



Cisco Unity Bridge Installation Guide (With Microsoft Exchange)

Release 3.1

Published June 16, 2006

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Preface

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Audience and Use

The *Cisco Unity Bridge Installation Guide* is intended for installers of the Cisco Unity Bridge.

The *Cisco Unity Bridge Installation Guide* contains instructions for installing the Bridge, which acts as a networking gateway between Cisco Unity and an Avaya Octel system on an Octel analog network. You install the Bridge after the Cisco Unity system has been set up, and the Bridge must be installed on a separate and dedicated platform. You need a working knowledge of Microsoft Windows 2000 Server or Windows Server 2003. If you are installing the Bridge in a Cisco Unity Unified Messaging configuration, you also need a working knowledge of Microsoft Exchange.

The “[Overview of Mandatory Tasks for Installing the Cisco Unity Bridge](#)” chapter contains a high-level task list that references detailed instructions in the rest of the *Cisco Unity Bridge Installation Guide* and in other Bridge documentation. Follow the documentation to install the Bridge correctly.



Note

If you are upgrading the Bridge, refer to the *Cisco Unity Bridge Networking Guide, Release 3.1* for upgrade instructions. The guide is available at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_feature_guides_list.html.

Documentation Conventions

Table 1 Cisco Unity Bridge Installation Guide Conventions

Convention	Description
boldfaced text	Boldfaced text is used for: <ul style="list-style-type: none"> • Key and button names. (Example: Click OK.) • Information that you enter. (Example: Enter Administrator in the User Name box.)
< > (angle brackets)	Angle brackets are used around parameters for which you supply a value. (Example: In the Command Prompt window, enter ping <IP address> .)
- (hyphen)	Hyphens separate keys that must be pressed simultaneously. (Example: Press Ctrl-Alt-Delete .)
> (right angle bracket)	A right angle bracket is used to separate selections that you make: <ul style="list-style-type: none"> • On menus. (Example: On the Windows Start menu, click Settings > Control Panel > Phone and Modem Options.) • In the navigation bar of the Cisco Unity Administrator. (Example: Go to the System > Configuration > Settings page.)

The *Cisco Unity Bridge Installation Guide* also uses the following conventions:



Note

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



Caution

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



Warning

IMPORTANT SAFETY INSTRUCTIONS

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071

SAVE THESE INSTRUCTIONS

Waarschuwing

BELANGRIJKE VEILIGHEIDSINSTRUCTIES

Dit waarschuwingssymbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van de standaard praktijken om ongelukken te voorkomen. Gebruik het nummer van de verklaring onderaan de waarschuwing als u een vertaling van de waarschuwing die bij het apparaat wordt geleverd, wilt raadplegen.

BEWAAR DEZE INSTRUCTIES

Varoitus

TÄRKEITÄ TURVALLISUUSOHJEITA

Tämä varoitusmerkki merkitsee vaaraa. Tilanne voi aiheuttaa ruumiillisia vammoja. Ennen kuin käsittelet laitteistoa, huomioi sähköpiirien käsittelyyn liittyvät riskit ja tutustu onnettomuuksien yleisiin ehkäisytapoihin. Turvallisuusvaroitusten käännökset löytyvät laitteen mukana toimitettujen käännettyjen turvallisuusvaroitusten joukosta varoitusten lopussa näkyvien lausuntonumeroiden avulla.

SÄILYTÄ NÄMÄ OHJEET

Attention

IMPORTANTES INFORMATIONS DE SÉCURITÉ

Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant entraîner des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers liés aux circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions des avertissements figurant dans les consignes de sécurité traduites qui accompagnent cet appareil, référez-vous au numéro de l'instruction situé à la fin de chaque avertissement.

CONSERVEZ CES INFORMATIONS

Warnung

WICHTIGE SICHERHEITSHINWEISE

Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu Verletzungen führen kann. Machen Sie sich vor der Arbeit mit Geräten mit den Gefahren elektrischer Schaltungen und den üblichen Verfahren zur Vorbeugung vor Unfällen vertraut. Suchen Sie mit der am Ende jeder Warnung angegebenen Anweisungsnummer nach der jeweiligen Übersetzung in den übersetzten Sicherheitshinweisen, die zusammen mit diesem Gerät ausgeliefert wurden.

BEWAHREN SIE DIESE HINWEISE GUT AUF.

Avvertenza IMPORTANTI ISTRUZIONI SULLA SICUREZZA

Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di intervenire su qualsiasi apparecchiatura, occorre essere al corrente dei pericoli relativi ai circuiti elettrici e conoscere le procedure standard per la prevenzione di incidenti. Utilizzare il numero di istruzione presente alla fine di ciascuna avvertenza per individuare le traduzioni delle avvertenze riportate in questo documento.

CONSERVARE QUESTE ISTRUZIONI**Advarsel VIKTIGE SIKKERHETSINSTRUKSJONER**

Dette advarselssymbolet betyr fare. Du er i en situasjon som kan føre til skade på person. Før du begynner å arbeide med noe av utstyret, må du være oppmerksom på farene forbundet med elektriske kretser, og kjenne til standardprosedyrer for å forhindre ulykker. Bruk nummeret i slutten av hver advarsel for å finne oversettelsen i de oversatte sikkerhetsadvarslene som fulgte med denne enheten.

TA VARE PÅ DISSE INSTRUKSJONENE**Aviso INSTRUÇÕES IMPORTANTES DE SEGURANÇA**

Este símbolo de aviso significa perigo. Você está em uma situação que poderá ser causadora de lesões corporais. Antes de iniciar a utilização de qualquer equipamento, tenha conhecimento dos perigos envolvidos no manuseio de circuitos elétricos e familiarize-se com as práticas habituais de prevenção de acidentes. Utilize o número da instrução fornecido ao final de cada aviso para localizar sua tradução nos avisos de segurança traduzidos que acompanham este dispositivo.

GUARDE ESTAS INSTRUÇÕES**¡Advertencia! INSTRUCCIONES IMPORTANTES DE SEGURIDAD**

Este símbolo de aviso indica peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considere los riesgos de la corriente eléctrica y familiarícese con los procedimientos estándar de prevención de accidentes. Al final de cada advertencia encontrará el número que le ayudará a encontrar el texto traducido en el apartado de traducciones que acompaña a este dispositivo.

GUARDE ESTAS INSTRUCCIONES**Varning! VIKTIGA SÄKERHETSANVISNINGAR**

Denna varningssignal signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanliga förfaranden för att förebygga olyckor. Använd det nummer som finns i slutet av varje varning för att hitta dess översättning i de översatta säkerhetsvarningar som medföljer denna anordning.

SPARA DESSA ANVISNINGAR

Figyelem

FONTOS BIZTONSÁGI ELOÍRÁSOK

Ez a figyelmeztető jel veszélyre utal. Sérülésveszélyt rejtő helyzetben van. Mielott bármely berendezésen munkát végezte, legyen figyelemmel az elektromos áramkörök okozta kockázatokra, és ismerkedjen meg a szokásos balesetvédelmi eljárásokkal. A kiadványban szereplő figyelmeztetések fordítása a készülékhez mellékelt biztonsági figyelmeztetések között található; a fordítás az egyes figyelmeztetések végén látható szám alapján kereshető meg.

ORIZZE MEG EZEKET AZ UTASÍTÁSOKAT!

Предупреждение

ВАЖНЫЕ ИНСТРУКЦИИ ПО СОБЛЮДЕНИЮ ТЕХНИКИ БЕЗОПАСНОСТИ

Этот символ предупреждения обозначает опасность. То есть имеет место ситуация, в которой следует опасаться телесных повреждений. Перед эксплуатацией оборудования выясните, каким опасностям может подвергаться пользователь при использовании электрических цепей, и ознакомьтесь с правилами техники безопасности для предотвращения возможных несчастных случаев. Воспользуйтесь номером заявления, приведенным в конце каждого предупреждения, чтобы найти его переведенный вариант в переводе предупреждений по безопасности, прилагаемом к данному устройству.

СОХРАНИТЕ ЭТИ ИНСТРУКЦИИ

警告

重要的安全性说明

此警告符号代表危险。您正处于可能受到严重伤害的工作环境中。在您使用设备开始工作之前，必须充分意识到触电的危险，并熟练掌握防止事故发生的标准工作程序。请根据每项警告结尾提供的声明号码来找到此设备的安全性警告说明的翻译文本。

请保存这些安全性说明

警告

安全上の重要な注意事項

「危険」の意味です。人身事故を予防するための注意事項が記述されています。装置の取り扱い作業を行うときは、電気回路の危険性に注意し、一般的な事故防止策に留意してください。警告の各国語版は、各注意事項の番号を基に、装置に付属の「Translated Safety Warnings」を参照してください。

これらの注意事項を保管しておいてください。

Cisco Unity Documentation

For descriptions and URLs of Cisco Unity documentation on Cisco.com, refer to the *About Cisco Unity Documentation*. The document is shipped with Cisco Unity and is available at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_documentation_roadmap09186a0801179df.html.

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation at this URL:

<http://www.cisco.com/techsupport>

You can access the Cisco website at this URL:

<http://www.cisco.com>

You can access international Cisco websites at this URL:

http://www.cisco.com/public/countries_languages.shtml

Product Documentation DVD

The Product Documentation DVD is a comprehensive library of technical product documentation on a portable medium. The DVD enables you to access multiple versions of installation, configuration, and command guides for Cisco hardware and software products. With the DVD, you have access to the same HTML documentation that is found on the Cisco website without being connected to the Internet. Certain products also have .PDF versions of the documentation available.

The Product Documentation DVD is available as a single unit or as a subscription. Registered Cisco.com users (Cisco direct customers) can order a Product Documentation DVD (product number DOC-DOCDVD= or DOC-DOCDVD=SUB) from Cisco Marketplace at this URL:

<http://www.cisco.com/go/marketplace/>

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<http://www.cisco.com/go/marketplace/>

Nonregistered Cisco.com users can order technical documentation from 8:00 a.m. to 5:00 p.m. (0800 to 1700) PDT by calling 1 866 463-3487 in the United States and Canada, or elsewhere by calling 011 408 519-5055. You can also order documentation by e-mail at tech-doc-store-mkpl@external.cisco.com or by fax at 1 408 519-5001 in the United States and Canada, or elsewhere at 011 408 519-5001.

Documentation Feedback

You can rate and provide feedback about Cisco technical documents by completing the online feedback form that appears with the technical documents on Cisco.com.

You can submit comments about Cisco documentation by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

From this site, you will find information about how to:

- Report security vulnerabilities in Cisco products.
- Obtain assistance with security incidents that involve Cisco products.
- Register to receive security information from Cisco.

