Vontu Installation Guide

Version 7.1 for Windows

VONTU

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Contents

Preface

This book, the *Vontu 7.1 Installation Guide for Windows*, describes the process to perform a new install of the Vontu 7 suite and any required third party software. It is important that you perform the Vontu installation in the order outlined in this guide.

This guide provides an overview of the Vontu suite components and describes the different types of installations and their system requirements. It then walks you through the various installation and configuration steps. The guide concludes with a chapter describing the various tasks you should perform to start using the Vontu suite.

You should familiarize yourself with the other documentation that is available for the Vontu suite. For example, if you wish to upgrade to Vontu 7 instead of performing a new installation, then use the *Vontu 7.1 Upgrade Guide for Windows*.

Audience

This guide is intended for network or system administrators responsible for installing and configuring the Vontu suite.

Documentation Map

This section provides an overview of the other Vontu product documentation. You can download the Vontu documentation from the `support.vontu.com` FTP site at `/pub/Vontu_7_Windows/Vontu_7.1/Documentation`. You will need a Vontu customer support user name and password.

If you have problems accessing the FTP site or downloading the documentation, contact your Vontu representative.

The other Vontu product documentation includes:

- *Vontu 7.1 Upgrade Guide for Windows*—provides the specific upgrade paths that you should follow to successfully upgrade to Vontu 7 from a previous Vontu release. It also includes instructions on how to upgrade from an Oracle 9i database to the Oracle 10g database, which is required for this version of Vontu.
- *Vontu 7.1 Utility Guide*—provides instructions on how to install and use the Remote EDM Indexer, how to use the Universal Data Store API, how to use the SQL Pre-indexer, as well as how to use the various other Vontu utilities, such as, the

Environment Check Utility (ECU), the SSL Key Tool, the SQLAdapter, and the Database Password Changer.

- *Vontu 7.1 Online Help*—provides context-sensitive information for all the Vontu functionality that can be accessed through the Vontu Enforce Server administration console. You can get to the online help from the Vontu Enforce Server administration console's help link.
- *Vontu 7.1 Email Prevent MTA Integration Guide*—provides instructions on how to integrate and configure the Vontu Email Prevent Server into your organization's messaging architecture.
- *Vontu 7.1 Lookup Plug-In Developer's Guide*—provides instructions on how to use the custom attribute Lookup Plug-in feature. This feature allows you to link with external systems, such as a corporate directory, and extract data pertinent to incidents in the Vontu Enforce Server. It also provides instructions on how to use the Vontu Lookup Tester feature. This feature helps you test lookup plug-ins before you deploy them.
- Various *Vontu 7.1 Solution Pack Guides*—provide detailed descriptions for the configuration settings included in each Vontu Solution Pack. For example, they outline the configured policies, available response rules, policies and recommended automated response rules, configured roles and reports, configured users, attributes enabled, and additional protocols enabled.

Chapter 1

Introduction to Vontu

This chapter provides an introduction to the Vontu suite. It presents an overview of the different Vontu components, discusses how to choose a deployment size and type, as well as the system requirements for each type of deployment.

The following topics are covered:

The Vontu Suite Overview

Vontu enables you to discover confidential information on file servers, Web servers, and desktops; monitor all network traffic and prevent transmission of confidential data; monitor the use of sensitive data on endpoint computers; and automatically enforce data security and encryption policies.

Vontu includes the Vontu Enforce central management platform and five product modules:

- Vontu Discover
- Vontu Protect
- Vontu Network Monitor
- Vontu Network Prevent
- Vontu Endpoint Monitor

You can deploy Vontu Discover, Vontu Protect, Vontu Network Monitor, Vontu Network Prevent, and Vontu Endpoint Monitor as stand-alone products or in combination, but they are always managed by the Vontu Enforce Server for central management of the complete solution. (Vontu Protect requires Vontu Discover.) The Vontu Discover, Vontu Protect, Vontu Network Monitor, Vontu Network Prevent, and Vontu Endpoint Monitor products are referred to as detection servers in this guide.

