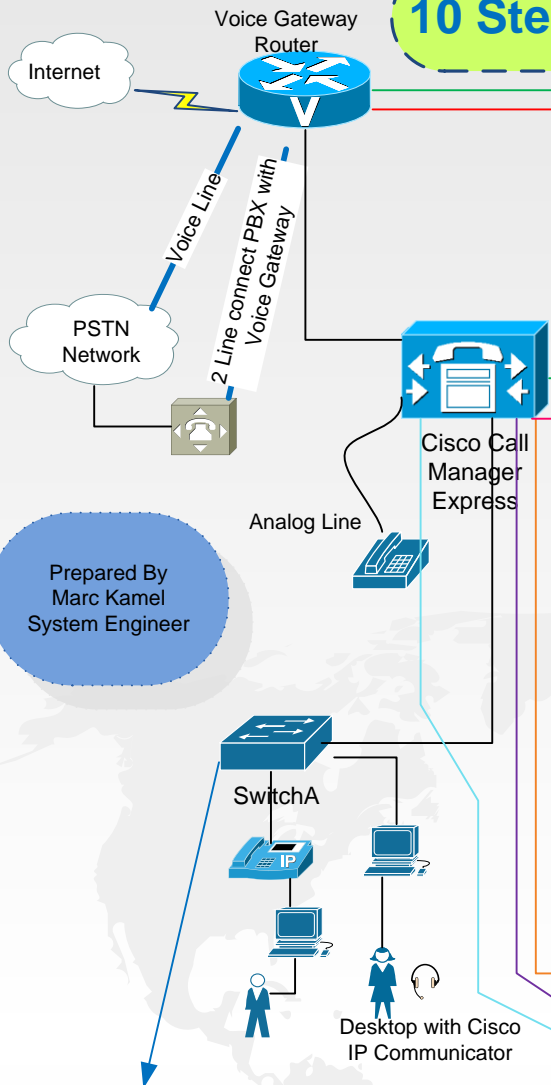


10 Step to configure Cisco Call Manager Express



Prepared By
Marc Kamel
System Engineer

1 Configuring a Switch Trunk Port

```
SwitchA(config-if)# switchport trunk encapsulation dot1q
SwitchA(config-if)# switchport mode trunk
```

Creating VLANs

```
SwitchA# configure terminal
SwitchA(config)# vlan 10
SwitchA(config-vlan)# name VOICE
SwitchA(config-vlan)# exit
SwitchA(config)# vlan 50
SwitchA(config-vlan)# name DATA
```

Assigning Switchport to a VLAN

```
SwitchA# configure terminal
SwitchA(config)# interface fa0/10
SwitchA(config-if)# switchport mode access
SwitchA(config-if)# switchport access vlan 50
```

Assigning Voice and Data VLANs

```
SwitchB# configure terminal
SwitchB(config)# interface range fa0/1 - 4
SwitchA(config-if-range)# switchport mode access
SwitchA(config-if-range)# switchport access vlan 50
SwitchA(config-if-range)# switchport voice vlan 10
```

Configuring a Trunk to the CME Router

```
SwitchA# configure terminal
SwitchA(config)# interface fa0/20
SwitchA(config-if)# description CONNECTION TO ROUTER-ON-A-STICK CME ROUTER
SwitchA(config-if)# switchport trunk encapsulation dot1q
SwitchA(config-if)# switchport mode trunk
```

10 Verifying Files Served by the CME TFTP Service

```
CME_Voice# show telephony-service tftp-bindings
tftp-server system:/its/SEPDEFAULT.cnf
tftp-server system:/its/SEPDEFAULT.cnf alias SEPDefault.cnf
tftp-server system:/its/XMLDefault.cnf.xml alias XMLDefault.cnf.xml
tftp-server system:/its/ATADefault.cnf.xml
tftp-server system:/its/united_states/7960-tones.xml alias United_States/7960-tones.xml
```

2 Configuring Inter-VLAN Routing

```
Router# configure terminal
Router(config)# interface fa0/0
Router(config-if)# no ip address
Router(config-if)# exit
Router(config)# interface fa0/0.10
Router(config-subif)# description ROUTER INTERFACE FOR VOICE VLAN
Router(config-subif)# encapsulation dot1q 10
Router(config-subif)# ip address 172.16.1.1 255.255.255.0
Router(config-subif)# ip helper-address 172.16.2.5
Router(config-subif)# exit
Router(config)# interface fa0/0.50
Router(config-subif)# description ROUTER INTERFACE FOR DATA VLAN
Router(config-subif)# encapsulation dot1q 50
Router(config-subif)# ip address 172.16.2.1 255.255.255.0
```

