Contents

Introduction

This document provides a sample configuration for Cisco Unity Express voice mail Voice Profile for Internet Mail (VPIM) networking between four Sites. Two of the sites are Cisco CallManager Express (CME) sites, while the other two are under control of a central Cisco CallManager. Your network may be exclusively Cisco CME or exclusively Cisco CallManager. To model your network after this configuration, refer to the configurations that match your intended deployment. The configuration scenario enables voice mail networking between all four sites. The configuration has the following characteristics:

- Meshed network--All sites can send and receive voice messages from all other sites. Up to 500 Cisco Unity Express sites can be meshed in a network.
- VPIM networking between the sites uses direct IP addressing. You can also use Domain Name System (DNS) addressing to set up these configurations, but that is not shown in this configuration example.
- The network uses a fixed-length four-digit dialing plan across all sites. For example, phones at Site 2 are assigned 2001 and 2002, while phones at Site 3 are assigned 3001 and 3002. All IP phones in the network can call each other by simply dialing the four-digit extension.
- Network location IDs for the sites are the same as the site number. For example, Site 2's location ID is 2 and Site 3's location ID is 3.

- There is no PSTN connectivity shown in the configurations of the four sites as this has no relevance to the Cisco Unity Express networking configuration. Real offices networked together include this additional component.

Prerequisites

The following sections provide information important to understand this configuration example. Read these sections before you continue with the configuration example:

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on these software and hardware versions:

- At Site 2, a Cisco 3725 router running Cisco CME and Cisco Unity Express
- At Site 3, a Cisco 2691 router running Cisco CME and Cisco Unity Express
- At Site 4, a Cisco 3725 router running Cisco Secure Survivable Remote Site Telephony (SRST) and Cisco Unity Express
- At Site 6, a Cisco 3725 router running Cisco SRST and Cisco Unity Express
- Cisco IOS Release 12.3(11)T
- Cisco CME 3.2
- Cisco Unity Express 2.0
- IP Voice Cisco IOS feature set

All sites are Ethernet connected to the IP network. All sites have two Cisco 7960 IP Phones. For the Cisco CME sites (sites 2 and 3), the IP phones and dial plan is under control of Cisco CME. For the other two sites (sites 4 and 6), the IP phones and dial plan are under control of a central Cisco CallManager and the routers are configured for SRST operation.

The information presented in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command

Related Products

This configuration can also be used with the following hardware and software versions:

- Cisco 2800 series routers
- Cisco 3800 series routers
- For Cisco 2800 series routers, Cisco IOS Release 12.3(8)T4 or later releases. For Cisco 3800 series routers, Cisco IOS Release 12.3(11)T and later releases.

Conventions

Where applicable, this document uses the conventions in Table 1 .

Table 1   Cisco Unity Express Configuration Example Document Conventions

Convention	Description
boldfaced text	Boldfaced text is used for: • Key and button names. (Example: Click OK.) • Information that you enter. (Example: Enter Administrator in the User Name box.)
< > (angle brackets)	Angle brackets are used around parameters for which you supply a value. (Example: In the Command Prompt window, enter ping <IP address>.)
- (hyphen)	Hyphens separate keys that must be pressed simultaneously. (Example: Press Ctrl-Alt-Delete.)
> (right angle bracket)	A right angle bracket is used to separate selections that you make: • On menus. (Example: On the Windows Start menu, click Settings > Control Panel > Phone and Modem Options.) • In the navigation bar of the Cisco Unity Administrator. (Example: Go to the System > Configuration > Settings page.)
The letter **a** used in the high-order address range for an IP V4-formatted address. Example: **a** .23.10.224	Represents a public Class A Internet address or network. Used for illustrative purposes only in order to prevent the use of public numbers.
The letters **x** and **y** used within phone numbers Example: 2 **xx** . **yyy** .1234	Represents the area code and prefix for a telephone number. Used for illustrative purposes only in order to prevent the use of public numbers.

The document also uses the following general conventions:

Note: Means reader take note. Notes contain helpful suggestions or references to material not covered in the document.

Caution: Means reader be careful. In this situation, you might do something that could result in equipment damage or loss of data.

For more information on document conventions, refer to Cisco Technical Tips Conventions.

Configure

In this section, you are presented with the information to configure the features described in this document.

Note: To find additional information on the commands used in this document, use the Command Lookup Tool (registered customers only).

Network Diagram

This document uses the network setup shown in the diagram below .
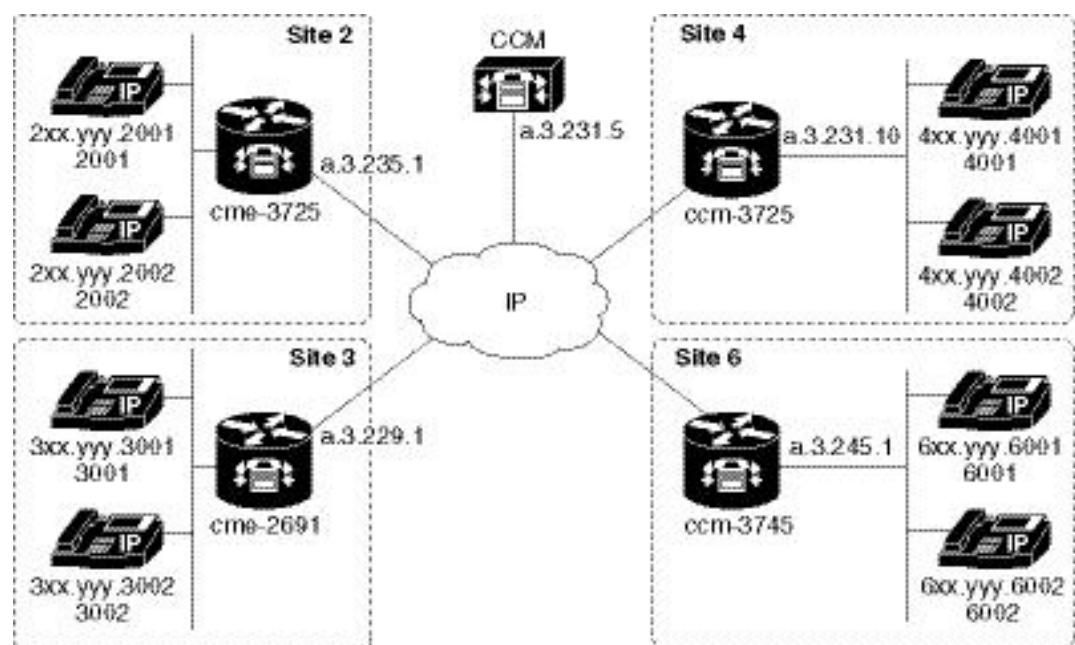
The Site 2 location uses a Cisco 3725 router with these characteristics:

- IP network access via IP address a.3.235.1
- Cisco CME configuration with two IP Phones, extensions 2001 and 2002
- PSTN area code 2xx
- NM-CUE
- Cisco Unity Express IP address a.3.235.128
- Network location ID 2

The Site 3 location uses a Cisco 2691 router with these characteristics:

- IP network access via IP address a.3.229.1
- Cisco CME configuration with two IP Phones, extensions 3001 and 3002
- PSTN area code 3xx
- NM-CUE
- Cisco Unity Express IP address a.3.229.128
- Network location ID 3

The Site 4 location uses a Cisco 3725 router with these characteristics:

- IP network access via IP address a.3.231.10
- Cisco Cisco CallManager/SRST configuration with two IP Phones, extensions 4001 and 4002
- PSTN area code 4xx
- NM-CUE
- Cisco Unity Express IP address a.3.231.128
- Network location ID 4

The Site 6 location uses a Cisco 3745 router with these characteristics:

- IP network access via IP address a.3.245.1
- Cisco Cisco CallManager/SRST configuration with two IP Phones, extensions 6001 and 6002
- PSTN area code 6xx
- NM-CUE
- Cisco Unity Express IP address a.3.245.128
- Network location ID 6

Configuration Tips

- Make sure you can **ping** between sites before making calls.
- Make sure that you can make calls between sites before attempting Cisco Unity Express networking.
- Make sure you can **ping** between the Cisco Unity Express nodes at each site.