The distributed architecture of Vontu enables organizations to:

- **Perform centralized management and reporting**—The two-tier architecture enables you to efficiently deploy and manage the Vontu solution at a low Total Cost of Ownership (TCO), while aggregating data across the enterprise to yield a comprehensive view of data loss risk.
- **Centrally manage policies**—Define data security policies once and deploy immediately across Vontu Discover, Vontu Protect, Vontu Network Monitor, Vontu Network Prevent, and Vontu Endpoint Monitor.
- **Deploy data loss prevention at enterprise scale**—Vontu is proven at Fortune 500 companies to monitor millions of messages per day, hundreds of thousands of users, gigabit network speeds, and billions of data records.

Vontu Enforce

Vontu Enforce is the central management platform that allows organizations to define, deploy, and enforce consistent data loss prevention policies across Vontu Discover, Vontu Protect, Vontu Network Monitor, Vontu Network Prevent, and Vontu Endpoint Monitor. This centralized approach to management dramatically reduces TCO compared to solutions that require each component to be managed separately.

Vontu Enforce enables organizations to:

- **Build and deploy accurate data loss prevention policies**—Organizations can combine detection technologies (including detection for Asian languages), define rules, and specify actions to include in data loss prevention policies. Using pre-built regulatory and best practice policies, organizations can meet regulatory compliance, data protection and acceptable use requirements, and address specific threats.
- **Automatically enforce data loss prevention policies**—Organizations can automate policy enforcement options for notification, remediation workflow, blocking, quarantine, and encryption.
- **Measure risk reduction and demonstrate compliance**—The reporting features of Vontu Enforce allow executives and response teams to create actionable reports identifying risk reduction trends over time.
- **Empower rapid remediation**—Organizations can automate the entire remediation process using detailed incident reporting and workflow automation, based on incident severity. Role-based access controls empower individual business units and departments to review and remediate just those incidents that are relevant to their business or employees.
- **Safeguard employee privacy**—Vontu Enforce allows analysts to review incidents without revealing sender identity or message content, so multi-national companies can meet legal requirements on monitoring European Union employees and transferring personal data across national boundaries.

Vontu Discover

Vontu Discover scans networked file shares, web content servers, and desktops at high speeds to detect exposed data and documents. Vontu Discover allows companies to understand exactly where confidential data is exposed and helps significantly reduce the risk of data loss.

Vontu Discover enables organizations to:

- **Pinpoint unprotected confidential data**—Vontu Discover helps organizations accurately locate at-risk data stored on their networks, so they can inform shared file server owners to protect the data.
- **Reduce proliferation of confidential data**—Vontu Discover helps organizations to detect the spread of sensitive information throughout the company and reduce the risk of data loss.
- **Automate investigations and audits**—Vontu Discover streamlines data security investigations and compliance audits by enabling users to scan for confidential data automatically, as well as review access control and encryption policies.

Vontu Protect

Vontu Protect reduces your risk by removing exposed confidential data, intellectual property, and classified information from your organization's open file shares on network servers or desktop computers. (There is no separate Vontu Protect server; Vontu Protect adds protection functionality to the Discover Server.)

Vontu Protect enables organizations to:

- **Quarantine exposed files**—Vontu Protect can automatically move files that violate policies to a quarantine area that re-creates the source file structure for easy location. Optionally Vontu can place a marker text file in the original location of the offending file to explain why and where it was quarantined.
- **Quarantine file restoration**—Vontu Protect can easily restore quarantined files to their original or a new location.
- **Copy exposed or suspicious files**—Vontu Protect can automatically copy files that violate policies to a quarantine area that re-creates source file structure for easy location, leaving the original file in place.
- **Enforce access control and encryption policies**—Vontu Protect proactively ensures workforce compliance with existing access control and encryption policies.

Vontu Network Monitor

Vontu Network Monitor accurately detects confidential information across all network protocols and content types—before it leaves the network—with no impact on network performance. Real-time monitoring and reporting delivers constant visibility on data security.

Vontu Network Monitor enables organizations to:

- **Monitor all network communications for confidential data**—Vontu Network Monitor provides real-time monitoring across all network communications, including email, instant messaging, web mail and web postings, file transfers, network news, peer-to-peer, Telnet, and all other TCP sessions through any port.
- **Accurately detect policy violations**—Vontu Network Monitor detects all confidential information, including customer data and intellectual property, and identifies policy violations with unmatched accuracy.
- **Qualify and quantify the risk of data loss**—Vontu Network Monitor lets you quantify your organization's risk from potential confidential data loss incidents. Vontu Network Monitor automatically classifies each data loss incident by severity, allowing response teams to quickly prioritize high risk situations and focus resources.

