjeAhlCMmAx1pegbLvb/A+gInieTgB/Z2EL3eT2xjJT0MyqFI<br>mBPNuL4awjvtt9E7IEXhBt1HL0Nr/cuWTLmAOIDmImKN2CRHuz2cxjp0+uA2bY85bNefQoJbE3G6wxACel2n4d<br>mK4GFQvOxzS0A5PcsKUMEfaeF/afcBvRcpyv+y88P/DQ/Spg4xsBwjrZUDafqt2aSkIr8L8yHSSD1BWB09X5fjv1<br>0QNAMQ+QIDAQAB   |
| Fingerprint(Hex):        | 4F:49:F5:A0:36:C5:AC:C8:F5:A1:E1:62:4F:AD:05:B8:E7:CC:5A:D6  |
| Private Key (Plaintext): | BEGIN RSA PRIVATE KEY<br>MIIEogIBAAKCAQEAuxUF71CPBJ6asoghDOEZbiFnXhfIPSFDIu0SGDtwQHJ7doPp6XVMh7ZZC1TuVWdV5jp<br>e0Jp8CFuMH/Azj9JDR1fsVqBAFU2v0L+jhPS5VDN63iUHjeAhICMmAx1pegbLvb/A+gInieTgB/Z2EL3eT2xjJT0<br>MyqFImBPNuL4awjvtt9E7IEXhBt1HL0Nr/cuWTLmAOIDmImKN2CRHuz2cxjp0+uA2bY85bNefQoJbE3G6wxAC<br>el2n4dmK4GFQvOxzS0A5PcsKUMEfaeF/afcBvRcpyv+y88P/DQ/Spg4xsBwjrZUDafqt2aSkIr8L8yHSSD1BWB0<br>9X5fjv10QNAMQ+QIDAQABAoIBAAIZH0Lq1V/I45VC/5PkZmOczkr426JO4DDhFcXdzMI8PzQ6EIKExUH0YPV |
| Close Display            | Sensitive Data as Encrypted  |

## 步驟10

選擇新建立的User Defined證書,然後按一下Import Certificate。

| SSL Server Authentication Settings                                  |              |                   |                   |          |            |         |             |             |                    |
|---|--------------|-------------------|-------------------|----------|------------|---------|-------------|-------------|--------------------|
| SSL Active Certificate Number:   1  2                               |              |                   |                   |          |            |         |             |             |                    |
| Apply   | Apply Cancel |                   |                   |          |            |         |             |             |                    |
| SSL Server Key Ta   | ble          |                   |                   |          |            |         |             |             |                    |
| Certificate ID  | Common Name  | Organization Unit | Organization Name | Location | State      | Country | Valid From  | Valid To    | Certificate Source |
| 1   | 0.0.0.0      |                   |                   |          |            |         | 2017-Nov-08 | 2018-Nov-08 | Auto Generated     |
| 2   | Cisco        | US                | Cisco             |          | California | US      | 2019-Mar-13 | 2020-Mar-12 | User Defined       |
| Edit Generate Certificate Request Import Certificate Details Delete |              |                   |                   |          |            |         |             |             |                    |
| 2   |              |                   |                   |          |            |         |             |             |                    |