A current list of security advisories, security notices, and security responses for Cisco products is available at this URL:

<http://www.cisco.com/go/psirt>

To see security advisories, security notices, and security responses as they are updated in real time, you can subscribe to the Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed. Information about how to subscribe to the PSIRT RSS feed is found at this URL:

http://www.cisco.com/en/US/products/products_psirt_rss_feed.html

Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you have identified a vulnerability in a Cisco product, contact PSIRT:

- For Emergencies only—security-alert@cisco.com

An emergency is either a condition in which a system is under active attack or a condition for which a severe and urgent security vulnerability should be reported. All other conditions are considered nonemergencies.

- For Nonemergencies—psirt@cisco.com

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532

**Tip**

We encourage you to use Pretty Good Privacy (PGP) or a compatible product (for example, GnuPG) to encrypt any sensitive information that you send to Cisco. PSIRT can work with information that has been encrypted with PGP versions 2.x through 9.x.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one linked in the Contact Summary section of the Security Vulnerability Policy page at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

The link on this page has the current PGP key ID in use.

If you do not have or use PGP, contact PSIRT at the aforementioned e-mail addresses or phone numbers before sending any sensitive material to find other means of encrypting the data.

Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Technical Support & Documentation website on Cisco.com features extensive online support resources. In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your reseller.

Cisco Technical Support & Documentation Website

The Cisco Technical Support & Documentation website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, at this URL:

<http://www.cisco.com/techsupport>

Access to all tools on the Cisco Technical Support & Documentation website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

**Note**

Use the Cisco Product Identification (CPI) tool to locate your product serial number before submitting a web or phone request for service. You can access the CPI tool from the Cisco Technical Support & Documentation website by clicking the **Tools & Resources** link under Documentation & Tools. Choose **Cisco Product Identification Tool** from the Alphabetical Index drop-down list, or click the **Cisco Product Identification Tool** link under Alerts & RMAs. The CPI tool offers three search options: by product ID or model name; by tree view; or for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests, or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—An existing network is down, or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of the network is impaired, while most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Quick Reference Guide* is a handy, compact reference tool that includes brief product overviews, key features, sample part numbers, and abbreviated technical specifications for many Cisco products that are sold through channel partners. It is updated twice a year and includes the latest Cisco offerings. To order and find out more about the Cisco Product Quick Reference Guide, go to this URL:

<http://www.cisco.com/go/guide>

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<http://www.ciscopress.com>
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<http://www.cisco.com/ipj>
- Networking products offered by Cisco Systems, as well as customer support services, can be obtained at this URL:
<http://www.cisco.com/en/US/products/index.html>
- Networking Professionals Connection is an interactive website for networking professionals to share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:
<http://www.cisco.com/discuss/networking>
- World-class networking training is available from Cisco. You can view current offerings at this URL:
<http://www.cisco.com/en/US/learning/index.html>



Overview of Mandatory Tasks for Installing the Cisco Unity Bridge



Note

If you are upgrading the Cisco Unity Bridge, refer instead to the *Cisco Unity Bridge Networking Guide, Release 3.1* for upgrade instructions.

Use the following high-level task list to install the Cisco Unity Bridge correctly. The tasks reference detailed instructions in the *Cisco Unity Bridge Installation Guide, Release 3.1*, and in other Cisco Unity Bridge documentation as noted. Follow the documentation for a successful installation.

1. Verify system requirements for the Bridge server. Refer to *Cisco Unity Bridge 3.1 System Requirements, and Supported Hardware and Software* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html.
2. Verify networking requirements. Refer to the “Bridge Networking Requirements” section of *Cisco Unity Networking Options Requirements (With Microsoft Exchange)* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html.
3. Obtain the latest Microsoft Windows Server 2003 or Windows 2000 Server Service Pack and other required software, and extend the Active Directory schema so that Cisco Unity can store information needed for Bridge Networking, if applicable. See the “[Preparing for the Cisco Unity Bridge Server Installation](#)” chapter.
4. Verify analog connectivity, and set up the Bridge server. See the “[Setting Up the Server](#)” chapter.
5. Install Windows Server 2003 or Windows 2000 Server, and set up the logical drive for Bridge software, if applicable. See the “[Installing the Operating System](#)” chapter.
6. Install and configure the voice-fax card(s). See the “[Installing and Configuring the Voice-Fax Cards](#)” chapter.
7. Install required software components, and set up the Bridge server in the Windows networking environment. See the “[Customizing the Cisco Unity Bridge Platform](#)” chapter.
8. Obtain a license file for the Bridge server, install Bridge software, and install the License File wizard and the license file. See the “[Installing Cisco Unity Bridge Software](#)” chapter.
9. Install any optional software, including the Cisco Security Agent for Cisco Unity Bridge. See the “[Installing Optional Software](#)” chapter.

10. If you are installing a new Cisco Unity system and a new Bridge simultaneously, return to the “Overview of Mandatory Tasks for Installing Cisco Unity” chapter of the *Cisco Unity Installation Guide* to continue installing the Cisco Unity system and the Bridge correctly. Installation guides are available at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html.

If you are adding the Bridge to an existing Cisco Unity system, set up Cisco Unity and the Bridge for networking. Refer to the “Task List: Setting Up Cisco Unity and the Bridge for Networking” section in the “Setting Up Cisco Unity and the Bridge for Networking” chapter of the *Cisco Unity Bridge Networking Guide, Release 3.1*. The guide is available at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_feature_guides_list.html.



Preparing for the Cisco Unity Bridge Server Installation

In this chapter, you do the following tasks in the order listed:

1. Download the latest Windows Server 2003 or Windows 2000 Server service pack, and other required and recommended software. See the “[Downloading Required and Recommended Software](#)” section on page 2-1.
2. *If you did not already modify the Active Directory schema to support Bridge Networking during the Cisco Unity 4.0(3) or later installation:* Extend the Active Directory schema so that Cisco Unity can store information needed for Bridge Networking. See the “[Extending the Active Directory Schema for Bridge Networking](#)” section on page 2-2.

When you are finished with this chapter, return to “[Overview of Mandatory Tasks for Installing the Cisco Unity Bridge](#)” to continue installing the Bridge correctly.



Note

The tasks in the overview list reference detailed instructions in the *Cisco Unity Bridge Installation Guide* and in other Bridge documentation. Follow the documentation for a successful installation.

Downloading Required and Recommended Software

For download instructions, refer to the “Downloading the Software for a Cisco Unity Bridge Installation or Upgrade” section of *Release Notes for Cisco Unity Bridge Release 3.1<x>* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_release_notes_list.html.

The downloads are all self-extracting executable files. When all downloads are complete, extract the updates and burn CDs that contain the extracted files.

With the exception of Windows Server 2003 Service Pack 1 and Cisco Security Agent for Cisco Unity Bridge, required and recommended software is available on the Cisco Unity Bridge 3.1(x) CD. However, we recommend that you download the latest Microsoft service packs and updates, some of which may have been released or updated after the CD was produced.



Caution

Until you have installed all of the recommended service packs and updates, and, optionally, Cisco Security Agent for Cisco Unity Bridge and virus-scanning software, third-party components installed on the Bridge server have significant security vulnerabilities. Do not connect the Bridge server to the network to install software. Instead, burn CDs that contain the downloaded software, and install the software from the CDs.

Extending the Active Directory Schema for Bridge Networking

Do the procedures in this section when the Active Directory schema has not been extended to support Bridge Networking in Cisco Unity 4.0(3) or later.

To support Bridge Networking, the Active Directory schema must be extended further than what was done for storing information specific to Cisco Unity. Note that even if the schema was modified to support Bridge Networking for an earlier version of Cisco Unity, it must be modified with the version of Omnigateway.ldf provided with Cisco Unity 4.0(3) or later. Do the procedure “[To Extend the Active Directory Schema for Bridge Networking](#).”

(To see the changes that the ADSchemaUpdate.exe program makes, browse to the directory Schema\LdifScripts on Cisco Unity DVD 1 or CD 1, and open the file Omnigateway.ldf in Notepad.)

If you are unsure whether the Active Directory schema has been extended for Bridge Networking, you can safely run ADSchemaUpdate.exe again (if the schema was extended, no additional changes will be made). Or you can do the procedure “[To View the Active Directory Schema Version Description](#)” to determine whether the extensions in the Cisco Unity 4.0(3) or later version of Omnigateway.ldf have been made.

To Extend the Active Directory Schema for Bridge Networking

-
- Step 1** Confirm that all domain controllers are on line before making the schema updates. Schema replication will occur only when all domain controllers are on line.
 - Step 2** On the domain controller that is the schema master, log on by using an account that is a member of the Schema Administrators group.
 - Step 3** On Cisco Unity DVD 1 or CD 1, or from the location to which you saved the downloaded Cisco Unity CD 1 image files, browse to the directory **ADSchemaSetup**, and double-click **ADSchemaSetup.exe**.
 - Step 4** In the dialog box, double-click a row to choose the language in which you will view ADSchemaSetup.
 - Step 5** Check the **Exchange 2000 Bridge Connector** check box, and uncheck the other check boxes.
 - Step 6** Click **OK**.
 - Step 7** When the LDAP Data Interchange Format (LDIF) scripts have finished running, click **OK**.
 - Step 8** When the schema extension has finished, Ldif.log and LDif.err files are saved to the desktop. View the contents of the files to confirm that the extension completed successfully.
 - Step 9** Wait for the changes to the schema to replicate throughout the forest before adding information to the primary location and to delivery locations. Changes to the schema may take 15 minutes or more to replicate.



Note To determine whether changes have replicated and to force replication if necessary, use the Replication Monitor, which is available when you install Support Tools from the Windows 2000 compact disc.

A log file is generated each time the schema is updated. A shortcut to the directory where the log file is located is placed on the Windows desktop. In Cisco Unity 4.0(3) and later, the `cisco-Ecsbu-UM-Schema-Version` attribute was added to the LDIF script file `Omnigateway.ldf`. You can determine if the schema is at version 4.0(3) or later by searching the log file for the presence of the attribute.

To View the Active Directory Schema Version Description

- Step 1** On the desktop of the server on which `ADSchemaSetup.exe` was run, open the directory **Ldif logs**, browse to the **Omnigateway** directory, and open the file **Ldif.log** in Notepad.
- (Note that a separate directory and `Ldif.log` file are also saved for `Avdirmonex2k.ldf` and `Vpimgateway.ldf`; the directories are named after the LDIF script files provided with Cisco Unity 4.0(3) or later.)
- Step 2** Scroll to the end of the file, and click the last line.
- Step 3** On the Edit menu, click **Find**, enter **cisco-Ecsbu-UM-Schema-Version**, click **Up** for the direction of the search, and click **Find Next**.

If the attribute is not found, then the schema has not been updated for Bridge Networking in Cisco Unity 4.0(3) or later. Do the procedure “[To Extend the Active Directory Schema for Bridge Networking](#).”