Vontu Network Prevent

Vontu Network Prevent proactively stops data loss through email and Web communications. Vontu Network Prevent integrates with existing email message chain and web infrastructure technologies to capture network communications and block transmissions that contain confidential data.

Vontu Network Prevent enables organizations to:

- **Stop confidential data loss**—Vontu Network Prevent blocks email, web (HTTP/HTTPS), and FTP communications that contain confidential data.
- **Implement encryption policies**—Vontu Network Prevent analyzes email messages and selectively routes messages containing confidential content to an encryption gateway for secure delivery, enabling enforcement of enterprise-wide encryption and archiving policies.
- **Enforce workforce compliance**—Through automatic blocking and encryption, Vontu Network Prevent effectively enforces workforce compliance with government regulations and company policies.

Vontu Endpoint Monitor

Vontu Endpoint Monitor detects the use of sensitive data on your endpoint computers. It consists of at least one Endpoint Server and all the endpoint Vontu Agents that are connected to it. Vontu Agents detect activity in the endpoint file system, collect data on that activity, and send the data to the associated Endpoint Server for analysis. Vontu can detect when an endpoint user downloads a sensitive file to his or her hard drive, or copies it to a USB device such as an external disk drive.

Choosing a Deployment Size

Before you install Vontu, you need to choose the deployment size that best suits your organization's needs and environment. The key considerations involved in making this decision are as follows:

- Number of employees to be monitored
- Amount of traffic
- Size of Exact Data Matches (EDM)/Indexed Data Matches (IDM).

Vontu outlines three sample deployments based on enterprise size, described in Table 1-1 on page 13. Review these sample deployments to understand which is most optimal for your organization's environment, then see the referenced system requirements.

Table 1-1: Types of enterprise deployments

	Small/Medium Enterprise	**Large Enterprise**	**Very Large Enterprise**
Number of employees	< 10,000	> 10,000 and < 30,000	> 30,000
Traffic volume	30-40 Mbps	40-70 Mbps	> 70 Mbps
EDM/IDM size	EDM < 1 million cells or IDM < 1,000 pages	EDM > 1 million cells or IDM > 1,000 pages	EDM > 1 million cells or IDM > 1,000 pages
Hardware requirements	See Table 1-2	See Table 1-3	See Table 1-4

Vontu Installation Tiers

Vontu supports three different installations: three-tier, two-tier, and single-tier. Vontu recommends the three-tier installation, when it is feasible; however, your organization might need to implement a two-tier or single-tier depending on available resources and organization size.

Three-Tier Installation

To implement the Vontu three-tier installation, you install the Vontu database, the Vontu Enforce Server, and a Vontu detection server on three separate machines. Vontu recommends implementing the three-tier installation architecture as it enables your database administration team to control the Vontu database. In this way you can utilize all of your corporate standard tools for database backup, recovery, monitoring, performance and maintenance. If you implement the Vontu three-tier installation, you need to install the Oracle Client (SQL*Plus and Database Utilities) on the Vontu Enforce Server to enable database communications between the Oracle server and the Vontu Enforce Server.

Two-Tier Installation

To implement the Vontu two-tier installation, you install the Vontu database and the Vontu Enforce Server on the same machine, then you install a Vontu detection server on a separate machine. Typically, this installation is implemented when an organization, or the group responsible for data loss prevention, does not have a database administration team.

If you choose this installation, the Vontu administrator needs to be able to perform database maintenance tasks, for example, database backups.

Single-Tier Installation

To implement the Vontu single-tier installation, you install the Vontu database, the Vontu Enforce Server, and a Vontu detection server all on the same machine. Choose this installation only if you are performing a risk assessment, testing, or your organization's size fits well within the Small/Medium Enterprise deployment definition, see Table 1-1, "Types of enterprise deployments," on page 13.

If you choose this installation, the Vontu administrator needs to be able to perform database maintenance tasks, for example, database backups. Also, the Vontu administrator should monitor the Vontu host server's memory usage.

Vontu System Requirements

The system requirements for Vontu depend on the type of information you want to protect and the size of your organization, and also, on which Vontu servers you choose to install and where they are installed.

A Vontu deployment that includes the Network Monitor Server has different system requirements than a Vontu deployment that includes the Discover Server. Also, if you install the Network Monitor Server and the Enforce Server on separate machines (a two-tier installation), then the system requirements are different than if you installed the Enforce Server and Network Monitor Server installation on the same machine (a single-tier installation).