#### 在新彈出視窗中,啟用*Import RSA Key-Pair*選項,然後以明文格式貼上私鑰(在步驟9中複製)。 按一下「**Apply**」。

| A Not secure   192.1          | 168.1.254/csf94298e9/mts/ssl/ssl_serverauth_imp_jq.htm  |
|-------------------------------|---|
| When a Certificate and/or a k | Key is entered, it should contain the "BEGIN" and "END" markers.  |
| Certificate ID:               | <ul> <li>1</li> <li>2</li> </ul>  |
| Certificate Source:           | User Defined  |
| • Certificate:                | BEGIN CERTIFICATE<br>MIIDRzCCAi8CEE90bzMCJXp/nT+78tBROt8wDQYJKoZIhvcNAQELBQAwYjELMAkG<br>A1UEBhMCVVMxEzARBgNVBAgMCKNBTEIGT1JOSUExETAPBgNVBAcMCFNhbiBKb3NI<br>MQ4wDAYDVQQDDAVDaXNjbzEOMAwGA1UECgwFQ2IzY28xCzAJBgNVBAsMAIVTMB4X<br>DTE5MDYxODA1NTc1NIoXDTIwMDYxNzA1NTc1NIowYjELMAkGA1UEBhMCVVMxEzAR<br>BgNVBAgMCkNBTEIGT1JOSUExETAPBgNVBAcMCFNhbiBKb3NIMQ4wDAYDVQQDDAVD   |
| Import RSA Key-Pair:          | C Enable  |
| Public Key:                   | BEGIN RSA PUBLIC KEY<br>MIIBCgKCAQEAuxUF71CPBJ6asoghDOEZbiFnXhflPSFDIu0SGDtwQHJ7doPp6XVMh7ZZC1TuVWdV5jpe<br>0Jp8CFuMH/Azj9JDR1fsVqBAFU2v0L+jhPS5VDN63iUHjeAhICMmAx1pegbLvb/A+gInieTgB/Z2EL3eT2xjJT<br>0MyqFImBPNuL4awjvtt9E7IEXhBt1HL0Nr/cuWTLmAOIDmlmKN2CRHuz2cxjp0+uA2bY85bNefQoJbE3G6w<br>xACel2n4dmK4GFQvOxzS0A5PcsKUMEfaeF/afcBvRcpyv+y88P/DQ/Spg4xsBwjrZUDafqt2aSkIr8L8yHSSD<br>1BWB09X5fjv10QNAMQ+QIDAQAB  |
| Private Key: O Encrypted      | 2   |
| 3 Plaintext                   | BEGIN RSA PRIVATE KEY<br>MIIEogIBAAKCAQEAuxUF71CPBJ6asoghDOEZbiFnXhflPSFDIu0SGDtwQHJ7doPp6XVMh7ZZC1TuVWdV<br>5jpe0Jp8CFuMH/Azj9JDR1fsVqBAFU2v0L+jhPS5VDN63jUHjeAhlCMmAx1pegbLvb/A+glnieTgB/Z2EL3eT2<br>xiJT0MygFimBPNuL4awivtt9E7JEXhBt1HL0Nr/cuWTLmAOIDmimKN2CRHuz2cxjp0+uA2bY85bNefQoJbE3<br>G6wxACel2n4dmK4GFQvOxzS0A5PcsKUMEfaeF/afcBvRcpyv+v88P/DQ/Spq4xsBwjrZUDafgt2aSkir8L8yH<br>SSD1BWB09X5fiv10QNAMQ+QIDAQABAoIBAAIZH0Lq1V/l45VC/5PkZmQczkr426JO4DDhFcXdzMi8PzQ6 |
| Apply Close                   | Display Sensitive Data as Plaintext   |