If the attribute is found, a few lines down you will see one of the following:

- “Description: Unity Bridge 4.0(3),” if the schema was updated using the scripts that are included with Cisco Unity 4.0(3) through 4.1(1).
 - “Description: Unity Bridge 4.2,” if the schema was updated using the scripts that are included with Cisco Unity 4.2(1) or later.
-



Setting Up the Server

In this chapter, you do the following tasks in the order listed:

1. Verify analog connectivity for the Bridge server. See the “[Verifying Analog Connectivity for the Bridge Server](#)” section on page 3-1.
2. Set up the Cisco Unity Bridge server. See the “[Setting Up the Bridge Server](#)” section on page 3-1.

When you are finished with this chapter, return to “[Overview of Mandatory Tasks for Installing the Cisco Unity Bridge](#)” to continue installing the Bridge correctly.



Note

The tasks in the overview list reference detailed instructions in the *Cisco Unity Bridge Installation Guide* and in other Bridge documentation. Follow the documentation for a successful installation.

Verifying Analog Connectivity for the Bridge Server

Do the following procedure to confirm that the Bridge server will have appropriate analog connectivity.

To Verify Analog Connectivity for the Bridge Server

- Step 1** Plug an analog phone into one of the phone lines that will be used for the Bridge server.
- Step 2** Lift the receiver, and confirm that you hear a dial tone.
- Step 3** Dial the phone number of an Octel server on the network, and confirm that you hear the system answer.

Note that after the Bridge server is set up and configured for networking, you can install the Bridge Analog Network and Node Analyzer (BANANA) and use it to place test calls to the Octel servers. For more information, refer to the *Cisco Unity Bridge Networking Guide, Release 3.1*. The guide is available at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_feature_guides_list.html.

Setting Up the Bridge Server

We recommend that you connect the Bridge server to a dedicated uninterruptible power supply.

To Set Up the Bridge Server

- Step 1** Place the Bridge server near the phone system and a network connection, in a dry, cool area that is free of dust.
- Step 2** Attach peripheral devices—such as an external modem or expansion chassis—to the Bridge server, if applicable. Follow the manufacturer installation and test instructions.



Caution Do not attach the network cable to the server until you have installed the latest recommended Microsoft service packs and updates. The *Cisco Unity Bridge Installation Guide* alerts you when to install the service packs and updates, and when to connect to the network later in the installation process.

- Step 3** Connect the Bridge server to the phone system.
For pinout information, see the “[Brooktrout Technology Voice-Fax Cards](#)” appendix.
- Step 4** On the phone system, create a hunt group for the analog extensions used for the Bridge so that incoming calls will be sent to any available Bridge analog port. To dedicate Bridge analog ports to handle only outgoing calls, do not include the ports in the hunt group. Refer to the phone system documentation.
-



Installing the Operating System

In this chapter, you do the following tasks in the order listed:

1. Install Windows Server 2003 or Windows 2000 Server. See the [“Installing Windows Server 2003 or Windows 2000 Server”](#) section on page 4-2.
2. *If you did not install Windows by using the Cisco Unity Platform Configuration discs:* Set up a logical drive for the Bridge software. See the [“Setting Up the Logical Drive for the Bridge Software”](#) section on page 4-7.

When you are finished with this chapter, return to [“Overview of Mandatory Tasks for Installing the Cisco Unity Bridge”](#) to continue installing the Bridge correctly.





Note

The tasks in the overview list reference detailed instructions in the *Cisco Unity Bridge Installation Guide* and in other Bridge documentation. Follow the documentation for a successful installation.

Installing Windows Server 2003 or Windows 2000 Server

The compact discs you use to install Windows Server 2003 or Windows 2000 Server depend on whether the Bridge server was purchased from Cisco:

Server purchased from Cisco (Windows 2000 Server only)	<p>Use the Platform Configuration discs that are shipped with the Bridge server. See the “Using the Platform Configuration Discs (Windows 2000 Server Only)” section on page 4-2.</p> <p>The Platform Configuration discs that are currently shipping with Bridge servers install Windows 2000 Server. If you want to install Windows Server 2003 on a server purchased from Cisco, use the manufacturer’s guided system-setup utility and a retail Windows Server 2003 disc in English. See the “Using the Manufacturer’s Guided System-Setup Utility and a Retail Windows Server 2003 Disc” section on page 4-3.</p> <hr/> <p> Caution Installing Windows Server 2003 in any language other than English is not supported.</p>
Server not purchased from Cisco	<p>Use the manufacturer’s guided system-setup utility and a retail Windows Server 2003 or Windows 2000 Server disc in English. See the applicable section:</p> <ul style="list-style-type: none"> • Using the Manufacturer’s Guided System-Setup Utility and a Retail Windows Server 2003 Disc, page 4-3 • Using the Manufacturer’s Guided System-Setup Utility and a Retail Windows 2000 Server Disc, page 4-6. <hr/> <p> Caution Installing Windows Server 2003 or Windows 2000 Server in any language other than English is not supported.</p>

Using the Platform Configuration Discs (Windows 2000 Server Only)

Do the procedure in this section if the Bridge server was purchased from Cisco. Otherwise, see the [“Using the Manufacturer’s Guided System-Setup Utility and a Retail Windows 2000 Server Disc”](#) section on page 4-6.


A Bridge server purchased from Cisco is shipped with Platform Configuration discs that contain a utility to install Windows 2000 Server by restoring an image that is customized for the platform. The image includes the required Windows 2000 components, subcomponents, and service packs.

Installing Windows 2000 Server by using the Platform Configuration discs reduces installation time and ensures that the required operating system and components, drivers, and service packs are installed and configured correctly. In addition, the logical drive for the Bridge software is set up automatically.



Do not attach the network cable to the server until the latest recommended Microsoft service packs and updates are installed. The *Cisco Unity Bridge Installation Guide* alerts you when to install the service packs and updates, and when to connect to the network later in the installation process.

To Install Windows 2000 Server by Using the Platform Configuration Discs

-
- Step 1** Start the Bridge server, and insert the Cisco Unity Platform Configuration CD in the CD-ROM drive.
- Step 2** When the main menu appears, press **Enter** to start the installation program.
- Step 3** Follow the on-screen prompts until you are prompted to select a licensing mode.
- Step 4** Click **Per Seat**, and click **Next**.
- Step 5** Enter a name of 15 or fewer characters for the Bridge server (netBIOS name). Use only alphabetical characters from A to Z and a to z, numerical characters from 0 to 9, and hyphens (-).
-  **Caution** Using other characters in the server name is not supported by DNS.
-
- Step 6** Specify and confirm a password, then click **Next**.
- Step 7** Follow the on-screen prompts until the Network Settings dialog box appears.
- Step 8** Click **Typical Settings**, and click **Next**.
- Step 9** In the Workgroup or Computer Domain dialog box, click **No, This Computer Is Not on a Network, or Is on a Network Without a Domain**.
- If the Workgroup or Computer Domain box is empty, enter a workgroup name. The *Cisco Unity Bridge Installation Guide* alerts you when to, optionally, join a domain later in the installation.
- Step 10** Click **Next**.
- Step 11** Follow the on-screen prompts to complete the installation.
- Step 12** When the Windows 2000 Configure Your Server dialog box appears, click **I Will Configure This Server Later**, and click **Next**.
- Step 13** Uncheck the **Show This Screen at Startup** check box, and close the window.
-

Using the Manufacturer's Guided System-Setup Utility and a Retail Windows Server 2003 Disc

If you want to install Windows Server 2003, do the three procedures in this section.

The server manufacturer provides a disc that contains utilities for several setup tasks, including guiding the installation of Windows Server 2003 from a retail disc. Always use the manufacturer's guided system-setup utility to install Windows Server 2003. This ensures that the operating system and the drivers are installed and configured correctly.

The following discs are provided by server manufacturers:

Hewlett-Packard	Hewlett-Packard SmartStart
IBM	IBM ServerGuide



Installing Windows Server 2003 in any language other than English is not supported.

**Caution**

If Brooktrout TR114 voice-fax cards are installed in the Bridge server or an expansion chassis, you must install Windows 2000 Server. Windows Server 2003 is not supported.

**Caution**

Do not attach the network cable to the server until the latest recommended Microsoft service packs and updates are installed. The *Cisco Unity Bridge Installation Guide* alerts you when to install the service packs and updates, and when to connect to the network later in the installation process.

To Install Windows Server 2003 by Using the Manufacturer's Guided System-Setup Utility and a Retail Windows Server 2003 Disc

Step 1 Start the Cisco Unity Bridge server, and insert the manufacturer disc in the CD-ROM drive.

Step 2 Follow the on-screen prompts to install Windows Server 2003 from a retail disc.

You may be prompted to configure the RAID arrays. Note the following considerations:

- If the arrays have already been configured, do not change the configuration.
- If the arrays have not been configured, follow the prompts to configure them. Refer to the manufacturer documentation.

Step 3 When applicable, make the following choices:

- Specify a partition size of **8 GB** for the operating system.
- If you are installing Windows Server 2003 on the same partition where an operating system is already installed, select and delete that partition.
- Format the operating system partition by using the **NTFS** file system.
- When you are prompted to specify regional settings, choose **English (United States)** for the locale.

**Caution**

Do not choose any other locale, or the Cisco Unity Bridge will not function properly.

- Specify **Per Seat** for the licensing mode.
- When you enter a name for the Bridge server (netBIOS name), use 15 or fewer characters and use only alphabetical characters from A to Z and a to z, numerical characters from 0 to 9, and hyphens (-).

**Caution**

Using other characters in the server name is not supported by DNS.

- Do not join a domain. Instead, specify a workgroup. The *Cisco Unity Bridge Installation Guide* alerts you when to connect to the network and, optionally, when to join a domain later in the installation.
-

Do the following procedure to ensure that the Windows user interface corresponds with menu paths listed in the Cisco Unity Bridge documentation.

To Change Windows Server 2003 Menu Options

- Step 1** On the Windows Start menu, click **Settings > Control Panel > Task Bar and Start Menu**.
- Step 2** Click the **Start Menu** tab.
- Step 3** Click **Classic Start Menu**.
- Step 4** Click **Customize**.
- Step 5** In the Advanced Start Menu Options list, set the following three fields:
- Check the **Display Administrative Tools** check box.
 - Check the **Expand Control Panel** check box.
 - Uncheck the **Use Personalized Menus** check box.
- Step 6** Click **OK** to close the Customize Classic Start Menu dialog box.
- Step 7** Click **OK** to close the Task Bar and Start Menu Properties control panel.
-

Do the following procedure to enable features that are not enabled by default when you install Windows Server 2003 using a retail Windows disk, and to remove NNTP and SMTP services.