While a small or medium-sized organization can install a single-tier Vontu deployment, Vontu recommends a three-tier Vontu deployment.

- Table 1-2, "Small/Medium Enterprise System Requirements," on page 15.
- Table 1-3, "Large Enterprise System Requirements," on page 16.
- Table 1-4, "Very Large Enterprise System Requirements," on page 16.

Small/Medium Enterprise System Requirements

Table 1-2: Small/Medium Enterprise System Requirements

	Enforce*	**Network Monitor**	**Discover/Prevent/ Endpoint**
NICs	*To communicate with detection servers:* 1 Copper 1 Gb/100 MB Ethernet	*To communicate with Enforce server:* 1 Copper 1 Gb/100 MB Ethernet *For Network Traffic Monitoring (pick one):* 1 Copper 1 Gb/100 MB Ethernet, 1 Endace model 4.3 GE for Fiber (opt), or 1 Endace model 4.5 GE for Copper (opt)	*To communicate with Enforce server:* 1 Copper 1 Gb/100 MB Ethernet
Disk Space	500 GB, RAID 0+1 Configuration, 4 main drivers, 1 redundant	140 GB Ultra-fast SCSI	
OS	Microsoft Windows 2003 Enterprise Edition (32-bit) Microsoft Internet Explorer 6.0 or 7.0, or Mozilla Firefox 2.0 MS Language Packs (See "MS Asian Language Packs" on page 17.)		
Processor	2 x 3.0 GHz CPU		

Table 1-2: Small/Medium Enterprise System Requirements

	Enforce*	Network Monitor	Discover/Prevent/ Endpoint
Memory	6 - 8 GB RAM (EDM/IDM size could increase memory requirements) *Minimum is 8 GB RAM if Vontu single-tier		

Large Enterprise System Requirements

Table 1-3: Large Enterprise System Requirements

	Enforce	Network Monitor	Discover/Prevent/ Endpoint
NICs	*To communicate with detection servers:* 1 Copper 1 Gb/100 MB Ethernet	*To communicate with Enforce:* 1 Copper 1 Gb/100 MB Ethernet For Network Traffic Monitoring (pick one): 1 Endace model 4.3 GE for Fiber (opt), or 1 Endace model 4.5 GE for Copper (opt)	*To communicate with Enforce:* 1 Copper 1 Gb/100 MB Ethernet
Disk Space	500 GB, RAID 0+1 Configuration, 4 main drives, 1 redundant	140 GB Ultra-fast SCSI	
OS	Microsoft Windows 2003 Enterprise Edition (32-bit) Microsoft Internet Explorer 6.0 or 7.0, or Mozilla Firefox 2.0 MS Language Packs (See "MS Asian Language Packs" on page 17.)		
Processor	2 x 3.0 GHz Dual Core CPU		
Memory	6 - 8 GB RAM (EDM/IDM size could increase memory requirements)		

Very Large Enterprise System Requirements

Table 1-4: Very Large Enterprise System Requirements

	Enforce	Network Monitor	Discover/Prevent/ Endpoint
NICs	*To communicate with detection servers:* 1 Copper 1 Gb/100 MB Ethernet	*To communicate with Enforce:* 1 Copper 1 Gb/100 MB Ethernet For Network Traffic Monitoring (pick one): 1 Endace model 4.3 GE for Fiber (opt), or 1 Endace model 4.5 GE for Copper (opt)	*To communicate with Enforce:* 1 Copper 1 Gb/100 MB Ethernet

Table 1-4: Very Large Enterprise System Requirements

	Enforce	Network Monitor	Discover/Prevent/ Endpoint
Disk Space	1 Tb, RAID 0+1 Configuration, 4 main drives, 1 redundant	140 GB Ultra-fast SCSI	
OS	Microsoft Windows 2003 Enterprise Edition (32-bit) Microsoft Internet Explorer 6.0 or 7.0, or Mozilla Firefox 2.0 MS Language Packs (See "MS Asian Language Packs" on page 17.)		
Processor	2 x 3.0 GHz Dual Core CPU		
Memory	8 - 12 GB RAM (EDM/IDM size could increase memory requirements)		

MS Asian Language Packs

To view Asian language characters on the Vontu Enforce Server administration console, you must install the Microsoft Asian Language Packs that are appropriate for your OS. You install the Microsoft Asian Language Packs on the machine from which you will view the Vontu Enforce Server administration console. You do not need to install Microsoft Asian Language Packs on the Vontu servers (Enforce Server or any of the Vontu detection servers), unless you plan to view the Vontu Enforce Server administration console from those machines.