在本示例中,公鑰的BEGIN和END處包含關鍵字RSA。

## 步驟12

螢幕上將顯示成功通知。您可以關閉此視窗並將組態儲存到交換器上。

| When a Certificate and/or a | Key is entered, it should contain the "BEGIN" and "END" markers.   |  |
|-----------------------------|--|--|
| Certificate ID:             | <pre>     1</pre>  |  |
| Certificate Source:         | User Defined   |  |
| Certificate:                | BEGIN CERTIFICATE<br>MIIDRzCCAi8CEE90bzMCJXp/nT+78tBROt8wDQYJKoZIhvcNAQELBQAwYjELMAkG<br>A1UEBhMCVVMxEzARBgNVBAgMCkNBTEIGT1JOSUExETAPBgNVBAcMCFNhbiBKb3NI<br>MQ4wDAYDVQQDDAVDaXNjbzEOMAwGA1UECgwFQ2IzY28xCzAJBgNVBAsMAIVTMB4X<br>DTE5MDYxODA1NTc1NloXDTIwMDYxNzA1NTc1NlowYjELMAkGA1UEBhMCVVMxEzAR<br>BgNVBAgMCkNBTEIGT1JOSUExETAPBgNVBAcMCFNhbiBKb3NIMQ4wDAYDVQQDDAVD  |  |
| Import RSA Key-Pair:        | Enable   |  |
| Public Key:                 | BEGIN RSA PUBLIC KEY<br>MIIBCgKCAQEAuxUF71CPBJ6asoghDOEZbiFnXhfIPSFDIu0SGDtwQHJ7doPp6XVMh7ZZC1TuVWdV5jpe<br>0Jp8CFuMH/Azj9JDR1fsVqBAFU2v0L+jhPS5VDN63iUHjeAhICMmAx1pegbLvb/A+gInieTgBlZ2EL3eT2xjJT<br>0MyqFImBPNuL4awjvtt9E7IEXhBt1HL0Nr/cuWTLmAOIDmImKN2CRHuz2cxjp0+uA2bY85bNefQoJbE3G6w<br>xACel2n4dmK4GFQvOxzS0A5PcsKUMEfaeF/afcBvRcpyv+y88P/DQ/Spg4xsBwjrZUDafqt2aSkIr8L8yHSSD<br>1BWB09X5fjv10QNAMQ+QIDAQAB |  |
| Private Key:   Encrypted    |  |  |
| Plaintext                   |  |  |

## 可能的錯誤

所討論的錯誤與公鑰有關。通常使用兩種型別的公鑰格式:

1. RSA公鑰檔案(PKCS#1):這是針對RSA金鑰的。 它以標籤開始和結束: -----開始RSA公鑰-----BASE64編碼資料 -----結束RSA公鑰-----

2.公鑰檔案(PKCS#8):這是一種更為通用的金鑰格式,用於標識公鑰的型別並包含相關資料。 它以標籤開始和結束:

-----BEGIN PUBLIC KEY-----

BASE64編碼資料

-----END PUBLIC KEY-----

#### 缺少金鑰標頭錯誤

案例 1:您從第三方CA生成了證書。複製並貼上公鑰並按一下Apply。

A Not secure | 192.168.1.254/csf94298e9/mts/ssl/ssl\_serverauth\_imp\_jq.htm

| When a Certificate and/or a | Key is entered, it should contain the "BEGIN" and "END" markers.  |                               |
|-----------------------------|---|-------------------------------|
| Certificate ID:             | <ul> <li>1</li> <li>● 2</li> </ul>  |                               |
| Certificate Source:         | User Defined  |                               |
| 🔅 Certificate:              | BEGIN CERTIFICATE<br>MIIDRzCCAi8CEE90bzMCJXp/nT+78tBROt8wDQYJKoZIhvcNAQELBQAwYjELMAkG<br>A1UEBhMCVVMxEzARBgNVBAgMCkNBTEIGT1JOSUExETAPBgNVBAcMCFNhbiBKb3NI<br>MQ4wDAYDVQQDDAVDaXNjbzEOMAwGA1UECgwFQ2IzY28xCzAJBgNVBAsMAIVTMB4X<br>DTE5MDYxODA1NTc1NIoXDTIwMDYxNzA1NTc1NIowYjELMAkGA1UEBhMCVVMxEzAR<br>BgNVBAgMCkNBTEIGT1JOSUExETAPBgNVBAcMCFNhbiBKb3NIMQ4wDAYDVQQDDAVD   | •                             |
| Import RSA Key-Pair:        | Enable  |                               |
| Public Key:                 | BEGIN PUBLIC KEY<br>MIIBCGKCAQEAuxUF71CPBJ6asoghDOEZbiFnXhflPSFDIu0SGDtwQHJ7doPp6XVMh7ZZC1TuVWdV5jpe0J<br>p8CFuMH/Azj9JDR1fsVgBAFU2v0L+ihPS5VDN63iUHjeAhlCMmAx1pegbLvb/A+gInieTgB/Z2EL3eT2xjJT0My<br>gFImBPNuL4awivtt9E7IEXhBt1HL0Nr/cuWTLmAOIDmImKN2CRHuz2cxip0+uA2bY85bNefQoJbE3G6wxACel<br>2n4dmK4GFQv0xzS0A5PcsKUMEfaeF/afcBvRcpvv+v88P/DQ/Spg4xsBwirZUDafqt2aSkIr8L8vHSSD1BWB0<br>9X5fjv10QNAMQ+QIDAQAB  | •                             |
| Server Key: 🔘 Encrypted     |   |                               |
| Plaintext                   | BEGIN RSA PRIVATE KEY<br>MIIEogIBAAKCAQEAuxUF71CPBJ6asoghDOEZbiFnXhflPSFDIu0SGDtwQHJ7doPp6XVMh7ZZC1TuVWdV5j<br>pe0Jp8CFuMH/Azj9JDR1fsVgBAFU2v0L+ihPS5VDN63iUHieAhlCMmAx1pegbLvb/A+gInieTgB/Z2EL3eT2xjJT<br>0MyqFImBPNuL4awivtt9E7IEXhBt1HL0Nr/cuWTLmAOIDmlmKN2CRHu22xip0+uA2bY85bNefQoJbE3G6wx<br>ACel2n4dmK4GFQvOxzS0A5PcsKUMEfaeF/afcBvRcpvv+y88P/DQ/Spg4xsBwirZUDafqt2aSkIr8L8yHSSD1B<br>WB09X5fiv10QNAMQ+QIDAQABAoIBAAIZH0Lq1V/I45VC/5PkZmOczkr426JO4DDhFcXdzMI8PzQ6EIKExUH | <i>1</i> ℓ<br>▲<br><i> </i> 1 |
| Apply Close                 | Display Sensitive Data as Plaintext   |                               |