Configurations

This document uses the configurations shown below.

- Site 2 Configuration (Cisco 3725/Cisco CME Router), page 5)
- Site 3 Configuration (Cisco 2691/Cisco CME router), page 11
- Site 4 Configuration (Cisco 3725 SRST router), page 16)

- Site 6 Configuration (Cisco 3745 SRST router), page 21)

Site 2 Configuration (Cisco 3725/Cisco CME Router)

- Router Configuration

  Relevant extracts of the router's configuration are shown below:

```
cme-3725#
 show running-config
Current configuration : 8184 bytes
!
! Last configuration change at 11:01:46 PST Fri Nov 5 2004
! NVRAM config last updated at 08:29:05 PST Fri Nov 5 2004
!
version 12.3
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname cme-3725
!
boot-start-marker
boot system flash:c3725-ipvoice-mz.123-10.3.PI5
boot-end-marker
!
! Allow intersite H.323 calls to reach Cisco Unity Express
!
voice service voip
 allow-connections h323 to sip
!
!
! IP address of the router
!
interface FastEthernet0/0
 ip address a.3.235.1 255.255.0.0
 duplex auto
 speed auto
 no cdp enable
!
interface FastEthernet0/1
 ip address a.1.1.100 255.255.0.0
 speed auto
 half-duplex
 no cdp enable
!
! IP address of Cisco Unity Express
!
interface Service-Engine1/0
```

```
 ip unnumbered FastEthernet0/0
 service-module ip address a.3.235.128 255.255.0.0
 service-module ip default-gateway a.3.235.1
 hold-queue 60 out
!
ip classless
ip route a.3.235.128 255.255.255.255 Service-Engine1/0
!
! Dial-peer to allow calls to forward from Cisco CME to Cisco Unity Express
!
dial-peer voice 2100 voip
 destination-pattern 21..
 session protocol sipv2
 session target ipv4:a.3.235.128
 dtmf-relay sip-notify
 codec g711ulaw
 no vad
!
! Dial-peers to direct intersite calls
!
dial-peer voice 3000 voip
 destination-pattern 3...
 session target ipv4:a.3.229.1
 dtmf-relay h245-alphanumeric
 codec g711ulaw
 no vad
!
dial-peer voice 4000 voip
 destination-pattern 4...
 session target ipv4:a.3.231.5
 dtmf-relay h245-alphanumeric
 codec g711ulaw
 no vad
!
dial-peer voice 6000 voip
 destination-pattern 6...
 session target ipv4:a.3.231.5
 dtmf-relay h245-alphanumeric
 codec g711ulaw
 no vad
!
!
telephony-service
 load 7960-7940 P00303020214
 max-ephones 50
 max-dn 120
 ip source-address a.1.1.100 port 2000
 time-format 24
 date-format dd-mm-yy
 auto assign 1 to 5
 timeouts interdigit 20
```

```
    timeouts ringing 120
    system message CME-3725
    create cnf-files version-stamp 7960 Sep 27 2004 12:31:02
    voicemail 2105
    max-conferences 8
    moh music-on-hold.au
    web admin system name admin password cisco
    web admin customer name custlogin password custpswd
    dn-webedit
    time-webedit
    transfer-system full-consult
    transfer-pattern 3...
    transfer-pattern 2...
    directory last-name-first
   !
   !
   ! Extension definitions
   !
   ephone-dn  1  dual-line
    number 2001 secondary 2xxyyy2001
    label Alice
    description Alice Davidson
    name Alice Davidson
    call-forward max-length 4
    call-forward busy 2105
    call-forward noan 2105 timeout 10
   !
   !
   ephone-dn  2  dual-line
    number 2002 secondary 2xxyyy2002
    label Aaron
    description Aaron Wilkins
    name Aaron Wilkins
    call-forward max-length 8
    call-forward busy 2105
    call-forward noan 2105 timeout 10
   !
   !
   ! Dial-peers for MWI
   !
   ephone-dn  51
    number 8000....
    mwi on
   !
   !
   ephone-dn  52
    number 8001....
    mwi off
   !
   !
   !
```

```
! IP phone definitions
!
ephone  1
 ephone-template 1
 username "adavidson"
 mac-address 0003.6BAA.D1F8
 type 7960
 button  1:1
!
!
!
ephone  2
 ephone-template 1
 username "awilkins"
 mac-address 0003.6BAA.D362
 type 7960
 button  1:2
```

