IP Conferencing Module Installation Guide

3Com® Convergence Applications Suite
VCX System Release 7.2

http://www.3com.com/

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CONTENTS

About This Guide

This section contains an overview of this guide, lists guide conventions, related documentation, and product compatibility.

This guide describes how to answer the questions in the installation scripts, which run when you first start a 3Com® IP Conferencing Module Server. By providing the correct answers to the script questions, you configure the system for initial operation.

This guide is intended for equipment installers who have a thorough understanding of telecommunications, VoIP technology, Linux operating systems, databases, networks, and system administrator privileges.

Release Notes are issued with some products. If the information in the release notes differs from the information in this guide, follow the instructions in the release notes.

Conventions

This section describes notice, text, and figure conventions.

Notices

Table 1 lists notice icons.

Table 1 Notice Icon Descriptions

Icon	Notice Type	Description
	Information note	Information that describes important features or instructions
	Caution	Information that alerts you to potential loss of data or potential damage to an application, system, or device
	Warning	Information that alerts you to potential personal injury

Text Table 2 lists text conventions.

Table 2 Text Convention Descriptions

Convention	Description
`Screen displays`	This typeface represents information as it appears on the screen.
`Commands`	The word "command" means that you must enter the command exactly as shown and then press Return or Enter. Commands appear in bold. Example: To remove the IP address, enter the following command: **`SETDefault !0 -IP NETaddr = 0.0.0.0`**
Words in *italics*	Italics are used to: ■ Emphasize a point. ■ Denote a new term at the place where it is defined in the text. ■ Identify menu names, menu commands, and software button names. Examples: From the *Help* menu, select *Contents*. Click *OK*.

Related Documentation

These 3Com documents contain additional information about the products in this release that are a part of or support the 3Com Convergence Applications Suite.

The following documents are a part of the VCX IP Telephony Module:

- *VCX Installation and Maintenance Guide*
- *VCX Administration Guide*
- *VCX Basic Telephone Quick Reference Guide*
- *VCX Business Telephone Quick Reference Guide*
- *VCX Manager's Telephone Quick Reference Guide*
- *VCX Basic Telephone Guide*
- *VCX Business Telephone Guide*
- *VCX Manager's Telephone Guide*
- *VCX Security Guide*
- *VCX Feature Codes for Analog Telephones Quick Reference Guide*

The following documents are a part of the IP Messaging Module:

- *IP Messaging Module Product Overview*
- *IP Messaging Module Quick Reference Guide - 3Com Native Interface*
- *IP Messaging Module User Guide - 3Com Native Interface*
- *IP Messaging Module Quick Reference Guide - Traditional Interface*
- *IP Messaging Module User Guide - Traditional Interface*
- *IP Messaging Module Operations and System Administration Guide*
- *E-Mail Reader Application Quick Start Guide*

The following documents are a part of the IP Conferencing Module:

- *IP Conferencing Module Installation Guide*
- *IP Conferencing Module User Guide*
- *IP Conferencing Module Administration Guide*

The following documents provide information on products that support this release:

- *Enterprise Management Suite User Guide*
- *Enterprise Management Suite Getting Started Guide*
- *V7111 Analog Media Gateway Fast Track Installation Guide*
- *V7111 Analog Media Gateway User Guide*
- *V6000 Analog Media Gateway Fast Track Installation Guide*
- *V6000 Analog Media Gateway User Guide*
- *V7122 Digital Media Gateway Fast Track Installation Guide*
- *V6100 Digital Media Gateway Fast Track Installation Guide*
- *V7122 and V6100 Digital Media Gateway User Guide*

Comments

Send e-mail comments about this guide or about any Voice product documentation to:

VOICE_Techcomm_comments@3com.com

Include the following information with your comments:

- Document title
- Document part number (found on the front page)

- Page number
- Your name and organization (optional)

Example:

IP Conferencing Module Installation Guide
System *Release 7.1*
Part Number 900-0353-01
Page 25

Please address all questions regarding 3Com software to your authorized 3Com representative.

1 PRE-INSTALLATION

This chapter provides pre-installation guidelines for the 3Com IP Conferencing Module, which is an optional component of the 3Com VCX™ V7000 IP Telephony System.

Configuration Options

This section describes sample hardware/software configurations that support the 3Com IP Conferencing Module.

Three basic configurations are possible. The option you select depends on the number of hardware servers you have. A minimum of one and a maximum of twelve servers are supported.

All hardware servers run the 3Com VCX™ Linux operating system. Definitions of these servers are contained in the 3Com price list.

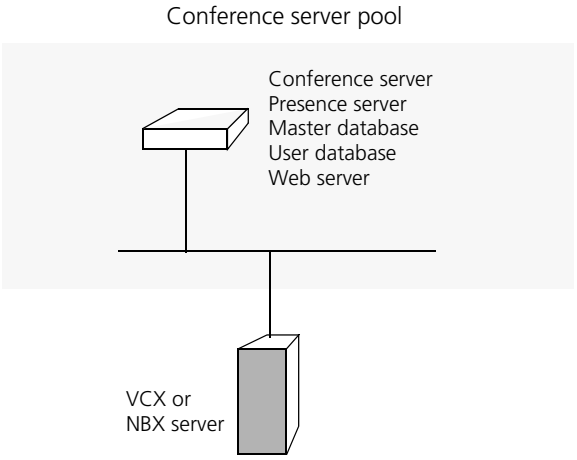
Option 1: Single Server

If you only have one server, then all software components must be installed on it.

Components installed on the single server:

- conference server/conference attendant server
- presence server (if purchased)
- VCX user database
- conferencing and presence database (master)
- web console server.

Figure 1 Network diagram - single server



Option 2: Dual Server

If you have two servers, configure the primary server as a "provisioning" server by installing the web console server, initial master database, VCX user database, presence server, and conference server on it. Configure the secondary server with the initial slave database and the conference server. The database pair (master and slave) provides redundancy, with the slave maintaining a copy of the master using MySQL database replication. In the event the slave cannot communicate with the master for ten minutes, switchover occurs. Note that both servers in a dual-server configuration can host conferences.

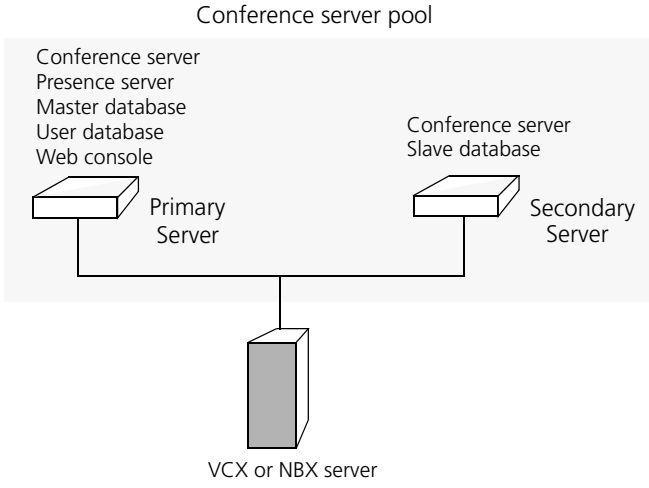
Components installed on the primary server:

- conference server/conference attendant server
- presence server (if purchased)
- VCX user database
- conferencing and presence database (initial master)
- web console server.

Components installed on the secondary server:

- conference server/conference attendant server
- conferencing and presence database (initial slave).

Figure 2 Network diagram - two servers



Both servers in the conference pool use their eth0 interface to connect to the network.

Option 3: Multiple Servers (Four to Twelve)

If you have between four and twelve servers, configure the primary server as a "provisioning" server by installing the web console server, presence server, master database, and VCX user database on it. Configure the secondary server with the initial slave database. The database pair (master and slave) provides redundancy. Configure all other servers in the pool with the conference server. Note that up to ten servers in a multi-server configuration can host conferences.

Components installed on primary server:

- presence server (if purchased)
- VCX user database
- conferencing and presence database (initial master).
- web console server.

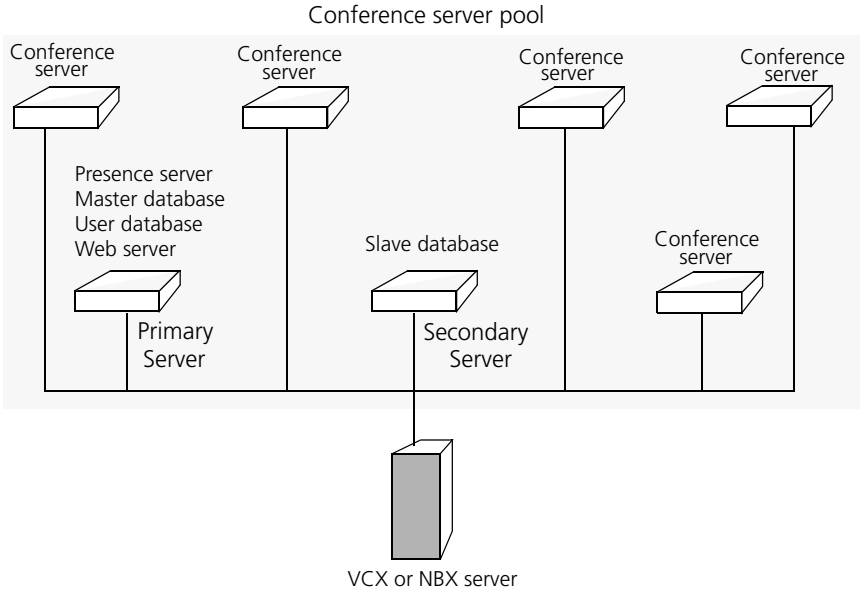
Components installed on secondary server:

- conferencing and presence database (initial slave).

Components installed on all other servers:

- conference server/conference attendant server.

Figure 3 Network diagram - multiple servers



All servers in the pool use their eth0 interface to connect to the network.

Upgrades

Following the initial implementation, the system can be upgraded in order to increase system capacity or provide database redundancy. For example, adding a second server to a single-server implementation will provide database redundancy.

Upgrades can be performed at any time on fully operational systems. There is no need to disable any applications that are currently running when you add a new server.

Post-installation Setup

After you run the installation script and assign a role to the servers in your network, you need to configure the following:

Setting up a Route to the Conference Servers

You must configure the VCX dial plan with a route to your conference server pool. If your implementation has only one server, then a route to a single endpoint is required. If your implementation has multiple servers, then a route to multiple endpoints are required in order to provide redundancy.

Once the route is set up, the VCX system will forward conference calls to the designated endpoints—conference servers that provide a "routing" function by redirecting calls to "hosting" conference servers. A single conference server can provide both routing and hosting functionality.

Setting up a Route to the Conference Attendant Servers

As with conference servers, it is necessary to configure a route for conference attendant servers. The VCX dial plan is used for this purpose. If you have only one server, then a route to a single endpoint is required. If you have multiple servers, then a route to at least two endpoints are required for redundancy.

Test E-Mail Notification Setup

You must test the e-mail setup by logging in to the system and sending an e-mail message using Send-only Simple Mail Transfer Protocol (sSMTP). If you fail to receive the test e-mail message, you can check for errors in `/opt/logs/vcx-linux/maillog`.

Adding the Presence Server as a Trusted Host

To enable presence to function properly, you must add the presence server to the VCX system as a trusted host.

Gathering Site Information

The 3Com VCX V7000 hardware servers communicate with each other using IP addresses. These addresses must be dedicated (static) and must be compatible with your network design.

One or more 3Com IP Conferencing Module servers may be added to a VCX system.

Using DNS

3Com recommends that you configure your DNS servers so that they know the IP addresses of all VCX servers and gateways. If you prefer to not use DNS, you can edit the /etc/hosts files on the IP Conferencing Module and all of the VCX servers.

3Com does not support NIS or WINS as domain name resolution methods for VCX *products.*

Single Server

If your network contains a single server, you require the following:

- You must dedicate one IP address to the 3Com IP Conferencing Module.
- You must assign a host name to the 3Com IP Conferencing Module.
- You must know the IP address of the network gateway.
- You must know the IP addresses of the primary and secondary DNS servers.
- You must know the IP addresses of the primary and secondary NTP servers.

Dual Servers

If your network contains two servers, you require the following:

- You must dedicate an IP address to each of the two 3Com IP Conferencing Modules.
- You must assign a unique host name to each of the two 3Com IP Conferencing Modules.

Both servers must belong to the same domain.

- You must know the IP address of the network gateway.
- You must know the IP addresses of the primary and secondary DNS servers.
- You must know the IP addresses of the primary and secondary NTP servers.

Multiple Servers (Four to Twelve)

If your network contains four to twelve servers, you require the following:

- You must dedicate an IP address to each 3Com IP Conferencing Module in the network.
- You must assign a unique host name to each 3Com IP Conferencing Module in the network.

All servers must belong to the same domain.

- You must know the IP address of the network gateway.
- You must know the IP addresses of the primary and secondary DNS servers.
- You must know the IP addresses of the primary and secondary NTP servers.

Worksheet

To make it easier to configure your system, you may want to have the necessary information in front of you before you begin to install any server.

Table 3 Network Configuration Parameters

Configuration Parameter	Value
3Com IP Conferencing Module IP address (eth0)	
3Com IP Conferencing Module host name	
Subnetwork mask	
Gateway IP address	
Primary DNS server IP address	
Secondary DNS server IP address	
DNS search path	
Primary NTP server IP address	
Secondary NTP server IP address	
Continent	
Country	
Time Zone	

Table 4 System Configuration Parameters

Configuration Parameter	Value
Services:	
1. Presence and Conference - all in one	
2. Conferencing server	
3. Conferencing and database server	
4. Data server for presence and conferencing	
5. Presence server (with database)	

Table 5 E-Mail Notification Parameters

Configuration Parameter	Value
Mailhub (computer that handles mail)	
Hostname of your computer	
Mail name of your system	
System user e-mail address	

Table 6 Database Configuration Parameters

Configuration Parameter	Value
Database:	
1. Local Master: this server will have the master db	
2. Local Slave: this server will have the slave db	
3. Remote database: db is on another server	

Table 7 Initial Configuration Parameters

Configuration Parameter	Value
Domain name of organization	
Administrator's e-mail address	
Activation key(s)	
Minimum value for numeric conference names	
Maximum value for numeric conference names	
Prefix for Ad Hoc conference names	
IP address of the primary dialout proxy	
IP address of the secondary dialout proxy	
Digit Map for DTMF dialout	
VCX server Site ID (enter on master only)	
VCX Server IP address (primary server: eth0)	
Username for VCX database synchronization	
Password for VCX database synchronization	

2 INSTALLATION SCRIPTS

This chapter describes the initial configuration of each 3Com IP Conferencing Module server in a VCX system. All software components run on each server.

The installation scripts are run on command. Each time a script prompts you for a response, you can accept the default (preconfigured) value by pressing the Return or Enter key, or you can manually enter a different value.

If necessary, you can re-run the scripts and enter new values.

Verify that all the procedures outlined in Chapter 1, "Pre-Installation" have been completed before continuing with this chapter.

This chapter contains information on the following:

Overview of Components

This section provides a general description of the various components of the IP Conferencing Module.

- Web Provisioning Server — Allows for the creation of conferences and maintenance of the server.
- Conference Server — Allows SIP devices to join conferences that support any or all of audio, video, and desktop sharing communication modes.
- Conference Attendant — Allows users to join conferences by dialing a single access number independent of conference ID. The attendant prompts the user for the conference ID, and if required, the conference passcode.
- Presence Server — Collects and distributes the online status information of users.
- Conference and Presence Server Database — Database of IP Conferencing Module activity. On systems with two or more servers, a single database pair (master and slave) is supported.
- VCX user database — Database of VCX system users.

Initial Installation - Services Installed

When you perform an initial software installation (a "fresh" install), you must run the setup script for each hardware server in your conference server pool. The script provisions the following services on the hardware server:

Network Configuration — For the initial installation, you are prompted to enter general networking settings.

System Configuration — The script prompts you to select the configuration that matches the services you have purchased. Select one of the following:

- Presence and Conference (All-in-one): Installs all components, including the conference server, conference attendant server, web server, VCX user database, and conference & presence database.
- Conferencing server: Installs the conference server and conference attendant server.
- Conferencing and database server: Installs the conference server, conference attendant server, and conference & presence database.
- Data server for presence and conferencing: Installs the conference & presence database.

- Presence server (with database): Presence server, web server, VCX user database, and conference & presence database.

E-Mail (sSMTP) Configuration — This portion of the script configures the Send-only Simple Mail Transfer Protocol (sSMTP) that enables the system to send e-mail notifications when conferences are created or modified, or when users add contacts to their buddy lists.

Database Configuration — Select a database configuration for this server. Select "Local Master" if the server is going to host the master database (All-in-one server, or primary server in a distributed system). Select "Local Slave" if the server is going to host the slave database (secondary server in a distributed system). Select "Remote database" if the server is not going to host a database (all servers except the primary and secondary servers in a distributed system).

IP Conferencing Module Configuration — Contains parameters for the VCX system software components, including the IP Conferencing Module. Activation keys are entered in this portion of the script.

Initial Installation - Configuration Guidelines

Follow these general guidelines when you perform an initial software installation. The installation varies depending on the number of servers you have (one, two, or more).

Single Server Configuration

General installation steps:

1. On the single server, run the vcx-setup script:
   - **a** When prompted to select the services the system will provide, select 1 (presence and conference - all in one).
   - **b** When prompted to select a database configuration, select 1 (Local Master: this server will have the master database).
   - **c** When prompted to start the 3Com IP Conferencing Services, enter Y.
2. Complete the post-installation configuration (see Post Installation Configuration).

Dual Server Configuration

General installation steps:

1. On the primary server, run the vcx-setup script:
   - **a** When prompted to select the services the system will provide, select 1 (presence and conference - all in one).
   - **b** When prompted to select a database configuration, select 1 (Local Master).
   - **c** When prompted to start the 3Com IP Conferencing Services, enter Y.

All services will start except DB_watchdog. It starts after the secondary server is installed and the database replication process is initiated.

2. On the secondary server, run the vcx-setup script:
   - **a** When prompted to select the services the system will provide, select 3 (Conferencing and database server).
   - **b** When prompted to select a database configuration, select 2 (Local Slave).
   - **c** When the script asks whether you have run remote_access.sh, do the following:
     - On the primary server, run remote_access.sh <secondary-server hostname | IP>
   - **d** Return to the secondary server and enter Y at the prompt.
   - **e** When prompted, enter the password of the primary (master) server.
   - **f** When prompted to start the 3Com IP Conferencing Services, enter Y.
3. Complete the post-installation configuration (see Post Installation Configuration).

Multiple Server Configuration (Four to Twelve Servers)

General installation steps:

1. On the primary server, run the vcx-setup script:
   - **a** When prompted to select the services the system will provide, select 5 (Presence server with database).
   - **b** When prompted to select a database configuration, select 1 (Local Master).
   - **c** When prompted to start the 3Com IP Conferencing Services, enter Y.

All services will start except DB_watchdog. It starts after the secondary server is installed and the database replication process is initiated.

2 On the secondary server, run the vcx-setup script:

a When prompted to select the services the system will provide, select 4 (Data server for presence and conferencing).

b When prompted to select a database configuration, select 2 (Local Slave: this server will have a slave database).

c When prompted, enter the hostname of the primary (master) server.

d When the script asks whether you have run remote_access.sh, do the following:

- On the primary server, run remote_access.sh <secondary-server hostname | IP>

e Return to the secondary server and enter Y at the prompt.

f When prompted, enter the password of the primary (master) server.

g When prompted to start the 3Com IP Conferencing Services, enter Y.

3 On each of the conference servers (up to ten), run the vcx-setup script:

a When prompted to select the services the system will provide, select 2 (Conferencing server).

b When prompted to select a database configuration, select 3 (Remote database: database is on another server).

c When prompted, enter the hostname of the primary (master) server.

d When the script asks whether you have run remote_access.sh, do the following:

- On the primary (master) server, run remote_access.sh <conference-server hostname | IP>
- On the secondary (slave) server, run remote_access.sh <conference-server hostname | IP>

e Return to the conference server and enter Y at the prompt.

f When prompted to start the 3Com IP Conferencing Services, enter Y.

4 Complete the post-installation configuration (see Post Installation Configuration).

Run the vcx-setup script only for "fresh" software installations where the VCX Linux server is not already running the IP Conferencing Module.

When configuring the network parameters on the VCX Linux server, make sure you specify the fully qualified domain name for your system, not just the hostname. For example, use conf01.yourcompany.com not conf01.

Use a local connection to the server to complete the initial software installation.

The vcx-setup script is divided into five sections:

- network configuration
- system configuration
- e-mail configuration
- database configuration
- initial configuration.