To Enable Required Windows Server 2003 Features and Remove NNTP and SMTP services

- Step 1** On the Windows Start menu, click **Settings > Control Panel > Add or Remove Programs**.
- Step 2** Click **Add/Remove Windows Components**.
- Step 3** On the Windows Components page, click **Application Server**, and click **Details**.
- Step 4** On the Application Server page, click **Internet Information Services (IIS)**, and click **Details**.
- Step 5** On the Internet Information Services (IIS) page, uncheck the following check boxes:
- NNTP Service
 - SMTP Service
- Step 6** Click **World Wide Web Service**, and click **Details**.
- Step 7** On the World Wide Web Service page, check the following check boxes:
- Active Server Pages
 - World Wide Web Service
- Step 8** Click **OK** to close the World Wide Web Service page.
- Step 9** Click **OK** to close the Internet Information Services (IIS) page.
- Step 10** Click **OK** to close the Application Server page.
- Step 11** On the Windows Components page, click **Next**.
- Step 12** Click **Finish**.
- Step 13** Close Add or Remove Programs.
-

Using the Manufacturer's Guided System-Setup Utility and a Retail Windows 2000 Server Disc

Do the procedure in this section if the Bridge server was not purchased from Cisco and you want to install Windows 2000 Server. Otherwise, see the applicable section:

- [Using the Platform Configuration Discs \(Windows 2000 Server Only\)](#), page 4-2
- [Using the Manufacturer's Guided System-Setup Utility and a Retail Windows Server 2003 Disc](#), page 4-3

The server manufacturer provides a disc that contains utilities for several setup tasks, including guiding the installation of Windows 2000 Server from a retail disc. The following discs are provided by server manufacturers:

Hewlett-Packard	Hewlett-Packard SmartStart
IBM	IBM ServerGuide

Installing Windows 2000 Server by using the manufacturer's guided system-setup utility ensures that the operating system and the drivers are installed and configured correctly.



Caution

Installing Windows 2000 Server in any language other than English is not supported.



Caution

Do not attach the network cable to the server until the latest recommended Microsoft service packs and updates are installed. The *Cisco Unity Bridge Installation Guide* alerts you when to install the service packs and updates, and when to connect to the network later in the installation process.

To Install Windows 2000 Server by Using the Manufacturer's Guided System-Setup Utility and a Retail Windows 2000 Disc

- Step 1** Start the Bridge server, and insert the manufacturer disc in the CD-ROM drive.
- Step 2** Follow the on-screen prompts to install Windows 2000 Server from a retail disc.
- Step 3** When applicable, make the following choices:
- Specify a partition size of **8 GB** for the operating system.
 - If you are installing Windows 2000 Server on the same partition where an operating system is already installed, select and delete that partition.
 - Format the operating system partition by using the **NTFS** file system.
 - When you are prompted to specify regional settings, choose **English (United States)** for the locale.



Caution

Do not choose any other locale, or the Cisco Unity Bridge will not function properly.

- Specify **Per Seat** for the licensing mode.
- When you enter a name for the Bridge server (netBIOS name), use 15 or fewer characters and use only alphabetical characters from A to Z and a to z, numerical characters from 0 to 9, and hyphens (-).



Caution Using other characters in the server name is not supported by DNS.

- Do not join a domain. Instead, specify a workgroup. The *Cisco Unity Bridge Installation Guide* alerts you when to connect to the network and, optionally, when to join a domain later in the installation.
- If you are prompted to specify Windows 2000 components to install, select the following required components:
 - Internet Information Server
 - Terminal Services
- If you are prompted to specify a Windows 2000 service pack to install, specify Windows 2000 Server Service Pack 4.



Note If you do not install all the required Windows 2000 components and the service pack while installing the operating system, the *Cisco Unity Bridge Installation Guide* alerts you when to install them later in the installation.

Step 4 When the Windows 2000 Configure Your Server dialog box appears, click **I Will Configure This Server Later**.

Step 5 Uncheck the **Show This Screen at Startup** check box, and close the window.

Setting Up the Logical Drive for the Bridge Software



Note If the Bridge server was purchased from Cisco and you installed Windows 2000 Server by using the Cisco Unity Platform Configuration discs that were shipped with the server, skip this section because the logical drive was set up automatically.

Do the procedure in this section if you did not use the Cisco Unity Platform Configuration discs to install Windows 2000 Server.

When you install the operating system by using the procedure in the [“Using the Manufacturer’s Guided System-Setup Utility and a Retail Windows 2000 Server Disc”](#) section on page 4-6, the first 8 GB of the logical disk is used for the system partition and is given the drive letter C. To set up the logical drive for the Bridge software, you create an extended partition on the logical disk (by using the remaining space on the logical disk), then create the logical drive in the partition.

To Set Up the Logical Drive for the Bridge Software

Step 1 Log on to Windows as a member of the Administrators group.

Step 2 On the Windows Start menu, click **Programs > Administrative Tools > Computer Management**.

Step 3 In the console tree under Storage, click **Disk Management**.

Step 4 Right-click the unallocated region of the logical disk, and click **Create Partition**.

Step 5 On the Create Partition wizard Welcome screen, click **Next**.

- Step 6** Click **Extended Partition**, and click **Next**. (Do not click Primary Partition.)
 - Step 7** Specify to use the remaining disk space, and click **Next**.
 - Step 8** Verify the settings, and click **Finish**.
 - Step 9** In the Disk Management utility, right-click the new partition, and click **Create Logical Drive**.
 - Step 10** On the Create Partition Wizard welcome screen, click **Next**.
 - Step 11** Click **Logical Drive**, and click **Next**.
 - Step 12** Specify to use the maximum disk space, and click **Next**.
 - Step 13** Assign a drive letter, and click **Next**.
 - Step 14** Specify to use the NTFS file system format, and click **Next**.
 - Step 15** Verify the settings, and click **Finish**.
-



Installing and Configuring the Voice-Fax Cards

In this chapter, you do the following tasks in the order listed:

1. Install voice-fax cards. See the [“Installing the Voice-Fax Card\(s\)”](#) section on page 5-1.
2. *If the Bridge server or expansion chassis contains Brooktrout TR1034 voice-fax cards:* Install the device drivers for the TR1034 cards. See the [“Installing Device Drivers for Brooktrout TR1034 Voice-Fax Cards”](#) section on page 5-4.
3. *If the Bridge server or expansion chassis contains Brooktrout TR114 voice-fax cards:* Disable the Found New Hardware wizard, if applicable. See the [“Disabling the Found New Hardware Wizard for Brooktrout TR114 Voice-Fax Cards”](#) section on page 5-5.

When you are finished with this chapter, return to [“Overview of Mandatory Tasks for Installing the Cisco Unity Bridge”](#) to continue installing the Bridge correctly.



Note

The tasks in the overview list reference detailed instructions in the *Cisco Unity Bridge Installation Guide* and in other Bridge documentation. Follow the documentation for a successful installation.

Installing the Voice-Fax Card(s)

Note that voice-fax cards must be installed in the same computer or in the same expansion chassis. If all the voice-fax cards do not fit in the Bridge computer, then you must install all of them in an expansion chassis.

For information on the Brooktrout cards, see the [“Brooktrout Technology Voice-Fax Cards”](#) appendix.



Warning

This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security.

Statement 1017



Warning

Read the installation instructions before connecting the system to the power source. Statement 1004



Warning

Before working on a system that has an on/off switch, turn OFF the power and unplug the power cord.

Statement 1

**Warning**

This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. Statement 1024

**Warning**

There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. Statement 1015

**Warning**

To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:

- **This unit should be mounted at the bottom of the rack if it is the only unit in the rack.**
- **When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.**
- **If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.** Statement 1006

**Warning**

Before opening the chassis, disconnect the telephone-network cables to avoid contact with telephone-network voltages. Statement 2

**Warning**

Do not work on the system or connect or disconnect cables during periods of lightning activity. Statement 1001

**Warning**

To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord. Statement 1023

**Warning**

Only trained and qualified personnel should be allowed to install, replace, or service this equipment. Statement 1030

**Warning**

This equipment is to be installed and maintained by service personnel only as defined by AS/NZS 3260 Clause 1.2.14.3 Service Personnel. Statement 88

**Warning**

The safety cover is an integral part of the product. Do not operate the unit without the safety cover installed. Operating the unit without the cover in place will invalidate the safety approvals and pose a risk of fire and electrical hazards. Statement 117

**Warning**

Blank faceplates and cover panels serve three important functions: they prevent exposure to hazardous voltages and currents inside the chassis; they contain electromagnetic interference (EMI) that might disrupt other equipment; and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards, faceplates, front covers, and rear covers are in place.

Statement 1029

To Install Voice-Fax Cards in the Bridge Server or in an Expansion Chassis

Step 1 Shut down the Bridge server, if it is on, and the PCI expansion chassis, if applicable.

Step 2 Attach an antistatic wrist strap, and ground yourself to the Bridge server.

**Warning**

During this procedure, wear grounding wrist straps to avoid ESD damage to the card. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself.

Statement 94

Step 3 If you are not using a PCI expansion chassis, skip to [Step 4](#).

If you are using a PCI expansion chassis, install the host interface card in any slot in the Bridge server. Install the expansion interface card in the PCI expansion chassis in the slot labeled for that card.

Step 4 Insert each voice-fax card firmly into its slot in the Bridge server or in the PCI expansion chassis, and fasten each card to the back plate with a screw. You may need to attach or remove the bracket that ships with the card, depending on the mechanical configuration of the Bridge server or expansion chassis.

If you view a voice-fax card in Windows Device Manager, the card may be displayed as an unknown PCI device, with a warning that the drivers for the device are not installed. For TR114 cards, this is expected behavior and does not indicate an error or a condition requiring action. For TR1034 cards, a procedure later in the *Cisco Unity Bridge Installation Guide* will tell you how to install the driver.


The Found New Hardware wizard may appear for each card during installation or when the Bridge server is restarted. For TR114 cards, later in the installation process, you can disable the Found New Hardware wizard to prevent it from appearing when the Bridge server is restarted. The *Cisco Unity Bridge Installation Guide* alerts you when to do the procedure. For TR1034 cards, you use the Found New Hardware wizard to install the required drivers.


Step 5 If the server contains TR114 cards, skip to [Step 7](#).


If the server contains TR1034 cards, continue with [Step 6](#).

Step 6 Set the rotary switch (SW1) to a unique value for each card.

Each Brooktrout card in the Cisco Unity Bridge server or expansion chassis must have a unique value, starting with 2 and continuing in sequence on subsequent cards. For example, set the rotary switch on the first three voice cards as shown below. This is also the order in which you install the cards in the server or expansion chassis.

First card 

Second card 

Third card  1538848

Step 7 Reinstall the cover on the server and, if applicable, the expansion chassis.

Step 8 Restart the server and, if applicable, the expansion chassis.

Installing Device Drivers for Brooktrout TR1034 Voice-Fax Cards

If the server or expansion chassis contains Brooktrout TR114 voice-fax cards, do the procedure in the [“Disabling the Found New Hardware Wizard for Brooktrout TR114 Voice-Fax Cards”](#) section on page 5-5 instead of the procedure in this section.



Caution

Do not install the device drivers using Windows Terminal Services, or the installation will fail.