您收到消息Error:缺少金鑰標頭。關閉視窗。可以做一些修改以使此問題消失。

| When a Certificate and/or a | Key is entered, it should contain the "BEGIN" and "END" markers.   |  |
|-----------------------------|--|--|
| Certificate ID:             | <ul> <li>□ 1</li> <li>● 2</li> </ul>   |  |
| Certificate Source:         | User Defined   |  |
| Certificate:                | BEGIN CERTIFICATE<br>MIIDRzCCAi8CEE90bzMCJXp/nT+78tBROt8wDQYJKoZIhvcNAQELBQAwYjELMAkG<br>A1UEBhMCVVMxEzARBgNVBAgMCkNBTEIGT1JOSUExETAPBgNVBAcMCFNhbiBKb3NI<br>MQ4wDAYDVQQDDAVDaXNjbzEOMAwGA1UECgwFQ2IzY28xCzAJBgNVBAsMAIVTMB4X<br>DTE5MDYxODA1NTc1NioXDTIwMDYxNzA1NTc1NiowYjELMAkGA1UEBhMCVVMxEzAR<br>BgNVBAgMCkNBTEIGT1JOSUExETAPBgNVBAcMCFNhbiBKb3NIMQ4wDAYDVQQDDAVD  |  |
| Import RSA Key-Pair:        | Enable   |  |
| ¥ Public Key:               | BEGIN RSA PUBLIC KEY<br>MIIBCgKCAQEAuxUF71CPBJ6asoghDOEZbiFnXhflPSFDIu0SGDtwQHJ7doPp6XVMh7ZZC1TuVWdV5jpe<br>0Jp8CFuMH/Azj9JDR1fsVqBAFU2v0L+jhPS5VDN63iUHjeAhICMmAx1pegbLvb/A+gInieTgB/Z2EL3eT2xjJT<br>0MyqFImBPNuL4awjvtt9E7IEXhBt1HL0Nr/cuWTLmAOIDmImKN2CRHuz2cxjp0+uA2bY85bNefQoJbE3G6w<br>xACel2n4dmK4GFQvOxzS0A5PcsKUMEfaeF/afcBvRcpyv+y88P/DQ/Spg4xsBwjrZUDafqt2aSkIr8L8yHSSD<br>1BWB09X5fjv10QNAMQ+QIDAQAB |  |
| ¥ Private Key:              | i  |  |
| O Plaintext                 |  |  |
|                             |  |  |