These sections run automatically after the command "vcx-setup" is entered.

Single Server Initial Installation

The section contains a sample script of the vcx-setup script for the single server (all-in-one) configuration).

Sample vcx-setup Script (All-in-one server)

The following options are selected in this sample script:

- All-in-one system configuration (installs the conference server, conference attendant server, web server, VCX user database, and conference & presence database)
- Master database configuration.

The vcx-setup script displays the current settings and then asks you if you want to accept or update them. Sample answers are provided in bold type along with explanations of those answers. Explanations are in italics.

To run the vcx-setup script:

1. Log in to the server as **root**.
2. Enter a password (default is pvadmin).
3. Press **Enter** (or Return).

```
-bash-2.05b# vcx-setup
```

Enter vcx-setup at the command prompt.

```
------------------------------------------------------------------------
---------- Welcome to the VCX Linux Network Configuration Wizard ----------
------------------------------------------------------------------------
This wizard sets up networking and related services.
```

Start of Network Configuration

```
Configure networking now? [yes] :
```

Press the Enter or Return key to accept yes as the suggested answer.

```
--------- Configuring Dynamic Host Configuration Protocol (DHCP) ----------

VCX servers can use DHCP for automated configuration, but this requires
that the DHCP server is configured to provide the proper options.  Unless
you know that your environment is set up in this way, you should say 'no'
here and configure static network parameters.

Use DHCP on eth0 to configure network parameters? [no] :

---------- Configuring Hostname ----------
Enter system hostname [localhost] : conf01.yourcompany.com

---------- Configuring IP Interface 'eth0' ----------
Enter IP Address               [192.168.1.100  ] : 10.20.30.60
Enter Network Subnet Mask      [255.255.255.0  ] : 255.255.255.0
Enter Default Gateway Address  [10.20.30.254  ]  : 10.20.30.254

---------- Configuring IP Interface 'eth1' ----------
Interface State          : disabled
```

Note that 'eth1' is not used for the 3Com IP Conferencing Module.

```
---------- Configuring DNS Servers ----------
Enter DNS servers one at a time.
When done, enter 0.0.0.0 to stop.
Primary DNS Server   [192.168.1.1] : 10.25.10.31
Secondary DNS Server [192.168.1.2] : 10.26.10.31
Tertiary DNS Server  [0.0.0.0] : 0.0.0.0

---------- Configuring DNS Search Path ----------
Press Enter to leave the current path unchanged, or specify
a new search path, with spaces separating each entry.

DNS Search Path []: yourcompany.com
```

```
---------- Configuring Network Time Protocol ----------
Enter NTP servers one at a time.
When done, enter 0.0.0.0 to stop.

Primary NTP Server   [192.168.1.253] : 10.35.10.51
Secondary NTP Server [192.168.1.252] : 10.36.10.51
Additional NTP Server : 10.1.0.3

------------------------- Configuring Time Zone -------------------------

Please select a geographic location from the following list:
  1. Africa
  2. Americas
  3. Antarctica
  4. Arctic Ocean
  5. Asia
  6. Atlantic Ocean
  7. Australia
  8. Europe
  9. Indian Ocean
 10. Pacific Ocean
Enter continent [2] :
```

Press the Enter or Return key to accept 2 as the suggested answer.

```
Please select a country from the following list:
  1. Antigua & Barbuda     18. Ecuador              35. Panama
  2. Anguilla              19. Grenada              36. Peru
  3. Netherlands Antilles  20. French Guiana        37. St Pierre & Miquelon
  4. Argentina             21. Greenland            38. Puerto Rico
  5. Aruba                 22. Guadeloupe           39. Paraguay
  6. Barbados              23. Guatemala            40. Suriname
  7. Bolivia               24. Guyana               41. El Salvador
  8. Brazil                25. Honduras             42. Turks & Caicos Is
  9. Bahamas               26. Haiti                43. Trinidad & Tobago
 10. Belize                27. Jamaica              44. United States
 11. Canada                28. St Kitts & Nevis     45. Uruguay
 12. Chile                 29. Cayman Islands       46. St Vincent
 13. Colombia              30. St Lucia             47. Venezuela
 14. Costa Rica            31. Martinique           48. Virgin Islands (UK)
 15. Cuba                  32. Montserrat           49. Virgin Islands (US)
 16. Dominica              33. Mexico
 17. Dominican Republic    34. Nicaragua
Enter country [44] :
```

Press the Enter or Return key to accept 44 as the suggested answer.

```
Please select a time zone from the following list:
  1. Alaska Time
  2. Alaska Time - Alaska panhandle
  3. Alaska Time - Alaska panhandle neck
  4. Alaska Time - west Alaska
  5. Aleutian Islands
  6. Central Time
  7. Central Time - Michigan - Wisconsin border
  8. Central Time - North Dakota - Oliver County
  9. Eastern Standard Time - Indiana - Crawford County
 10. Eastern Standard Time - Indiana - Starke County
 11. Eastern Standard Time - Indiana - Switzerland County
 12. Eastern Standard Time - Indiana - most locations
 13. Eastern Time
 14. Eastern Time - Kentucky - Louisville area
 15. Eastern Time - Kentucky - Wayne County
 16. Eastern Time - Michigan - most locations
 17. Hawaii
 18. Mountain Standard Time - Arizona
 19. Mountain Time
 20. Mountain Time - Navajo
 21. Mountain Time - south Idaho & east Oregon
 22. Pacific Time
Enter zone [13] :
Selected Time Zone:      America/New_York

-------------------------- CONFIGURATION SUMMARY --------------------------
DHCP state:     disabled

Hostname: conf01.yourcompany.com

IP Interfaces:  Device     IP Address      Network Mask    Default Gateway
                eth0       10.20.30.60      255.255.0.0     10.20.30.254
                eth1       (interface is disabled)

DNS Servers:    10.25.10.31
                10.26.10.31
Search Domains:yourcompany.com

NTP Servers:    10.35.10.51
                10.36.10.51
                10.1.0.3

Time Zone:      America/New_York
---------------------------------------------------------------------------
```

```
Is all of the above information correct? [yes] :

-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Please wait while the wizard completes.
Saving configuration...Done.
```

End of Network Configuration

The network configuration is complete. If necessary, you can re-run this portion of the script by entering vcx-config-network -wizard.

Start of System Configuration

After successful completion of the network configuration, the script will prompt you to select a set of services.

```
---------------------- Select System Configuration ----------------------

Individual systems may provide various services in a VCX installation.You
must select the appropriate set of services which this system is to
provide.  Be certain that the selection corresponds to the functionality
you have purchased.

Which services will this system provide?

  1. Presence and Conference - all in one
  2. Conferencing server
  3. Conferencing and database server
  4. Data server for presence and conferencing
  5. Presence server (with database)

Enter your choice (1-5) : 1
```

Select "1" to install the following components:

- conference server
- conference attendant server
- presence server
- web server
- VCX user database
- conference & presence database.

```
You have chosen to configure this system to provide:

  Presence and Conference - all in one

Note that in order for these services to work, you must have purchased an
appropriate license and installed the corresponding license activation key
on this system.

 *** WARNING ***   Once you confirm your selection, you cannot change it.

Are you absolutely certain that you wish to configure this system as an
'Presence and Conference - all in one' server?If you answer 'no' here you
can choose an alternative configuration.

Confirm selection? [no] : y
```

Confirm your selection by typing "y."

```
Selection confirmed.

*** Assembling VCX.2.9.3 using 'VSBOM.xml' ***
*** Processing components ***
*** Executing assembly commands ***
*** Assembly complete ***

The VCX assembly has been created.  Preparing system for use:

Performing early startup tasks: [  OK  ]


Starting VCX-Firewall:  [  OK  ]


Starting httpd:

Removing unneeded application components from the system.
This may take several minutes.  Please wait while the operation completes.

Determining which packages are not used by any VCX version:

 oem.7.0.1                              : [keep; used in 2.9.3]
 presconf.2.5.3                         : [keep; used in 2.9.3]
 presconf-conf.2.5.3                    : [keep; used in 2.9.3]
 presconf-presence.2.5.3                : [keep; used in 2.9.3]
 presconf-vcxdb.2.5.3                   : [keep; used in 2.9.3]
 presconf-web.2.5.3                     : [keep; used in 2.9.3]
```

```
 vcx-firewall.1.5.5                      : [keep; used in 2.9.3]
 mysql.3.23.58                           : [keep; used in 2.9.3]

No extra packages were found.
```

End of System Configuration

The system configuration is complete. If necessary, you can re-run this portion of the script by entering vcx-setconfigtype.

Start of E-mail (sSMTP) Configuration

After successful completion of the system configuration, the script will prompt you to set up the e-mail notification utility. The utility sends e-mails when conferences are created and modified, and when users attempt to add contacts to their buddy lists. E-mail notification works once users have added their e-mail addresses to the 3Com IP Conferencing Module.

```
Configuration for sSMTP

(1) mailhub
This is the computer responsible for handling your outgoing mail. It could be the
SMTP server of your ISP, or a departmental mailhub. Use the fully-qualified domain
name (foo.bar.baz) of the mailhub; if it uses an unusual SMTP port number, use the
colon syntax
  foo.bar.baz:2525
Otherwise sSMTP will use the standard SMTP port number (25).
(Note that sSMTP can support a user-dependent mailhub with the 'reverse aliases'
feature, for which see the man page.)

Please enter your mailhub []: mail.yourcompany.com
```

Enter the fully qualified domain name of the computer handling outgoing mail.

```
(2) FromLineOverride
This specifies how sSMTP handles the From: line of outgoing mail. If
FromLineOverride=YES, sSMTP will leave the From: line alone if it already exists.
If FromLineOverride has any other value, or there is no From: line, sSMTP creates
the From: line using your username (or the -f command-line option), and the value of
the rewriteDomain option (step (4), below). If you use a mail user agent (MUA; e.g.
mutt, pine) I recommend using YES and having the MUA set the From: line.
(Exception: the 'reverse aliases' feature can be used to set up a particular From:
```

```
address for each user, in which case don't use FromLineOverride=YES. See the man
page.)

FromLineOverride? [YES]:
```

Specify how sSMTP handles the From: line of outgoing mail.

```
(3) hostname
sSMTP uses the hostname of your computer to identify itself to the mailhub, and in
the Received: headers of the outgoing mail. This has relatively little effect on how
the mail is handled. Use the fully-qualified domain name (FQDN) of your
computer(foo.bar.baz).  If it doesn't have a FQDN, use some name for your box.

Hostname of your box [conf01.yourcompany.com]:
```

Enter the host name of your computer handling outgoing mail.

```
(4) rewriteDomain
Please enter the mail name of your system.
sSMTP uses this value to add a domain to unqualified e-mail addresses(addresses
without an @-sign).
You probably want to use the domain from your own e-mail address.You probably want
to set up your MUA to handle unqualified addresses itself, in which case sSMTP will
never have to use this.

Mail name [conf01.yourcompany.com]:yourcompany.com
```

Enter the mail name of your system.

```
(5) root
Last and least: if sSMTP finds an unqualified e-mail address among the recipients,
and it corresponds to a username on your local machine with a userid less than 1000,
then the e-mail is sent to this value instead.  The idea is that mail sent to 'root'
should probably go to 'postmaster' instead.

If you set up your MUA to do its own handling of unqualified
addresses, this is irrelevant.  Use the default value of 'postmaster' or your own
e-mail address if you're paranoid.

System users receive mail at [postmaster]:postmaster
```

Enter the system user e-mail address.

Note: check with your e-mail administrator for the proper system user e-mail address.

```
Wrote configuration file /etc/ssmtp/ssmtp.conf

Starting mysqld daemon with databases from /opt/3comdata/mysql
```

```
Tcl is already installed
Tcl version is 8.3
 Please report any installation problem to
    "3Com Support" <support@3com.com>
```

End of E-mail (sSMTP) Configuration

The e-mail configuration is complete. If necessary, you can re-run this portion of the script by entering usr/sbin/smtp-configure.

Start of Database Configuration

After successful completion of the e-mail configuration, the script will prompt you to select a database configuration.

```
There are different ways to install and access the database.
1 Local Master: this server will have the master database.
2 Local Slave: this server will have a slave database.
3 Remote database: database is on another server.
Please choose one of the above options: 1
```

Select "1" to specify that this server will initially host the master database (All-in-one server, or primary server in a distributed system).

```
Available applications: sipconf,sipvxml,gui,vcxdb,sippeng,
```

End of Database Configuration

The database configuration is complete. If necessary, you can re-run this portion of the script by entering presconf-setup.

Start of IP Conferencing Module Configuration

After successful completion of the database configuration, the script will prompt you to select an initial configuration.

```
Enter the fully qualified hostname for this installation.
[host.yourcompany.com]:
```

Enter the fully qualified hostname of the machine you are installing on.

```
Assuming the userid of the administrator who will manage the
applications for your domain is root
```

```
Enter the administrator's email address. [sipadmin@yourcompany.com]:
Assuming default value as sipadmin@yourcompany.com
```

Enter the administrator's e-mail address. The default is derived from the hostname defined in the network configuration (above).

If the system is configured to send e-mail notification of conference events to users, the e-mails will appear to be sent from the administrator (sipadmin@yourcompany.com). Note that some mail agents may require this to be a valid e-mail address.

```
Host Identifier (hostid) of this machine is: 75896dc20fa90922ddbb2b81


Please send an email to vcxconf@3com.com to receive an activation key to activate
this product.

Please enter the software activation keys one by one; end with an empty line:
```

Send the host ID to 3Com, which will use it to generate your activation keys. Once 3Com has returned the activation keys to you, you can paste them into the install session when prompted.

The activation keys are validated as they are entered. If validation is successful, the keys will be stored in a license file and the installation session will continue. If validation is unsuccessful, the installation session will be aborted.

```
Enter key:
sipconf:-:+:2006-11-11:2006-11-11:300-300-1-1-1:124b4835f1a6e9a172f4ba6596fe1f85
key ok for sipconf
Enter key: sipvxml:-:+:2006-11-11:2006-11-11:50-50:b4acb4c5415c8005d0b8bd737f8a1d5b
key ok for sipvxml
Enter key: sippeng:-:+:2006-11-11:2006-11-11:-:dcdb0531a90ffbf027786aa0a4732a98
key ok for sippeng
Enter key:
License file name: /opt/3com/components/presconf.2.5.3/presconf_licenses
Validating the license for sipconf application ...
The license key
sipconf:-:+:2006-11-11:2006-11-11:300-300-1-1-1:124b4835f1a6e9a172f4ba6596fe1f85 is
valid

Validating the license for sipvxml application ...
The license key
sipvxml:-:+:2006-11-11:2006-11-11:50-50:b4acb4c5415c8005d0b8bd737f8a1d5b is valid

Validating the license for sippeng application ...
```

```
The license key
sippeng:-:+:2006-11-11:2006-11-11:-:dcdb0531a90ffbf027786aa0a4732a98 is valid

MySQL is needed for your application.
mysql is found at /opt/3com/VCX/bin/mysql
Assuming mysql is already installed

Enter the mysql user name for accessing the master database.[root]:
Assuming default value as root

Enter the host name on which the master database is running. [localhost]:
Assuming default value as localhost

Enter the mysql password for user root at localhost. [NULL]:
Assuming default value as NULL

The SIP conferencing server will be running at conf01.yourcompany.com:5060

The Conference Attendant Server will be running at conf01.yourcompany.com:5092

The range of the numeric conference names must be specified

Enter the minimum value for numeric conference names. [8000]:
```

Enter the minimum value for numeric conference names. Default is 8000.

```
Enter the maximum value for numeric conference names.  Note that
it must have the same number of digits as the minimum value. :
```

Enter the maximum value for numeric conference names.

```
For conference server, the prefix of ad hoc conference can be specified
Enter the prefix for ad hoc conference. [2join]:
```

Enter the prefix for ad hoc conferences.

```
Enter the IP address of the primary dialout proxy:
Value entered by user is: 10.1.15.5
```

Enter the IP address of the primary VCX system used for DTMF dialout during conferences.

```
Enter the IP address of the secondary dialout proxy:
Assuming default value as
```

Enter the IP address of the secondary VCX system used for DTMF dialout during conferences.

```
Enter the digitmap for DTMF dialout.[[1-7]XX|9XXXXXXXXXX|91XXXXXXXXX|9011.XT]:
Assuming default value as [1-7]XX|9XXXXXXXXXX|91XXXXXXXXX|9011.XT
```

Enter the digit map used to define the dial plan for DTMF dialout.

Several lines of text appear before the next prompt.

```
-- Creating cinema_db.conf
-- Changing permissions of all the files in /opt/3com/components/presconf.2.2.2.190
to 755.
-- Trying to load fbsql.so...
-- fbsql is loaded...
-- Opening the database sql://root:NULL@localhost/mysql
-- Changing permissions for conf01.yourcompany.com
-- Changing permissions for localhost
-- Changing permissions for conf01.yourcompany.com
-- Changing permissions for conf01.yourcompany.com
-- Changing permissions for conf01.yourcompany.com
-- Flushing privleges
-- Calling createdb
*** Checking table vxml_users ***
Creating table vxml_users
*** Checking table put ***
Creating table put
*** Checking table aliases ***
Creating table aliases
*** Checking table about ***
Creating table about
*** Checking table requestlog ***
Creating table requestlog
*** Checking table gwclass ***
Creating table gwclass
*** Checking table debug_config ***
Creating table debug_config
*** Checking table personnote ***
Creating table personnote
*** Checking table confatt_record ***
Creating table confatt_record
*** Checking table dialplan ***
Creating table dialplan
*** Checking table radius_config ***
Creating table radius_config
Cannot select database sip: Error 1049 (Unknown database 'sip')
*** Checking table display ***
Creating table display
*** Checking table domain ***
```

```
Creating table domain
*** Checking table sipd_log ***
Creating table sipd_log
*** Checking table conferences ***
Creating table conferences
*** Checking table eventattendee ***
Creating table eventattendee
*** Checking table user_config ***
Creating table user_config
*** Checking table cinema ***
Creating table cinema
*** Checking table address ***
Creating table address
*** Checking table confinstances ***
Creating table confinstances
*** Checking table person ***
Creating table person
*** Checking table conf_log ***
Creating table conf_log
*** Checking table agendaitem ***
Creating table agendaitem
*** Checking table Rooms ***
Creating table Rooms
*** Checking table resource ***
Creating table resource
*** Checking table conffiles ***
Creating table conffiles
*** Checking table event ***
Creating table event
*** Checking table acl ***
Creating table acl
*** Checking table license ***
Creating table license
*** Checking table vote ***
Creating table vote
*** Checking table presence_conf ***
Creating table presence_conf
*** Checking table eventresource ***
Creating table eventresource
*** Checking table speed_dial ***
Creating table speed_dial
*** Checking table vcxdb_conf ***
Creating table vcxdb_conf
*** Checking table RoomACL ***
Creating table RoomACL
*** Checking table Cards ***
```

```
Creating table Cards
*** Checking table groupmember ***
Creating table groupmember
*** Checking table subscription ***
Creating table subscription
*** Checking table messageboard ***
Creating table messageboard
*** Checking table confsrv_config ***
Creating table confsrv_config
*** Checking table ua_capabilities ***
Creating table ua_capabilities
*** Checking table trusted_host ***
Creating table trusted_host
*** Checking table vmail ***
Creating table vmail
*** Checking table tariff ***
Creating table tariff
*** Checking table RoomPrefs ***
Creating table RoomPrefs
*** Checking table contacts ***
Creating table contacts
*** Checking table ConfigData ***
Creating table ConfigData
*** Checking table confservers ***
Creating table confservers
*** Checking table eventcategory ***
Creating table eventcategory
*** Checking table user_presence ***
Creating table user_presence
*** Checking table location_tuples ***
Creating table location_tuples
*** Checking table Credentials ***
Creating table Credentials
*** Checking table mail_account ***
Creating table mail_account
*** Checking table eventgroup ***
Creating table eventgroup
*** Checking table eventgroup_notify ***
Creating table eventgroup_notify
*** Checking table gateway_map ***
Creating table gateway_map
*** Checking table confusers ***
Creating table confusers
*** Checking table thirdparty ***
Creating table thirdparty
*** Checking table election ***
```

```
Creating table election
*** Checking table persongroup ***
Creating table persongroup
*** Checking table sipd_config ***
Creating table sipd_config
*** Checking table ssl_config ***
Creating table ssl_config
-- createdb is complete
-- *IMPORTANT*: Adding administrator root@yourcompany.com with password root
-- Database is successfully initialized.

MYSQL host is localhost
MYSQL user is root
Enter the IP address of the VCX Data Server: 10.20.30.40
```

Enter the IP address of the VCX data server that contains the global directory of users to be downloaded to this IP Conferencing Module.

```
Enter the username for VCX DB Sync:  vcx
```

Enter the username for VCX database synchronization.

```
Enter the password for VCX DB Sync: vcx
```

Enter the password for VCX database synchronization. The password does not echo on the screen.

```
Do users on this VCX have their home presence server on this installation (y/n)?[y]:
Assuming the default value as y
```

Enter no [n] if the VCX data server containing the global directory of users (see above) is not a local VCX for this installation.

```
# 10.20.30.40 SSH-1.99-OpenSSH_3.6.1p2
# 10.20.30.40 SSH-1.99-OpenSSH_3.6.1p2


OK

now testing if we can connect to the 10.20.30.40
vcx

updating the configuration database entries
3Com IP Conferencing Module applications will be automatically restarted  when
system reboots

-- Installing SIP Conferencing servers ...

-- Changing permissions of all the files in /opt/3com/components/presconf.2.5.3.
-- Changing owner and permissions of
/opt/3com/components/presconf.2.5.3/sipconf/sipconf.
```

```
restarting httpd...

Creating a directory client_config to hold the soft client
autoconfiguration files...

Directory created successfully at
  /opt/3com/components/presconf.2.5.3/client_config
Any files that you store in this directory are accessible via
  http://master.yourcompany.com/3c3/<CONFIGFILENAME>.xml

If you have not already entered the license string during installation
you must do so from the web interface before trying to run any
application in 3Com software.

You may start, stop and monitor the 3Com IP Conferencing Module applications using
the following command(s):
> service <application> start|stop|status|restart
Else, you may do so using the web interface.

Your installation is complete.
To add new user or to change your profile visit appropriate
URL corresponding to /opt/3com/components/presconf.2.5.3/gui.

Once again,  Please report any installation problem to
    "3Com Support" <support@3com.com>


************************************************
* Output, from this install session, was saved to:
*  /opt/3com/components/presconf.2.5.3/install_log.Dec_07_2005
************************************************

Would you like to start the 3Com IP Conferencing Module services now?
(N/Y) [N]: y
```

Select "Y" to complete the installation and start the 3Com IP Conferencing Module services. Select "N" (the default) to complete the installation but not start the services.

```
Validating configuration file

Configuration file is valid for this release.
Applying configuration to all unconfigured components

Configuring VCX components:
Configuring vcx-firewall-firstboot: [  OK  ]


Configured VCX components: 1 configured.
Component configuration succeeded.
```

```
Stopping VCX-Firewall:  [  OK  ]

Starting VCX-Firewall:  [  OK  ]

Starting VCX Services:
Starting vcx/mysql:  [  OK  ]

Starting vcx/confbridge:  [  OK  ]

Starting vcx/sipconf:  [  OK  ]

Starting vcx/sippeng:  [  OK  ]

Starting vcx/vcxdb:  [  OK  ]

Started VCX Services: 5 started.
-bash-2.05b#
```

End of IP Conferencing Module Configuration

Following successful completion of the script, the 3Com IP Conferencing Module services will be installed. Start the services using a script command, shell command, or web interface selection (as noted above).