- Cisco Unity Express Configuration

    Cisco Unity Express's configuration is shown below:

```
cue-cme3725#
show running-config
Generating configuration:
clock timezone America/Los_Angeles
hostname cue-cme3725
ip domain-name localdomain
ntp server a.3.135.1
software download server url "ftp://127.0.0.1/ftp"
   credentials hidden "6u/dKTN/hsEuSAEfw40XlF2eFHnZfyUTSd8ZZNgd
+Y9J3xlk2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3xlk2B35jwAAAAA="
groupname Administrators create
groupname Broadcasters create
groupname Sales create
username adavidson create
username awilkins create
username acoley create
username awyant create
username amcdougal create
username admin create
groupname Sales phonenumberE164 "2xxyyy2050"
groupname Sales phonenumber "2050"
username adavidson phonenumberE164 "2xxyyy2001"
username awilkins phonenumberE164 "2xxyyy2002"
username acoley phonenumberE164 "2xxyyy2003"
username awyant phonenumberE164 "2xxyyy2004"
username amcdougal phonenumberE164 "2xxyyy2005"
username adavidson phonenumber "2001"
username awilkins phonenumber "2002"
```

```
     username acoley phonenumber "2003"
     username awyant phonenumber "2004"
     username amcdougal phonenumber "2005"
     groupname Administrators member admin
     groupname Sales member acoley
     groupname Sales member awilkins
     groupname Administrators privilege superuser
     groupname Administrators privilege ManagePrompts
     backup server url "ftp://a.3.231.201/cme3725/"
        credentials hidden "1SDP4vScNKcZiym6dHQHfnl4zvlbuAn9Sd8ZZNgd
     +Y9J3xlk2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3xlk2B35jwAAAAA="
     ccn application autoattendant
      description "autoattendant"
      enabled
      maxsessions 8
      script "aa.aef"
      parameter "MaxRetry" "3"
      parameter "operExtn" "0"
      parameter "welcomePrompt" "AAWelcome.wav"
      end application
     ccn application ciscomwiapplication
      description "ciscomwiapplication"
      enabled
      maxsessions 8
      script "setmwi.aef"
      parameter "strMWI_OFF_DN" "8001"
      parameter "strMWI_ON_DN" "8000"
      parameter "CallControlGroupID" "0"
      end application
     ccn application custom-aa
      description "custom-aa"
      enabled
      maxsessions 8
      script "s1_main-officehours.aef"
      parameter "MainOperExt" "2001"
      end application
     ccn application promptmgmt
      description "promptmgmt"
      enabled
      maxsessions 1
      script "promptmgmt.aef"
      end application
     ccn application voicemail
      description "voicemail"
      enabled
      maxsessions 8
      script "voicebrowser.aef"
      parameter "logoutUri" "http://localhost/voicemail/vxmlscripts/mbxLogout.jsp"
      parameter "uri" "http://localhost/voicemail/vxmlscripts/login.vxml"
      end application
     ccn engine
```

```
       end engine
     ccn subsystem jtapi
      ccm-manager address
      end subsystem
     ccn subsystem sip
      gateway address "a.3.235.1"
      end subsystem
     ccn trigger sip phonenumber 2100
      application "custom-aa"
      enabled
      locale "en_US"
      maxsessions 8
      end trigger
     ccn trigger sip phonenumber 2102
      application "autoattendant"
      enabled
      locale "en_US"
      maxsessions 8
      end trigger
     ccn trigger sip phonenumber 2105
      application "voicemail"
      enabled
      idletimeout 5000
      locale "en_US"
      maxsessions 8
      end trigger
     ccn trigger sip phonenumber 2106
      application "promptmgmt"
      enabled
      idletimeout 5000
      locale "en_US"
      maxsessions 1
      end trigger
     ! Definitions of the four networking sites
     network location id 2
      abbreviation "S2"
      email domain a.3.235.128
      name "site2-cme-3725"
      end location
     network location id 3
      abbreviation "S3"
      email domain a.3.229.128
      name "site3-cme-2691"
      end location
     network location id 4
      abbreviation "S4"
      email domain a.3.231.128
      name "site4-ccm-3725"
      end location
     network location id 6
      abbreviation "S6"
```

```
 email domain a.3.245.128
 name "site6-ccm-3745"
 end location
! Definition of this site's location ID
network local location id 2
voicemail default expiration time 30
voicemail default language en_US
voicemail default mailboxsize 5520
voicemail recording time 900
voicemail default messagesize 60
voicemail operator telephone 2001
voicemail capacity time 6000
voicemail mailbox owner "Sales" size 5520
 description "Sales mailbox"
 zerooutnumber "2100"
 end mailbox
voicemail mailbox owner "acoley" size 5520
 description "acoley mailbox"
 zerooutnumber "2100"
 end mailbox
voicemail mailbox owner "adavidson" size 5520
 description "adavidson mailbox"
 zerooutnumber "2100"
 end mailbox
voicemail mailbox owner "amcdougal" size 5520
 description "amcdougal mailbox"
 zerooutnumber "2100"
 end mailbox
voicemail mailbox owner "awilkins" size 5520
 description "awilkins mailbox"
 zerooutnumber "2100"
 end mailbox
voicemail mailbox owner "awyant" size 5520
 description "awyant mailbox"
 zerooutnumber "2100"
 end mailbox
end
```

Site 3 Configuration (Cisco 2691/Cisco CME router)

- Rotuer Configuration

  Relevant extracts of the router's configuration are shown below:

  ```
  cme-2691#
  show running-config
  Building configuration...
  ```

```
     Current configuration : 4868 bytes
     !
     ! Last configuration change at 07:35:10 PST Fri Oct 22 2004
     ! NVRAM config last updated at 12:07:37 PST Fri Oct 22 2004
     !
     version 12.3
     service timestamps debug uptime
     service timestamps log uptime
     no service password-encryption
     !
     hostname cme-2691
     !
     boot-start-marker
     boot system flash:c2691-ipvoice-mz.123-10.3.PI5
     boot-end-marker
     !
     ! Allow intersite H.323 calls to reach Cisco Unity Express
     !
     voice service voip
      allow-connections h323 to sip
     !
     ! IP address of the router
     !
     interface FastEthernet0/0
      ip address a.3.229.1 255.255.0.0
      no ip mroute-cache
      load-interval 30
      duplex auto
      speed auto
     !
     interface FastEthernet0/1
      ip address a.10.1.100 255.255.0.0
      no ip mroute-cache
      duplex auto
      speed auto
     !
     ! IP address of Cisco Unity Express
     !
     interface Service-Engine1/0
      ip unnumbered FastEthernet0/0
      service-module ip address a.3.229.128 255.255.0.0
      service-module ip default-gateway a.3.229.1
     !
     ip classless
     ip route a.3.229.128 255.255.255.255 Service-Engine1/0
     !
     ip http server
     ip http path flash:
     !
     ! Dial-peer to allow calls to forward from Cisco CME to Cisco Unity Express
     !
```

```
dial-peer voice 3100 voip
 description VM-AA
 destination-pattern 31..
 session protocol sipv2
 session target ipv4:a.3.229.128
 dtmf-relay sip-notify
 codec g711ulaw
 no vad
!
! Dial-peers to direct intersite calls
!
dial-peer voice 2000 voip
 destination-pattern 2...
 session target ipv4:a.3.235.1
 dtmf-relay h245-alphanumeric
 codec g711ulaw
 no vad
!
dial-peer voice 4000 voip
 destination-pattern 4...
 session target ipv4:a.3.231.5
 dtmf-relay h245-alphanumeric
 codec g711ulaw
 no vad
!
dial-peer voice 6000 voip
 destination-pattern 6...
 session target ipv4:a.3.231.5
 dtmf-relay h245-alphanumeric
 codec g711ulaw
 no vad
!
!
telephony-service
 load 7960-7940 P00303020214
 max-ephones 48
 max-dn 192
 ip source-address a.10.1.100 port 2000
 system message CME-2691
 create cnf-files version-stamp 7960 Jul 15 2003 13:48:12
 voicemail 3105
 max-conferences 8
 web admin system name admin password cisco
 dn-webedit
 time-webedit
 transfer-system full-consult
 transfer-pattern 3...
 transfer-pattern 2...
!
! Extension definitions
!
```

```
ephone-dn  1  dual-line
 number 3001
 description User1
 name User1
 call-forward busy 3105
 call-forward noan 3105 timeout 10
!
!
ephone-dn  2  dual-line
 number 3002
 description User2
 name User2
 call-forward busy 3105
 call-forward noan 3105 timeout 10
!
!
! Dial-peers for MWI
!
ephone-dn  51
 number 8000....
 mwi on
!
!
ephone-dn  52
 number 8001....
 mwi off
!
! IP phone definitions
!
ephone  1
 username "User1" password null
 mac-address 0009.B7F7.5793
 button  1:1
!
!
!
ephone  2
 username "User2" password null
 mac-address 0002.FD06.D959
 button  1:2
```