For example, your organization uses Vontu's Asian language detection functionality and your V. P. of Human Resources logs on to the Vontu Enforce Server administration console (from his or her local machine) to view incident reports. If this case, you need to install the appropriate Microsoft Asian Language Pack on the V. P. of Human Resource's local machine to render the Asian language content correctly on the local machine.

Which Microsoft Asian Language Pack you install depends on the following:

- The Asian language characters you want to detect—Japanese, Chinese, and/or Korean.
- The local machine's OS.

Downloading the Vontu Software

This section outlines all of the Vontu 7 software components and third party software that you need to download and install. You can download all the software, just the basic set of software files, or download software as you need it. (At the beginning of each chapter of this guide, there is a list of the software that you need to download and install to accomplish the tasks in that chapter.)

Download the Vontu software from the `support.vontu.com` FTP site. You will need a Vontu customer support user name and password.

If you have problems accessing the FTP site or downloading the software, contact your Vontu representative.

- Basic set of Vontu 7.1 software files—`/pub/Vontu_7_Windows/FullInstall-Windows-7.1-10g`
- All Vontu 7.1 software files—`/pub/Vontu_7_Windows/Vontu_7.1`
  - Vontu 7.1 documentation—`/pub/Vontu_7_Windows/Vontu_7.1/Documentation`
  - Oracle 10g software—`/pub/Vontu_7_Windows/Vontu_7.1/Oracle`
  - Oracle 10g security patches—`/pub/Vontu_7_Windows/Vontu_7.1/Oracle/SecurityPatch-2007-04-17`
  - Vontu 7.1 solution packs—`/pub/Vontu_7_Windows/Vontu_7.1/Solution_Packs`
  - Third party software—`/pub/Vontu_7_Windows/Vontu_7.1/Third_Party`
  - Vontu 7.1 software for new installations—`/pub/Vontu_7_Windows/Vontu_7.1/NewInstalls`
  - Vontu 7.1 upgrader software (from 6.x to 7.1)—`/pub/Vontu_7_Windows/Vontu_7.1/Upgrade_6.x_to_7.1`
  - Vontu 7.1 updater software (from 7.x to 7.1)—`/pub/Vontu_7_Windows/Vontu_7.1/Update_7.x_to_7.1`

Chapter 2

Installing Vontu 7.1

This chapter describes how to perform a new Vontu installation. You can choose to install a three-tier, two-tier, or single-tier Vontu installation. For more information about which type of Vontu installation to perform, see "Introduction to Vontu" on page 8.

To learn how to install and use the Vontu EDM Remote Indexer, see the *Vontu 7.1 Utility Guide*.

The following topics are covered:

Installing a Three-Tier Vontu Installation

Vontu does not support installing a Vontu server on a machine with other applications, unless those applications are required to run Vontu. This guide, the *Vontu 7.1 Installation Guide*, outlines the required applications.

To install a three-tier Vontu installation:

1. Perform the pre-installation steps. See "Pre-Installation Steps" on page 23.
2. Install Oracle 10g and create Vontu database.

   In a three-tier Vontu installation your organization's database administration team installs, creates, and maintains the Vontu database. Contact your Vontu representative for information about how to setup the Vontu Oracle 10g database in a three-tier environment. If you implement the Vontu three-tier installation, you need to install the Oracle Client (SQL*Plus and Database Utilities) on the Vontu Enforce Server to enable database communications between the Oracle server and the Vontu Enforce Server. The Vontu installer needs SQL*PLUS to create tables and views on the Enforce Server, therefore the Windows user account used to installed Vontu needs access to SQL*Plus.
3. Install the Vontu Enforce Server. .See "Installing Vontu Enforce Server" on page 53
4. Import a Vontu solution pack. See "Importing a Vontu Solution Pack" on page 73.
5. Install a Vontu detection server. See "Installing a Detection Server" on page 77.
6. Add and configure a Vontu detection server. See "Adding and Configuring the Vontu Detection Servers" on page 106.
7. Optionally, change the Vontu default security configuration. See "Vontu Security Configuration" on page 28.
8. Perform the post-installation steps. See "Post-Installation Steps" on page 28.
9. Start using Vontu to perform initial setup tasks, for example, change the Administrator password, and create user accounts and roles. See "Getting Started" on page 121.