Dual Server Initial Installation

This section contains sample scripts for the dual server configuration. Two samples are provided:

- Sample vcx-setup Script (Primary server)
- Sample vcx-setup Script (Secondary server)

Sample vcx-setup Script (Primary server)

This script programs the primary server in a dual server configuration. The master database is installed and initially hosted on the primary server.

The following options are selected in this sample script:

- Presence server configuration (installs the presence server, web server, VCX system database, and conference & presence database)
- Master database configuration.

The vcx-setup script displays the current settings and then asks you if you want to accept or update them. Sample answers are provided in bold type along with explanations of those answers. Explanations are in italics.

To run the vcx-setup script:

1. Log in to the server as **root**.
2. Enter a password (default is pvadmin).
3. Press **Enter** (or Return).

```
-bash-2.05b# vcx-setup
```

*Enter **vcx-setup** at the command prompt.*

```
------------------------------------------------------------------------
---------- Welcome to the VCX Linux Network Configuration Wizard ----------
------------------------------------------------------------------------
This wizard sets up networking and related services.
```

Start of Network Configuration

```
Configure networking now? [yes] :
```

Press the Enter or Return key to accept yes as the suggested answer.

```
--------- Configuring Dynamic Host Configuration Protocol (DHCP) ----------

VCX servers can use DHCP for automated configuration, but this requires
that the DHCP server is configured to provide the proper options.  Unless
you know that your environment is set up in this way, you should say 'no'
here and configure static network parameters.

Use DHCP on eth0 to configure network parameters? [no] :

---------- Configuring Hostname ----------
Enter system hostname [localhost] : master.yourcompany.com

---------- Configuring IP Interface 'eth0' ----------
Enter IP Address               [192.168.1.100  ] : 10.20.30.60
Enter Network Subnet Mask      [255.255.255.0  ] : 255.255.255.0
Enter Default Gateway Address  [10.20.30.254  ]  : 10.20.30.254

---------- Configuring IP Interface 'eth1' ----------
Interface State          : disabled
```

Note that 'eth1' is not used for the 3Com IP Conferencing Module.

```
---------- Configuring DNS Servers ----------
```

```
Enter DNS servers one at a time.
When done, enter 0.0.0.0 to stop.
Primary DNS Server   [192.168.1.1] : 10.25.10.31
Secondary DNS Server [192.168.1.2] : 10.26.10.31
Tertiary DNS Server  [0.0.0.0] : 0.0.0.0

---------- Configuring DNS Search Path ----------
Press Enter to leave the current path unchanged, or specify
a new search path, with spaces separating each entry.

DNS Search Path []: yourcompany.com

---------- Configuring Network Time Protocol ----------
Enter NTP servers one at a time.
When done, enter 0.0.0.0 to stop.

Primary NTP Server   [192.168.1.253] : 10.35.10.51
Secondary NTP Server [192.168.1.252] : 10.36.10.51
Additional NTP Server : 10.1.0.3

-------------------------- Configuring Time Zone --------------------------

Please select a geographic location from the following list:
  1. Africa
  2. Americas
  3. Antarctica
  4. Arctic Ocean
  5. Asia
  6. Atlantic Ocean
  7. Australia
  8. Europe
  9. Indian Ocean
 10. Pacific Ocean
Enter continent [2] :
```

Press the Enter or Return key to accept 2 as the suggested answer.

```
Please select a country from the following list:
  1. Antigua & Barbuda     18. Ecuador              35. Panama
  2. Anguilla              19. Grenada              36. Peru
  3. Netherlands Antilles  20. French Guiana        37. St Pierre & Miquelon
  4. Argentina             21. Greenland            38. Puerto Rico
  5. Aruba                 22. Guadeloupe           39. Paraguay
  6. Barbados              23. Guatemala            40. Suriname
  7. Bolivia               24. Guyana               41. El Salvador
  8. Brazil                25. Honduras             42. Turks & Caicos Is
  9. Bahamas               26. Haiti                43. Trinidad & Tobago
```

```
 10. Belize                27. Jamaica               44. United States
 11. Canada                28. St Kitts & Nevis      45. Uruguay
 12. Chile                 29. Cayman Islands        46. St Vincent
 13. Colombia              30. St Lucia              47. Venezuela
 14. Costa Rica            31. Martinique            48. Virgin Islands (UK)
 15. Cuba                  32. Montserrat            49. Virgin Islands (US)
 16. Dominica              33. Mexico
 17. Dominican Republic    34. Nicaragua
Enter country [44] :
```

Press the Enter or Return key to accept 44 as the suggested answer.

```
Please select a time zone from the following list:
  1. Alaska Time
  2. Alaska Time - Alaska panhandle
  3. Alaska Time - Alaska panhandle neck
  4. Alaska Time - west Alaska
  5. Aleutian Islands
  6. Central Time
  7. Central Time - Michigan - Wisconsin border
  8. Central Time - North Dakota - Oliver County
  9. Eastern Standard Time - Indiana - Crawford County
 10. Eastern Standard Time - Indiana - Starke County
 11. Eastern Standard Time - Indiana - Switzerland County
 12. Eastern Standard Time - Indiana - most locations
 13. Eastern Time
 14. Eastern Time - Kentucky - Louisville area
 15. Eastern Time - Kentucky - Wayne County
 16. Eastern Time - Michigan - most locations
 17. Hawaii
 18. Mountain Standard Time - Arizona
 19. Mountain Time
 20. Mountain Time - Navajo
 21. Mountain Time - south Idaho & east Oregon
 22. Pacific Time
Enter zone [13] :
Selected Time Zone:      America/New_York

-------------------------- CONFIGURATION SUMMARY --------------------------
DHCP state:     disabled

Hostname: master.yourcompany.com

IP Interfaces:  Device     IP Address      Network Mask    Default Gateway
                eth0       10.20.30.60      255.255.0.0     10.20.30.254
                eth1       (interface is disabled)
```

```
DNS Servers:    10.25.10.31
                10.26.10.31
Search Domains:yourcompany.com

NTP Servers:    10.35.10.51
                10.36.10.51
                10.1.0.3

Time Zone:      America/New_York
------------------------------------------------------------------------------

Is all of the above information correct? [yes] :

------------------------------------------------------------------------------
------------------------------------------------------------------------------
Please wait while the wizard completes.
Saving configuration...Done.
```

End of Network Configuration

The network configuration is complete. If necessary, you can re-run this portion of the script by entering vcx-config-network -wizard.

Start of System Configuration

After successful completion of the network configuration, the script will prompt you to select a set of services.

```
---------------------- Select System Configuration ----------------------

Individual systems may provide various services in a VCX installation.You
must select the appropriate set of services which this system is to
provide.  Be certain that the selection corresponds to the functionality
you have purchased.

Which services will this system provide?

  1. Presence and Conference - all in one
  2. Conferencing server
  3. Conferencing and database server
  4. Data server for presence and conferencing
  5. Presence server (with database)

Enter your choice (1-5) : 1
```

Select "1" to install the following components:

- conference server
- conference attendant server
- presence server
- web server
- VCX user database
- conference & presence database.

```
You have chosen to configure this system to provide:

  Presence and Conference - all in one

Note that in order for these services to work, you must have purchased an
appropriate license and installed the corresponding license activation key
on this system.

 *** WARNING ***   Once you confirm your selection, you cannot change it.

Are you absolutely certain that you wish to configure this system as an
'Presence and Conference - all in one' server?If you answer 'no' here you
can choose an alternative configuration.

Confirm selection? [no] : y
```

Confirm your selection by typing "y."

```
Selection confirmed.

*** Assembling VCX.2.9.3 using 'VSBOM.xml' ***
*** Processing components ***
*** Executing assembly commands ***
*** Assembly complete ***

The VCX assembly has been created.  Preparing system for use:

Performing early startup tasks: [  OK  ]


Starting VCX-Firewall:  [  OK  ]


Starting httpd:
```

```
Removing unneeded application components from the system.
This may take several minutes.  Please wait while the operation completes.

Determining which packages are not used by any VCX version:

 oem.7.0.1                              : [keep; used in 2.9.3]
 presconf.2.5.3                         : [keep; used in 2.9.3]
 presconf-conf.2.5.3                    : [keep; used in 2.9.3]
 presconf-presence.2.5.3                : [keep; used in 2.9.3]
 presconf-vcxdb.2.5.3                   : [keep; used in 2.9.3]
 presconf-web.2.5.3                     : [keep; used in 2.9.3]
 vcx-firewall.1.5.5                     : [keep; used in 2.9.3]
 mysql.3.23.58                          : [keep; used in 2.9.3]

No extra packages were found.
```

End of System Configuration

The system configuration is complete. If necessary, you can re-run this portion of the script by entering vcx-setconfigtype.

Start of E-mail (sSMTP) Configuration

After successful completion of the system configuration, the script will prompt you to set up the e-mail notification utility. The utility sends e-mails when conferences are created and modified, and when users attempt to add contacts to their buddy lists. E-mail notification works once users have added their e-mail addresses to the 3Com IP Conferencing Module.

```
Configuration for sSMTP

(1) mailhub
This is the computer responsible for handling your outgoing mail. It could be the
SMTP server of your ISP, or a departmental mailhub. Use the fully-qualified domain
name (foo.bar.baz) of the mailhub; if it uses an unusual SMTP port number, use the
colon syntax
  foo.bar.baz:2525
Otherwise sSMTP will use the standard SMTP port number (25).
(Note that sSMTP can support a user-dependent mailhub with the'reverse aliases'
feature, for which see the man page.)

Please enter your mailhub []: mail.yourcompany.com
```

Enter the fully qualified domain name of the computer handling outgoing mail.

```
(2) FromLineOverride
This specifies how sSMTP handles the From: line of outgoing mail. If
FromLineOverride=YES, sSMTP will leave the From: line alone if it already exists.
If FromLineOverride has any other value, or there is no From: line, sSMTP creates
the From: line using your username (or the -f command-line option), and the value of
the rewriteDomain option (step (4), below). If you use a mail user agent (MUA; e.g.
mutt, pine) I recommend using YES and having the MUA set the From: line.
(Exception: the 'reverse aliases' feature can be used to set up a particular From:
address for each user, in which case don't use FromLineOverride=YES. See the man
page.)

FromLineOverride? [YES]:
```

Specify how sSMTP handles the From: line of outgoing mail.

```
(3) hostname
sSMTP uses the hostname of your computer to identify itself to the mailhub, and in
the Received: headers of the outgoing mail. This has relatively little effect on how
the mail is handled. Use the fully-qualified domain name (FQDN) of your
computer(foo.bar.baz).  If it doesn't have a FQDN, use some name for your box.

Hostname of your box [master.yourcompany.com]:
```

Enter the host name of your computer handling outgoing mail.

```
(4) rewriteDomain
Please enter the mail name of your system.
sSMTP uses this value to add a domain to unqualified e-mail addresses(addresses
without an @-sign).
You probably want to use the domain from your own e-mail address.You probably want
to set up your MUA to handle unqualified addresses itself, in which case sSMTP will
never have to use this.

Mail name [master.yourcompany.com]:yourcompany.com
```

Enter the mail name of your system.

```
(5) root
Last and least: if sSMTP finds an unqualified e-mail address among the recipients,
and it corresponds to a username on your local machine with a userid less than 1000,
then the e-mail is sent to this value instead.  The idea is that mail sent to 'root'
should probably go to 'postmaster' instead.

If you set up your MUA to do its own handling of unqualified
addresses, this is irrelevant.  Use the default value of 'postmaster' or your own
e-mail address if you're paranoid.

System users receive mail at [postmaster]:postmaster
```

Enter the system user e-mail address.

Note: check with your e-mail administrator for the proper system user e-mail address.

```
Wrote configuration file /etc/ssmtp/ssmtp.conf

Starting mysqld daemon with databases from /opt/3comdata/mysql
Tcl is already installed
Tcl version is 8.3
 Please report any installation problem to
    "3Com Support" <support@3com.com>
```

End of E-mail (sSMTP) Configuration

The e-mail configuration is complete. If necessary, you can re-run this portion of the script by entering usr/sbin/smtp-configure.

Start of Database Configuration

After successful completion of the e-mail configuration, the script will prompt you to select a database configuration.

```
There are different ways to install and access the database.
1 Local Master: this server will have the master database.
2 Local Slave: this server will have a slave database.
3 Remote database: database is on another server.
Please choose one of the above options: 1
```

Select "1" to specify that this server will initially host the master database as the primary server in a distributed system.

```
Available applications: gui,vcxdb,sippeng,
```

End of Database Configuration

The database configuration is complete. If necessary, you can re-run this portion of the script by entering presconf-setup.

Start of IP Conferencing Module Configuration

After successful completion of the database configuration, the script will prompt you to select an initial configuration.

```
Enter the fully qualified hostname for this installation.
```

```
[host.yourcompany.com]:
Assuming default value as master.yourcompany.com
```

Enter the fully qualified hostname of the machine you are installing on.

```
Assuming the userid of the administrator who will manage the
applications for your domain is root

Enter the administrator's email address. [sipadmin@yourcompany.com]:
Assuming default value as sipadmin@yourcompany.com
```

Enter the administrator's e-mail address. The default is derived from the hostname defined in the network configuration (above).

If the system is configured to send e-mail notification of conference events to users, the e-mails will appear to be sent from the administrator (sipadmin@yourcompany.com). Note that some mail agents may require this to be a valid e-mail address.

```
Host Identifier (hostid) of this machine is: 75896dc20fa90922ddbb2b81


Please send an email to vcxconf@3com.com to receive an activation key to activate
this product.

Please enter the software activation keys one by one; end with an empty line:
```

Send the host ID to 3Com, which will use it to generate your activation keys. Once 3Com has returned the activation keys to you, you can paste them into the install session when prompted.

The activation keys are validated as they are entered. If validation is successful, the keys will be stored in a license file and the installation session will continue. If validation is unsuccessful, the installation session will be aborted.

```
Enter key:
sippeng:master.yourcompany.com:+:-:-:-:5ea71ce717ea55627152a1db82d54592
key ok for sippeng
Enter key:
License file name: /opt/3com/components/presconf.2.5.21/presconf_licenses
Validating the license for sippeng application ...
The license key
sippeng:master.yourcompany.com:+:-:-:-:5ea71ce717ea55427192a1db82d54592 is valid

MySQL is needed for your application.
mysql is found at /opt/3com/VCX/bin/mysql
```

```
Assuming mysql is already installed

Enter the mysql user name for accessing the master database.[root]:
Assuming default value as root

Enter the host name on which the master database is running. [localhost]:
Assuming default value as localhost

Enter the mysql password for user root at localhost. [NULL]:
Assuming default value as NULL

-- Creating cinema_db.conf
-- Changing permissions of all the files in /opt/3com/components/presconf.2.2.2.190
to 755.
-- Trying to load fbsql.so...
-- fbsql is loaded...
-- Opening the database sql://root:NULL@localhost/mysql
-- Changing permissions for master.yourcompany.com
-- Changing permissions for localhost
-- Changing permissions for master.yourcompany.com
-- Changing permissions for master.yourcompany.com
-- Flushing privleges
-- Calling createdb
Create the database.
Try connecting to it.
*** Checking table vxml_users ***
Creating table vxml_users
*** Checking table put ***
Creating table put
*** Checking table aliases ***
Creating table aliases
*** Checking table about ***
Creating table about
*** Checking table requestlog ***
Creating table requestlog
Cannot select database sip: Error 1049 (Unknown database 'sip')
*** Checking table gwclass ***
Creating table gwclass
*** Checking table debug_config ***
Creating table debug_config
*** Checking table personnote ***
Creating table personnote
*** Checking table cVPN_timetable ***
Creating table cVPN_timetable
*** Checking table confatt_record ***
Creating table confatt_record
```

```
*** Checking table dialplan ***
Creating table dialplan
*** Checking table radius_config ***
Creating table radius_config
*** Checking table display ***
Creating table display
*** Checking table dbservers ***
Creating table dbservers
*** Checking table domain ***
Creating table domain
*** Checking table sipd_log ***
Creating table sipd_log
*** Checking table conferences ***
Creating table conferences
*** Checking table eventattendee ***
Creating table eventattendee
*** Checking table user_config ***
Creating table user_config
*** Checking table cinema ***
Creating table cinema
*** Checking table address ***
Creating table address
*** Checking table confinstances ***
Creating table confinstances
*** Checking table conferencing_config ***
Creating table conferencing_config
*** Checking table registrar_presence ***
Creating table registrar_presence
*** Checking table person ***
Creating table person
*** Checking table conf_log ***
Creating table conf_log
*** Checking table agendaitem ***
Creating table agendaitem
*** Checking table Rooms ***
Creating table Rooms
*** Checking table resource ***
Creating table resource
*** Checking table conffiles ***
Creating table conffiles
*** Checking table event ***
Creating table event
*** Checking table acl ***
Creating table acl
*** Checking table license ***
Creating table license
```

```
*** Checking table vote ***
Creating table vote
*** Checking table presence_conf ***
Creating table presence_conf
*** Checking table eventresource ***
Creating table eventresource
*** Checking table speed_dial ***
Creating table speed_dial
*** Checking table vcxdb_conf ***
Creating table vcxdb_conf
*** Checking table RoomACL ***
Creating table RoomACL
*** Checking table Cards ***
Creating table Cards
*** Checking table groupmember ***
Creating table groupmember
*** Checking table subscription ***
Creating table subscription
*** Checking table messageboard ***
Creating table messageboard
*** Checking table confsrv_config ***
Creating table confsrv_config
*** Checking table ua_capabilities ***
Creating table ua_capabilities
*** Checking table trusted_host ***
Creating table trusted_host
*** Checking table vmail ***
Creating table vmail
*** Checking table tariff ***
Creating table tariff
*** Checking table RoomPrefs ***
Creating table RoomPrefs
*** Checking table contacts ***
Creating table contacts
*** Checking table ConfigData ***
Creating table ConfigData
*** Checking table confservers ***
Creating table confservers
*** Checking table eventcategory ***
Creating table eventcategory
*** Checking table user_presence ***
Creating table user_presence
*** Checking table confnotification ***
Creating table confnotification
*** Checking table location_tuples ***
Creating table location_tuples
```

```
*** Checking table Credentials ***
Creating table Credentials
*** Checking table mail_account ***
Creating table mail_account
*** Checking table eventgroup ***
Creating table eventgroup
*** Checking table eventgroup_notify ***
Creating table eventgroup_notify
*** Checking table gateway_map ***
Creating table gateway_map
*** Checking table confusers ***
Creating table confusers
*** Checking table thirdparty ***
Creating table thirdparty
*** Checking table election ***
Creating table election
*** Checking table persongroup ***
Creating table persongroup
*** Checking table sipd_config ***
Creating table sipd_config
*** Checking table ssl_config ***
Creating table ssl_config
-- createdb is complete
-- *IMPORTANT*: Adding administrator root@master.yourcompany.com with password root
-- Database is successfully initialized.

MYSQL host is localhost
MYSQL user is root
Enter the IP address of the VCX Data Server: 10.20.30.41
```