修復此錯誤:

將關鍵字RSA新增到公鑰的開頭:開始RSA公鑰

將關鍵字RSA新增到公鑰的末尾:結束RSA公鑰

從金鑰代碼中刪除前32個字元。下面顯示的突出顯示部分是前32個字元的示例。

BEGIN RSA PUBLIC KEY----MIBCgKCAQEApAgqvAcD58ScvYwW5vzx/oy4ryP3fqiO8QHfzQsMSCCHrq5repNDfLfRV8LtBFlq3QilBHDtLJ 07Pj29mgdVFHX/p3ArKS3QjuDST2I/+A0CGVNJ5ZPG8qKw58HWRIMcyv0vblqDJI/ejOaYiGA10GX8eiT8lxlfM blJomiiEd/MWQf8C2/3nmbhKk/LsKl+koTucCbguVfshpwP2WdWWReDU9gb8WLFRdnNQhGWR/N794HgAu0 HyxpT7gDQVrYv4FAGIR1pblDdAYHe8/sVXUCCuAFil92aDPeK1ZCMAcDJaMaQ4trxgX/Km6vgBnvBePl1yaW iSOgaG0zgijr7YQIDAQAB

在應用設定時,在大多數情況下不會獲取Key header is missing error。

#### 無法載入公鑰錯誤

案例 2:您在一台交換機上生成了證書,並將其匯入到另一台交換機上。刪除前32個字元並按一下 Apply後,複製並貼上了公鑰。

| When a Certificate and/or a Key is entered, it should conta | ain the "BEGIN" and "END" markers. |
|---|------------------------------------|
|---|------------------------------------|

| Certificate ID:         | <ul> <li>1</li> <li>● 2</li> </ul>  |
|-------------------------|---|
| Certificate Source:     | User Defined  |
| Certificate:            | BEGIN CERTIFICATE<br>MIIDSTCCAjECEHV4jm/blKGoJFHmCvnyTWUwDQYJKoZlhvcNAQELBQAwYZELMAkG<br>A1UEBhMCSU4xEDAOBgNVBAgMB0hhcnlhbmExEDAOBgNVBAcMB0d1cmdhb24xEDAO<br>BgNVBAMMBZAuMC4wLjAxDjAMBgNVBAoMBUNpc2NvMQ4wDAYDVQQLDAVDaXNjbZAe<br>Fw0xOTA2MTkwMjQyMzRaFw0yMDA2MTgwMjQyMzRaMGMxCzAJBgNVBAYTAkIOMRAw<br>DgYDVQQIDAdIYXJ5YW5hMRAwDgYDVQQHDAdHdXJnYW9uMRAwDgYDVQQDDAcwLjAu   |
| Import RSA Key-Pair:    | Enable  |
| Public Key:             | BEGIN RSA PUBLIC KEY<br>/oy4ryP3fqi08QHtzQsMSCCHrq5repNDfLfRV8LtBFlq3QilBHDtLJ07Pj29mgdVFHX/p3ArKS3QiuDST2I/+A0CGVN<br>J5ZPG8qKw58HWRIMcvv0vblqDJI/ejQaYiGA10GX8eiT8lxlfMblJomiiEd/MWQf8C2/3nmbhKk/LsKI+koTucCbquVf<br>shpwP2WdWWReDU9gb8WLFRdnNQhGWR/N794HgAu0HyxpT7gDOVrYv4FAGIR1pblDdAYHe8/sVXUCCuAFii<br>92aDPeK1ZCMAcDJaMaQ4trxqX/Km6vqBnvBePI1yaWiSOgaG0zgijr7YQIDAQAB<br>END RSA PUBLIC KEY  |
| SPrivate Key: 🔘 Encrypt | ed  |
| Plaintex                | ttBEGIN RSA PRIVATE KEY<br>MIIEpQIBAÄKCAQEApAgqvAcD58ScvYwW5vzx/oy4ryP3fqiO8QHfzQsMSCCHrq5repNDfLfRV8LtBFlq3QilBH<br>DtLJ07Pj29mgdVFHX/p3ArKS3QjuDST2I/+A0CGVNJ5ZPG8qKw58HWRIMcyv0vblqDJI/ejOaYiGA10GX8eiT8<br>IxIfMbLJomiiFd/MWOf8C2/3nmbhKk/LsKI+koTucCbquVfshpwP2WdWWReDU9gb8WLFRdnNQhGWR/N794H<br>qAu0HyxpT7qDOVrYy4FAGIR1pbIDdAYHe8/sVXUCCuAFil92aDPeK12CMAcDJaMaQ4trxqX/Km6vgBnvBePi<br>1yaWiSOqaG0zgjjr7YQIDAQABAoIBAQCTUfJvpS1Qvzi21FbNZmhBYkmMoxTpYKHguvoxwbZqIS07KdPF5v |
| Apply Close             | Display Sensitive Data as Plaintext   |