To Install Device Drivers for the Brooktrout TR1034 Voice-Fax Cards

- Step 1** Log on to the Bridge server by using an account that is a member of the local Administrators group. The Found New Hardware wizard appears.
- Step 2** On the Found New Hardware wizard Welcome page, click **Next**.
- Step 3** Insert the Bridge installation disc in the CD-ROM drive on the Bridge server.
- Step 4** On the Install Hardware Device Drivers page, click **Search for a Suitable Driver for My Device (Recommended)**, and click **Next**.
- Step 5** If Windows Server 2003 is installed on the Bridge server, do the following:
- On the Please Choose Your Search and Installation Options page, check the **Include This Location in the Search** check box.
 - Click **Browse**, and browse to the Winpnp directory on the Bridge installation disc.
- If Windows 2000 Server is installed on the Bridge server, do the following:
- On the Locate Driver Files page, check the **Specify a Location** check box.
 - Click **Next**.
 - Click **Browse**, and browse to the Winpnp directory on the Bridge installation disc.
- Step 6** Follow the on-screen prompts to complete the installation.
- Step 7** If only one TR1034 voice-fax card is installed in the Bridge server or expansion chassis, you are finished installing TR1034 drivers.
- If more than one TR1034 voice-fax card is installed in the Bridge server or expansion chassis, do the remaining steps in this procedure to install the TR1034 driver for each additional card.
- Step 8** On the Windows Start menu, click **Programs > Administrative Tools > Computer Management**.
- Step 9** In the left pane, click **Device Manager**.
- Step 10** In the right pane, under Other Devices, right-click the first instance of **PCI Device**, and click **Properties**.
- Step 11** On the General tab, click **Reinstall Driver**.
- Step 12** In the Upgrade Device Driver Wizard, click **Next**.
- Step 13** On the Install Hardware Device Drivers page, click **Search for a Suitable Driver for My Device (Recommended)**, and click **Next**.

- Step 14** If Windows Server 2003 is installed on the Bridge server, do the following:
- On the Please Choose Your Search and Installation Options page, check the **Include This Location in the Search** check box.
 - Click **Browse**, and browse to the Winpnp directory on the Bridge installation disc.
- If Windows 2000 Server is installed on the Bridge server, do the following:
- On the Locate Driver Files page, check the **Specify a Location** check box.
 - Click **Next**.
 - Click **Browse**, and browse to the Winpnp directory on the Bridge installation disc.
- Step 15** Follow the on-screen prompts to complete the installation.
- Step 16** Repeat [Step 7](#) through [Step 15](#) until you have installed the TR1034 driver for each TR1034 card in the Bridge server or expansion chassis.

Disabling the Found New Hardware Wizard for Brooktrout TR114 Voice-Fax Cards



Caution

Do not do this procedure if the server contains Brooktrout TR1034 voice-fax cards. For TR1034 cards, you use the Found New Hardware wizard to install device drivers.

In the following cases, the Found New Hardware wizard may appear each time the server is restarted and report that the cards are new hardware, even though the cards are properly installed and configured:

- The operating system was installed by using the Platform Configuration discs.
- The operating system was installed by using the manufacturer's guided system-setup utility before the cards were installed.
- New cards were added to an existing server.

Do the following procedure to prevent the Found New Hardware wizard from reporting the cards as new hardware. The procedure will not prevent the Found New Hardware wizard from finding and reporting other new hardware.

To Disable the Found New Hardware Wizard for Brooktrout TR114 Voice-Fax Cards

- Step 1** On the Found New Hardware wizard Welcome page, click **Next**. (After the server is restarted, the Found New Hardware wizard Welcome page is displayed along with the PCI Device Installing dialog.)
- Step 2** On the Install Hardware Device Drivers page, click **Search for a Suitable Driver for My Device (Recommended)**, and click **Next**.
- Step 3** On the Locate Driver Files page, check the **Floppy Disk Drives** and **CD-ROM Drives** check boxes, and click **Next**.
- Step 4** On the Driver Files Search Result page, click **Disable the Device**, and click **Finish**. Do not choose to skip driver installation of this device, or the Found New Hardware wizard will continue to appear each time the server is restarted.

- Step 5** Repeat [Step 2](#) through [Step 4](#) for each instance of the Found New Hardware wizard (for each card, as applicable).

Note that doing this procedure does not prevent a card from being displayed as an unknown PCI device when viewed in the Windows 2000 Device Manager. The warning that the device drivers are not installed also will continue to be displayed. This is expected behavior, and does not indicate a problem with the card or with the server.



Customizing the Cisco Unity Bridge Platform

In this chapter, you do the following tasks in the order listed:

1. *If the Bridge server supports hyperthreading:* Disable hyperthreading. See the [“Disabling Hyperthreading in the BIOS”](#) section on page 6-2.
2. Install Windows Server 2003 Service Pack 1 or Windows 2000 Server Service Pack 4. See the [“Installing Windows Server 2003 Service Pack 1 or Windows 2000 Server Service Pack 4”](#) section on page 6-2.
3. Install the latest Microsoft service packs and updates that are recommended for use with the Bridge. See the [“Installing the Latest Microsoft Updates Recommended for Use with the Bridge”](#) section on page 6-3.
4. *If the Bridge server was not purchased from Cisco:* Install MSXML 3.0 with Service Pack 1. See the [“Installing MSXML 3.0 with Service Pack 1”](#) section on page 6-3.
5. *If the Bridge server was not purchased from Cisco:* Install Internet Explorer 6 Service Pack 1. See the [“Installing Internet Explorer 6 Service Pack 1”](#) section on page 6-4.
6. Connect the Bridge server to the network. See the [“Connecting the Bridge Server to the Network”](#) section on page 6-4.
7. *If Windows 2000 Server is installed on the Bridge server:* Remove the NNTP and SMTP services. See the [“Removing the NNTP and SMTP Services”](#) section on page 6-4.
8. *If Windows 2000 Server is installed on the Bridge server:* Disable the fax service. See the [“Disabling the Windows Fax Service”](#) section on page 6-5.
9. *If the Bridge server was not purchased from Cisco:* Change Windows Explorer settings so all files and folders are visible during troubleshooting. See the [“Changing Folder Settings in Windows Explorer”](#) section on page 6-6.
10. Assign a static IP address to the Bridge server. See the [“Assigning a Static IP Address”](#) section on page 6-6.
11. Verify the IP address and the network connection. See the [“Verifying the IP Address and the Network Connection”](#) section on page 6-7.
12. Add the Bridge server to an existing domain or configure the network identification full computer name (FQDN) on the Bridge server. See the [“Adding the Bridge Server to an Existing Domain or Configuring the Server When Not Joining a Domain”](#) section on page 6-7.

When you are finished with this chapter, return to [“Overview of Mandatory Tasks for Installing the Cisco Unity Bridge”](#) to continue installing the Bridge correctly.

**Note**

The tasks in the overview list reference detailed instructions in the *Cisco Unity Bridge Installation Guide* and in other Bridge documentation. Follow the documentation for a successful installation.

Disabling Hyperthreading in the BIOS

**Note**

If the Bridge server does not support hyperthreading, skip this section.

The Bridge is not compatible with hyperthreading. On a Bridge server that supports hyperthreading, you must disable hyperthreading in the system BIOS, or the Bridge software will not function properly.

To Disable Hyperthreading in the BIOS

- Step 1** Shut down and restart the Bridge server, and press the applicable key to view setup options.
- Step 2** Locate the hyperthreading option and disable it.
- Step 3** Exit setup options. If prompted, save your changes.

Installing Windows Server 2003 Service Pack 1 or Windows 2000 Server Service Pack 4

Do the applicable procedure depending on whether you installed Windows Server 2003 or Windows 2000 Server on the Bridge server:

- [To Install Windows Server 2003 Service Pack 1, page 6-2](#)
- [To Install Windows 2000 Server Service Pack 4, page 6-3](#)

**Note**

If the Bridge server was purchased from Cisco and you installed Windows 2000 Server by using the Cisco Unity Platform Configuration discs (revision 15 or later) that were shipped with the server, skip this section. Windows 2000 Server Service Pack 4 is already installed.

To Install Windows Server 2003 Service Pack 1

- Step 1** Insert the disc to which you burned Windows Server 2003 Service Pack 1 in the CD-ROM drive on the Bridge server.
- Step 2** Run the service-pack installer.
- Step 3** Follow the on-screen prompts to complete the installation.
- Step 4** Restart the server.

To Install Windows 2000 Server Service Pack 4

- Step 1** On the Cisco Unity Bridge CD or on the burned CD that contains the extracted CiscoUnityBridge3.1.<x>ServicePacks.exe, browse to the **Win2K_SP4\I386\Update** directory, and double-click **Update.exe**.
- Step 2** Follow the on-screen prompts to complete the installation.
- Step 3** Restart the server.
-

Installing the Latest Microsoft Updates Recommended for Use with the Bridge

Install the latest Microsoft updates for that are recommended for use with the Bridge. (You downloaded the updates in the [“Downloading Required and Recommended Software”](#) section on page 2-1.)

To Install the Latest Microsoft Updates Recommended for Use with the Bridge

- Step 1** On the burned CD that contains the extracted Microsoft updates, browse to each of the applicable directories and install each update. To speed the installation, you may want to:
- Install each update at a command prompt by using the /z option, so you do not have to restart the computer after installing each update.
 - Install each update at a command prompt by using the /m option, so the update installs without displaying any dialog boxes.
 - Create a batch file that installs all of the updates at once.

For more detailed information, refer to Microsoft Knowledge Base article 296861, *How to Install Multiple Windows Updates or Hot Fixes with Only One Reboot*.

- Step 2** Restart the Bridge server.
-

Installing MSXML 3.0 with Service Pack 1

**Note**

If the Bridge server was purchased from Cisco and you installed Windows 2000 Server by using the Cisco Unity Platform Configuration discs (revision 12 or later) that were shipped with the server, skip this section. MSXML 3.0 with Service Pack 1 is already installed.

If the Bridge server was not purchased from Cisco, do the procedure in this section.

**Note**

You are not required to install MSXML 3.0 before you install MSXML 3.0 Service Pack 1. MSXML 3.0 Service Pack 1 overwrites MSXML 3.0 if MSXML 3.0 is installed on the computer.

To install MSXML 3.0 with Service Pack 1

-
- Step 1** On the Cisco Unity Bridge CD or on the burned CD that contains the extracted CiscoUnityBridge3.1.<x>ServicePacks.exe, browse to the **MSXML3_With_SP1** directory, and double-click **Msxml3sp1.exe**.
- Step 2** Follow the on-screen prompts to complete the installation.
-

Installing Internet Explorer 6 Service Pack 1

**Note**

If the Bridge server was purchased from Cisco and you installed Windows 2000 Server by using the Cisco Unity Platform Configuration discs (revision 11 or later) that were shipped with the server, skip this section. Internet Explorer 6 Service Pack 1 is already installed.

If the Bridge server was not purchased from Cisco, do the following procedure.