Enter the IP address of the VCX data server that contains the global directory of users to be downloaded to this IP Conferencing Module.

```
Enter the username for VCX DB Sync:  vcx
```

Enter the username for VCX database synchronization.

```
Enter the password for VCX DB Sync: vcx
```

Enter the password for VCX database synchronization. The password does not echo on the screen.

```
Do users on this VCX have their home presence server on this installation (y/n)?[y]:
Assuming the default value as y
```

Enter no [n] if the VCX data server containing the global directory of users (see above) is not a local VCX for this installation.

```
# 10.20.30.40 SSH-1.99-OpenSSH_3.6.1p2
# 10.20.30.40 SSH-1.99-OpenSSH_3.6.1p2
```

```
OK

now testing if we can connect to the 10.20.30.41
vcx

updating the configuration database entries
3Com IP Conferencing Module applications will be automatically restarted  when
system reboots

-- Installing SIP Conferencing servers ...

-- Changing permissions of all the files in /opt/3com/components/presconf.2.5.21.

restarting httpd...

Creating a directory client_config to hold the soft client
autoconfiguration files...

Directory created successfully at
  /opt/3com/components/presconf.2.5.21/client_config
Any files that you store in this directory are accessible via
  http://master.yourcompany.com/3c3/<CONFIGFILENAME>.xml

If you have not already entered the license string during installation
you must do so from the web interface before trying to run any
application in 3Com software.

You may start, stop and monitor the 3Com IP Conferencing Module applications using
the following command(s):
> service <application> start|stop|status|restart
Else, you may do so using the web interface.

Your installation is complete.
To add new user or to change your profile visit appropriate
URL corresponding to /opt/3com/components/presconf.2.5.3/gui.

Once again,  Please report any installation problem to
    "3Com Support" <support@3com.com>


************************************************
* Output, from this install session, was saved to:
*  /opt/3com/components/presconf.2.5.3/install_log.Dec_07_2005
************************************************

Would you like to start the 3Com IP Conferencing Module services now?
(N/Y) [N]: y
```

Select "Y" to complete the installation and start the services.

```
Starting VCX Services:
Starting vcx/mysql:
[  OK  ]
Starting vcx/db_watchdog:  Starting Darabase Watchdog: Missing database
configuration file; cannot continue.
                                                           [FAILED]
Starting vcx/sippeng:                                      [  OK  ]
Starting vcx/vcxdb:                                        [  OK  ]
Started VCX Services: 3 started, 1 failed to start
```

All services will start except DB_watchdog. It starts after the secondary server is installed and the database replication process is initiated.

End of IP Conferencing Module Configuration

Sample vcx-setup Script (Secondary server)

This script programs the secondary server in a dual server configuration. The slave database is installed and initially hosted on the secondary server.

The following options are selected in this sample script:

- Data server for presence and conferencing configuration (installs the conference & presence database)
- Slave database configuration.

The vcx-setup script displays the current settings and then asks you if you want to accept or update them. Sample answers are provided in bold type along with explanations of those answers. Explanations are in italics.

To run the vcx-setup script:

1. Log in to the server as **root**.
2. Enter a password (default is pvadmin).
3. Press **Enter** (or Return).

```
-bash-2.05b# vcx-setup
```

*Enter **vcx-setup** at the command prompt.*

```
------------------------------------------------------------------------
---------- Welcome to the VCX Linux Network Configuration Wizard ----------
------------------------------------------------------------------------
This wizard sets up networking and related services.
```

Start of Network Configuration

```
Configure networking now? [yes] :
```

Press the Enter or Return key to accept yes as the suggested answer.

```
--------- Configuring Dynamic Host Configuration Protocol (DHCP) ----------

VCX servers can use DHCP for automated configuration, but this requires
that the DHCP server is configured to provide the proper options.  Unless
you know that your environment is set up in this way, you should say 'no'
here and configure static network parameters.

Use DHCP on eth0 to configure network parameters? [no] :

---------- Configuring Hostname ----------
Enter system hostname [localhost] : slave.yourcompany.com

---------- Configuring IP Interface 'eth0' ----------
Enter IP Address               [192.168.1.100  ] : 10.20.30.61
Enter Network Subnet Mask      [255.255.255.0  ] : 255.255.255.0
Enter Default Gateway Address  [10.20.30.254   ]  : 10.20.30.254

---------- Configuring IP Interface 'eth1' ----------
Interface State          : disabled
```

Note that 'eth1' is not used for the 3Com IP Conferencing Module.

```
---------- Configuring DNS Servers ----------
Enter DNS servers one at a time.
When done, enter 0.0.0.0 to stop.
Primary DNS Server   [192.168.1.1] : 10.25.10.31
Secondary DNS Server [192.168.1.2] : 10.26.10.31
Tertiary DNS Server  [0.0.0.0] : 0.0.0.0

---------- Configuring DNS Search Path ----------
Press Enter to leave the current path unchanged, or specify
a new search path, with spaces separating each entry.

DNS Search Path []: yourcompany.com

---------- Configuring Network Time Protocol ----------
Enter NTP servers one at a time.
When done, enter 0.0.0.0 to stop.

Primary NTP Server   [192.168.1.253] : 10.35.10.51
Secondary NTP Server [192.168.1.252] : 10.36.10.51
Additional NTP Server : 10.1.0.3
```

```
------------------------- Configuring Time Zone -------------------------

Please select a geographic location from the following list:
  1. Africa
  2. Americas
  3. Antarctica
  4. Arctic Ocean
  5. Asia
  6. Atlantic Ocean
  7. Australia
  8. Europe
  9. Indian Ocean
 10. Pacific Ocean
Enter continent [2] :
```

Press the Enter or Return key to accept 2 as the suggested answer.

```
Please select a country from the following list:
  1. Antigua & Barbuda      18. Ecuador               35. Panama
  2. Anguilla               19. Grenada               36. Peru
  3. Netherlands Antilles   20. French Guiana         37. St Pierre & Miquelon
  4. Argentina              21. Greenland             38. Puerto Rico
  5. Aruba                  22. Guadeloupe            39. Paraguay
  6. Barbados               23. Guatemala             40. Suriname
  7. Bolivia                24. Guyana                41. El Salvador
  8. Brazil                 25. Honduras              42. Turks & Caicos Is
  9. Bahamas                26. Haiti                 43. Trinidad & Tobago
 10. Belize                 27. Jamaica               44. United States
 11. Canada                 28. St Kitts & Nevis      45. Uruguay
 12. Chile                  29. Cayman Islands        46. St Vincent
 13. Colombia               30. St Lucia              47. Venezuela
 14. Costa Rica             31. Martinique            48. Virgin Islands (UK)
 15. Cuba                   32. Montserrat            49. Virgin Islands (US)
 16. Dominica               33. Mexico
 17. Dominican Republic     34. Nicaragua
Enter country [44] :
```

Press the Enter or Return key to accept 44 as the suggested answer.

```
Please select a time zone from the following list:
  1. Alaska Time
  2. Alaska Time - Alaska panhandle
  3. Alaska Time - Alaska panhandle neck
  4. Alaska Time - west Alaska
  5. Aleutian Islands
  6. Central Time
```

```
  7. Central Time - Michigan - Wisconsin border
  8. Central Time - North Dakota - Oliver County
  9. Eastern Standard Time - Indiana - Crawford County
 10. Eastern Standard Time - Indiana - Starke County
 11. Eastern Standard Time - Indiana - Switzerland County
 12. Eastern Standard Time - Indiana - most locations
 13. Eastern Time
 14. Eastern Time - Kentucky - Louisville area
 15. Eastern Time - Kentucky - Wayne County
 16. Eastern Time - Michigan - most locations
 17. Hawaii
 18. Mountain Standard Time - Arizona
 19. Mountain Time
 20. Mountain Time - Navajo
 21. Mountain Time - south Idaho & east Oregon
 22. Pacific Time
Enter zone [13] :
Selected Time Zone:      America/New_York

------------------------- CONFIGURATION SUMMARY -------------------------
DHCP state:     disabled

Hostname: slave.yourcompany.com

IP Interfaces:  Device     IP Address      Network Mask    Default Gateway
                eth0       10.20.30.60      255.255.0.0     10.20.30.254
                eth1       (interface is disabled)

DNS Servers:    10.25.10.31
                10.26.10.31
Search Domains:yourcompany.com

NTP Servers:    10.35.10.51
                10.36.10.51
                10.1.0.3

Time Zone:      America/New_York
-------------------------------------------------------------------------

Is all of the above information correct? [yes] :

-------------------------------------------------------------------------
-------------------------------------------------------------------------
Please wait while the wizard completes.
Saving configuration...Done.
```

End of Network Configuration

The network configuration is complete. If necessary, you can re-run this portion of the script by entering vcx-config-network -wizard.

Start of System Configuration

After successful completion of the network configuration, the script will prompt you to select a set of services.

```
---------------------- Select System Configuration ----------------------

Individual systems may provide various services in a VCX installation.You
must select the appropriate set of services which this system is to
provide.  Be certain that the selection corresponds to the functionality
you have purchased.

Which services will this system provide?

  1. Presence and Conference - all in one
  2. Conferencing server
  3. Conferencing and database server
  4. Data server for presence and conferencing
  5. Presence server (with database)

Enter your choice (1-5) : 3
```

Select "3" to install the following components:

- conference server
- conference attendant server
- conference & presence database.

```
You have chosen to configure this system to provide:

  Conferencing and database server

Note that in order for these services to work, you must have purchased an
appropriate license and installed the corresponding license activation key
on this system.

 *** WARNING ***   Once you confirm your selection, you cannot change it.

Are you absolutely certain that you wish to configure this system as an
```

```
'Data server for presence and conferencing' server?  If you answer 'no'
here you can choose an alternative configuration.

Confirm selection? [no] : y

Selection confirmed.

*** Assembling VCX.2.9.21 using 'VSBOM.xml' ***
*** Processing components ***
*** Executing assembly commands ***
*** Assembly complete ***

The VCX assembly has been created.  Preparing system for use:

Performing early startup tasks:                          [  OK  ]
Starting VCX-Firewall:                                   [  OK  ]
Starting httpd:

Removing unneeded application components from the system.
This may take several minutes.  Please wait while the operation completes.

Determining which packages are not used by any VCX version:

 oem.7.0.1                           : [REMOVE]
 presconf-conf.2.5.21                : [REMOVE]
 presconf-presence.2.5.21            : [REMOVE]
 presconf-web.2.5.21                 : [REMOVE]
 vcx-firewall.1.5.6                  : [keep; used in 2.9.21]
 mysql.3.23.58                       : [keep; used in 2.9.21]

Removing packages:

 oem-a-7.0.1-2                       : [OK]
 presconf-conf-2.5.21-1              : [OK]
 presconf-presence-2.5.21-1          : [OK]
 presconf-vcxdb-2.5.21-1             : [OK]
 presconf-web-2.5.21-1               : [OK]

Successfully removed extra packages.
```

End of System Configuration

The system configuration is complete. If necessary, you can re-run this portion of the script by entering vcx-setconfigtype.

Start of E-mail (sSMTP) Configuration

After successful completion of the system configuration, the script will prompt you to set up the e-mail notification utility. The utility sends e-mails when conferences are created and modified, and when users attempt to add contacts to their buddy lists. E-mail notification works once users have added their e-mail addresses to the 3Com IP Conferencing Module.

```
Configuration for sSMTP

(1) mailhub
This is the computer responsible for handling your outgoing mail. It could be the
SMTP server of your ISP, or a departmental mailhub. Use the fully-qualified domain
name (foo.bar.baz) of the mailhub; if it uses an unusual SMTP port number, use the
colon syntax
  foo.bar.baz:2525
Otherwise sSMTP will use the standard SMTP port number (25).
(Note that sSMTP can support a user-dependent mailhub with the'reverse aliases'
feature, for which see the man page.)

Please enter your mailhub []: mail.yourcompany.com
```

Enter the fully qualified domain name of the computer handling outgoing mail.

```
(2) FromLineOverride
This specifies how sSMTP handles the From: line of outgoing mail. If
FromLineOverride=YES, sSMTP will leave the From: line alone if it already exists.
If FromLineOverride has any other value, or there is no From: line, sSMTP creates
the From: line using your username (or the -f command-line option), and the value of
the rewriteDomain option (step (4), below). If you use a mail user agent (MUA; e.g.
mutt, pine) I recommend using YES and having the MUA set the From: line.
(Exception: the 'reverse aliases' feature can be used to set up a particular From:
address for each user, in which case don't use FromLineOverride=YES. See the man
page.)

FromLineOverride? [YES]:
```

Specify how sSMTP handles the From: line of outgoing mail.

```
(3) hostname
sSMTP uses the hostname of your computer to identify itself to the mailhub, and in
the Received: headers of the outgoing mail. This has relatively little effect on how
the mail is handled. Use the fully-qualified domain name (FQDN) of your
computer(foo.bar.baz).  If it doesn't have a FQDN, use some name for your box.
```

```
Hostname of your box [slave.yourcompany.com]:
```

Enter the host name of your computer handling outgoing mail.

```
(4) rewriteDomain
Please enter the mail name of your system.
sSMTP uses this value to add a domain to unqualified e-mail addresses(addresses
without an @-sign).
You probably want to use the domain from your own e-mail address.You probably want
to set up your MUA to handle unqualified addresses itself, in which case sSMTP will
never have to use this.

Mail name [slave.yourcompany.com]:yourcompany.com
```

Enter the mail name of your system.

```
(5) root
Last and least: if sSMTP finds an unqualified e-mail address among the recipients,
and it corresponds to a username on your local machine with a userid less than 1000,
then the e-mail is sent to this value instead.  The idea is that mail sent to 'root'
should probably go to 'postmaster' instead.

If you set up your MUA to do its own handling of unqualified
addresses, this is irrelevant.  Use the default value of 'postmaster' or your own
e-mail address if you're paranoid.

System users receive mail at [postmaster]:postmaster
```

Enter the system user e-mail address.

Note: check with your e-mail administrator for the proper system user e-mail address.

```
Wrote configuration file /etc/ssmtp/ssmtp.conf

Starting mysqld daemon with databases from /opt/3comdata/mysql
Tcl is already installed
Tcl version is 8.3
 Please report any installation problem to
    "3Com Support" <support@3com.com>
```

End of E-mail (sSMTP) Configuration

The e-mail configuration is complete. If necessary, you can re-run this portion of the script by entering usr/sbin/smtp-configure.

Start of Database Configuration

After successful completion of the e-mail configuration, the script will prompt you to select a database configuration.

```
There are different ways to install and access the database.
1 Local Master: this server will have the master database.
2 Local Slave: this server will have a slave database.
3 Remote database: database is on another server.
Please choose one of the above options: 2
```

Select "2" to specify that this server will initially host the slave database as the secondary server in a distributed system.

```
Available applications:
```

End of Database Configuration

The database configuration is complete. If necessary, you can re-run this portion of the script by entering presconf-setup.

Start of IP Conferencing Module Configuration

After successful completion of the database configuration, the script will prompt you to select an initial configuration.

```
Enter the fully qualified hostname for this installation.
[slave.yourcompany.com]:
Assuming default value as slave.yourcompany.com
```

Enter the fully qualified hostname of the machine you are installing on.

```
Assuming the userid of the administrator who will manage the
applications for your domain is root

Enter the administrator's email address. [sipadmin@yourcompany.com]:
Assuming default value as sipadmin@yourcompany.com
```

Enter the administrator's e-mail address. The default is derived from the hostname defined in the network configuration (above).

If the system is configured to send e-mail notification of conference events to users, the e-mails will appear to be sent from the administrator (sipadmin@yourcompany.com). Note that some mail agents may require this to be a valid e-mail address.

```
Host Identifier (hostid) of this machine is: 75896dc20fa90922ddbb2b81


Please send an email to vcxconf@3com.com to receive an activation key to activate
this product.

Please enter the software activation keys one by one; end with an empty line:
```

Send the host ID to 3Com, which will use it to generate your activation keys. Once 3Com has returned the activation keys to you, you can paste them into the install session when prompted.

The activation keys are validated as they are entered. If validation is successful, the keys will be stored in a license file and the installation session will continue. If validation is unsuccessful, the installation session will be aborted.

```
Enter key:
sippeng:master.yourcompany.com:+:-:-:-:5ea71ce717ea55627152a1db82d54592
key ok for sippeng
Enter key:
License file name: /opt/3com/components/presconf.2.5.21/presconf_licenses

Enter the mysql user name for accessing the master database.[root]:
Assuming default value as root

Enter the host name on which the master database is running. []:
master.yourcompany.com
```

Enter the host name of the master (primary) server.

```
Enter the mysql password for user root at master.yourcompany.com. [NULL]:
Assuming default value as NULL

The command scripts/remote_access.sh needs to be run on the master server to allow
access to this server.  Has this been done? y/n: y
```

To allow access to the secondary server:

1. *Open a command window on the the master (primary) server*
2. *Run remote_access.sh <secondary-server hostname | IP>*
3. *When prompted, enter the password for the slave (secondary) server (default is pvadmin)*
4. *Return to the slave (secondary) server and enter "Y" at the prompt.*

```
Please enable remote access to the master server by providing the root password for
master.yourcompany.com
```

```
REMOTE is at master.yourcompany.com
Enter the password for root@master.yourcompany.com: pvadmin
```

Enter the password for the master (primary) server.

```
# master.yourcompany.com SSH-1.99-OpenSSH_3.6.1p2
# master.yourcompany.com SSH-1.99-OpenSSH_3.6.1p2
Warning: Permanently added the RSA host key for IP address '10.1.0.249' to the list
of known hosts.
root@master.yourcompany.com's password:
OK
now testing if we can connect to master.yourcompany.com
SUCCESS
Continuing slave database installation...
Master server hostname is <master.yourcompany.com>
Enter the fully qualified host name or IP address for the slave server. Default
[presconf1.yourcompany.com]:
Assuming default value as presconf1.yourcompany.com
Creating cinema_db2.conf on master database server
On master database server copy cinema_db.conf to cinema_db1.conf
In my.cnf on master, ensure server-id exists and binary logging is enabled.
MySQL my.cnf files updated. Copying modified my.cnf file back to master database
server
Grant access to master database from this server
Opening slave database.
On slave run mysql CHANGE MASTER and have it point to the master db.
Enter the mysql replication password for this installation (both master and slave)
On slave GRANT ACCESS to the master database using the replication password
Create the SIP database now to avoid errors with mysqldump later on
Allow access to the mysql port through the firewall for both master and slave
Opening master database.
Run mysql CHANGE MASTER and have it point to the slave db.
On master GRANT ACCESS to the slave database using the replication password
Insert a record for the new database into dbservers table on master database.
Restart the slave database.
060112 10:56:27  mysqld ended


Slave database successfully installed.
Call make_slave.sh to dump the master database and start replication.
Check if watchdog is already running
Watchdog is not running - starting it
Watchdog is running
Ensure watchdog is running on master database server.
db_watchdog is probably not running on  master.yourcompany.com. Try starting it.
db_watchdog successfully started on master.yourcompany.com
Slave successfully installed


-- Creating cinema_db.conf
```

```
-- Changing permissions of all the files in /opt/3com/components/presconf.2.5.21 to
755.
-- Trying to load fbsql.so...
-- fbsql is loaded...
-- Opening the database sql://root:NULL@master.yourcompany.com/mysql
-- Changing permissions for presconf1.yourcompany.com
-- Changing permissions for master.yourcompany.com
-- Changing permissions for presconf1.yourcompany.com
-- Changing permissions for presconf1.yourcompany.com
-- Flushing privleges
-- Opening the database sql://root:NULL@master.yourcompany.com/mysql
-- Database is successfully initialized.

3Com IP Conferencing Module applications will be automatically restarted  when
system reboots

-- Changing permissions of all the files in /opt/3com/components/presconf.2.5.21.

restarting httpd...

Creating a directory client_config to hold the soft client
autoconfiguration files...

Directory created successfully at
  /opt/3com/components/presconf.2.5.21/client_config
Any files that you store in this directory are accessible via
  http://presconf1.yourcompany.com/3c3/<CONFIGFILENAME>.xml

If you have not already entered the license string during installation
you must do so from the web interface before trying to run any
application in 3Com software.

You may start, stop and monitor the 3Com IP Conferencing Module applications using
the following command(s):
> service <application> start|stop|status|restart
Else, you may do so using the web interface.

Your installation is complete.
To add new user or to change your profile visit appropriate
URL corresponding to /opt/3com/components/presconf.2.5.21/gui.

Once again,  Please report any installation problem to
    "3Com Support" <support@3com.com>


************************************************
* Output, from this install session, was saved to:
*  install_log.Jan_12_2006
************************************************
```

```
Would you like to start the 3Com IP Conferencing Module services now?
(N/Y) [N]: y
```

Select "Y" to complete the installation and start the services.

```
Starting VCX Services:
Starting vcx/mysql:                                        [  OK  ]
Starting vcx/db_watchdog:                                  [  OK  ]
Started VCX Services: 2 started.
```

All services will start.