- Cisco Untiy Express Configuration

  Cisco Unity Express's configuration is shown below:

```
cue-nm-2691#
show running-config
Generating configuration:
clock timezone America/Los_Angeles
hostname cue-nm-2691
```

```
ip domain-name localdomain
ntp server a.3.229.1
software download server url "ftp://127.0.0.1/ftp"
    credentials hidden "6u/dKTN/hsEuSAEfw40XlF2eFHnZfyUTSd8ZZNgd
+Y9J3xlk2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3xlk2B35jwAAAAA="
groupname Administrators create
groupname customer-service create
username admin create
username User1 create
username User2 create
username User3 create
username User4 create
username User5 create
username User6 create
groupname customer-service phonenumberE164 "4xxyyy3050"
groupname customer-service phonenumber "3050"
username User1 phonenumber "3001"
username User2 phonenumber "3002"
username User3 phonenumber "3003"
username User4 phonenumber "3004"
username User5 phonenumber "3005"
username User6 phonenumber "3006"
groupname Administrators member admin
groupname customer-service member User2
groupname customer-service member User3
groupname Administrators privilege superuser
groupname Administrators privilege ManagePrompts
backup server url "ftp://a.3.231.201/cme2691_4nov04/"
    credentials hidden "xxOaioWv/uC5WSZLs/L2XY/frZzvmJ2MSd8ZZNgd
+Y9J3xlk2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3xlk2B35jwAAAAA="
ccn application autoattendant
 description "autoattendant"
 enabled
 maxsessions 8
 script "aa.aef"
 parameter "MaxRetry" "3"
 parameter "operExtn" "0"
 parameter "welcomePrompt" "AAgreeting.wav"
 end application
ccn application ciscomwiapplication
 description "ciscomwiapplication"
 enabled
 maxsessions 8
 script "setmwi.aef"
 parameter "strMWI_OFF_DN" "8001"
 parameter "strMWI_ON_DN" "8000"
 parameter "CallControlGroupID" "0"
 end application
ccn application promptmgmt
 description "promptmgmt"
 enabled
```

```
  maxsessions 1
  script "promptmgmt.aef"
  end application
 ccn application voicemail
  description "voicemail"
  enabled
  maxsessions 8
  script "voicebrowser.aef"
  parameter "logoutUri" "http://localhost/voicemail/vxmlscripts/mbxLogout.jsp"
  parameter "uri" "http://localhost/voicemail/vxmlscripts/login.vxml"
  end application
 ccn engine
  end engine
 ccn subsystem jtapi
  ccm-manager address
  end subsystem
 ccn subsystem sip
  gateway address "a.3.229.1"
  end subsystem
 ccn trigger sip phonenumber 3100
  application "autoattendant"
  enabled
  maxsessions 8
  end trigger
 ccn trigger sip phonenumber 3105
  application "voicemail"
  enabled
  maxsessions 8
  end trigger
 ccn trigger sip phonenumber 3106
  application "promptmgmt"
  enabled
  maxsessions 1
  end trigger
 ! Definitions of the four networking sites
 network location id 2
  abbreviation "S2"
  email domain a.3.235.128
  name "site2-cme-3725"
  end location
 network location id 3
  abbreviation "S3"
  email domain a.3.229.128
  name "site3-cme-2691"
  end location
 network location id 4
  abbreviation "S4"
  email domain a.3.231.128
  name "site4-ccm-3725"
  end location
 network location id 6
```

```
 abbreviation "S6"
 email domain a.3.245.128
 name "site6-ccm-3745"
 end location
! Definition of this site's location ID
network local location id 3
voicemail default expiration time 60
voicemail default language en_US
voicemail default mailboxsize 5520
voicemail recording time 900
voicemail default messagesize 60
voicemail operator telephone 0
voicemail capacity time 6000
voicemail mailbox owner "User1" size 5520
 end mailbox
voicemail mailbox owner "User2" size 5520
 end mailbox
voicemail mailbox owner "User3" size 5520
 end mailbox
voicemail mailbox owner "User4" size 5520
 end mailbox
voicemail mailbox owner "User5" size 5520
 end mailbox
voicemail mailbox owner "User6" size 5520
 end mailbox
voicemail mailbox owner "customer-service" size 5520
 description "customer-service mailbox"
 zerooutnumber "3101"
 end mailbox
end
```

Site 4 Configuration (Cisco 3725 SRST router)

- Rotuer Configuration

    Relevant extracts of the router's configuration are shown below:

    ```
    ccm_3725#
    show running-config
    Building configuration...
    Current configuration : 2278 bytes
    !
    ! Last configuration change at 07:11:44 PST Wed Nov 10 2004
    ! NVRAM config last updated at 07:11:52 PST Wed Nov 10 2004
    !
    version 12.3
    service timestamps debug datetime msec
    ```

```
    service timestamps log datetime msec
    no service password-encryption
    !
    hostname ccm_3725
    !
    boot-start-marker
    boot system flash:c3725-ipvoice-mz.123-10.3.PI5
    boot-end-marker
    !
    ! Allow intersite H.323 calls to reach Cisco Unity Express during SRST
    !
    voice service voip
     allow-connections h323 to sip
    !
    ! IP address of the router
    !
    interface FastEthernet0/0
     ip address a.3.231.10 255.255.0.0
     speed auto
     half-duplex
    !
    interface FastEthernet0/1
     no ip address
     shutdown
     duplex auto
     speed auto
    !
    ! IP address of Cisco Unity Express
    !
    interface Service-Engine1/0
     ip unnumbered FastEthernet0/0
     service-module ip address a.3.231.128 255.255.0.0
     service-module ip default-gateway a.3.231.10
    !
    ip classless
    ip route a.3.231.128 255.255.255.255 Service-Engine1/0
    !
    ip http server
    ip http path flash:
    !
    ! Dial-peer to allow calls to forward from Cisco SRST to Cisco Unity Express
    !
    dial-peer voice 4100 voip
     destination-pattern 41..
     session protocol sipv2
     session target ipv4:a.3.231.128
     dtmf-relay sip-notify
     codec g711ulaw
     no vad
    !
    ! SRST definition to ensure Cisco Unity Express and IP Phone operation
```

```
   during Cisco CallManager unavailability
   !
   call-manager-fallback
    max-conferences 8
    ip source-address a.3.231.5 port 2000
    max-ephones 24
    max-dn 48
    voicemail 4105
    call-forward busy 4105
    call-forward noan 4105 timeout 7
```