螢幕上出現Failed to load public key錯誤。

| A | Not secure | 192.168.1.254/csf94298e9/mts/ssl/ssl_serverauth_imp_jq.htm | h |
|---|------------|--|---|
|---|------------|--|---|

| Failed to load public key         When a Certificate and/or a Key is entered, it should contain the "BEGIN" and "END" markers. |  |    |
|--|--|----|
| Certificate ID:  | <ul> <li>1</li> <li>● 2</li> </ul>   |    |
| Certificate Source:  | User Defined   |    |
| Certificate:   | BEGIN CERTIFICATE<br>MIIDSTCCAJECEHV4jm/blKGoJFHmCvnyTWUwDQYJKoZIhvcNAQELBQAwYZELMAkG<br>A1UEBhMCSU4xEDAOBgNVBAgMB0hhcnlhbmExEDAOBgNVBAcMB0d1cmdhb24xEDAO<br>BgNVBAMMBZAUMC4wLjAxDjAMBgNVBAoMBUNpc2NvMQ4wDAYDVQQLDAVDaXNjbzAe<br>Fw0xOTA2MTkwMjQyMzRaFw0yMDA2MTgwMjQyMzRaMGMxCzAJBgNVBAYTAkIOMRAw<br>DgYDVQQIDAdIYXJ5YW5hMRAwDgYDVQQHDAdHdXJnYW9uMRAwDgYDVQQDDAcwLjAu  | •  |
| Import RSA Key-Pair:   | Enable   |    |
| ኞ Public Key:  | BEGIN RSA PUBLIC KEY<br>MIIBCgKCAQEApAgqvAcD58ScvYwW5vzx/oy4ryP3fqiO8QHfzQsMSCCHrq5repNDfLfRV8LtBFlq3QiIBHDtL<br>J07Pj29mgdVFHX/p3ArKS3QjuDST2I/+A0CGVNJ5ZPG8qKw58HWRIMcyv0vblqDJI/ejOaYiGA10GX8eiT8Ix<br>IfMbIJomiiFd/MWOf8C2/3nmbhKk/LsKI+koTucCbquVfshpwP2WdWWReDU9gb8WLFRdnNQhGWR/N794H<br>gAu0HyxpT7qDOVrYv4FAGIR1pbIDdAYHe8/sVXUCCuAFiI92aDPeK1ZCMAcDJaMaQ4trxqX/Km6vgBnvBe<br>PI1yaWiSOqaG0zgjjr7YQIDAQAB | •  |
| ♣ Private Key: ● Encrypted   |  |    |
| Plaintext  |  | // |