End of IP Conferencing Module Configuration

Multiple Server Initial Installation

This section contains sample scripts for the multiple server configuration (four to twelve servers). Three samples are provided:

- Sample vcx-setup Script (Primary server)
- Sample vcx-setup Script (Secondary server)
- Sample vcx-setup Script (Conference server)

Sample vcx-setup Script (Primary server)

This script programs the primary server in a multiple server configuration. The master database is installed and initially hosted on the primary server.

The following options are selected in this sample script:

- Presence server configuration (installs the presence server, web server, VCX user database, and conference & presence database)
- Master database configuration.

The vcx-setup script displays the current settings and then asks you if you want to accept or update them. Sample answers are provided in bold type along with explanations of those answers. Explanations are in italics.

To run the vcx-setup script:

1. Log in to the server as **root**.
2. Enter a password (default is pvadmin).
3. Press **Enter** (or Return).

```
-bash-2.05b# vcx-setup
```

*Enter **vcx-setup** at the command prompt.*

```
------------------------------------------------------------------------------
---------- Welcome to the VCX Linux Network Configuration Wizard ----------
------------------------------------------------------------------------------
This wizard sets up networking and related services.
```

Start of Network Configuration

```
Configure networking now? [yes] :
```

Press the Enter or Return key to accept yes as the suggested answer.

```
--------- Configuring Dynamic Host Configuration Protocol (DHCP) ----------

VCX servers can use DHCP for automated configuration, but this requires
that the DHCP server is configured to provide the proper options.  Unless
you know that your environment is set up in this way, you should say 'no'
here and configure static network parameters.

Use DHCP on eth0 to configure network parameters? [no] :

---------- Configuring Hostname ----------
Enter system hostname [localhost] : master.yourcompany.com

---------- Configuring IP Interface 'eth0' ----------
Enter IP Address               [192.168.1.100  ] : 10.20.30.60
Enter Network Subnet Mask      [255.255.255.0  ] : 255.255.255.0
Enter Default Gateway Address  [10.20.30.254  ]  : 10.20.30.254

---------- Configuring IP Interface 'eth1' ----------
Interface State          : disabled
```

Note that 'eth1' is not used for the 3Com IP Conferencing Module.

```
---------- Configuring DNS Servers ----------
Enter DNS servers one at a time.
When done, enter 0.0.0.0 to stop.
Primary DNS Server   [192.168.1.1] : 10.25.10.31
Secondary DNS Server [192.168.1.2] : 10.26.10.31
Tertiary DNS Server  [0.0.0.0] : 0.0.0.0

---------- Configuring DNS Search Path ----------
Press Enter to leave the current path unchanged, or specify
a new search path, with spaces separating each entry.

DNS Search Path []: yourcompany.com

---------- Configuring Network Time Protocol ----------
Enter NTP servers one at a time.
```

```
When done, enter 0.0.0.0 to stop.

Primary NTP Server   [192.168.1.253] : 10.35.10.51
Secondary NTP Server [192.168.1.252] : 10.36.10.51
Additional NTP Server : 10.1.0.3

------------------------- Configuring Time Zone -------------------------

Please select a geographic location from the following list:
  1. Africa
  2. Americas
  3. Antarctica
  4. Arctic Ocean
  5. Asia
  6. Atlantic Ocean
  7. Australia
  8. Europe
  9. Indian Ocean
 10. Pacific Ocean
Enter continent [2] :
```

Press the Enter or Return key to accept 2 as the suggested answer.

```
Please select a country from the following list:
  1. Antigua & Barbuda     18. Ecuador              35. Panama
  2. Anguilla              19. Grenada              36. Peru
  3. Netherlands Antilles  20. French Guiana        37. St Pierre & Miquelon
  4. Argentina             21. Greenland            38. Puerto Rico
  5. Aruba                 22. Guadeloupe           39. Paraguay
  6. Barbados              23. Guatemala            40. Suriname
  7. Bolivia               24. Guyana               41. El Salvador
  8. Brazil                25. Honduras             42. Turks & Caicos Is
  9. Bahamas               26. Haiti                43. Trinidad & Tobago
 10. Belize                27. Jamaica              44. United States
 11. Canada                28. St Kitts & Nevis     45. Uruguay
 12. Chile                 29. Cayman Islands       46. St Vincent
 13. Colombia              30. St Lucia             47. Venezuela
 14. Costa Rica            31. Martinique           48. Virgin Islands (UK)
 15. Cuba                  32. Montserrat           49. Virgin Islands (US)
 16. Dominica              33. Mexico
 17. Dominican Republic    34. Nicaragua
Enter country [44] :
```

Press the Enter or Return key to accept 44 as the suggested answer.

```
Please select a time zone from the following list:
  1. Alaska Time
```

```
  2. Alaska Time - Alaska panhandle
  3. Alaska Time - Alaska panhandle neck
  4. Alaska Time - west Alaska
  5. Aleutian Islands
  6. Central Time
  7. Central Time - Michigan - Wisconsin border
  8. Central Time - North Dakota - Oliver County
  9. Eastern Standard Time - Indiana - Crawford County
 10. Eastern Standard Time - Indiana - Starke County
 11. Eastern Standard Time - Indiana - Switzerland County
 12. Eastern Standard Time - Indiana - most locations
 13. Eastern Time
 14. Eastern Time - Kentucky - Louisville area
 15. Eastern Time - Kentucky - Wayne County
 16. Eastern Time - Michigan - most locations
 17. Hawaii
 18. Mountain Standard Time - Arizona
 19. Mountain Time
 20. Mountain Time - Navajo
 21. Mountain Time - south Idaho & east Oregon
 22. Pacific Time
Enter zone [13] :
Selected Time Zone:      America/New_York

-------------------------- CONFIGURATION SUMMARY --------------------------
DHCP state:     disabled

Hostname: master.yourcompany.com

IP Interfaces:  Device     IP Address      Network Mask    Default Gateway
                eth0       10.20.30.60      255.255.0.0     10.20.30.254
                eth1       (interface is disabled)

DNS Servers:    10.25.10.31
                10.26.10.31
Search Domains:yourcompany.com

NTP Servers:    10.35.10.51
                10.36.10.51
                10.1.0.3

Time Zone:      America/New_York
---------------------------------------------------------------------------

Is all of the above information correct? [yes] :
```

```
------------------------------------------------------------------------------
------------------------------------------------------------------------------
Please wait while the wizard completes.
Saving configuration...Done.
```

End of Network Configuration

The network configuration is complete. If necessary, you can re-run this portion of the script by entering vcx-config-network -wizard.

Start of System Configuration

After successful completion of the network configuration, the script will prompt you to select a set of services.

```
---------------------- Select System Configuration ----------------------

Individual systems may provide various services in a VCX installation.You
must select the appropriate set of services which this system is to
provide.  Be certain that the selection corresponds to the functionality
you have purchased.

Which services will this system provide?

  1. Presence and Conference - all in one
  2. Conferencing server
  3. Conferencing and database server
  4. Data server for presence and conferencing
  5. Presence server (with database)

Enter your choice (1-5) : 5
```

Select "5" to install the following components:

- presence server
- web server
- VCX user database
- conference & presence database.

```
You have chosen to configure this system to provide:

  Presence server (with database)

Note that in order for these services to work, you must have purchased an
```

```
appropriate license and installed the corresponding license activation key
on this system.

 *** WARNING ***   Once you confirm your selection, you cannot change it.

Are you absolutely certain that you wish to configure this system as an
'Presence server (with database)' server? If you answer 'no' here you
can choose an alternative configuration.

Confirm selection? [no] : y
```

Confirm your selection by typing "y."

```
Selection confirmed.

*** Assembling VCX.2.9.3 using 'VSBOM.xml' ***
*** Processing components ***
*** Executing assembly commands ***
*** Assembly complete ***

The VCX assembly has been created.  Preparing system for use:

Performing early startup tasks: [  OK  ]

Starting VCX-Firewall:  [  OK  ]


Starting httpd:

Removing unneeded application components from the system.
This may take several minutes.  Please wait while the operation completes.

Determining which packages are not used by any VCX version:

 oem.7.0.1                              : [keep; used in 2.9.21]
 presconf.2.5.21                        : [keep; used in 2.9.21]
 presconf-conf.2.5.21                   : [REMOVE]
 presconf-presence.2.5.21               : [keep; used in 2.9.21]
 presconf-vcxdb.2.5.21                  : [keep; used in 2.9.21]
 presconf-web.2.5.21                    : [keep; used in 2.9.21]
 vcx-firewall.1.5.6                     : [keep; used in 2.9.21]
 mysql.3.23.58                          : [keep; used in 2.9.21]

Removing packages:

 presconf-conf-2.5.21-1                 : [OK]
```

```
Successfully removed extra packages.
```

End of System Configuration

The system configuration is complete. If necessary, you can re-run this portion of the script by entering vcx-setconfigtype.

Start of E-mail (sSMTP) Configuration

After successful completion of the system configuration, the script will prompt you to set up the e-mail notification utility. The utility sends e-mails when conferences are created and modified, and when users attempt to add contacts to their buddy lists. E-mail notification works once users have added their e-mail addresses to the 3Com IP Conferencing Module.

```
Configuration for sSMTP

(1) mailhub
This is the computer responsible for handling your outgoing mail. It could be the
SMTP server of your ISP, or a departmental mailhub. Use the fully-qualified domain
name (foo.bar.baz) of the mailhub; if it uses an unusual SMTP port number, use the
colon syntax
  foo.bar.baz:2525
Otherwise sSMTP will use the standard SMTP port number (25).
(Note that sSMTP can support a user-dependent mailhub with the'reverse aliases'
feature, for which see the man page.)

Please enter your mailhub []: mail.yourcompany.com
```

Enter the fully qualified domain name of the computer handling outgoing mail.

```
(2) FromLineOverride
This specifies how sSMTP handles the From: line of outgoing mail. If
FromLineOverride=YES, sSMTP will leave the From: line alone if it already exists.
If FromLineOverride has any other value, or there is no From: line, sSMTP creates
the From: line using your username (or the -f command-line option), and the value of
the rewriteDomain option (step (4), below). If you use a mail user agent (MUA; e.g.
mutt, pine) I recommend using YES and having the MUA set the From: line.
(Exception: the 'reverse aliases' feature can be used to set up a particular From:
address for each user, in which case don't use FromLineOverride=YES. See the man
page.)

FromLineOverride? [YES]:
```

Specify how sSMTP handles the From: line of outgoing mail.

```
(3) hostname
sSMTP uses the hostname of your computer to identify itself to the mailhub, and in
the Received: headers of the outgoing mail. This has relatively little effect on how
the mail is handled. Use the fully-qualified domain name (FQDN) of your
computer(foo.bar.baz).  If it doesn't have a FQDN, use some name for your box.

Hostname of your box [master.yourcompany.com]:
```

Enter the host name of your computer handling outgoing mail.

```
(4) rewriteDomain
Please enter the mail name of your system.
sSMTP uses this value to add a domain to unqualified e-mail addresses(addresses
without an @-sign).
You probably want to use the domain from your own e-mail address.You probably want
to set up your MUA to handle unqualified addresses itself, in which case sSMTP will
never have to use this.

Mail name [master.yourcompany.com]:yourcompany.com
```

Enter the mail name of your system.

```
(5) root
Last and least: if sSMTP finds an unqualified e-mail address among the recipients,
and it corresponds to a username on your local machine with a userid less than 1000,
then the e-mail is sent to this value instead.  The idea is that mail sent to 'root'
should probably go to 'postmaster' instead.

If you set up your MUA to do its own handling of unqualified
addresses, this is irrelevant.  Use the default value of 'postmaster' or your own
e-mail address if you're paranoid.

System users receive mail at [postmaster]:postmaster
```

Enter the system user e-mail address.

Note: check with your e-mail administrator for the proper system user e-mail address.

```
Wrote configuration file /etc/ssmtp/ssmtp.conf

Starting mysqld daemon with databases from /opt/3comdata/mysql
Tcl is already installed
Tcl version is 8.3
 Please report any installation problem to
    "3Com Support" <support@3com.com>
```

End of E-mail (sSMTP) Configuration

The e-mail configuration is complete. If necessary, you can re-run this portion of the script by entering usr/sbin/smtp-configure.

Start of Database Configuration

After successful completion of the e-mail configuration, the script will prompt you to select a database configuration.

```
There are different ways to install and access the database.
1 Local Master: this server will have the master database.
2 Local Slave: this server will have a slave database.
3 Remote database: database is on another server.
Please choose one of the above options: 1
```

Select "1" to specify that this server will initially host the master database as the primary server in a distributed system.

```
Available applications: gui,vcxdb,sippeng,
```

End of Database Configuration

The database configuration is complete. If necessary, you can re-run this portion of the script by entering presconf-setup.

Start of IP Conferencing Module Configuration

After successful completion of the database configuration, the script will prompt you to select an initial configuration.

```
Enter the fully qualified hostname for this installation.
[host.yourcompany.com]:
Assuming default value as master.yourcompany.com
```

Enter the fully qualified hostname of the machine you are installing on.

```
Assuming the userid of the administrator who will manage the
applications for your domain is root

Enter the administrator's email address. [sipadmin@yourcompany.com]:
Assuming default value as sipadmin@yourcompany.com
```

Enter the administrator's e-mail address. The default is derived from the hostname defined in the network configuration (above).

If the system is configured to send e-mail notification of conference events to users, the e-mails will appear to be sent from the administrator (sipadmin@yourcompany.com). Note that some mail agents may require this to be a valid e-mail address.

```
Host Identifier (hostid) of this machine is: 75896dc20fa90922ddbb2b81


Please send an email to vcxconf@3com.com to receive an activation key to activate
this product.

Please enter the software activation keys one by one; end with an empty line:
```

Send the host ID to 3Com, which will use it to generate your activation keys. Once 3Com has returned the activation keys to you, you can paste them into the install session when prompted.

The activation keys are validated as they are entered. If validation is successful, the keys will be stored in a license file and the installation session will continue. If validation is unsuccessful, the installation session will be aborted.

```
Enter key:
sippeng:master.yourcompany.com:+:-:-:-:5ea71ce717ea55627152a1db82d54592
key ok for sippeng
Enter key:
License file name: /opt/3com/components/presconf.2.5.21/presconf_licenses
Validating the license for sippeng application ...
The license key
sippeng:master.yourcompany.com:+:-:-:-:5ea71ce717ea55427192a1db82d54592 is valid

MySQL is needed for your application.
mysql is found at /opt/3com/VCX/bin/mysql
Assuming mysql is already installed

Enter the mysql user name for accessing the master database.[root]:
Assuming default value as root

Enter the host name on which the master database is running. [localhost]:
Assuming default value as localhost

Enter the mysql password for user root at localhost. [NULL]:
Assuming default value as NULL

-- Creating cinema_db.conf
```

```
-- Changing permissions of all the files in /opt/3com/components/presconf.2.2.2.190
to 755.
-- Trying to load fbsql.so...
-- fbsql is loaded...
-- Opening the database sql://root:NULL@localhost/mysql
-- Changing permissions for master.yourcompany.com
-- Changing permissions for localhost
-- Changing permissions for master.yourcompany.com
-- Changing permissions for master.yourcompany.com
-- Flushing privleges
-- Calling createdb
Create the database.
Try connecting to it.
*** Checking table vxml_users ***
Creating table vxml_users
*** Checking table put ***
Creating table put
*** Checking table aliases ***
Creating table aliases
*** Checking table about ***
Creating table about
*** Checking table requestlog ***
Creating table requestlog
Cannot select database sip: Error 1049 (Unknown database 'sip')
*** Checking table gwclass ***
Creating table gwclass
*** Checking table debug_config ***
Creating table debug_config
*** Checking table personnote ***
Creating table personnote
*** Checking table cVPN_timetable ***
Creating table cVPN_timetable
*** Checking table confatt_record ***
Creating table confatt_record
*** Checking table dialplan ***
Creating table dialplan
*** Checking table radius_config ***
Creating table radius_config
*** Checking table display ***
Creating table display
*** Checking table dbservers ***
Creating table dbservers
*** Checking table domain ***
Creating table domain
*** Checking table sipd_log ***
Creating table sipd_log
```

```
*** Checking table conferences ***
Creating table conferences
*** Checking table eventattendee ***
Creating table eventattendee
*** Checking table user_config ***
Creating table user_config
*** Checking table cinema ***
Creating table cinema
*** Checking table address ***
Creating table address
*** Checking table confinstances ***
Creating table confinstances
*** Checking table conferencing_config ***
Creating table conferencing_config
*** Checking table registrar_presence ***
Creating table registrar_presence
*** Checking table person ***
Creating table person
*** Checking table conf_log ***
Creating table conf_log
*** Checking table agendaitem ***
Creating table agendaitem
*** Checking table Rooms ***
Creating table Rooms
*** Checking table resource ***
Creating table resource
*** Checking table conffiles ***
Creating table conffiles
*** Checking table event ***
Creating table event
*** Checking table acl ***
Creating table acl
*** Checking table license ***
Creating table license
*** Checking table vote ***
Creating table vote
*** Checking table presence_conf ***
Creating table presence_conf
*** Checking table eventresource ***
Creating table eventresource
*** Checking table speed_dial ***
Creating table speed_dial
*** Checking table vcxdb_conf ***
Creating table vcxdb_conf
*** Checking table RoomACL ***
Creating table RoomACL
```

```
*** Checking table Cards ***
Creating table Cards
*** Checking table groupmember ***
Creating table groupmember
*** Checking table subscription ***
Creating table subscription
*** Checking table messageboard ***
Creating table messageboard
*** Checking table confsrv_config ***
Creating table confsrv_config
*** Checking table ua_capabilities ***
Creating table ua_capabilities
*** Checking table trusted_host ***
Creating table trusted_host
*** Checking table vmail ***
Creating table vmail
*** Checking table tariff ***
Creating table tariff
*** Checking table RoomPrefs ***
Creating table RoomPrefs
*** Checking table contacts ***
Creating table contacts
*** Checking table ConfigData ***
Creating table ConfigData
*** Checking table confservers ***
Creating table confservers
*** Checking table eventcategory ***
Creating table eventcategory
*** Checking table user_presence ***
Creating table user_presence
*** Checking table confnotification ***
Creating table confnotification
*** Checking table location_tuples ***
Creating table location_tuples
*** Checking table Credentials ***
Creating table Credentials
*** Checking table mail_account ***
Creating table mail_account
*** Checking table eventgroup ***
Creating table eventgroup
*** Checking table eventgroup_notify ***
Creating table eventgroup_notify
*** Checking table gateway_map ***
Creating table gateway_map
*** Checking table confusers ***
Creating table confusers
```

```
*** Checking table thirdparty ***
Creating table thirdparty
*** Checking table election ***
Creating table election
*** Checking table persongroup ***
Creating table persongroup
*** Checking table sipd_config ***
Creating table sipd_config
*** Checking table ssl_config ***
Creating table ssl_config
-- createdb is complete
-- *IMPORTANT*: Adding administrator root@master.yourcompany.com with password root
-- Database is successfully initialized.

MYSQL host is localhost
MYSQL user is root
Enter the IP address of the VCX Data Server: 10.20.30.41
```

Enter the IP address of the VCX data server that contains the global directory of users to be downloaded to this IP Conferencing Module.

```
Enter the username for VCX DB Sync:  vcx
```

Enter the username for VCX database synchronization.

```
Enter the password for VCX DB Sync: vcx
```

Enter the password for VCX database synchronization. The password does not echo on the screen.

```
Do users on this VCX have their home presence server on this installation (y/n)?[y]:
Assuming the default value as y
```

Enter no [n] if the VCX data server containing the global directory of users (see above) is not a local VCX for this installation.

```
# 10.20.30.40 SSH-1.99-OpenSSH_3.6.1p2
# 10.20.30.40 SSH-1.99-OpenSSH_3.6.1p2


OK

now testing if we can connect to the 10.20.30.41
vcx

updating the configuration database entries
3Com IP Conferencing Module applications will be automatically restarted  when
system reboots

-- Installing SIP Conferencing servers ...
```

```
-- Changing permissions of all the files in /opt/3com/components/presconf.2.5.21.

restarting httpd...

Creating a directory client_config to hold the soft client
autoconfiguration files...

Directory created successfully at
  /opt/3com/components/presconf.2.5.21/client_config
Any files that you store in this directory are accessible via
  http://master.yourcompany.com/3c3/<CONFIGFILENAME>.xml

If you have not already entered the license string during installation
you must do so from the web interface before trying to run any
application in 3Com software.

You may start, stop and monitor the 3Com IP Conferencing Module applications using
the following command(s):
> service <application> start|stop|status|restart
Else, you may do so using the web interface.

Your installation is complete.
To add new user or to change your profile visit appropriate
URL corresponding to /opt/3com/components/presconf.2.5.3/gui.

Once again,  Please report any installation problem to
    "3Com Support" <support@3com.com>


************************************************
* Output, from this install session, was saved to:
*  /opt/3com/components/presconf.2.5.3/install_log.Dec_07_2005
************************************************

Would you like to start the 3Com IP Conferencing Module services now?
(N/Y) [N]: y
```

Select "Y" to complete the installation and start the services.

```
Starting VCX Services:
Starting vcx/mysql:
[  OK  ]
Starting vcx/db_watchdog:  Starting Darabase Watchdog: Missing database
configuration file; cannot continue.
                                                           [FAILED]
Starting vcx/sippeng:                                      [  OK  ]
Starting vcx/vcxdb:                                        [  OK  ]
Started VCX Services: 3 started, 1 failed to start
```

All services will start except DB_watchdog. It starts after the secondary server is installed and the database replication process is initiated.