Installing a Two-Tier Vontu Installation

Vontu does not support installing a Vontu server on a machine with other applications, unless those applications are required to run Vontu. This guide, the *Vontu 7.1 Installation Guide*, outlines the required applications.

To install a two-tier Vontu installation:

1. Perform the pre-installation steps. See "Pre-Installation Steps" on page 23.
2. Install Oracle 10g. See "Installing Oracle 10g" on page 44.
3. Install the Vontu Enforce Server. See "Installing Vontu Enforce Server" on page 62.
4. Import a Vontu solution pack. See "Importing a Vontu Solution Pack" on page 73.
5. Install a Vontu detection server. See "Installing a Detection Server" on page 77.
6. Add and configure a Vontu detection server. See "Adding and Configuring the Vontu Detection Servers" on page 106.
7. Optionally, change the Vontu default security configuration. See "Vontu Security Configuration" on page 28.
8. Perform the post-installation steps. See "Post-Installation Steps" on page 28.
9. Start using Vontu to perform initial setup tasks, for example, change the Administrator password, and create user accounts and roles. See "Getting Started" on page 121.

Installing a Single-Tier Vontu Installation

Vontu does not support installing a Vontu server on a machine with other applications, unless those applications are required to run Vontu. This guide, the *Vontu 7.1 Installation Guide*, outlines the required applications.

To install a single-tier Vontu installation:

1. Perform the pre-installation steps. See "Pre-Installation Steps" on page 23.
2. Install Oracle 10g. See "Installing Oracle 10g" on page 44.
3. Install the Vontu Enforce Server and a Vontu detection server on the same machine. See "Installing a Single-Tier Vontu Server" on page 87.
4. Import a Vontu solution pack. See "Importing a Vontu Solution Pack" on page 73.
5. Add and configure a Vontu detection server. See "Adding and Configuring the Vontu Detection Servers" on page 106.
6. Optionally, change the Vontu default security configuration. See "Vontu Security Configuration" on page 28.
7. Perform the post-installation steps. See "Post-Installation Steps" on page 28.
8. Start using Vontu to perform initial setup tasks, for example, change the Administrator password, and create user accounts and roles. See "Getting Started" on page 121.

Pre-Installation Steps

This section describes the pre-installation steps you need to perform before installing the Oracle 10g database or the Vontu servers.

Once you have performed these pre-installation steps return to the appropriate installation instructions for your Vontu implementation.

The pre-installation steps are as follows:

- "Gather Required Materials", see page 23.
- "Verifying the Microsoft Windows Server Installation", see page 25.

Gather Required Materials

Download software from the `support.vontu.com` FTP site. You will need a Vontu customer support user name and password.

Table 2-1: Materials Required for Installing Vontu

✓	Required Materials
	Vontu software: ◆ Vontu installer—`ProtectInstaller_7.1.exe` ◆ Vontu Lookup SDK installer—`LookupSdkInstaller.exe` (if you want to lookup custom attributes from a corporate directory.) ◆ Vontu Agent installer—`VontuWindowsAgentInstaller_7.1.zip` (if you purchased Vontu Endpoint Monitor)
	Oracle software: ◆ Oracle 10g software—`10201_database_win32.zip` ◆ Oracle 10g patch set—`p5337014_10203_WINNT.zip` ◆ Oracle 10g critical patch update—`p6116131_10203_WINNT.zip` ◆ Vontu Oracle 10g database template—`10g_Installation_Tools.zip`