3 Configuring a Router-Based DHCP Server

```
RTR# configure terminal
RTR(config)# ip dhcp excluded-address 172.16.1.1 172.16.1.9
RTR(config)# ip dhcp excluded-address 172.16.2.1 172.16.2.9
RTR(config)# ip dhcp pool DATA_SCOPE
RTR(dhcp-config)# network 172.16.2.0 255.255.255.0
RTR(dhcp-config)# default-router 172.16.2.1
RTR(dhcp-config)# dns-server 4.2.2.2
RTR(dhcp-config)# exit
RTR(config)# ip dhcp pool VOICE_SCOPE
RTR(dhcp-config)# network 172.16.1.0 255.255.255.0
RTR(dhcp-config)# default-router 172.16.1.1
RTR(dhcp-config)# option 150 ip 172.16.1.1WAN_RTR(dhcp-config)# dns-server 4.2.2.2
```

4 Setting the Clock of a Cisco Device with NTP

```
WAN_RTR# configure terminal
WAN_RTR(config)# ntp server 64.209.210.20
WAN_RTR(config)# clock timezone Cairo +2
```

5 Installing CME Files into Flash Memory

```
CME_Voice# archive tar /xtract tftp://172.16.2.5/cme-full-4.3.0.0.tar flash:
```

6 Configuring Router-Based TFTP Services for IP Phone Firmware Files

```
CME_Voice# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
CME_Voice(config)# tftp-server flash:/phone/7940-7960/P00308000500.bin alias P00308000500.bin
CME_Voice(config)# tftp-server flash:/phone/7940-7960/P00308000500.loads alias P00308000500.loads
CME_Voice(config)# tftp-server flash:/phone/7940-7960/P00308000500.sb2 alias P00308000500.sb2
CME_Voice(config)# tftp-server flash:/phone/7940-7960/P00308000500.sbn alias P00308000500.sbn
```

7 Configuring the Cisco Unified CME System-Level Functions

Provisioning CME Phone and Directory Number Support

```
CME_Voice(config)# telephony-service
CME_Voice(config-telephony)# max-ephones ?
<1-30> Maximum phones to support
CME_Voice(config-telephony)# max-ephones 24
CME_Voice(config-telephony)# max-dn ?
<1-150> Maximum directory numbers supported
<<r>
```

Configuring CME for 7970 and 7971 Firmware Loads

```
CME_Voice(config)# tftp-server flash:/phone/7970-7971/apps70.8-3-2-27.sbn alias apps70.8-3-2-27.sbn
CME_Voice(config)# tftp-server flash:/phone/7970-7971/cnu70.8-3-2-27.sbn alias cnu70.8-3-2-27.sbn
CME_Voice(config)# tftp-server flash:/phone/7970-7971/cvm70sccp.8-3-2-27.sbn alias cvm70sccp.8-3-2-27.sbn
CME_Voice(config)# tftp-server flash:/phone/7970-7971/dsp70.8-3-2-27.sbn alias dsp70.8-3-2-27.sbn
CME_Voice(config)# tftp-server flash:/phone/7970-7971/jar70sccp.8-3-2-27.sbn alias jar70sccp.8-3-2-27.sbn
CME_Voice(config)# tftp-server flash:/phone/7970-7971/SCCP70.8-3-3S.loads alias SCCP70.8-3-3S.loads
CME_Voice(config)# tftp-server flash:/phone/7970-7971/term70.default.loads alias term70.default.loads
CME_Voice(config)# tftp-server flash:/phone/7970-7971/term71.default.loads alias term71.default.loads
load 7970 SCCP70.8-3-3S.loads
Updating CNF files
CNF files update complete
CME_Voice(config-telephony)# load 7971 SCCP70.8-3-3S.loads
Updating CNF files
CNF files update complete
```

8 Source IP Address Information

```
CME_Voice(config)# telephony-service
CME_Voice(config-telephony)# ip source-address 172.16.1.1
```

9 Generating IP Phone Configuration Files

```
CME_Voice(config-telephony)# create cnf-files
CNF file creation is already On
Updating CNF files
CNF files update complete
```