End of IP Conferencing Module Configuration

Sample vcx-setup Script (Secondary server)

This script programs the secondary server in a multiple server configuration. The slave database is installed and initially hosted on the secondary server.

The following options are selected in this sample script:

- Data server for presence and conferencing configuration (installs the conference & presence database)
- Slave database configuration.

The vcx-setup script displays the current settings and then asks you if you want to accept or update them. Sample answers are provided in bold type along with explanations of those answers. Explanations are in italics.

To run the vcx-setup script:

1. Log in to the server as **root**.
2. Enter a password (default is pvadmin).
3. Press **Enter** (or Return).

```
-bash-2.05b# vcx-setup
```

*Enter **vcx-setup** at the command prompt.*

```
------------------------------------------------------------------------------
---------- Welcome to the VCX Linux Network Configuration Wizard ----------
------------------------------------------------------------------------------
This wizard sets up networking and related services.
```

Start of Network Configuration

```
Configure networking now? [yes] :
```

Press the Enter or Return key to accept yes as the suggested answer.

```
--------- Configuring Dynamic Host Configuration Protocol (DHCP) ----------

VCX servers can use DHCP for automated configuration, but this requires
that the DHCP server is configured to provide the proper options.  Unless
you know that your environment is set up in this way, you should say 'no'
here and configure static network parameters.
```

```
Use DHCP on eth0 to configure network parameters? [no] :

---------- Configuring Hostname ----------
Enter system hostname [localhost] : slave.yourcompany.com

---------- Configuring IP Interface 'eth0' ----------
Enter IP Address               [192.168.1.100  ] : 10.20.30.61
Enter Network Subnet Mask      [255.255.255.0  ] : 255.255.255.0
Enter Default Gateway Address  [10.20.30.254   ]  : 10.20.30.254

---------- Configuring IP Interface 'eth1' ----------
Interface State          : disabled
```

Note that 'eth1' is not used for the 3Com IP Conferencing Module.

```
---------- Configuring DNS Servers ----------
Enter DNS servers one at a time.
When done, enter 0.0.0.0 to stop.
Primary DNS Server   [192.168.1.1] : 10.25.10.31
Secondary DNS Server [192.168.1.2] : 10.26.10.31
Tertiary DNS Server  [0.0.0.0] : 0.0.0.0

---------- Configuring DNS Search Path ----------
Press Enter to leave the current path unchanged, or specify
a new search path, with spaces separating each entry.

DNS Search Path []: yourcompany.com

---------- Configuring Network Time Protocol ----------
Enter NTP servers one at a time.
When done, enter 0.0.0.0 to stop.

Primary NTP Server   [192.168.1.253] : 10.35.10.51
Secondary NTP Server [192.168.1.252] : 10.36.10.51
Additional NTP Server : 10.1.0.3

------------------------- Configuring Time Zone -------------------------

Please select a geographic location from the following list:
  1. Africa
  2. Americas
  3. Antarctica
  4. Arctic Ocean
  5. Asia
  6. Atlantic Ocean
  7. Australia
```

```
  8. Europe
  9. Indian Ocean
 10. Pacific Ocean
Enter continent [2] :
```

Press the Enter or Return key to accept 2 as the suggested answer.

```
Please select a country from the following list:
  1. Antigua & Barbuda     18. Ecuador              35. Panama
  2. Anguilla              19. Grenada              36. Peru
  3. Netherlands Antilles  20. French Guiana        37. St Pierre & Miquelon
  4. Argentina             21. Greenland            38. Puerto Rico
  5. Aruba                 22. Guadeloupe           39. Paraguay
  6. Barbados              23. Guatemala            40. Suriname
  7. Bolivia               24. Guyana               41. El Salvador
  8. Brazil                25. Honduras             42. Turks & Caicos Is
  9. Bahamas               26. Haiti                43. Trinidad & Tobago
 10. Belize                27. Jamaica              44. United States
 11. Canada                28. St Kitts & Nevis     45. Uruguay
 12. Chile                 29. Cayman Islands       46. St Vincent
 13. Colombia              30. St Lucia             47. Venezuela
 14. Costa Rica            31. Martinique           48. Virgin Islands (UK)
 15. Cuba                  32. Montserrat           49. Virgin Islands (US)
 16. Dominica              33. Mexico
 17. Dominican Republic    34. Nicaragua
Enter country [44] :
```

Press the Enter or Return key to accept 44 as the suggested answer.

```
Please select a time zone from the following list:
  1. Alaska Time
  2. Alaska Time - Alaska panhandle
  3. Alaska Time - Alaska panhandle neck
  4. Alaska Time - west Alaska
  5. Aleutian Islands
  6. Central Time
  7. Central Time - Michigan - Wisconsin border
  8. Central Time - North Dakota - Oliver County
  9. Eastern Standard Time - Indiana - Crawford County
 10. Eastern Standard Time - Indiana - Starke County
 11. Eastern Standard Time - Indiana - Switzerland County
 12. Eastern Standard Time - Indiana - most locations
 13. Eastern Time
 14. Eastern Time - Kentucky - Louisville area
 15. Eastern Time - Kentucky - Wayne County
 16. Eastern Time - Michigan - most locations
 17. Hawaii
```

```
 18. Mountain Standard Time - Arizona
 19. Mountain Time
 20. Mountain Time - Navajo
 21. Mountain Time - south Idaho & east Oregon
 22. Pacific Time
Enter zone [13] :
Selected Time Zone:      America/New_York

-------------------------- CONFIGURATION SUMMARY --------------------------
DHCP state:     disabled

Hostname: slave.yourcompany.com

IP Interfaces:  Device     IP Address      Network Mask    Default Gateway
                eth0       10.20.30.60      255.255.0.0     10.20.30.254
                eth1       (interface is disabled)

DNS Servers:    10.25.10.31
                10.26.10.31
Search Domains:yourcompany.com

NTP Servers:    10.35.10.51
                10.36.10.51
                10.1.0.3

Time Zone:      America/New_York
---------------------------------------------------------------------------

Is all of the above information correct? [yes] :

---------------------------------------------------------------------------
---------------------------------------------------------------------------
Please wait while the wizard completes.
Saving configuration...Done.
```

End of Network Configuration

The network configuration is complete. If necessary, you can re-run this portion of the script by entering vcx-config-network -wizard.

Start of System Configuration

After successful completion of the network configuration, the script will prompt you to select a set of services.

```
---------------------- Select System Configuration ----------------------

Individual systems may provide various services in a VCX installation.You
must select the appropriate set of services which this system is to
provide.  Be certain that the selection corresponds to the functionality
you have purchased.

Which services will this system provide?

  1. Presence and Conference - all in one
  2. Conferencing server
  3. Conferencing and database server
  4. Data server for presence and conferencing
  5. Presence server (with database)

Enter your choice (1-5) : 4
```

Select "4" to install the following components:

- conference & presence database.

```
You have chosen to configure this system to provide:

  Data server for presence and conferencing

Note that in order for these services to work, you must have purchased an
appropriate license and installed the corresponding license activation key
on this system.

 *** WARNING ***   Once you confirm your selection, you cannot change it.

Are you absolutely certain that you wish to configure this system as an
'Data server for presence and conferencing' server?  If you answer 'no'
here you can choose an alternative configuration.

Confirm selection? [no] : y

Selection confirmed.

*** Assembling VCX.2.9.21 using 'VSBOM.xml' ***
*** Processing components ***
*** Executing assembly commands ***
*** Assembly complete ***

The VCX assembly has been created.  Preparing system for use:
```

```
Performing early startup tasks:                            [  OK  ]
Starting VCX-Firewall:                                     [  OK  ]
Starting httpd:

Removing unneeded application components from the system.
This may take several minutes.  Please wait while the operation completes.

Determining which packages are not used by any VCX version:

 oem.7.0.1                                 : [REMOVE]
 presconf.2.5.21                           : [keep; used in 2.9.21]
 presconf-conf.2.5.21                      : [REMOVE]
 presconf-presence.2.5.21                  : [REMOVE]
 presconf-vcxdb.2.5.21                     : [REMOVE]
 presconf-web.2.5.21                       : [REMOVE]
 vcx-firewall.1.5.6                        : [keep; used in 2.9.21]
 mysql.3.23.58                             : [keep; used in 2.9.21]

Removing packages:

 oem-a-7.0.1-2                             : [OK]
 presconf-conf-2.5.21-1                    : [OK]
 presconf-presence-2.5.21-1                : [OK]
 presconf-vcxdb-2.5.21-1                   : [OK]
 presconf-web-2.5.21-1                     : [OK]

Successfully removed extra packages.
```

End of System Configuration

The system configuration is complete. If necessary, you can re-run this portion of the script by entering vcx-setconfigtype.

Start of E-mail (sSMTP) Configuration

After successful completion of the system configuration, the script will prompt you to set up the e-mail notification utility. The utility sends e-mails when conferences are created and modified, and when users attempt to add contacts to their buddy lists. E-mail notification works once users have added their e-mail addresses to the 3Com IP Conferencing Module.

```
Configuration for sSMTP

(1) mailhub
```

```
This is the computer responsible for handling your outgoing mail. It could be the
SMTP server of your ISP, or a departmental mailhub. Use the fully-qualified domain
name (foo.bar.baz) of the mailhub; if it uses an unusual SMTP port number, use the
colon syntax
  foo.bar.baz:2525
Otherwise sSMTP will use the standard SMTP port number (25).
(Note that sSMTP can support a user-dependent mailhub with the'reverse aliases'
feature, for which see the man page.)

Please enter your mailhub []: mail.yourcompany.com
```

Enter the fully qualified domain name of the computer handling outgoing mail.

```
(2) FromLineOverride
This specifies how sSMTP handles the From: line of outgoing mail. If
FromLineOverride=YES, sSMTP will leave the From: line alone if it already exists.
If FromLineOverride has any other value, or there is no From: line, sSMTP creates
the From: line using your username (or the -f command-line option), and the value of
the rewriteDomain option (step (4), below). If you use a mail user agent (MUA; e.g.
mutt, pine) I recommend using YES and having the MUA set the From: line.
(Exception: the 'reverse aliases' feature can be used to set up a particular From:
address for each user, in which case don't use FromLineOverride=YES. See the man
page.)

FromLineOverride? [YES]:
```

Specify how sSMTP handles the From: line of outgoing mail.

```
(3) hostname
sSMTP uses the hostname of your computer to identify itself to the mailhub, and in
the Received: headers of the outgoing mail. This has relatively little effect on how
the mail is handled. Use the fully-qualified domain name (FQDN) of your
computer(foo.bar.baz).  If it doesn't have a FQDN, use some name for your box.

Hostname of your box [slave.yourcompany.com]:
```

Enter the host name of your computer handling outgoing mail.

```
(4) rewriteDomain
Please enter the mail name of your system.
sSMTP uses this value to add a domain to unqualified e-mail addresses(addresses
without an @-sign).
You probably want to use the domain from your own e-mail address.You probably want
to set up your MUA to handle unqualified addresses itself, in which case sSMTP will
never have to use this.

Mail name [slave.yourcompany.com]:yourcompany.com
```

Enter the mail name of your system.

```
(5) root
Last and least: if sSMTP finds an unqualified e-mail address among the recipients,
and it corresponds to a username on your local machine with a userid less than 1000,
then the e-mail is sent to this value instead.  The idea is that mail sent to 'root'
should probably go to 'postmaster' instead.

If you set up your MUA to do its own handling of unqualified
addresses, this is irrelevant.  Use the default value of 'postmaster' or your own
e-mail address if you're paranoid.

System users receive mail at [postmaster]:postmaster
```

Enter the system user e-mail address.

Note: check with your e-mail administrator for the proper system user e-mail address.

```
Wrote configuration file /etc/ssmtp/ssmtp.conf

Starting mysqld daemon with databases from /opt/3comdata/mysql
Tcl is already installed
Tcl version is 8.3
 Please report any installation problem to
    "3Com Support" <support@3com.com>
```

End of E-mail (sSMTP) Configuration

The e-mail configuration is complete. If necessary, you can re-run this portion of the script by entering usr/sbin/smtp-configure.

Start of Database Configuration

After successful completion of the e-mail configuration, the script will prompt you to select a database configuration.

```
There are different ways to install and access the database.
1 Local Master: this server will have the master database.
2 Local Slave: this server will have a slave database.
3 Remote database: database is on another server.
Please choose one of the above options: 2
```

Select "2" to specify that this server will initially host the slave database as the secondary server in a distributed system.

```
Available applications:
```

End of Database Configuration

The database configuration is complete. If necessary, you can re-run this portion of the script by entering presconf-setup.

Start of IP Conferencing Module Configuration

After successful completion of the database configuration, the script will prompt you to select an initial configuration.

```
Enter the fully qualified hostname for this installation.
[slave.yourcompany.com]:
Assuming default value as slave.yourcompany.com
```

Enter the fully qualified hostname of the machine you are installing on.

```
Assuming the userid of the administrator who will manage the
applications for your domain is root

Enter the administrator's email address. [sipadmin@yourcompany.com]:
Assuming default value as sipadmin@yourcompany.com
```

Enter the administrator's e-mail address. The default is derived from the hostname defined in the network configuration (above).

If the system is configured to send e-mail notification of conference events to users, the e-mails will appear to be sent from the administrator (sipadmin@yourcompany.com). Note that some mail agents may require this to be a valid e-mail address.

```
Host Identifier (hostid) of this machine is: 75896dc20fa90922ddbb2b81


Please send an email to vcxconf@3com.com to receive an activation key to activate
this product.

Please enter the software activation keys one by one; end with an empty line:
```

Send the host ID to 3Com, which will use it to generate your activation keys. Once 3Com has returned the activation keys to you, you can paste them into the install session when prompted.

The activation keys are validated as they are entered. If validation is successful, the keys will be stored in a license file and the installation session will continue. If validation is unsuccessful, the installation session will be aborted.

```
Enter key:
sippeng:master.yourcompany.com:+:-:-:-:5ea71ce717ea55627152a1db82d54592
key ok for sippeng
Enter key:
License file name: /opt/3com/components/presconf.2.5.21/presconf_licenses

Enter the mysql user name for accessing the master database.[root]:
Assuming default value as root

Enter the host name on which the master database is running. []:
master.yourcompany.com
```

Enter the host name of the master (primary) server.

```
Enter the mysql password for user root at master.yourcompany.com. [NULL]:
Assuming default value as NULL

The command scripts/remote_access.sh needs to be run on the master server to allow
access to this server.  Has this been done? y/n: y
```

To allow access to the secondary server:

1. *Open a command window on the the master (primary) server*
2. *Run remote_access.sh <secondary-server hostname | IP>*
3. *When prompted, enter the password for the slave (secondary) server (default is pvadmin)*
4. *Return to the slave (secondary) server and enter "Y" at the prompt.*

```
Please enable remote access to the master server by providing the root password for
master.yourcompany.com
REMOTE is at master.yourcompany.com
Enter the password for root@master.yourcompany.com: pvadmin
```

Enter the password for the master (primary) server.

```
# master.yourcompany.com SSH-1.99-OpenSSH_3.6.1p2
# master.yourcompany.com SSH-1.99-OpenSSH_3.6.1p2
Warning: Permanently added the RSA host key for IP address '10.1.0.249' to the list
of known hosts.
root@master.yourcompany.com's password:
OK
now testing if we can connect to master.yourcompany.com
SUCCESS
Continuing slave database installation...
Master server hostname is <master.yourcompany.com>
Enter the fully qualified host name or IP address for the slave server. Default
[presconf1.yourcompany.com]:
Assuming default value as presconf1.yourcompany.com
```

```
Creating cinema_db2.conf on master database server
On master database server copy cinema_db.conf to cinema_db1.conf
In my.cnf on master, ensure server-id exists and binary logging is enabled.
MySQL my.cnf files updated. Copying modified my.cnf file back to master database
server
Grant access to master database from this server
Opening slave database.
On slave run mysql CHANGE MASTER and have it point to the master db.
Enter the mysql replication password for this installation (both master and slave)
On slave GRANT ACCESS to the master database using the replication password
Create the SIP database now to avoid errors with mysqldump later on
Allow access to the mysql port through the firewall for both master and slave
Opening master database.
Run mysql CHANGE MASTER and have it point to the slave db.
On master GRANT ACCESS to the slave database using the replication password
Insert a record for the new database into dbservers table on master database.
Restart the slave database.
060112 10:56:27  mysqld ended


Slave database successfully installed.
Call make_slave.sh to dump the master database and start replication.
Check if watchdog is already running
Watchdog is not running - starting it
Watchdog is running
Ensure watchdog is running on master database server.
db_watchdog is probably not running on  master.yourcompany.com. Try starting it.
db_watchdog successfully started on master.yourcompany.com
Slave successfully installed


-- Creating cinema_db.conf
-- Changing permissions of all the files in /opt/3com/components/presconf.2.5.21 to
755.
-- Trying to load fbsql.so...
-- fbsql is loaded...
-- Opening the database sql://root:NULL@master.yourcompany.com/mysql
-- Changing permissions for presconf1.yourcompany.com
-- Changing permissions for master.yourcompany.com
-- Changing permissions for presconf1.yourcompany.com
-- Changing permissions for presconf1.yourcompany.com
-- Flushing privleges
-- Opening the database sql://root:NULL@master.yourcompany.com/mysql
-- Database is successfully initialized.

3Com IP Conferencing Module applications will be automatically restarted  when
system reboots

-- Changing permissions of all the files in /opt/3com/components/presconf.2.5.21.
```

```
restarting httpd...

Creating a directory client_config to hold the soft client
autoconfiguration files...

Directory created successfully at
  /opt/3com/components/presconf.2.5.21/client_config
Any files that you store in this directory are accessible via
  http://presconf1.yourcompany.com/3c3/<CONFIGFILENAME>.xml

If you have not already entered the license string during installation
you must do so from the web interface before trying to run any
application in 3Com software.

You may start, stop and monitor the 3Com IP Conferencing Module applications using
the following command(s):
> service <application> start|stop|status|restart
Else, you may do so using the web interface.

Your installation is complete.
To add new user or to change your profile visit appropriate
URL corresponding to /opt/3com/components/presconf.2.5.21/gui.

Once again,  Please report any installation problem to
    "3Com Support" <support@3com.com>


************************************************
* Output, from this install session, was saved to:
*  install_log.Jan_12_2006
************************************************


Would you like to start the 3Com IP Conferencing Module services now?
(N/Y) [N]: y
```

Select "Y" to complete the installation and start the services.

```
Starting VCX Services:
Starting vcx/mysql:                                        [  OK  ]
Starting vcx/db_watchdog:                                  [  OK  ]
Started VCX Services: 2 started.
```

All services will start.