- Cisco Untiy Express Configuration

    Cisco Unity Express's configuration is shown below:

```
   cue-ccm3725#
   show running-config
   Generating configuration:
   clock timezone America/Adak
   hostname cue-ccm3725
   ip domain-name localdomain
   ntp server a.3.231.10
   software download server url "ftp://127.0.0.1/ftp"
       credentials hidden "6u/dKTN/hsEuSAEfw40XlF2eFHnZfyUTSd8ZZNgd
   +Y9J3xlk2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3xlk2B35jwAAAAA="
   groupname Administrators create
   username admin create
   username Bob create
   username anders create
   username zacks create
   username Bob phonenumber "4002"
   username anders phonenumber "4001"
   groupname Administrators member admin
   groupname Administrators member anders
   groupname Administrators privilege superuser
   groupname Administrators privilege ManagePrompts
   backup server url "ftp://a.3.231.244/ccm3725_8nov/"
       credentials hidden "GixGRq8cUmFqrOHVxftjAknfGWTYHfmPSd8ZZNgd
   +Y9J3xlk2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3xlk2B35jwAAAAA="
   ccn application abccorp
    description "abccorp"
    enabled
    maxsessions 8
    script "sample_aa.aef"
    parameter "prompt_ABCWelcome" "prompt_ABCWelcome.wav"
    parameter "extn_Operator" "4002"
    parameter "extn_Sales" "4002"
    parameter "prompt_Operator" "prompt_Operator.wav"
    parameter "extn_UserEntered" "2002"
    parameter "prompt_Support" "prompt_support.wav"
```

```
 parameter "prompt_Hours" "prompt_Hours.wav"
 parameter "extn_Support" "918xxyyy2121"
 parameter "prompt_Extension" "prompt_Extension.wav"
 parameter "prompt_Sales" "prompt_Sales.wav"
 end application
ccn application autoattendant
 description "autoattendant"
 enabled
 maxsessions 8
 script "aa.aef"
 parameter "MaxRetry" "3"
 parameter "operExtn" "0"
 parameter "welcomePrompt" "AAWelcome.wav"
 end application
ccn application ciscomwiapplication
 description "ciscomwiapplication"
 enabled
 maxsessions 8
 script "setmwi.aef"
 parameter "strMWI_OFF_DN" "8001"
 parameter "strMWI_ON_DN" "8000"
 parameter "CallControlGroupID" "0"
 end application
ccn application promptmgmt
 description "promptmgmt"
 enabled
 maxsessions 1
 script "promptmgmt.aef"
 end application
ccn application voicemail
 description "voicemail"
 enabled
 maxsessions 8
 script "voicebrowser.aef"
 parameter "logoutUri" "http://localhost/voicemail/vxmlscripts/mbxLogout.jsp"
 parameter "uri" "http://localhost/voicemail/vxmlscripts/login.vxml"
 end application
ccn engine
 end engine
ccn subsystem jtapi
 ctiport 4901 4902 4903 4904
 ccm-manager address a.3.231.5
 ccm-manager
    credentials hidden "QiUfMZRFsRBqrOHVxftjAknfGWTYHfmPSd8ZZNgd
+Y9J3xlk2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3xlk2B35jwAAAAA="
 end subsystem
ccn subsystem sip
 gateway address "a.3.231.10"
 end subsystem
ccn trigger jtapi phonenumber 4100
 application "autoattendant"
```

```
      enabled
      locale "en_US"
      maxsessions 8
      end trigger
     ccn trigger jtapi phonenumber 4101
      application "abccorp"
      enabled
      locale "en_US"
      maxsessions 8
      end trigger
     ccn trigger jtapi phonenumber 4105
      application "voicemail"
      enabled
      locale "en_US"
      maxsessions 8
      end trigger
     ccn trigger jtapi phonenumber 4106
      application "promptmgmt"
      enabled
      locale "en_US"
      maxsessions 1
      end trigger
     ccn trigger sip phonenumber 4100
      application "autoattendant"
      enabled
      locale "en_US"
      maxsessions 8
      end trigger
     ccn trigger sip phonenumber 4101
      application "abccorp"
      enabled
      locale "en_US"
      maxsessions 8
      end trigger
     ccn trigger sip phonenumber 4105
      application "voicemail"
      enabled
      locale "en_US"
      maxsessions 8
      end trigger
     ccn trigger sip phonenumber 4106
      application "promptmgmt"
      enabled
      locale "en_US"
      maxsessions 1
      end trigger
     ! Definitions of the four networking sites
     network location id 2
      abbreviation "S2"
      email domain a.3.235.128
      name "site2-cme-3725"
```

```
      end location
 network location id 3
  abbreviation "S3"
  email domain a.3.229.128
  name "site3-cme-2691"
  end location
 network location id 4
  abbreviation "S4"
  email domain a.3.231.128
  name "site4-ccm-3725"
  end location
 network location id 6
  abbreviation "S6"
  email domain a.3.245.128
  name "site6-ccm-3745"
  end location
 ! Definition of this site's location ID
 network local location id 4
 voicemail default expiration time 30
 voicemail default language en_US
 voicemail default mailboxsize 3000
 voicemail recording time 900
 voicemail default messagesize 60
 voicemail operator telephone 0
 voicemail capacity time 6000
 voicemail mailbox owner "Bob" size 3000
  end mailbox
 voicemail mailbox owner "anders" size 3000
  end mailbox
 voicemail mailbox owner "zacks" size 3000
  end mailbox
 end
```

Site 6 Configuration (Cisco 3745 SRST router)

- Router Configuration

   Relevant extracts of the router's configuration are shown below:

```
ccm_3745#
show running-config
Building configuration...
Current configuration : 3295 bytes
!
! Last configuration change at 02:46:54 UTC Fri Apr 12 2002
! NVRAM config last updated at 17:20:53 UTC Thu Apr 11 2002
!
```

```
    version 12.3
    service timestamps debug datetime msec
    service timestamps log datetime msec
    no service password-encryption
    !
    hostname ccm_3745
    !
    boot-start-marker
    boot system flash:c3745-ipvoice-mz.123-10.3.PI5
    boot-end-marker
    !
    !
    ! Allow intersite H.323 calls to reach Cisco Unity Express during SRST
    !
    voice service voip
     allow-connections h323 to sip
    !
    ! IP address of the router
    !
    interface FastEthernet0/0
     ip address a.3.245.1 255.255.0.0
     speed auto
     half-duplex
     no mop enabled
    !
    interface FastEthernet0/1
     ip address 172.19.153.31 255.255.0.0
     duplex auto
     speed auto
    !
    ! IP address of Cisco Unity Express
    !
    interface Service-Engine1/0
     ip unnumbered FastEthernet0/0
     service-module ip address a.3.245.128 255.255.0.0
     service-module ip default-gateway a.3.245.1
    !
    !
    ip classless
    ip route a.3.245.128 255.255.255.255 Service-Engine1/0
    !
    ip http server
    ip http path flash:
    !
    !
    ! Dial-peer to allow calls to forward from Cisco SRST to Cisco Unity Express
    !
    dial-peer voice 6100 voip
     destination-pattern 61..
     session protocol sipv2
     session target ipv4:a.3.245.128
```

```
 dtmf-relay sip-notify
 codec g711ulaw
 no vad
!
! SRST definition to ensure Cisco Unity Express and IP Phone operation
during Cisco CallManager unavailability
!
call-manager-fallback
 max-conferences 8
 ip source-address a.3.231.5 port 2000
 max-ephones 24
 max-dn 48
 voicemail 6105
 call-forward busy 6105
```

