

# 配置VG224 SCCP安全加密

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## 簡介

本檔案介紹安全加密的組態 VG224類比網關上的信令連線控制部分(SCCP)。

## 必要條件

### 需求

思科建議您瞭解以下主題：

- SCCP
- VG224
- 思科整合通訊管理員(CUCM)

### 採用元件

本檔案中的資訊是根據以下軟體版本：

- VG224

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

### 設定

步驟1.將callmanager.pem證書複製到VG224（在下面的配置中稱為SECURE信任點）

步驟2.在VG224上建立一個自簽名證書，其MAC地址為FastEthernet0/0（繫結介面），主題名稱僅使用最後10位數字。

步驟3.將vg-cert作為呼叫管理器信任複製到CUCM並重新啟動CUCM。

提供配置VG224所需的證書的資訊。

```
Router(config)#crypto key generate rsa general-keys label vg modulus 1024
Router(config)#crypto pki trustpoint vg
```

```
Router(ca-trustpoint)#enrollment selfsigned
serial-number none
fqdn none
ip-address none
subject-name cn=1A:E2:85:7B:E2 <----- Last 10 DIGITS ONLY of the SCCP bind interface.
Formatting EXACTLY as shown with colons.
rsa-keypair vg
crypto pki enroll vg
Router(config)#crypto pki export vg_cert pem terminal
```

**提示：** [命令參考指南](#)

**附註：** 由於 [CSCti08882](#) 警告，在從安全VG224模擬電話呼叫安全IP電話時，看不到鎖定圖示

## 驗證

### 此資訊用於驗證VG224成功註冊

```
Router#show sccp
SCCP Admin State: UP
Gateway Local Interface: FastEthernet0/0
    IPv4 Address: 14.1.97.95
    Port Number: 2000
IP Precedence: 5
User Masked Codec list: None
Call Manager: 172.18.172.204, Port Number: 2000
    Priority: N/A, Version: 7.0, Identifier: 1
    Trustpoint: N/A
Call Manager: 172.18.172.205, Port Number: 2000
    Priority: N/A, Version: 7.0, Identifier: 2
    Trustpoint: N/A
Call Manager: 172.18.172.206, Port Number: 2000
    Priority: N/A, Version: 7.0, Identifier: 3
    Trustpoint: N/A

AutoCfg_Virtual_Endpoint Oper State: ACTIVE - Cause Code: NONE
Active Call Manager: 172.18.172.204, Port Number: 2000
TCP Link Status: CONNECTED, Device Name: AN1AE2857BE2FFF
Reported Max Streams: 0, Reported Max OOS Streams: 0
Supported Codec: g711ulaw, Maximum Packetization Period: 20

Alg_Phone Oper State: ACTIVE - Cause Code: NONE
Active Call Manager: 172.18.172.204, Port Number: 2443
TCP Link Status: CONNECTED, Device Name: AN1AE2857BE2400
Security
    Signaling Security: ENCRYPTED TLS
Media Security: SRTP
Supported crypto suites :AES_CM_128_HMAC_SHA1_32
Reported Max Streams: 1, Reported Max OOS Streams: 0
Supported Codec: rfc2833 dtmf, Maximum Packetization Period: 30
Supported Codec: g711ulaw, Maximum Packetization Period: 20
Supported Codec: g711alaw, Maximum Packetization Period: 20
Supported Codec: g729r8, Maximum Packetization Period: 220
Supported Codec: g729ar8, Maximum Packetization Period: 220
Supported Codec: g729br8, Maximum Packetization Period: 220
Supported Codec: g729r8, Maximum Packetization Period: 220
Supported Codec: ilbc, Maximum Packetization Period: 120
TLS : ENABLED
```

這顯示使用SCCP IOS配置的安全VG224。

Building configuration...

Current configuration : 5258 bytes

```
!  
version 15.1  
no service pad  
service timestamps debug datetime msec  
service timestamps log datetime msec  
no service password-encryption  
!  
hostname Router  
!  
boot-start-marker  
boot system slot0:vg224-i6k9s-mz.151-4.M3  
boot-end-marker  
!  
!  
enable secret 5 $1$f99B$PWPC1PrUNzgsUZE08aBYG.  
!  
no aaa new-model  
crypto pki token default removal timeout 0  
!  
crypto pki trustpoint SECURE  
  enrollment terminal  
  revocation-check crl  
!  
crypto pki trustpoint vg  
  enrollment selfsigned  
  serial-number none  
  fqdn none  
  ip-address none  
  subject-name cn=1A:E2:85:7B:E24      ( instead of this command, we can use hiddle command  
"mac-address Fast Ethernet0/0 as well )  
  revocation-check crl  
  rsakeypair AN1AE2857BE2400  
!  
!  
crypto pki certificate chain SECURE  
  certificate ca 588C9B7C2D4B37F03930E8C926D02A18  
    <truncated>  
crypto pki certificate chain vg certificate self-signed 03 <truncated> ip source-route ! ip cef  
ip name-server 172.18.108.43 ip name-server 172.18.108.34 ! ! no ipv6 cef ! stcapp ccm-group 1  
stcapp security trustpoint vg stcapp security mode encrypted stcapp ! stcapp feature access-code  
! stcapp feature speed-dial ! ! ! stcapp supplementary-services port 2/0 fallback-dn 862224 ! !  
! ! ! ! ! ! voice-card 0 ! ! ! ! ! ! ! ! ! interface FastEthernet0/0 ip address dhcp duplex  
auto speed auto ! interface FastEthernet0/1 no ip address duplex auto speed auto ! ip forward-  
protocol nd ! ip http server no ip http secure-server ip route 0.0.0.0 0.0.0.0 14.1.97.1 254 ip  
route 0.0.0.0 0.0.0.0 14.1.97.1 254 ! ! ! control-plane ! ! voice-port 2/0 timeouts initial 60  
timeouts interdigit 60 timeouts ringing infinity ! voice-port 2/1 ! <truncated>  
! voice-port 2/23 ! ccm-manager config server 172.18.172.204 ccm-manager config ccm-manager sccp  
local FastEthernet0/0 ccm-manager sccp ! ! mgcp profile default ! sccp local FastEthernet0/0  
sccp ccm 172.18.172.204 identifier 1 version 7.0 sccp ccm 172.18.172.205 identifier 2 version  
7.0 sccp ccm 172.18.172.206 identifier 3 version 7.0 sccp ! sccp ccm group 1 associate ccm 1  
priority 1 associate ccm 2 priority 2 associate ccm 3 priority 3 ! dial-peer voice 999200 pots  
service stcapp securiy mode encrypted =====> Required command  
  port 2/0  
!  
dial-peer voice 99920 pots  
! service stcapp  
  
securiy mode encrypted  =====> Required command
```

```
port 2/1
!  
!(configure all ports in same secure mode)  
!  
line con 0  
line aux 0  
line vty 0 4  
  password ww  
  login  
  transport input all  
!  
ntp server 172.18.108.15  
end
```