End of IP Conferencing Module Configuration

Sample vcx-setup Script (Conference server)

This section contains a sample of the vcx-setup script for the conference servers in a multiple server configuration that has between four and twelve servers.

In a multiple server configuration, up to ten servers can host conferences. Two others (the primary and secondary servers) must be dedicated to hosting the redundant database.

The following options are selected in this sample script:

- Conferencing server configuration (conference server and conference attendant server)

To run the vcx-setup script:

1. Log in to the server as **root**.
2. Enter a password (default is pvadmin).
3. Press **Enter** (or Return).

```
-bash-2.05b# vcx-setup
```

*Enter **vcx-setup** at the command prompt.*

```
------------------------------------------------------------------------
---------- Welcome to the VCX Linux Network Configuration Wizard ----------
------------------------------------------------------------------------
This wizard sets up networking and related services.
```

Start of Network Configuration

```
Configure networking now? [yes] :
```

Press the Enter or Return key to accept yes as the suggested answer.

```
--------- Configuring Dynamic Host Configuration Protocol (DHCP) ----------

VCX servers can use DHCP for automated configuration, but this requires
that the DHCP server is configured to provide the proper options.  Unless
you know that your environment is set up in this way, you should say 'no'
here and configure static network parameters.

Use DHCP on eth0 to configure network parameters? [no] :

---------- Configuring Hostname ----------
Enter system hostname [localhost] : conf.yourcompany.com
```

```
---------- Configuring IP Interface 'eth0' ----------
Enter IP Address               [192.168.1.100  ] : 10.20.30.62
Enter Network Subnet Mask      [255.255.255.0  ] : 255.255.255.0
Enter Default Gateway Address  [10.20.30.254   ]  : 10.20.30.254

---------- Configuring IP Interface 'eth1' ----------
Interface State          : disabled
```

Note that 'eth1' is not used for the 3Com IP Conferencing Module.

```
---------- Configuring DNS Servers ----------
Enter DNS servers one at a time.
When done, enter 0.0.0.0 to stop.
Primary DNS Server   [192.168.1.1] : 10.25.10.31
Secondary DNS Server [192.168.1.2] : 10.26.10.31
Tertiary DNS Server  [0.0.0.0] : 0.0.0.0

---------- Configuring DNS Search Path ----------
Press Enter to leave the current path unchanged, or specify
a new search path, with spaces separating each entry.

DNS Search Path []: yourcompany.com

---------- Configuring Network Time Protocol ----------
Enter NTP servers one at a time.
When done, enter 0.0.0.0 to stop.

Primary NTP Server   [192.168.1.253] : 10.35.10.51
Secondary NTP Server [192.168.1.252] : 10.36.10.51
Additional NTP Server : 10.1.0.3

-------------------------- Configuring Time Zone --------------------------

Please select a geographic location from the following list:
  1. Africa
  2. Americas
  3. Antarctica
  4. Arctic Ocean
  5. Asia
  6. Atlantic Ocean
  7. Australia
  8. Europe
  9. Indian Ocean
 10. Pacific Ocean
Enter continent [2] :
```

Press the Enter or Return key to accept 2 as the suggested answer.

```
Please select a country from the following list:
  1. Antigua & Barbuda      18. Ecuador               35. Panama
  2. Anguilla               19. Grenada               36. Peru
  3. Netherlands Antilles   20. French Guiana         37. St Pierre & Miquelon
  4. Argentina              21. Greenland             38. Puerto Rico
  5. Aruba                  22. Guadeloupe            39. Paraguay
  6. Barbados               23. Guatemala             40. Suriname
  7. Bolivia                24. Guyana                41. El Salvador
  8. Brazil                 25. Honduras              42. Turks & Caicos Is
  9. Bahamas                26. Haiti                 43. Trinidad & Tobago
 10. Belize                 27. Jamaica               44. United States
 11. Canada                 28. St Kitts & Nevis      45. Uruguay
 12. Chile                  29. Cayman Islands        46. St Vincent
 13. Colombia               30. St Lucia              47. Venezuela
 14. Costa Rica             31. Martinique            48. Virgin Islands (UK)
 15. Cuba                   32. Montserrat            49. Virgin Islands (US)
 16. Dominica               33. Mexico
 17. Dominican Republic     34. Nicaragua
Enter country [44] :
```

Press the Enter or Return key to accept 44 as the suggested answer.

```
Please select a time zone from the following list:
  1. Alaska Time
  2. Alaska Time - Alaska panhandle
  3. Alaska Time - Alaska panhandle neck
  4. Alaska Time - west Alaska
  5. Aleutian Islands
  6. Central Time
  7. Central Time - Michigan - Wisconsin border
  8. Central Time - North Dakota - Oliver County
  9. Eastern Standard Time - Indiana - Crawford County
 10. Eastern Standard Time - Indiana - Starke County
 11. Eastern Standard Time - Indiana - Switzerland County
 12. Eastern Standard Time - Indiana - most locations
 13. Eastern Time
 14. Eastern Time - Kentucky - Louisville area
 15. Eastern Time - Kentucky - Wayne County
 16. Eastern Time - Michigan - most locations
 17. Hawaii
 18. Mountain Standard Time - Arizona
 19. Mountain Time
 20. Mountain Time - Navajo
 21. Mountain Time - south Idaho & east Oregon
```

```
 22. Pacific Time
Enter zone [13] :
Selected Time Zone:      America/New_York

------------------------- CONFIGURATION SUMMARY -------------------------
DHCP state:     disabled

Hostname: slave.yourcompany.com

IP Interfaces:  Device     IP Address      Network Mask    Default Gateway
                eth0       10.20.30.60      255.255.0.0     10.20.30.254
                eth1       (interface is disabled)

DNS Servers:    10.25.10.31
                10.26.10.31
Search Domains:yourcompany.com

NTP Servers:    10.35.10.51
                10.36.10.51
                10.1.0.3

Time Zone:      America/New_York
-------------------------------------------------------------------------

Is all of the above information correct? [yes] :

-------------------------------------------------------------------------
-------------------------------------------------------------------------
Please wait while the wizard completes.
Saving configuration...Done.
```

End of Network Configuration

The network configuration is complete. If necessary, you can re-run this portion of the script by entering vcx-config-network -wizard.

Start of System Configuration

After successful completion of the network configuration, the script will prompt you to select a set of services.

```
---------------------- Select System Configuration ----------------------

Individual systems may provide various services in a VCX installation.You
must select the appropriate set of services which this system is to
```

```
provide.  Be certain that the selection corresponds to the functionality
you have purchased.

Which services will this system provide?

  1. Presence and Conference - all in one
  2. Conferencing server
  3. Conferencing and database server
  4. Data server for presence and conferencing
  5. Presence server (with database)

Enter your choice (1-5) : 2
```

Select "2" to install the following components:

- conference server
- conference attendant server.

```
You have chosen to configure this system to provide:

  Conferencing server

Note that in order for these services to work, you must have purchased an
appropriate license and installed the corresponding license activation key
on this system.

 *** WARNING ***   Once you confirm your selection, you cannot change it.

Are you absolutely certain that you wish to configure this system as an
'Data server for presence and conferencing' server?  If you answer 'no'
here you can choose an alternative configuration.

Confirm selection? [no] : y

Selection confirmed.

*** Assembling VCX.2.9.21 using 'VSBOM.xml' ***
*** Processing components ***
*** Executing assembly commands ***
*** Assembly complete ***

The VCX assembly has been created.  Preparing system for use:

Performing early startup tasks:                          [  OK  ]
Starting VCX-Firewall:                                   [  OK  ]
Starting httpd:
```

```
Removing unneeded application components from the system.
This may take several minutes.  Please wait while the operation completes.

Determining which packages are not used by any VCX version:

 callprocessor.7.0.13                    : [skipped; unknown package]
 devapp.7.0.13.14                        : [skipped; unknown package]
 devboot.5_0_0_C                         : [skipped; unknown package]
 devdnldsvr.07.00.05.06                  : [skipped; unknown package]
 oem.7.0.1                               : [REMOVE]
 presconf.2.5.21                         : [keep; used in 2.9.21]
 presconf-conf.2.5.21                    : [keep; used in 2.9.21]
 presconf-presence.2.5.21                : [REMOVE]
 presconf-vcxdb.2.5.21                   : [REMOVE]
 presconf-web.2.5.21                     : [REMOVE]
 vcx-firewall.1.5.6                      : [keep; used in 2.9.21]
 ACE.5.3.6                               : [skipped; unknown package]
 mysql.3.23.58                           : [REMOVE]
 oracle.9.2.0.4                          : [skipped; unknown package]
 STLport.4.6.1                           : [skipped; unknown package]
 xerces.c1_5_1                           : [skipped; unknown package]

Removing packages:

 oem-a-7.0.1-2                           : [OK]
 presconf-presence-2.5.21-1              : [OK]
 presconf-vcxdb-2.5.21-1                 : [OK]
 presconf-web-2.5.21-1                   : [OK]
 mysql-3.23.58-1                         : [OK]

Successfully removed extra packages.
```

End of System Configuration

The system configuration is complete. If necessary, you can re-run this portion of the script by entering vcx-setconfigtype.

Start of E-mail (sSMTP) Configuration

After successful completion of the system configuration, the script will prompt you to set up the e-mail notification utility. The utility sends e-mails when conferences are created and modified, and when users attempt to add contacts to their buddy lists. E-mail notification works

once users have added their e-mail addresses to the 3Com IP Conferencing Module.

```
Configuration for sSMTP

(1) mailhub
This is the computer responsible for handling your outgoing mail. It could be the
SMTP server of your ISP, or a departmental mailhub. Use the fully-qualified domain
name (foo.bar.baz) of the mailhub; if it uses an unusual SMTP port number, use the
colon syntax
  foo.bar.baz:2525
Otherwise sSMTP will use the standard SMTP port number (25).
(Note that sSMTP can support a user-dependent mailhub with the'reverse aliases'
feature, for which see the man page.)

Please enter your mailhub []: mail.yourcompany.com
```

Enter the fully qualified domain name of the computer handling outgoing mail.

```
(2) FromLineOverride
This specifies how sSMTP handles the From: line of outgoing mail. If
FromLineOverride=YES, sSMTP will leave the From: line alone if it already exists.
If FromLineOverride has any other value, or there is no From: line, sSMTP creates
the From: line using your username (or the -f command-line option), and the value of
the rewriteDomain option (step (4), below). If you use a mail user agent (MUA; e.g.
mutt, pine) I recommend using YES and having the MUA set the From: line.
(Exception: the 'reverse aliases' feature can be used to set up a particular From:
address for each user, in which case don't use FromLineOverride=YES. See the man
page.)

FromLineOverride? [YES]:
```

Specify how sSMTP handles the From: line of outgoing mail.

```
(3) hostname
sSMTP uses the hostname of your computer to identify itself to the mailhub, and in
the Received: headers of the outgoing mail. This has relatively little effect on how
the mail is handled. Use the fully-qualified domain name (FQDN) of your
computer(foo.bar.baz).  If it doesn't have a FQDN, use some name for your box.

Hostname of your box [slave.yourcompany.com]:
```

Enter the host name of your computer handling outgoing mail.

```
(4) rewriteDomain
Please enter the mail name of your system.
sSMTP uses this value to add a domain to unqualified e-mail addresses(addresses
without an @-sign).
```

```
You probably want to use the domain from your own e-mail address.You probably want
to set up your MUA to handle unqualified addresses itself, in which case sSMTP will
never have to use this.

Mail name [slave.yourcompany.com]:yourcompany.com
```

Enter the mail name of your system.

```
(5) root
Last and least: if sSMTP finds an unqualified e-mail address among the recipients,
and it corresponds to a username on your local machine with a userid less than 1000,
then the e-mail is sent to this value instead.  The idea is that mail sent to 'root'
should probably go to 'postmaster' instead.

If you set up your MUA to do its own handling of unqualified
addresses, this is irrelevant.  Use the default value of 'postmaster' or your own
e-mail address if you're paranoid.

System users receive mail at [postmaster]:postmaster
```

Enter the system user e-mail address.

Note: check with your e-mail administrator for the proper system user e-mail address.

```
Wrote configuration file /etc/ssmtp/ssmtp.conf

Starting mysqld daemon with databases from /opt/3comdata/mysql
Tcl is already installed
Tcl version is 8.3
 Please report any installation problem to
    "3Com Support" <support@3com.com>
```

End of E-mail (sSMTP) Configuration

The e-mail configuration is complete. If necessary, you can re-run this portion of the script by entering usr/sbin/smtp-configure.

Start of Database Configuration

After successful completion of the e-mail configuration, the script will prompt you to select a database configuration.

```
There are different ways to install and access the database.
1 Local Master: this server will have the master database.
2 Local Slave: this server will have a slave database.
```

```
3 Remote database: database is on another server.
Please choose one of the above options: 3
```

Select "3" to specify that this server will not host a database (all servers except the primary and secondary servers in a distributed system).

```
Available applications:
```

End of Database Configuration

The database configuration is complete. If necessary, you can re-run this portion of the script by entering presconf-setup.

Start of IP Conferencing Module Configuration

After successful completion of the database configuration, the script will prompt you to select an initial configuration.

```
Enter the fully qualified hostname for this installation.
[slave.yourcompany.com]:
Assuming default value as conf.yourcompany.com
```

Enter the fully qualified hostname of the machine you are installing on.

```
Assuming the userid of the administrator who will manage the 3Com applications for
your domain is root

Enter the administrator's email address. [sipadmin@yourcompany.com]:
Assuming default value as sipadmin@yourcompany.com
```

Enter the administrator's e-mail address. The default is derived from the hostname defined in the network configuration (above).

If the system is configured to send e-mail notification of conference events to users, the e-mails will appear to be sent from the administrator (sipadmin@yourcompany.com). Note that some mail agents may require this to be a valid e-mail address.

```
Host Identifier (hostid) of this machine is: 75896dc20fa90922ddbb2b81


Please send an email to vcxconf@3com.com to receive an activation key to activate
this product.

Please enter the software activation keys one by one; end with an empty line:
```

Send the host ID to 3Com, which will use it to generate your activation keys. Once 3Com has returned the activation keys to you, you can paste them into the install session when prompted.

The activation keys are validated as they are entered. If validation is successful, the keys will be stored in a license file and the installation session will continue. If validation is unsuccessful, the installation session will be aborted.

```
Enter key:
sipconf:conf.yourcompany.com:+:-:-:150-30-1-1-1:9feb3ec5f5396a76328a01722602f42b
key ok for sipconf
Enter key:
sipvxml:conf.yourcompany.com:+:-:-:30-10:ed52ae38341b4d74c7730d13dc9dc0a7
key ok for sipvxml
Enter key:
License file name: /opt/3com/components/presconf.2.5.21/presconf_licenses
Validating the license for sipconf application ...
The license key
sipconf:conf.yourcompany.com:+:-:-:150-30-1-1-1:9feb3ec5f5396a76328a01722602f42b is
valid

Validating the license for sipvxml application ...
The license key
sipvxml:conf.yourcompany.com:+:-:-:30-10:ed52ae38341b4d74c7730d13dc9dc0a7 is valid

Enter the mysql user name for accessing the master database.[root]:
Assuming default value as root

Enter the host name on which the master database is running. []:
master.yourcompany.com
```

Enter the host name of the master (primary) server.

```
Enter the mysql password for user root at master.yourcompany.com. [NULL]:
Assuming default value as NULL

The command scripts/remote_access.sh needs to be run on the master server to allow
access to this server.  Has this been done? y/n: y
```

To allow access to the conference server from the master (primary) server:

1. *Open a command window on the the master (primary) server*
2. *Run remote_access.sh <conf-server hostname | IP>*
3. *When prompted, enter the password for the conference server (default is pvadmin)*

To allow access to the conference server from the slave (secondary) server:

1. Open a command window on the the slave (secondary) server

2. Run remote_access.sh <conf-server hostname | IP>

3. When prompted, enter the password for the conference server (default is pvadmin)

As a final step, return to the conference server and enter "Y" at the prompt.

```
The SIP conferencing server will be running at conf.yourcompany.com:5060

The Conference Attendant Server will be running at conf.yourcompany.com:5092
fbsql is loaded...
Opening the database sql://root:NULL@perfconf.yourcompany.com/mysql
The range of the numeric conference names must be specified

Enter the minimum value for numeric conference names. [8000]: 7600

Enter the maximum value for numeric conference names.  Note that
it must have the same number of digits as the minimum value. : 7689

For conference server, the prefix of ad hoc conference can be specified

Enter the prefix for ad hoc conference. [96]: 769

Enter the IP address of the primary dialout proxy:
Value entered by user is: 10.1.15.5
```

Enter the IP address of the primary VCX system used for DTMF dialout during conferences.

```
Enter the IP address of the secondary dialout proxy:
Assuming default value as
```

Enter the IP address of the secondary VCX system used for DTMF dialout during conferences.

```
Enter the digitmap for DTMF dialout.[[1-7]XX|9XXXXXXXXXX|91XXXXXXXXX|9011.XT]:
Assuming default value as [1-7]XX|9XXXXXXXXXX|91XXXXXXXXX|9011.XT
```

Enter the digit map used to define the dial plan for DTMF dialout.

Several lines of text appear before the next prompt.

```
-- Creating cinema_db.conf
-- Changing permissions of all the files in /opt/3com/components/presconf.2.5.21 to
755.
```

```
-- Trying to load fbsql.so...
-- fbsql is loaded...
-- Opening the database sql://root:NULL@perfconf.yourcompany.com/mysql
-- Changing permissions for conf.yourcompany.com
-- Changing permissions for conf.yourcompany.com
-- Changing permissions for conf.yourcompany.com
-- Changing permissions for conf.yourcompany.com
-- Changing permissions for conf.yourcompany.com
-- Flushing privleges
-- Opening the database sql://root:NULL@perfconf.yourcompany.com/mysql
-- Database is successfully initialized.

3Com IP Conferencing Module applications will be automatically restarted  when
system reboots


-- Installing SIP Conferencing servers ...

-- Changing permissions of all the files in /opt/3com/components/presconf.2.5.21.

-- Changing owner and permissions of
/opt/3com/components/presconf.2.5.21/sipconf/sipconf.
restarting httpd...

Creating a directory client_config to hold the soft client
autoconfiguration files...

Directory created successfully at
  /opt/3com/components/presconf.2.5.21/client_config
Any files that you store in this directory are accessible via
  http://conf.yourcompany.com/3c3/<CONFIGFILENAME>.xml

If you have not already entered the license string during installation
you must do so from the web interface before trying to run any
application in 3Com software.

You may start, stop and monitor the 3Com IP Conferencing Module applications using
the following command(s):
> service <application> start|stop|status|restart
Else, you may do so using the web interface.

Your installation is complete.
To add new user or to change your profile visit appropriate
URL corresponding to /opt/3com/components/presconf.2.5.21/gui.

Once again,  Please report any installation problem to
    "3Com Support" <support@3com.com>


************************************************
```

```
* Output, from this install session, was saved to:
*  install_log.Jan_12_2006
************************************************


Would you like to start the 3Com IP Conferencing Module services now?
(N/Y) [N]: y
Starting VCX Services:
Starting vcx/db_watchdog:                                  [  OK  ]
Starting vcx/confbridge:                                   [  OK  ]
Starting vcx/sipconf:                                      [  OK  ]
Started VCX Services: 3 started.
-bash-2.05b#
```

All services will start.

End of IP Conferencing Module Configuration

Post Installation Configuration

Before the 3Com IP Conferencing Module can be used, the VCX system must be configured to work with it. The following items must be set up:

- Create Routes to the:
  - Conference Server
  - Conference Attendant
- Presence Server Configuration
- Test the E-mail Notification Setup.

Set up Conference Server Routes

You must program the VCX dial plan with one or more routes to the conference server pool. If you have only one server (an "all-in-one" implementation), then only one route is required. If you have two or more servers, then at least two routes are required to provide redundancy. The VCX system uses the routes to forward SIP INVITE messages to the designated "routing" conference servers, which in turn redirect callers to the appropriate "hosting" conference servers.