- Cisco Unity Express Configuration

    Cisco Unity Express's configuration is shown below:

```
cue-ccm3745#
show running-config
Generating configuration:
clock timezone America/Los_Angeles
hostname cue-ccm3745
ip domain-name localdomain
ntp server a.3.233.100
software download server url "ftp://127.0.0.1/ftp"
    credentials hidden "6u/dKTN/hsEuSAEfw40XlF2eFHnZfyUTSd8ZZNgd
+Y9J3xlk2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3xlk2B35jwAAAAA="
groupname Administrators create
groupname Broadcasters create
username admin create
username Yvon create
username Zack create
username Yvon phonenumber "6001"
username Zack phonenumber "6002"
groupname Administrators member admin
groupname Administrators member Yvon
groupname Administrators privilege superuser
groupname Administrators privilege ManagePrompts
backup server url "ftp://a.3.231.243/ccm3745_5nov/"
    credentials hidden "GixGRq8cUmFqrOHVxftjAknfGWTYHfmPSd8ZZNgd
+Y9J3xlk2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3xlk2B35jwAAAAA="
ccn application autoattendant
 description "autoattendant"
 enabled
 maxsessions 8
 script "aa.aef"
 parameter "MaxRetry" "3"
 parameter "operExtn" "0"
```

```
  parameter "welcomePrompt" "AAWelcome.wav"
  end application
 ccn application ciscomwiapplication
  description "ciscomwiapplication"
  enabled
  maxsessions 8
  script "setmwi.aef"
  parameter "strMWI_OFF_DN" "8001"
  parameter "strMWI_ON_DN" "8000"
  parameter "CallControlGroupID" "0"
  end application
 ccn application promptmgmt
  description "promptmgmt"
  enabled
  maxsessions 1
  script "promptmgmt.aef"
  end application
 ccn application voicemail
  description "voicemail"
  enabled
  maxsessions 8
  script "voicebrowser.aef"
  parameter "logoutUri" "http://localhost/voicemail/vxmlscripts/mbxLogout.jsp"
  parameter "uri" "http://localhost/voicemail/vxmlscripts/login.vxml"
  end application
 ccn engine
  end engine
 ccn subsystem jtapi
  ctiport 6901 6902 6903 6904
  ccm-manager address a.3.231.5
  ccm-manager
     credentials hidden "1anJW38IVSZld67dzhL9pEnfGWTYHfmPSd8ZZNgd
+Y9J3xlk2B35j0nfGWTYHfmPSd8ZZNgd+Y9J3xlk2B35jwAAAAA="
  end subsystem
 ccn subsystem sip
  gateway address "a.3.45.1"
  end subsystem
 ccn trigger jtapi phonenumber 6100
  application "autoattendant"
  enabled
  locale "en_US"
  maxsessions 8
  end trigger
 ccn trigger jtapi phonenumber 6105
  application "voicemail"
  enabled
  locale "en_US"
  maxsessions 8
  end trigger
 ccn trigger jtapi phonenumber 6106
  application "promptmgmt"
```

```
       enabled
       locale "en_US"
       maxsessions 1
       end trigger
      ccn trigger sip phonenumber 6100
       application "autoattendant"
       enabled
       locale "en_US"
       maxsessions 8
       end trigger
      ccn trigger sip phonenumber 6105
       application "voicemail"
       enabled
       locale "en_US"
       maxsessions 8
       end trigger
      ccn trigger sip phonenumber 6106
       application "promptmgmt"
       enabled
       locale "en_US"
       maxsessions 1
       end trigger
      ! Definitions of the four networking sites
      network location id 2
       abbreviation "S2"
       email domain a.3.235.128
       name "site2-cme-3725"
       end location
      network location id 3
       abbreviation "S3"
       email domain a.3.229.128
       name "site3-cme-2691"
       end location
      network location id 4
       abbreviation "S4"
       email domain a.3.231.128
       name "site4-ccm-3725"
       end location
      network location id 6
       abbreviation "S6"
       email domain a.3.245.128
       name "site6-ccm-3745"
       end location
      ! Definition of this site's location ID
      network local location id 6
      voicemail default expiration time 30
      voicemail default language en_US
      voicemail default mailboxsize 3000
      voicemail recording time 900
      voicemail default messagesize 60
      voicemail operator telephone 0
```

```
     voicemail capacity time 6000
     voicemail mailbox owner "Yvon" size 3000
      end mailbox
     voicemail mailbox owner "Zack" size 3000
      end mailbox
```

Verify

This section provides information you can use to confirm your configuration is working properly.

Certain **show** commands are supported by the [Output Interpreter Tool](#) [(registered customers only)](#), which allows you to view an analysis of **show** command output.

Follow these steps to verify that your configuration is working properly.

Step 1   Verify that you can ping between all the Cisco Unity Express locations at the various sites.

Verify Site-to-Site Connectivity

The following is an output example for the ping command, performed on the Cisco Unity Express CLI of the Site 2 system to the Site 3 Cisco Unity Express.

```
cue-cme3725#
ping a.3.229.128
PING a.3.229.128 (a.3.229.128) 56(84) bytes of data.
64 bytes from a.3.229.128: icmp_seq=1 ttl=62 time=1.22 ms
64 bytes from a.3.229.128: icmp_seq=2 ttl=62 time=0.271 ms
64 bytes from a.3.229.128: icmp_seq=3 ttl=62 time=0.263 ms
64 bytes from a.3.229.128: icmp_seq=4 ttl=62 time=0.262 ms
64 bytes from a.3.229.128: icmp_seq=5 ttl=62 time=0.263 ms
--- a.3.229.128 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4ms
rtt min/avg/max/mdev = 0.262/0.456/1.224/0.384 ms, ipg/ewma 1.094/0.827 ms
```

The following is an output example for the ping command, performed on the Cisco Unity Express CLI of the Site 2 system to the Site 4 Cisco Unity Express.

```
cue-cme3725#
ping a.3.231.128
PING a.3.231.128 (a.3.231.128) 56(84) bytes of data.
64 bytes from a.3.231.128: icmp_seq=1 ttl=62 time=1.03 ms
64 bytes from a.3.231.128: icmp_seq=2 ttl=62 time=0.262 ms
64 bytes from a.3.231.128: icmp_seq=3 ttl=62 time=0.257 ms
```

```
64 bytes from a.3.231.128: icmp_seq=4 ttl=62 time=0.256 ms
64 bytes from a.3.231.128: icmp_seq=5 ttl=62 time=0.257 ms
--- a.3.231.128 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4ms
rtt min/avg/max/mdev = 0.256/0.412/1.032/0.310 ms, ipg/ewma 1.048/0.711 ms
```

The following is an output example for the ping command, performed on the Cisco Unity Express command-line interface (CLI) of the Site 2 system to the Site 6 Cisco Unity Express.

```
cue-cme3725#
ping a.3.245.128
PING a.3.245.128 (a.3.245.128) 56(84) bytes of data.
64 bytes from a.3.245.128: icmp_seq=1 ttl=62 time=0.953 ms
64 bytes from a.3.245.128: icmp_seq=2 ttl=62 time=0.251 ms
64 bytes from a.3.245.128: icmp_seq=3 ttl=62 time=0.248 ms
64 bytes from a.3.245.128: icmp_seq=4 ttl=62 time=0.246 ms
64 bytes from a.3.245.128: icmp_seq=5 ttl=62 time=0.249 ms
--- a.3.245.128 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4ms
rtt min/avg/max/mdev = 0.246/0.389/0.953/0.282 ms, ipg/ewma 1.025/0.661 ms
```