To Install Internet Explorer 6 Service Pack 1

-
- Step 1** On the Cisco Unity Bridge CD or on the burned CD that contains the extracted CiscoUnityBridge3.1.<x>ServicePacks.exe, browse to the **IE6_With_SP1** directory, and double-click **IE6Setup.exe**.
- Step 2** Follow the on-screen prompts to complete the installation.
-

Connecting the Bridge Server to the Network

To Connect the Bridge Server to the Network

Attach the network cable(s) to the Bridge server.

Removing the NNTP and SMTP Services

**Note**

If you installed Windows Server 2003 using the procedures in the [“Using the Manufacturer’s Guided System-Setup Utility and a Retail Windows Server 2003 Disc”](#) section, skip this section because you have already removed the NNTP and SMTP services.

The Bridge does not work with the NNTP and SMTP services installed.

If the Bridge server was purchased from Cisco and you installed Windows 2000 Server by using the Cisco Unity Platform Configuration discs (revision 11 or later) that were shipped with the server, the NNTP and SMTP services were installed automatically. The services may also have been installed if you installed Windows Server 2003 or Windows 2000 Server by using the guided system-setup utility provided by the server manufacturer.

To Remove the NNTP and SMTP Services

-
- Step 1** On the Windows Start menu, click **Settings > Control Panel > Add/Remove Programs**.
- Step 2** Click **Add/Remove Windows Components**.
- Step 3** If the Bridge server is running Windows 2000 Server, skip to [Step 4](#).
If the Bridge server is running Windows Server 2003, click **Application Server** (but do not uncheck the check box), and click **Details**.
- Step 4** Click **Internet Information Services (IIS)** (but do not uncheck the check box), and click **Details**.
- Step 5** In the Internet Information Services (IIS) dialog box, uncheck the **NNTP Service** and **SMTP Service** check boxes.
- Step 6** Click **OK** to close the Internet Information Services (IIS) dialog box, and, if the Bridge Server is running Windows Server 2003, click **OK** again to close the Application Server dialog box.
- Step 7** Click **Next**.
- Step 8** Click **Finish**.
- Step 9** Close the Add/Remove Programs dialog box and Control Panel.
-

Disabling the Windows Fax Service



Note

If the Bridge server is running Windows Server 2003, skip this section.

You disable the Windows fax service to prevent it from interfering with the Brooktrout software.

To Disable the Windows Fax Service

-
- Step 1** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 2** In the right pane, double-click **Fax Service**.
- Step 3** In the Fax Service Properties dialog box, click the **General** tab.
- Step 4** In the Startup Type list, click **Disabled**.
- Step 5** Click **OK** to close the Fax Service Properties dialog box.
- Step 6** Close the Services MMC.
-

Changing Folder Settings in Windows Explorer


Note

If the Bridge server was purchased from Cisco and you installed Windows 2000 Server by using the Cisco Unity Platform Configuration discs (revision 11 or later) that were shipped with the server, skip this section. All files and folders are already visible in Windows Explorer.

If the Bridge server was not purchased from Cisco, you change folder settings so that all files and folders—including system files—are visible in Windows Explorer during troubleshooting. If you do not do the following procedure now, Cisco TAC may ask you to do it later.

To Change Folder Settings in Windows Explorer

-
- Step 1** On the Windows desktop, double-click **My Computer**.
 - Step 2** Click **Tools > Folder Options**.
 - Step 3** Click the **View** tab.
 - Step 4** Click **Show Hidden Files and Folders**.
 - Step 5** Uncheck the **Hide File Extensions for Known File Types** check box.
 - Step 6** Uncheck the **Hide Protected Operating System Files** check box, and click **Yes** to confirm.
 - Step 7** Click **Apply**.
 - Step 8** Click **Like Current Folder**, and click **Yes** to confirm.
 - Step 9** Click **OK**.
-

Assigning a Static IP Address

Do the procedure in this section to assign a static IP address to the Bridge server. When selecting an IP address, note the following considerations:

- Do not select an address accessible from the Internet. Doing so can expose the Bridge server to unwanted intrusion from the Internet, even when the server is hardened.
- Do not select an address that puts the Bridge server on the opposite side of a firewall from the Microsoft Exchange server(s) that will be routing SMTP messages to and from the Bridge server.

To Assign a Static IP Address to the Bridge Server

-
- Step 1** If Windows 2000 Server is installed on the Bridge server, on the Windows Start menu, click **Settings > Control Panel > Network and Dial-Up Connections > Local Area Connection**.
If Windows Server 2003 is installed on the Bridge server, on the Windows Start menu, click **Settings > Network Connections > Local Area Connection**.
 - Step 2** In the Local Area Connection Status dialog box, click **Properties**.
 - Step 3** In the Local Area Connection Properties dialog box, on the General tab, check the **Internet Protocol (TCP/IP)** check box.

- Step 4** Click **Internet Protocol (TCP/IP)** (but do not uncheck the check box), and click **Properties**.
- Step 5** Enter applicable values. For more information, refer to Windows Help.
- Step 6** Click **OK**.
- Step 7** Restart the server.
-

Verifying the IP Address and the Network Connection

To Verify the IP Address and the Network Connection

- Step 1** On the Windows Start menu, click **Programs > Accessories > Command Prompt**.
- Step 2** In the Command Prompt window, enter **ipconfig /all**, and press **Enter**.
- Step 3** Verify the IP address of the Bridge server.
- Step 4** Find the IP address of a router or server on the same network segment as the Bridge server. If no routers or servers are listed, either you did not specify a default gateway when you assigned a static IP address in the [“Assigning a Static IP Address”](#) section on page 6-6, or the Bridge server is not connected to the network.
- Step 5** Ping the router or other server whose IP address you found in [Step 4](#). In the Command Prompt window, enter **ping <IP address>**, and press **Enter**.

If the device sends a reply, the Bridge server has a valid IP address.

If the device does not reply, there may be a variety of causes. Some of the most common problems include:

- The assigned static IP address conflicts with the IP address of another computer on the network.
- The subnet mask is incorrect.

Verify the network settings. If needed, troubleshoot any problem as you would a network connectivity problem.

Adding the Bridge Server to an Existing Domain or Configuring the Server When Not Joining a Domain

The Bridge server can be either a member server or a member of a workgroup. This section contains procedures for adding the Bridge server to a domain and for configuring the network identification full computer name (FQDN) on the Bridge server. Do the procedure that is applicable to your installation.



Caution

Do not make the Bridge server a domain controller.

To Add the Bridge Server to an Existing Domain

- Step 1** On the Windows Start menu, click **Settings > Control Panel > System**.

- Step 2** Click the **Network Identification** tab.
 - Step 3** Click **Properties**.
 - Step 4** In the Identification Changes dialog box, click **Domain**, and enter the name of the domain that you want to join.
 - Step 5** Click **OK**.
 - Step 6** In the Domain Username and Password dialog box, enter the name and password of an account that has permission to add computers to the domain.
 - Step 7** Click **OK** three times to save the change and close the dialog boxes.
 - Step 8** When prompted to restart the server, click **Yes**.
-

If you are not adding the Bridge server to an existing domain, do the following procedure.

To Configure the Network Identification Full Computer Name (FQDN) on the Bridge Server

- Step 1** On the Windows Start menu, click **Settings > Control Panel > System**.
 - Step 2** Click the **Network Identification** tab.
 - Step 3** Click **Properties**.
 - Step 4** In the Identification Changes dialog box, click **More**.
 - Step 5** Enter a value for **Primary DNS Suffix of This Computer**.
 - Step 6** Click **OK** three times to save the change and close the dialog boxes.
 - Step 7** When prompted to restart the server, click **Yes**.
-



Installing Cisco Unity Bridge Software

In this chapter, you do the following tasks in the order listed:

1. Obtain a license file for the Bridge server. See the [“Obtaining a License File for the Bridge Server” section on page 7-1](#).
2. *If virus-scanning software or Cisco Security Agent for Cisco Unity Bridge is installed on the Bridge server:* Disable virus-scanning and Cisco Security Agent services. See the [“Disabling Virus-Scanning and Cisco Security Agent Services” section on page 7-3](#).
3. Install Bridge software. See the [“Installing Bridge Software” section on page 7-3](#).
4. Install the License File Wizard and the license file on the Bridge server. See the [“Installing the License File Wizard and the License File” section on page 7-4](#).
5. *If virus-scanning software or Cisco Security Agent for Cisco Unity Bridge is installed on the Bridge server:* Re-enable virus-scanning and Cisco Security Agent services. See the [“Re-enabling Virus-Scanning and Cisco Security Agent Services” section on page 7-5](#).

When you are finished with this chapter, return to [“Overview of Mandatory Tasks for Installing the Cisco Unity Bridge”](#) to continue installing the Bridge correctly.



Note

The tasks in the overview list reference detailed instructions in the *Cisco Unity Bridge Installation Guide* and in other Bridge documentation. Follow the documentation for a successful installation.

Obtaining a License File for the Bridge Server

In Cisco Unity 4.0(3) and later with Bridge 3.0(1) and later, a license file is required for the Bridge server. In previous versions, a license file with Bridge ports enabled was required for the Cisco Unity server configured for Bridge Networking (referred to as the bridgehead server). As of Cisco Unity 4.0(3), a license file with Bridge ports enabled is not required on the Cisco Unity bridgehead server.

You obtain the license file for the Bridge server by completing registration information on Cisco.com. Shortly after registration, Cisco e-mails the license file. The e-mail contains instructions on how to save and store the file. The *Cisco Unity Bridge Installation Guide* alerts you when to install the license file later in the installation process.

The following information is required during registration:

- The MAC address (physical address) for the network interface card (NIC) in the Bridge server.

- The product authorization key (PAK), which appears on the sticker located on the front of the sleeve for the Cisco Unity Bridge CD.

Do the following two procedures in the order listed.

To Get the MAC Address of the Bridge Server

-
- Step 1** Open a Command Prompt window on the Bridge server. (On the Windows Start menu, click **Programs > Accessories > Command Prompt**.)
- Step 2** In the Command Prompt window, enter **ipconfig /all**, and press **Enter**.
- Step 3** Write down the Physical Address value, excluding the hyphens, or save it to a file that you can access during online registration. (For example, if the physical address is 00-A1-B2-C3-D4-E5, record 00A1B2C3D4E5.)
- If the server contains more than one NIC, one value will appear for each NIC. Use the value for the primary NIC.
- Step 4** Close the Command Prompt window.
-

To Register and Obtain the License File

-
- Step 1** Browse to the applicable registration site (URLs are case sensitive):

Registered user on Cisco.com	http://www.cisco.com/go/license
Not a registered user on Cisco.com	http://www.cisco.com/go/license/public

- Step 2** Enter the PAK or software serial number, and click **Submit**.
- Step 3** Follow the on-screen prompts.
- Step 4** Shortly after registration, you will receive an e-mail with the Cisco Unity license files.
- If license files are lost, it can take up to one business day to get another copy.
-

If you do not receive the license files within 1 hour, or to get another copy of a license file, call the Cisco Technical Assistance Center (TAC) and ask for the Licensing Team:

In the U.S.	800 553-2447
Outside the U.S.	For your local Cisco TAC phone number, refer to the website http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml .

Or send e-mail to licensing@cisco.com.

You will need to provide information to verify Bridge ownership—for example, the purchase order number or the PAK (which appears on the sticker located on the front of the sleeve for the Cisco Unity Bridge CD).

Disabling Virus-Scanning and Cisco Security Agent Services

**Note**

If virus-scanning software or Cisco Security Agent for Cisco Unity Bridge are not installed, skip this section.

You disable virus-scanning and Cisco Security Agent services so that they do not slow down the installation of software or cause the installation to fail. The *Cisco Unity Bridge Installation Guide* alerts you when to re-enable the services after all of the installation procedures that can be affected are complete.

To Disable and Stop Virus-Scanning and Cisco Security Agent Services

-
- Step 1** Refer to the virus-scanning software documentation to determine the names of the virus-scanning services.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** Disable and stop each virus-scanning service and the Cisco Security Agent service:
- In the right pane, double-click the service.
 - On the General tab, in the Startup Type list, click **Disabled**. This prevents the service from starting when you restart the server.
 - Click **Stop** to stop the service immediately.
 - Click **OK** to close the Properties dialog box.
- Step 4** When the services have been disabled, close the Services MMC.
-

Installing Bridge Software

To Install Bridge Software

-
- Step 1** Log on to the Bridge server by using an account that is a member of the local Administrators group.
- Step 2** On the Cisco Unity Bridge CD or on the burned CD that contains the downloaded Bridge files, browse to the **Bridge** directory, and double-click **Setup.exe**.
- Step 3** On the Welcome page, click **Next**.
- Step 4** On the Choose the Model of Voice-Fax Card page, click the model of voice-fax card installed in the Bridge server or expansion chassis.
- If Windows Server 2003 is installed on the Bridge server, you must install TR1034 voice-fax cards, and choose the option for TR1034 cards.

**Caution**

Bridge Setup cannot detect which cards are installed in the Bridge server. If you choose the wrong model here, Bridge Setup may fail, and the Bridge will not function properly.

- Step 5** Click **Next**.
 - Step 6** On the Choose the Location for Cisco Unity Bridge Files page, change the installation directory, if applicable. Note that you install the Bridge software on the logical drive, not on drive C.
 - Step 7** Click **Next**.
 - Step 8** On the Country Selection page, click the country that matches the country version of the voice-fax card(s) in the Bridge server or expansion chassis.
 - Step 9** Click **Next**.
 - Step 10** If a device driver for TR114 cards was previously installed and if the server still contains TR114 cards, a message asks if you want to overwrite the existing service. Click **Yes** twice.
 - Step 11** On the Cisco Unity Bridge Installation Summary page, review your selections. If necessary, click **Back** to revise you selections, then return to this page.
 - Step 12** Click **Next**.
 - Step 13** If prompted, remove the Cisco Unity Bridge disc from the CD-ROM drive.
 - Step 14** Click **OK** to restart the server.
-

Installing the License File Wizard and the License File

This section contains two procedures. Do them in the order listed.

To Install the License File Wizard and the License File

- Step 1** On the Cisco Unity Bridge CD, browse to the **BridgeLicenseSetup** directory.
 - Step 2** Run **Setup.exe**, and install the Cisco Unity Bridge License File wizard to the directory of your choice.
 - Step 3** On the Bridge server, on the Windows Start menu, click **Programs > Cisco Unity Bridge License File Wizard**.
 - Step 4** Follow the on-screen prompts to install the license file that you obtained previously.
-

After you install the Bridge license file, you need to restart the Unity Bridge service for the license settings to take effect.

To Restart the Unity Bridge Service

- Step 1** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
 - Step 2** In the right pane of the Services MMC, double-click **Unity Bridge**.
 - Step 3** Click **Stop** and wait for the service to stop.
 - Step 4** Click **Start** and wait for the service to restart.
 - Step 5** Close the Services MMC.
-

Re-enabling Virus-Scanning and Cisco Security Agent Services

**Note**

If virus-scanning software or Cisco Security Agent for Cisco Unity Bridge are not installed, skip this section.

You re-enable virus-scanning and Cisco Security Agent services now that all of the software installations that could have been affected if the services were running are complete.

To Re-enable and Start Virus-Scanning and Cisco Security Agent Services

-
- Step 1** Refer to the virus-scanning software documentation to determine the names of the virus-scanning services.
- Step 2** On the Windows Start menu, click **Programs > Administrative Tools > Services**.
- Step 3** Re-enable and start each virus-scanning service and the Cisco Security Agent service:
- In the right pane, double-click the service.
 - On the General tab, in the Startup Type list, click **Automatic** to re-enable the service.
 - Click **Start** to start the service.
 - Click **OK** to close the Properties dialog box.
- Step 4** When the services have been re-enabled, close the Services MMC.
-



Installing Optional Software

In this chapter, you do the following tasks in the order listed:

1. Install Symantec pcAnywhere, if applicable, and follow the recommended configuration. See the “[Installing pcAnywhere](#)” section on page 8-1.
2. Install virus-scanning software, if applicable. See the “[Installing Virus-Scanning Software](#)” section on page 8-3.
3. Install Cisco Security Agent for Cisco Unity Bridge, if applicable. See the “[Installing Cisco Security Agent for Cisco Unity Bridge](#)” section on page 8-3.

When you are finished with this chapter, return to “[Overview of Mandatory Tasks for Installing the Cisco Unity Bridge](#)” to continue installing the Cisco Unity Bridge correctly.



Note

The tasks in the overview list reference detailed instructions in the *Cisco Unity Bridge Installation Guide* and in other Cisco Unity Bridge documentation. Follow the documentation for a successful installation.

Installing pcAnywhere

For supported versions of Symantec pcAnywhere, refer to *Cisco Unity Bridge 3.1 System Requirements, and Supported Hardware and Software* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html.

Follow the manufacturer instructions to install pcAnywhere. See also the “[Recommended Configuration for pcAnywhere](#)” section, below.

The remote-access software can be installed on the Bridge server in addition to Windows Terminal Services (which is the default remote-access software for the Bridge server and is included with Windows 2000 Server). Use an external modem with pcAnywhere.

Recommended Configuration for pcAnywhere

We recommend that you do the following three procedures to configure pcAnywhere to avoid video problems, screen-refresh problems, and a possible problem with the server not responding after pcAnywhere disconnects.

To Configure pcAnywhere So That It Does Not Start Automatically When You Restart the Server

- Step 1** On the Windows Start menu, click **Programs > Symantec pcAnywhere**.
 - Step 2** In the pcAnywhere toolbar, click **Hosts**.
 - Step 3** Right-click the **Modem** icon or the host that is configured for a modem, and click **Properties**.
 - Step 4** In the pcAnywhere Host Properties dialog box, click the **Settings** tab.
 - Step 5** In the Host Startup section, uncheck the **Launch with Windows** check box.
 - Step 6** Click **OK** to close the pcAnywhere Host Properties dialog box.
 - Step 7** Exit pcAnywhere.
-

To avoid a pcAnywhere video problem, we recommend that you change the pcAnywhere video mode. (The problem is described in Symantec Knowledge Base article 2001040615242112.)

To Change the pcAnywhere Video Mode to Compatibility

- Step 1** On the Windows Start menu, click **Programs > Symantec pcAnywhere**.
 - Step 2** On the pcAnywhere Tools menu, click **Options**.
 - Step 3** On the Host Operation tab, under Video Mode Selection, click **Compatibility**.
 - Step 4** Click **OK**.
 - Step 5** Close pcAnywhere.
-

To avoid a pcAnywhere problem with slow or partial screen refreshes on multiprocessor host computers, and a possible problem in which the host computer stops responding when pcAnywhere disconnects, we recommend that you add a registry entry that sets pcAnywhere to run on one or more specific processors. (The problem is described in Symantec Knowledge Base article 199861984643.)

Be aware that setting pcAnywhere to run on a specific processor may affect performance on the Bridge server if someone uses pcAnywhere to access the server during peak hours.

To Set pcAnywhere to Run on One or More Specific Processors

- Step 1** Start Regedit.



Caution

Changing the wrong registry key or entering an incorrect value can cause the server to malfunction. Before you edit the registry, confirm that you know how to restore it if a problem occurs. (Refer to the “Restoring” topics in Registry Editor Help.) If you have any questions about changing registry key settings, contact Cisco TAC.

- Step 2** If you do not have a current backup of the registry, click **Registry > Export Registry File**, and save the registry settings to a file.
- Step 3** Expand the key
HKEY_LOCAL_MACHINE\SOFTWARE\Symantec\pcANYWHERE\CurrentVersion\Host.

- Step 4** Add a DWORD value named **ProcessorMask**, and set the value depending on which processor you want to use (for example, to make pcAnywhere run on the second processor only, set ProcessorMask to 2):

0	All processors
1	First processor
2	Second processor
4	Third processor
8	Fourth processor

To allow pcAnywhere to run on more than one processor, set the value of ProcessorMask to the sum of the corresponding values. (For example, to make pcAnywhere run on the third and fourth processors, set ProcessorMask to 12 [4 + 8].)

- Step 5** Either stop and restart the pcAnywhere host service or restart the Bridge server.
-

Installing Virus-Scanning Software

For information on which virus-scanning software is currently supported, refer to *Cisco Unity Bridge 3.1 System Requirements, and Supported Hardware and Software* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html.

Follow the manufacturer instructions to install virus-scanning software.

Installing Cisco Security Agent for Cisco Unity Bridge

Cisco Security Agent for Cisco Unity Bridge provides intrusion prevention, malicious mobile code protection, operating system integrity assurance, and audit log consolidation based on a tested set of security rules (policies). It controls system operations by allowing or denying selected system actions before system resources are accessed.

For installation instructions, refer to *Release Notes for Cisco Security Agent for Cisco Unity Bridge* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_release_notes_list.html.



Brooktrout Technology Voice-Fax Cards

This appendix contains the following sections:

- [Brooktrout Technology TR1034 Voice-Fax Cards, page A-1](#)
- [Brooktrout Technology TR114+P4L and TR114+uP4L Voice-Fax Cards, page A-3](#)

Brooktrout Technology TR1034 Voice-Fax Cards

The four-port and eight-port TR1034 voice-fax cards provide four or eight loop-start lines for inbound or outbound messages. The cards are installed in the Cisco Unity Bridge server or in an expansion chassis, and both types of cards can be installed in the same Bridge server or expansion chassis.

Four-port cards have one RJ-45 receptacle, and eight-port cards have two receptacles. The telecom cord that ships with most cards has an RJ-45 connector on one end and four single-pair RJ-11 connectors on the other end. For the United Kingdom and for Hong Kong, the telecom cord that ships with the cards has an RJ-45 connector on one end and four single-pair BT-431A connectors on the other end.