Different conference types may require different routes. For example, if users dial the prefix 76 to call Ad Hoc conferences and 74 to call other conferences, then one route is required for dial pattern 76 and another is required for dial pattern 74.

For information on how to program the VCX dial plan, see the *3Com VCX Administration Guide*.

To create a route for conferences:

1. Using a browser, log in to the VCX system as admin (default password is besgroup).
2. Set up a Pattern.

   Pattern Name : 74*

   Pattern Value : 74*
3. Create an Endpoint for the route.

   Type : Terminal

   Active : Active

   Name : Confser

   Description : Confser

   IP Address : 10.20.30.60

   IP Port : 5060
4. Create a route.

   Name : Confser

   Code Contact : use default

   Sort Policy : use default
5. Assign an endpoint to the route created in step 3.
6. Add a URI Route Map.

   Active : Active

   Name : Confser

   Pattern : 74

   Route : Confser

Set up Conference Attendant Routes

You must program the VCX dial plan with one or more routes to the conference attendants in your server pool. If you have only one server (an "all-in-one" implementation), then only one route is required. If you have two or more servers, then at least two routes are required to provide redundancy.

For information on how to program the VCX dial plan, see the *3Com VCX Administration Guide*.

In this example, the Conference Attendant can be accessed at extension 8074.

To set up the route for the Conference Attendant:

1. Using a browser, log in to the VCX system as admin (default password is besgroup).
2. Set up a Pattern.

   Pattern Name : 8074

   Pattern Value : 8074
3. Create an Endpoint for the route.

   Type : Terminal

   Active : Active

   Name : Confser

   Description : Confatt

   IP Address : 10.20.30.60

   IP Port : 5092
4. Create a route

   Name : Confatt

   Code Contact : use default

   Sort Policy : use default
5. Assign an endpoint to the route created in step 3.
6. Add a URI Route Map.

   Active : Active

   Name : Confatt

   Pattern : 8074

   Route : Confatt

Trusted Host Configuration

For conferencing and presence to function properly, the following servers must be added as trusted hosts to the VCX system:

- Presence server
- Conference Attendant Server(s)
- Conference Server(s)

To add the Presence and Conference Server(s) to the VCX system as a trusted host:

1 Log in to the VCX as **root**.

2 At the prompt, enter:

```
cd /opt/3com/VCX/callprocessor/remoteCli/bin/
./remoteCli -callp
```

3 To check a list of the current trusted hosts, enter:

```
config cct
```

Output similar to the following will appear:

```
To add/delete rows for dynamic tables,
     set the RowStatus field along with the key.
     RowStatus values are
        1 (ACTIVE)
        2 (NOT_IN_SERVICE)
        3 (NOT_READY)
        4 (CREATE_AND_GO)
        5 (CREATE_AND_WAIT)
        6 (DESTROY)

      cct
        -Index -RowStatus -TrustedAddress -Netmask
           2      1          10.1.0.157      255.255.255.255
           3      1          10.1.1.8        255.255.255.255
           5      1          10.1.0.3        255.255.255.255
           6      1          10.1.4.1        255.255.255.255
           7      1          10.1.1.240      255.255.255.255
           8      1          10.1.0.239      255.255.255.255
```

Review the Index column in the output and choose an unused index; in the above example, 1 or 4 or 9 would do.

4 Enter the following, replacing "9" with your chosen index and "10.1.1.1" with the IP address of the trusted host. For example,

```
config cct index=9 rowstatus=4 trustedaddress=10.1.1.1
netmask=255.255.255.255
```

5 Verify that you entered the correct information by entering:

```
config cct
```

Output similar to the following will appear:

```
To add/delete rows for dynamic tables,
     set the RowStatus field along with the key.
     RowStatus values are
```

```
  1 (ACTIVE)
  2 (NOT_IN_SERVICE)
  3 (NOT_READY)
  4 (CREATE_AND_GO)
  5 (CREATE_AND_WAIT)
  6 (DESTROY)

cct
    -Index -RowStatus -TrustedAddress -Netmask
    2      1          10.1.0.157      255.255.255.255
    3      1          10.1.1.8        255.255.255.255
    5      1          10.1.0.3        255.255.255.255
    6      1          10.1.4.1        255.255.255.255
    7      1          10.1.1.240      255.255.255.255
    8      1          10.1.0.239      255.255.255.255
    9      1          10.1.1.1        255.255.255.255
```

6 To exit the remoteCli application, enter

```
exit
```

For information on how to program trusted endpoints on the VCX, see the *3Com VCX Administration Guide*.

Test E-Mail Notification Setup

Run the following test to ensure that the e-mail setup works correctly.

1 Log in to the server as **root**.

2 At the prompt, enter:

```
/usr/sbin/sendmail user@domain.com
From: sender@domain.com
To: user@domain.com
Subject: test e-mail
[blank line]
test1
test1
test1
```

3 Ctrl-D

Be aware that most Mail Transfer Agents (MTAs) require valid To: and From: addresses.

If the user fails to receive the e-mail message, check for errors in `/opt/logs/vcx-linux/maillog`. After resolving the problem, run the E-Mail setup again.

Upgrade Installation

Software upgrades are completed by running two scripts: install-upgrade and vcx-switchversion. The install-upgrade script upgrades the VCX Linux operating system to the latest version (if necessary) and installs the software packages. The vcx-switchversion script provisions the system with the software packages.

It is possible to upgrade from Apps 2.0 to Apps 3.0 provided that the server is designated as either an all-in-one or primary server.

Distributed Implementation Upgrade Guidelines

For a distributed implementation with two or more servers, follow these guidelines when upgrading the system software:

1. Run the same version of the install-upgrade script on all servers.
2. From the Servers Monitor screen, stop all processes on all servers.

The db_watchdog process must be stopped manually. To do this, open a command window on the primary server and enter ps -ef | grep db_watchdog. The process ID displays. Next, enter kill <process ID>.

3. Ensure that the server that originally hosted the master database is currently hosting the master database:
   - On the original master server, open cinema_conf. If this file points to localhost, then the server is still the master. Otherwise, do the following:
   a. On the original slave server, go to /opt/3Com/VCX/presconf and type **`./scripts/make_slave.sh`**.
   b. On the original master server, go to /opt/3Com/VCX/presconf and type **`./scripts/make_master.tcl`**.
4. Run the switchversion script, first on the master server, then on all other servers.

Sample install-upgrade Script

To run the install-upgrade script:

1. Untar the software files and add them to a directory on the server.
2. Log in to the server as **root**.
3. Enter a password (default is pvadmin).
4. Go to the directory where the software files are located.
5. Press **Enter** (or Return).

```
-bash-2.05b# ./install-upgrade
```

*Enter **./install-upgrade** at the command prompt.*

Start of install-upgrade Script

```
------------------------------------------------------------------------------
------------------------- VCX Upgrade Installer ------------------------------
------------------------------------------------------------------------------

------------------------- Pre-Installation Checks ----------------------------

Checking that required files are present...

Checking which packages are needed...

  3ComInstall-1.1-1.noarch.rpm             : already present
  vcx-firewall-1.5.5-1.noarch.rpm          : needed
  mysql-3.23.58-1.i386.rpm                 : already present
  presconf-2.5.13-1.i386.rpm               : needed
  presconf-conf-2.5.13-1.i386.rpm          : needed
  presconf-presence-2.5.13-1.i386.rpm      : needed
  presconf-vcxdb-2.5.13-1.i386.rpm         : needed
  presconf-web-2.5.13-1.i386.rpm           : needed
  oem-a-7.0.1-2.i386.rpm                   : needed

Checking for available disk space...

  Determining required space: ....... Done.
  Required space  :        33581 K
  Available space :     59679580 K
  There is sufficient disk space.

----------------------------- OS Installation ------------------------------
OS file to install  : vcx-linux-4.4.0-111505.000
Target OS partition : 'A', device /dev/sda2
Replacing version   : 3.2.4
Continue with OS installation? [yes] :

Installing partition image on /dev/sda2.

partimage: status: initializing the operation
partimage: status: reading partition informations
partimage: status: copying used data blocks
partimage: status: commiting buffer cache to disk.
/dev/sda2: 39554/251392 files (0.1% non-contiguous), 117820/502023 blocks
resize2fs 1.32 (09-Nov-2002)
The filesystem on /dev/sda2 is now 526128 blocks long.

tune2fs 1.32 (09-Nov-2002)
```

```
Setting maximal mount count to -1
Setting interval between check 15552000 seconds

Updating fstab files.

Configuring GRUB boot loader...Done.

Transferring configuration data.

Checking kernel configuration:
...Selecting standard kernel
Done.
Copying configuration files:
 hosts
 passwd
 group
 resolv.conf
 ntp.conf
 modules.conf
 sysconfig/network
 sysconfig/hwconf
 sysconfig/network-scripts/ifcfg-eth0
 sysconfig/network-scripts/ifcfg-eth1
 .vcx-config-network
 ssmtp/revaliases
 ssmtp/ssmtp.conf
 ssh/ssh_config
 ssh/sshd_config
 ssh/ssh_host_key
 ssh/ssh_host_key.pub
 ssh/ssh_host_dsa_key
 ssh/ssh_host_dsa_key.pub
 ssh/ssh_host_rsa_key
 ssh/ssh_host_rsa_key.pub
 httpd/conf/ssl.key/server.key
 httpd/conf/ssl.crt/server.crt
Done.
Copying user specific SSH files:
 /root/.ssh
Done.
Setting console speed to 9600: Done.
Configuring timezone: Done.
Transferring cron entries:
Done.
Migrating CUPS configuration: Done.
Updating /usr/sbin/vcx-switchversion: Done.
Updating /usr/sbin/vcx-showmachineid: Done.
Updating /usr/sbin/vcx-licensequery: Done.
Updating /usr/sbin/vcx-licenseinstall: Done.
Updating /usr/sbin/vcx-updatecfg: Done.
```

```
Updating /usr/sbin/vcx-createcfg: Done.
Configuration transfer completed successfully.

-------------------------- Package Installation --------------------------

Installing 7 packages...

  vcx-firewall-1.5.5-1.noarch.rpm          : OK
  presconf-2.5.13-1.i386.rpm               : OK
  presconf-conf-2.5.13-1.i386.rpm          : OK
  presconf-presence-2.5.13-1.i386.rpm      : OK
  presconf-vcxdb-2.5.13-1.i386.rpm         : OK
  presconf-web-2.5.13-1.i386.rpm           : OK
  oem-a-7.0.1-2.i386.rpm                   : OK

7 packages installed.
---------------------------- Final Assembly ----------------------------

Installing assembly package...

  vcx-assembly-APPS-2.9.13-1.i386.rpm      : OK

Assembly package installed.

------------------- Installation Completed Successfully -------------------
------------------- VCX version 2.9.13 is now available -------------------
```

End of install-upgrade Script

Record the VCX version number that appears at the end of the install-upgrade script. You will need it to run the next script (the system provisioning script).

Sample vcx-switchversion Script

Run the switchversion script after completing the install-upgrade script for a software upgrade. This script provisions the system with the latest software application packages.

The vcx-switchversion script takes the system out of service for several minutes. Accordingly, run the script during a period of low system activity.

To run the switchversion script:

1. Log in to the server as **root**.
2. Enter a password (default is pvadmin).
3. Go to the directory where the software files are located.
4. Press **Enter** (or Return).

```
-bash-2.05b# vcx-switchversion 2.9.3
```

*Enter **vcx-switchversion <version-number>** at the command prompt. For **<version-number>**, enter the VCX version number that appeared at the end of the install-upgrade script.*

Start of vcx-switchversion Script

```
-bash-2.05b# vcx-switchversion 2.9.13
Checking if VCX can switch to VCX.2.9.13
ls: /opt/3com/VCX.2.9.13/scripts/upgrade/C??*: No such file or directory
Checking os versions: YES
Switching VCX to VCX.2.9.13:
...setting up
...checking if this is a VCX 5.X upgrade: no
...checking if existing configuration file is valid for new version.
...copying existing configuration file.
...selecting operating system partition
The currently active OS is 'B', OS version 3.3.1
Selecting OS installation 'A', OS version 4.4.0
Configuring GRUB boot loader...Done.
Version switch complete.  Rebooting to start new version.

Broadcast message from root (pts/0) (Tue Dec 20 11:21:43 2005):

The system is going down for reboot NOW!
```

End of vcx-switchversion Script

If upgrading from release 2.0 to release 3.0, you will be required to add new activation keys (license keys).

Managing the Activation Keys

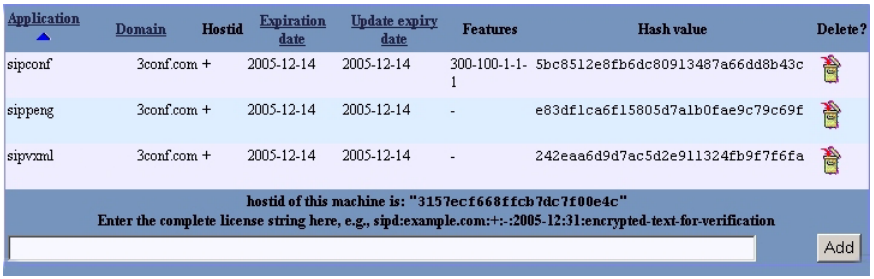
If you have purchased new applications, or need to increase the number of users on your system, then you may need to upgrade your activation keys (license keys). Each system has a unique system host ID that is used in the generation of activation keys.

Before upgrading the activation keys, first ensure that the VCX Linux operating system and the 3Com IP Conferencing Module software is installed. Then do the following:

1. Using a browser, log in to the 3Com IP Conferencing Module as **root**.
2. Select **Admin > System Config** from the menu bar.

3 From quick links, select **Licensing Information**.
The License Information screen appears, listing the system's activation keys and host ID.

Figure 4 License Information



4 To delete an activation key, press  .

5 To add an activation key:

a Send the host ID (located at the bottom of the screen) to 3Com.

b When 3Com returns the new activation key, paste it into the license string box and press **Add**.

You can also determine the system host ID with a Linux command:

1 Log in to the server as **root**.

2 At the prompt, enter **`cd /opt/3com/VCX/presconf/tools/license`**

3 Enter **`./hostid`**

The Host ID is displayed. For example: `3157ecf668ffcb7dc7f00e4c`

Please note that the ./hostid command you enter in the license directory is not the same as the hostid command normally used with Linux (/usr/bin/hostid).

3 OBTAINING SUPPORT FOR YOUR PRODUCT

Register Your Product

Warranty and other service benefits start from the date of purchase, so it is important to register your product quickly to ensure you get full use of the warranty and other service benefits available to you.

Warranty and other service benefits are enabled through product registration. Register your product at **http://eSupport.3com.com/**. 3Com eSupport services are based on accounts that you create or have authorization to access. First time users must apply for a user name and password that provides access to a number of eSupport features including Product Registration, Repair Services, and Service Request. If you have trouble registering your product, please contact 3Com Global Services for assistance.

Purchase Value-Added Services

To enhance response times or extend warranty benefits, contact 3Com or your authorized 3Com reseller. Value-added services like 3Com Express[SM] and Guardian[SM] can include 24x7 telephone technical support, software upgrades, onsite assistance or advance hardware replacement. Experienced engineers are available to manage your installation with minimal disruption to your network. Expert assessment and implementation services are offered to fill resource gaps and ensure the success of your networking projects. More information on 3Com maintenance and Professional Services is available at **http://www.3com.com/**

Contact your authorized 3Com reseller or 3Com for a complete list of the value-added services available in your area.

Troubleshoot Online

You will find support tools posted on the 3Com web site at **http://www.3com.com/**

3Com Knowledgebase helps you troubleshoot 3Com products. This query-based interactive tool is located at **http://knowledgebase.3com.com** and contains thousands of technical solutions written by 3Com support engineers.

Access Software Downloads

Software Updates are the bug fix / maintenance releases for the version of software initially purchased with the product. In order to access these Software Updates you must first register your product on the 3Com web site at **http://eSupport.3com.com/**

First time users will need to apply for a user name and password. A link to software downloads can be found at **http://eSupport.3com.com/**, or under the Product Support heading at **http://www.3com.com/**

Software Upgrades are the software releases that follow the software version included with your original product. In order to access upgrades and related documentation you must first purchase a service contract from 3Com or your reseller.

Telephone Technical Support and Repair

To enable telephone support and other service benefits, you must first register your product at **http://eSupport.3com.com/**

Warranty and other service benefits start from the date of purchase, so it is important to register your product quickly to ensure you get full use of the warranty and other service benefits available to you.

When you contact 3Com for assistance, please have the following information ready:

- Product model name, part number, and serial number
- Proof of purchase, if you have not pre-registered your product
- A list of system hardware and software, including revision level
- Diagnostic error messages
- Details about recent configuration changes, if applicable

To send a product directly to 3Com for repair, you must first obtain a return authorization number (RMA). Products sent to 3Com, without authorization numbers clearly marked on the outside of the package, will be returned to the sender unopened, at the sender's expense. If your product is registered and under warranty, you can obtain an RMA number online at **http://eSupport.3com.com/**. First time users will need to apply for a user name and password.

Contact Us

3Com offers telephone, e-mail and internet access to technical support and repair services. To access these services for your region, use the appropriate telephone number, URL or e-mail address from the list below.

Telephone numbers are correct at the time of publication. Find a current directory of contact information posted on the 3Com web site at **http://csoweb4.3com.com/contactus/**

Country	Telephone Number	Country	Telephone Number
Asia, Pacific Rim Telephone Technical Support and Repair			
Australia	1 800 678 515	Philippines	1235 61 266 2602 or
Hong Kong	800 933 486		1800 1 888 9469
India	+61 2 9424 5179 or	P.R. of China	800 810 3033
	000800 650 1111	Singapore	800 6161 463
Indonesia	001 803 61009	S. Korea	080 333 3308
Japan	00531 616 439 or	Taiwan	00801 611 261
	03 3507 5984	Thailand	001 800 611 2000
Malaysia	1800 801 777		
New Zealand	0800 446 398		
Pakistan	+61 2 9937 5083		
You can also obtain support in this region using the following e-mail: **apr_technical_support@3com.com**			
Or request a repair authorization number (RMA) by fax using this number:			+ 65 543 6348
Europe, Middle East, and Africa Telephone Technical Support and Repair			
From anywhere in these regions, call:	+44 (0)1442 435529		
From the following countries, you may use the numbers shown:			

Country	Telephone Number	Country	Telephone Number
Austria	01 7956 7124	Luxembourg	342 0808128
Belgium	070 700 770	Netherlands	0900 777 7737
Denmark	7010 7289	Norway	815 33 047
Finland	01080 2783	Poland	00800 441 1357
France	0825 809 622	Portugal	707 200 123
Germany	01805 404 747	South Africa	0800 995 014
Hungary	06800 12813	Spain	9 021 60455
Ireland	1407 3387	Sweden	07711 14453
Israel	1800 945 3794	Switzerland	08488 50112
Italy	199 161346	U.K.	0870 909 3266

You can also obtain support in this region using the following URL:
http://emea.3com.com/support/email.html

Latin America Telephone Technical Support and Repair

Antigua	1 800 988 2112	Guatemala	AT&T +800 998 2112
Argentina	0 810 444 3COM	Haiti	57 1 657 0888
Aruba	1 800 998 2112	Honduras	AT&T +800 998 2112
Bahamas	1 800 998 2112	Jamaica	1 800 998 2112
Barbados	1 800 998 2112	Martinique	571 657 0888
Belize	52 5 201 0010	Mexico	01 800 849CARE
Bermuda	1 800 998 2112	Nicaragua	AT&T +800 998 2112
Bonaire	1 800 998 2112	Panama	AT&T +800 998 2112
Brazil	0800 13 3COM	Paraguay	54 11 4894 1888
Cayman	1 800 998 2112	Peru	AT&T +800 998 2112
Chile	AT&T +800 998 2112	Puerto Rico	1 800 998 2112
Colombia	AT&T +800 998 2112	Salvador	AT&T +800 998 2112
Costa Rica	AT&T +800 998 2112	Trinidad and Tobago	1 800 998 2112
Curacao	1 800 998 2112	Uruguay	AT&T +800 998 2112
Ecuador	AT&T +800 998 2112	Venezuela	AT&T +800 998 2112
Dominican Republic	AT&T +800 998 2112	Virgin Islands	57 1 657 0888

You can also obtain support in this region using the following:

Spanish speakers, enter the URL:
http://lat.3com.com/lat/support/form.html

Portuguese speakers, enter the URL:
http://lat.3com.com/br/support/form.html

English speakers in Latin America should send e-mail to:
lat_support_anc@3com.com

US and Canada Telephone Technical Support and Repair

1 800 876 3266

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