Step 2   Use these commands to verify networking configuration:

Verify Networking Configuration

- **show network locations**
- **show network detail location id** < **location-id** >
- **show network detail local**

The following is an output example for the show network locations command, performed on the Cisco Unity Express CLI of the Site 2 system.

```
cue-cme3725#
show network locations
ID          NAME                                    ABBREV  DOMAIN
2           'site2-cme-3725'                        S2      a.3.235.128
3           'site3-cme-2691'                        S3      a.3.229.128
6           'site6-ccm-3745'                        S6      a.3.245.128
4           'site4-ccm-3725'                        S4      a.3.231.128
Local location id: 2
```

The following is an output example for the show network detail location id 4 command, performed on the Cisco Unity Express CLI of the Site 2 system.

```
cue-cme3725#
```

```
show network detail location id 4
Name:                              site4-ccm-3725
Abbreviation:                      S4
Email domain:                      a.3.231.128
Minimum extension length:          2
Maximum extension length:          15
Phone prefix:
VPIM encoding:                     dynamic
Send spoken name:                  enabled
Sent msg count:                    0
Received msg count:                0
```

The following is an output example for the show network detail local command, performed on the Cisco Unity Express CLI of the Site 3 system.

```
cue-cme3725#
show network detail local
Location Id:                       3
Name:                              site3-cme-2691
Abbreviation:                      S3
Email domain:                      a.3.229.128
Minimum extension length:          2
Maximum extension length:          15
Phone prefix:
VPIM encoding:                     dynamic
Send spoken name:                  enabled
```

Step 3 Send a voice message from Site 2 addressed to one or more of the other sites. The moment you hit # to send the message, enter the show network queues command on the Cisco Unity Express system of the sending system. Keep repeating the display of this command until all the VPIM messages have been sent, or until the MWI lights of the destination phones are lit.

Verify Message Send VPIM Activity

The following is an output example for the show network queues command, performed at the Site 3 Cisco Unity Express system after sending a message addressed to Site 6, extension 6001.

```
cue-cme3725#
show network queues
Running Job Queue
=================
ID     TYPE TIME         RETRY SENDER        RECIPIENT
4      VPIM 09:09:45     0     User1         6001@1.3.245.128
Urgent Job Queue
=================
ID     TYPE TIME         RETRY SENDER        RECIPIENT
```

```
        No entries
        Normal Job Queue
        ================
        ID    TYPE TIME          RETRY SENDER         RECIPIENT
        No entries
```

Troubleshoot

This section provides information you can use to troubleshoot your configuration.

Certain **show** commands are supported by the Output Interpreter Tool (registered customers only), which allows you to view an analysis of **show** command output.

Note: Before issuing **debug** commands, refer to Important Information on Debug Commands.

The following trace commands can be issued on the sending or receiving Cisco Unity Express system to monitor SMTP and VPIM activity between them.

Step 1   **trace networking smtp all**

Monitors SMTP events

Step 2   **trace networking vpim all**

Monitors VPIM events

Step 3   **show trace buffer tail**

Displays contents of the trace buffer on the screen

Troubleshooting Examples

The following is an example of output for the trace commands for the sending site (Site 2) when sending a message from Site 2 extension 2001 to Site 3 extension 3001.

```
cue-nm-2691#
trace networking smtp all
```

```
cue-nm-2691#
trace networking vpim all
cue-nm-2691#
show trace buffer tail
Press <CTRL-C> to exit...
2464 10/22 09:10:05.206 VMSS vmdb 0 Freed connection: 1, inUse: 0, active: 3
2805 10/22 09:25:07.844 netw smtp 2
2805 10/22 09:25:07.869 netw smtp 1
7177 10/22 09:25:07.913 netw smtp 3 a.3.235.128
7177 10/22 09:25:07.918 netw smtp 4
7177 10/22 09:25:17.966 netw smtp 6 220 a.3.235.128 Simple Mail Transfer Service
Ready
7177 10/22 09:25:17.966 netw smtp 5 EHLO
7177 10/22 09:25:17.972 netw smtp 6 250-a.3.235.128 (Cisco Unity Express)
7177 10/22 09:25:17.973 netw smtp 6 250-X-VPIM-Wave
7177 10/22 09:25:17.975 netw smtp 6 250-X-Broadcast
7177 10/22 09:25:17.978 netw smtp 6 250-DSN NOTIFY
7177 10/22 09:25:17.981 netw smtp 6 250 SIZE
7177 10/22 09:25:18.478 netw smtp 5 MAIL FROM 3001@a.3.229.128
7177 10/22 09:25:18.488 netw smtp 6 250 ok
7177 10/22 09:25:18.490 netw smtp 5 RCPT TO 2001@a.3.235.128
7177 10/22 09:25:18.495 netw smtp 6 250 ok
7177 10/22 09:25:18.497 netw smtp 5 DATA
7177 10/22 09:25:18.501 netw smtp 6 354 Start mail input; end with <CRLF>.<CRLF>
7177 10/22 09:25:18.509 netw vpim 3 VPIM
7177 10/22 09:25:18.543 netw vpim 3 VPIM: To: <2001@a.3.235.128>
7177 10/22 09:25:18.544 netw vpim 3 VPIM: From: User<3001@a.3.229.128>
7177 10/22 09:25:18.546 netw vpim 3 VPIM: Date: Fri, 22 Oct 2004 09:25:07 -0700
(PDT)
7177 10/22 09:25:18.547 netw vpim 3 VPIM: MIME-Version: 1.0 (Voice 2.0)
7177 10/22 09:25:18.547 netw vpim 3 VPIM: Content-Type: Multipart/Voice-Message;
Version=2.0;
7177 10/22 09:25:18.547 netw vpim 3 VPIM:
Boundary="==VpimMsg==1098462318504"
7177 10/22 09:25:18.547 netw vpim 3 VPIM: Content-Transfer-Encoding: 7bit
7177 10/22 09:25:18.547 netw vpim 3 VPIM: Message-ID:
<1098462307586_0@a.3.229.128>
7177 10/22 09:25:18.548 netw vpim 3 VPIM:
7177 10/22 09:25:18.550 netw vpim 3 VPIM: --==VpimMsg==1098462318504
7177 10/22 09:25:18.550 netw vpim 3 VPIM: Content-Type: text/directory;
charset=us-ascii; profile=vCard
7177 10/22 09:25:18.551 netw vpim 3 VPIM: Content-Transfer-Encoding: 7bit
7177 10/22 09:25:18.551 netw vpim 3 VPIM: Content-Disposition: attachment;
filename="User.vcf"
7177 10/22 09:25:18.551 netw vpim 3 VPIM:
7177 10/22 09:25:18.551 netw vpim 3 VPIM: BEGIN:vCard
7177 10/22 09:25:18.551 netw vpim 3 VPIM: FN:User
7177 10/22 09:25:18.552 netw vpim 3 VPIM: EMAIL;TYPE=INTERNET;
TYPE=VPIM:3001@a.3.229.128
7177 10/22 09:25:18.552 netw vpim 3 VPIM: TEL:3001
7177 10/22 09:25:18.552 netw vpim 3 VPIM: VERSION: 3.0
```

```
7177 10/22 09:25:18.552 netw vpim 3 VPIM: END:vCard
7177 10/22 09:25:18.553 netw vpim 3 VPIM:
7177 10/22 09:25:18.597 netw vpim 3 VPIM: --==VpimMsg==1098462318504
7177 10/22 09:25:18.597 netw vpim 3 VPIM: Content-Type: Audio/x-wav
7177 10/22 09:25:18.597 netw vpim 3 VPIM: Content-Transfer-Encoding: Base64
7177 10/22 09:25:18.597 netw vpim 3 VPIM: Content-Disposition: inline;
voice=Originator-Spoken-Name
7177 10/22 09:25:18.598 netw vpim 3 VPIM:
7177 10/22 09:25:18.646 netw vpim 3 VPIM:
```