要解決此錯誤,請不要在此情況下刪除公鑰的前32個字元。

A Not secure | 192.168.1.254/csf94298e9/mts/ssl/ssl\_serverauth\_imp\_jq.htm

| Certificate ID:        | <ul> <li>1</li> <li>● 2</li> </ul>  |
|------------------------|---|
| Certificate Source:    | User Defined  |
| Certificate:           | Image: Stress of the stress |
| Import RSA Key-Pair:   | Enable  |
| Public Key:            | BEGIN RSA PUBLIC KEY<br>MIIBCaKCAQEApAgavAcD58ScvYwW5vzx/oy4ryP3fqiO8QHfzQsMSCCHrq5repNDfLfRV8LtBFlq3QiIBHDtLJ<br>07Pj29mgdVFHX/p3ArKS3QiuDST2I/+A0CGVNJ5ZPG8gKw58HWRIMcyv0vblqDJI/ejOaYiGA10GX8eiT8lxlfM<br>bIJamiiEd/MWOf8C2/3nmbhKk/LsKI+koTucCbquVfshpwP2WdWWReDU9gb8WLFRdnNQhGWR/N794HqAu0<br>HvxpT7qDOVrYv4FAGIR1pblDdAYHe8/sVXUCCuAFil92aDPeK1ZCMAcDJaMaQ4trxqX/Km6vqBnvBePl1yaW<br>iSOgaG0zgijir7YQIDAQAB   |
| Private Key: Uncrypted |   |
| Plaintext              | roiJNnzjgteU9ggzGvA6re1+f9z4tgwGn+9/reRg3J16w8vrjA3wucP9ImyRIUCgYEAvUjA3K3f+pRGBO/yDm0Wn<br>IFkSmiG6azhiA4iYrRQpVi8uEU7ne17edoNTXIXeB/zpt0hQBHicy11xsc5gv2KvvpTx8k0u5uBgv9hP1gGsEuePc<br>G+ynDTFqYImZLc0pDEtGwBKV362YnyX4rCZT67RVXBRI3geAmN30DqpygCYLMCgYEAlqhyEg9cWrkQSo3<br>e904IVACLgjVG05nkfE6Q1BFt8sTDDOGoSKGzLYhRxIIkLOXRP990Z2Guqt3xKlvLiqhFmZH0YaSTLkEY8hzr/<br>uTejGQLoCYNoZAOzC1Ac+rjQneCbQ4GiDua0amyetkAjEUoq7cx2skgozjQSIC3dw2F5tw=<br>END RSA PRIVATE KEY  |
| Apply Close            | Display Sensitive Data as Plaintext   |

## 使用CLI匯入

#### 步驟1

要使用CLI匯入證書,請輸入以下命令。

switch(config)#crypto certificate [certificate number] import

#### 在此範例中匯入憑證2。

switch(config)#crypto certificate 2 import

#### 步驟2

#### **貼上輸入;在輸入後單獨的**行上新增句點(.)。

-----RSA-----MIIEvgIBADANBgkqhkiG9w0BAQEFAAASCBKGWGskAgEAAoIBAQC/rZQ6f0rj8neA ...24..... h27Zh+aWX7dxakaoF5QokBTqWDHcMAvNluwGiZ/03BQYgSiI+SYrZXAbUiSvfIR4 NC1WqkWzML6jW+521D/GokmU -----END RSA PRIVATE KEY---------RSA-----MIIBCgKCAQEAv62UOn9K4/J3gCAk7i9nYL5zYm4kQVQhCcAo7uGblEprxdWkfT01 ...3..... 64jc5fzIfNnE2QpgBX/9M40E41BX5Z0B/QIDAQAB -----RSA-----MIIFvTCCBKWgAwIBAgIRAOOBWg4bkStdWPvCNYjHpbYwDQYJKoZIhvcNAQELBQAw - 28..... 8S+39m9wPAOZipI0JA1/0IeG7ChLWOXKncMeZWVTIUZaEwVFf0cUzqXwOJcsTrMV JDPtnbKXG56w0Trecu6UQ9HsUBoDQnlsN5ZBHt1VyjAP -----END CERTIFICATE-----

C=xxST=GxxxxxL=xxO=xx CA LimitedCN=xx RSACA 61400:00:00 2017 GMT 91123:59:59 2020 GMT C=DE/postalCode=xxxST=xxL=xx/street=xxx 2O=xxxOU=ITCN=\*.kowi.eu SHAxxxxxx



現在,您已學習使用GUI和CLI在Sx350和Sx550X系列交換機上成功匯入證書的步驟。