The TBR-21-compliant cards are qualified for use in Europe, and other country-specific cards have also been qualified. For a complete list of qualified cards, refer to the “Supported Voice-Fax Cards” section of *Cisco Unity Bridge 3.1 System Requirements, and Supported Hardware and Software* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html.

For the four-port TR1034 card, [Figure A-1](#) shows the top and side views, and [Figure A-2](#) shows the connection pinouts and back plate.

For the eight-port TR1034 card, [Figure A-3](#) shows the top and side views, and [Figure A-4](#) shows the connection pinouts and back plate.

Figure A-1 TR1034 Top and Side Views, Four-Port Card

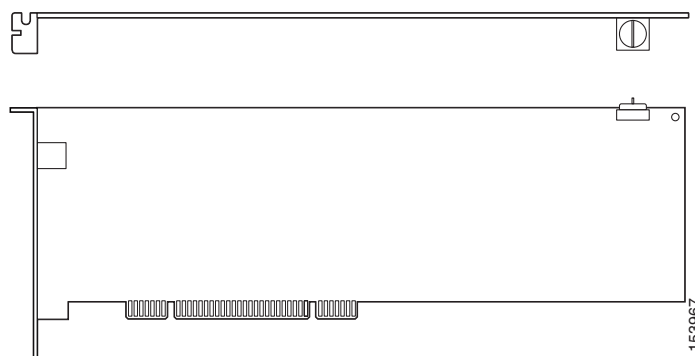


Figure A-2 TR1034 Connection Pinouts and Back Plate, Four-Port Card

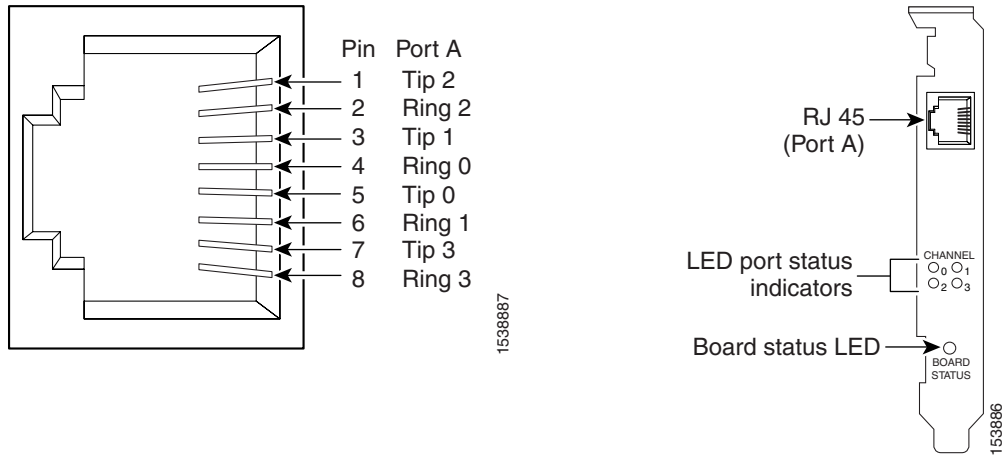


Figure A-3 TR1034 Top and Side Views, Eight-Port Card

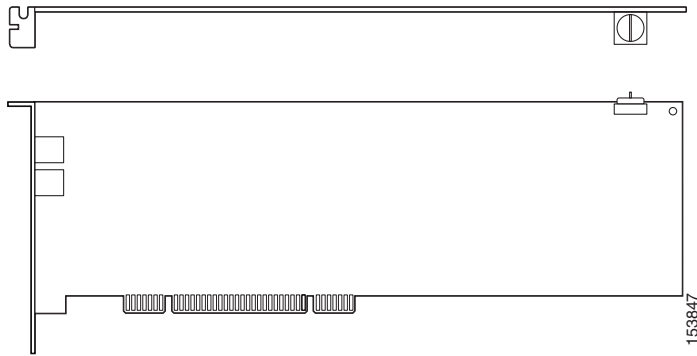
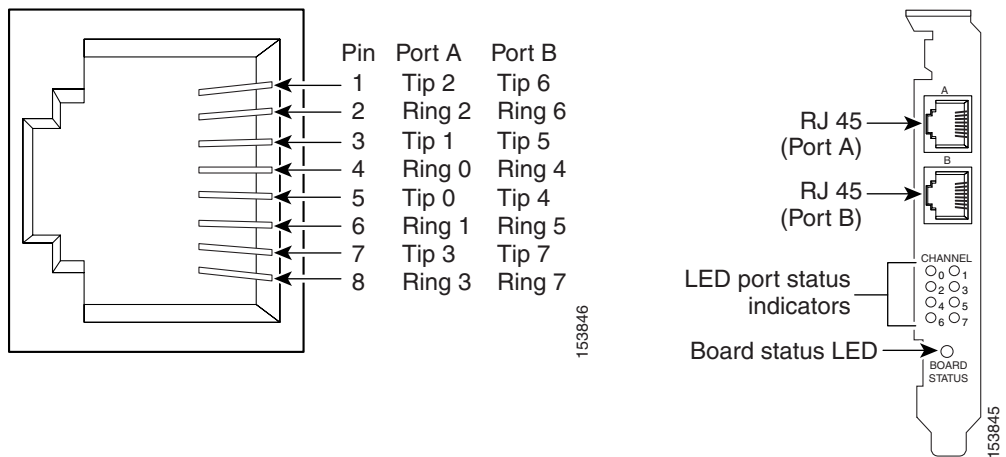


Figure A-4 TR1034 Connection Pinouts and Back Plate, Eight-Port Card



Brooktrout Technology TR114+P4L and TR114+uP4L Voice-Fax Cards

The TR114+P4L and TR114+uP4L voice-fax cards provide four loop-start lines for inbound or outbound messages. The cards are installed in the Cisco Unity Bridge server or in an expansion chassis, and both types of cards can be installed in the same Bridge server.

The TR114+P4L and TR114+uP4L cards have one RJ-45 receptacle serving all four ports. The telecom cord that ships with most cards has an RJ-45 connector on one end and four single-pair RJ-11 connectors on the other end. For the United Kingdom and for Hong Kong, the telecom cord that ships with the cards has an RJ-45 connector on one end and four single-pair BT-431A connectors on the other end.

Universal PCI (uPCI) is the ability to plug a TR114+uP4L card into either a 3.3-volt or 5-volt bus slot in a server chassis. A uPCI card is physically keyed for both 3.3-volt and 5-volt bus signaling, and has a second notch in the PCI edge connector on the card.

The TBR-21-compliant TR114+P4L and TR114+uP4L cards are qualified for use in Europe, and other country-specific TR114+P4L and TR114+uP4L cards have also been qualified. For a complete list of qualified cards, refer to the “Supported Voice-Fax Cards” section of *Cisco Unity Bridge 3.1 System Requirements, and Supported Hardware and Software* at http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_installation_guides_list.html.

Figure A-5 shows the top and side views of the TR114+P4L card, Figure A-6 shows the top and side views of the TR114+uP4L card, and Figure A-7 shows the connection pinouts and back plate for both cards.

Figure A-5 TR114+P4L Top and Side Views

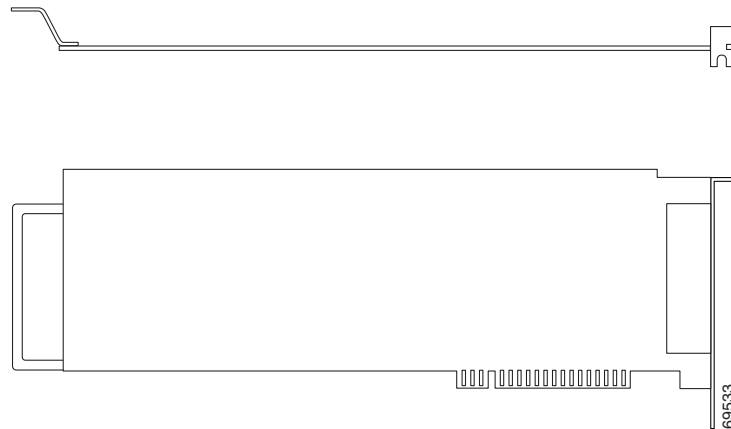


Figure A-6 TR114+uP4L Top and Side Views

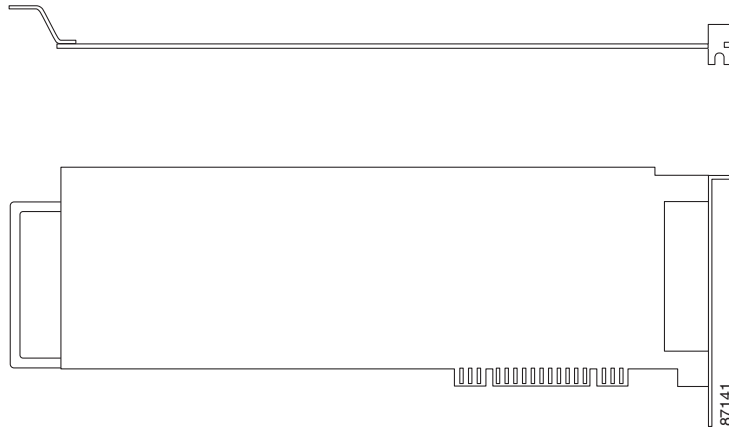
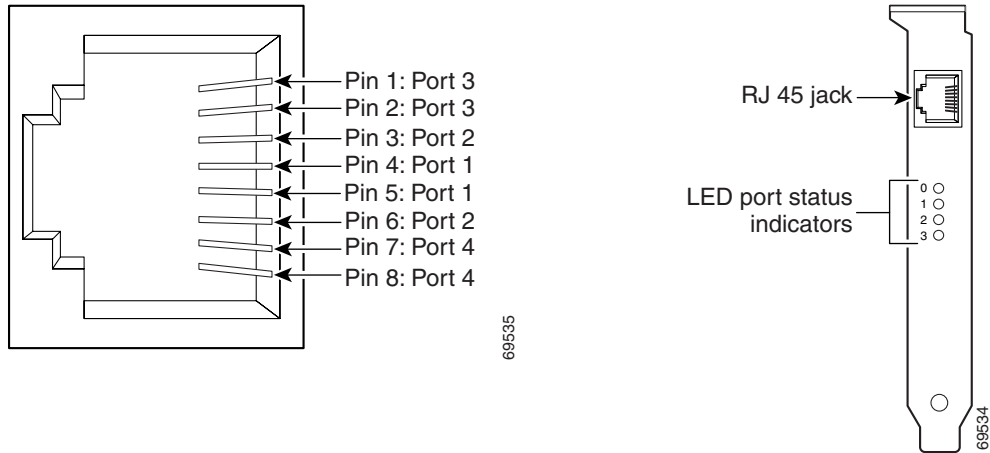


Figure A-7 TR114+P4L and TR114+uP4L Connection Pinouts and Back Plate





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