UklGRjI3AABXQVZFZm10IBIAAAAHAAEAQB8AAEAfAAABAAgAAAABmYWN0BAAAAAA3AABkYXRhADcA
APT6/fr6+/19eXZ4e3l4eXt9/fv9fX37/f/7/X17eXt5eH37/f34+vv7+Pv/+/v7/339//99
eHh7e3l4fX3//Xt9/33///3///v6+Pb7/fv9//99/317e3t9/319/3l0eHn//3t9ff/9+Pj///r0

The following is an example of output for the trace commands for the receiving site (Site 3) when sending a message from Site 2 extension 2002 to Site 3 extension 3001.

```
cue-cme3725#
trace networking smtp all
cue-cme3725#
trace networking vpim all
cue-cme3725#
show trace buffer tail
Press <CTRL-C> to exit...
3220 11/08 08:58:43.359 ACCN HTTS 0 -> LtdSemaph [1297198140] permits: 1 limit: 1
3082 11/08 09:03:23.851 netw smtp 2
3082 11/08 09:03:33.871 netw smtp 3 socket hostName: a.3.229.128, hostAddress:
a.3.229.128
3082 11/08 09:03:33.872 netw smtp 3 hostname: a.3.229.128 found in good address
cache
3082 11/08 09:03:33.882 netw smtp 1
8850 11/08 09:03:33.888 netw smtp 5 Initial connection message
8850 11/08 09:03:33.893 netw smtp 6 UNKNOWN: EHLO a.3.229.128
8850 11/08 09:03:33.894 netw smtp 5 250-a.3.235.128
8850 11/08 09:03:34.400 netw smtp 6 EHLO : MAIL FROM: <3001@a.3.229.128>
8850 11/08 09:03:34.406 netw smtp 5 250 ok
8850 11/08 09:03:34.411 netw smtp 6 MAIL FROM:: RCPT TO: <2002@a.3.235.128>
8850 11/08 09:03:34.412 netw smtp 5 250 ok
8850 11/08 09:03:34.417 netw smtp 6 RCPT TO:: DATA
8850 11/08 09:03:34.417 netw smtp 5 354 Start data
8850 11/08 09:03:34.483 netw vpim 4 VPIM: To: <2002@a.3.235.128>
8850 11/08 09:03:34.486 netw vpim 4 VPIM: From: User<3001@a.3.229.128>
8850 11/08 09:03:34.489 netw vpim 4 VPIM: Date: Fri, 22 Oct 2004 09:30:06 -0700
(PDT)
8850 11/08 09:03:34.494 netw vpim 4 VPIM: MIME-Version: 1.0 (Voice 2.0)
8850 11/08 09:03:34.497 netw vpim 4 VPIM: Content-Type: Multipart/Voice-Message;
Version=2.0;Boundary="==VpimMsg==10984462616955"
8850 11/08 09:03:34.501 netw vpim 4 VPIM: Content-Transfer-Encoding: 7bit
8850 11/08 09:03:34.504 netw vpim 4 VPIM: Message-ID:
<1098462606180_0@a.3.229.128>
```

```
8850 11/08 09:03:34.507 netw vpim 4 VPIM:
8850 11/08 09:03:34.510 netw vpim 4 VPIM: --==VpimMsg==1098462616955
8850 11/08 09:03:34.523 netw vpim 1 Message
8850 11/08 09:03:34.528 netw vpim 4 VPIM: Content-Type: text/directory;
charset=us-ascii; profile=vCard
8850 11/08 09:03:34.532 netw vpim 4 vCard: Content-Transfer-Encoding: 7bit
8850 11/08 09:03:34.535 netw vpim 4 vCard: Content-Disposition: attachment;
filename="User.vcf"
8850 11/08 09:03:34.538 netw vpim 4 vCard:
8850 11/08 09:03:34.541 netw vpim 4 vCard: BEGIN:vCard
8850 11/08 09:03:34.544 netw vpim 4 vCard: FN:User
8850 11/08 09:03:34.547 netw vpim 4 vCard: EMAIL;TYPE=INTERNET;
TYPE=VPIM:3001@a.3.229.128
8850 11/08 09:03:34.550 netw vpim 4 vCard: TEL:3001
8850 11/08 09:03:34.553 netw vpim 4 vCard: VERSION: 3.0
8850 11/08 09:03:34.556 netw vpim 4 vCard: END:vCard
8850 11/08 09:03:34.559 netw vpim 4 vCard:
8850 11/08 09:03:34.564 netw vpim 4 vCard: --==VpimMsg==1098462616955
8850 11/08 09:03:34.570 netw vpim 4 VPIM: Content-Type: Audio/x-wav
8850 11/08 09:03:34.573 netw vpim 4 VPIM: Content-Transfer-Encoding: Base64
8850 11/08 09:03:34.577 netw vpim 4 VPIM: Content-Disposition: inline;
voice=Originator-Spoken-Name
8850 11/08 09:03:34.585 netw vpim 5 17477
8850 11/08 09:03:34.588 netw vpim 4 VPIM audio:
UklGRjI3AABXQVZFZm10IBIAAAAHAAEAQB8AAEAfAAABAAgAAABmYWN0BAAAAAA3AABkYXRhADcA
8850 11/08 09:03:34.589 netw vpim 4 VPIM audio: APT6/fr6+/19eXZ4e3l4eXt9/fv9fX37/
f/9/f/7/X17eXt5eH37/f34+vv7+Pv/+/v7/339//99
8850 11/08 09:03:34.591 netw vpim 4 VPIM audio: eHh7e3l4fX3//Xt9/33///3///v6+Pb7/
fv9//99/317e3t9/319/3l0eHn//3t9ff/9+Pj///r0
8850 11/08 09:03:34.593 netw vpim 4 VPIM audio: 9vb2+/99/319/
Xl2/319///9//99e//9fX19ffv/ffv//fv69vj6+vv/ff99fX12dnh5fXt9+//9
8850 11/08 09:03:34.594 netw vpim 4 VPIM audio: +33//f//eXh7+/39+v/9+vr6+/v9ff99//
r///v9/fr7+/v/e3h5e3h2eHh5/f17//v///97//j6
8850 11/08 09:03:34.596 netw vpim 4 VPIM audio:
```