Table 2-1: Materials Required for Installing Vontu

✓	Required Materials
	Third-party software: ◆ Required for Pre-Installation: ◆◆ WinPcap 3.0 (the only Vontu-supported version of WinPcap). ◆◆ Ethereal for Windows (most current version). **Caution:** Do not allow Ethereal to install a later version of WinPcap. Vontu does not support versions of WinPcap beyond 3.0. ◆ Required for Installation: ◆◆ Remote access. ◆◆ Oracle database (Oracle 10g only). Read "Installing Oracle 10g" on page 46 before you attempt to install the Oracle software. ◆◆ SFU 3.5—SFU allows UNIX services to be accessed from Windows. Download from the Microsoft Download Center (http://www.microsoft.com/downloads/details.aspx?familyid=896C9688-601B-44F1-81A4-02878FF11778&displaylang=en) and install on Discover servers that will run scans on UNIX machines. ◆ Additional Tools: ◆◆ Putty (or similar SSH client to access Unix servers for Vontu Prevent deployment). ◆◆ Adobe Acrobat Reader (for reading Vontu documentation).
	Vontu documentation: ◆ *Vontu 7.1 Installation Guide for Windows* ◆ *Vontu 7.1 Email Prevent MTA Integration Guide* (if Vontu Email Prevent Server was purchased). ◆ *Vontu 7.1 Utility Guide*
	Vontu license key
	Vontu solution pack

Table 2-1: Materials Required for Installing Vontu

✓	Required Materials
	Vontu servers: ◆ Microsoft Windows 2003 Enterprise Server (32-bit) with Service Pack 2 operating system is installed on all Vontu servers, as well as the required patches and updates. (Vontu recommends you turn off Microsoft's Auto Update feature and that you contact your Vontu representative before installing any new patches. Vontu verifies new Microsoft patches and will send you a communication when it is safe to apply these new patches.) See "Vontu System Requirements" on page 15 to review the server requirements. ◆ Administrator log-in user name and password for each Vontu server. ◆ Static IP Address(es) for each Vontu server. ◆ Access to each Vontu server via Terminal Services, which should be installed and running on each Vontu server (for troubleshooting or remote accessing). ◆ Configure the corporate firewall to use a single port number on which the detection server should accept connections from the Enforce Server. The port number can be any single port number greater than but not equal to 1024. Vontu recommends you use the same port number for all detection servers. You must use this port number when you install a detection server and when you register it with the Enforce Server. (You register a detection server on the Enforce Server's **Add Server** > **Configure Server** page.)
	Communication and access: ◆ Physical address and contact person for Data Center(s). ◆ Desktop/workstation with access to Internet, FTP, and email.
	EDM and IDM documents: ◆ Digital documents or access to where they are stored. To create remote EDM index, see the *Vontu 7.1 Utility Guide*.
	SMTP Alerting: If you plan to use Vontu's Alerting capabilities, you need the following. ◆ Access to a local SMTP server. ◆ Mail server configuration for sending SMTP email, including an account and password, if the mail server requires authentication.

Verifying the Microsoft Windows Server Installation

This section outlines the steps to verify your Microsoft Windows Server installation is ready for a Vontu server installation.

Table 2-2: Verifying the Microsoft Windows Server Installation

✓	Steps to verify the Microsoft Windows Server Installation
	Verify all Vontu servers are racked and set-up in the data center.

Table 2-2: Verifying the Microsoft Windows Server Installation

✓	**Steps to verify the Microsoft Windows Server Installation**
	Verify the network cables are plugged into the appropriate ports. **Enforce Server:** ◆ NIC Port 1—Standard network access for Administration. If the Enforce Server has multiple NICs, disable the unused NIC if possible. If the unused NIC cannot be disabled, make the following changes to the properties file to allow the detection servers to talk to the Enforce Server. (<IP> is the IP address that you want to bind on.) ◆ On the Enforce Server: ◆ \Vontu\Protect\config\model.properties ◆ model.notification.host= <IP> ◆ model.notification.serverobject.host= <IP> ◆ On the Monitor Server: ◆ \Vontu\Protect\config\model.properties ◆ model.notification.host= <IP> ◆ \Vontu\Protect\bin\NotificationTrafficMonitor.lax ◆ lax.command.line.args=<IP>:37328 **Detection Server:** ◆ NIC Port 1—Standard network access for Administration. ◆ NIC Port 2—SPAN PORT or TAP should be plugged into this port for detecting. ◆ Does not need an IP address. **Caution:** If you are using an Endace card, then do not set this port up for span or tap.
	Log in as the Administrator user.
	Assign static IP address, subnet mask, and gateway for the Administration NIC. Do not assign an IP address to the detection server NIC.
	Make sure that the management NIC has the following items enabled: ◆ Internet protocol TCP/IP ◆ File and Printer Sharing for MS networks ◆ Client for MS Networks Disabling any of these can cause communication problems between the Enforce Server and the detection servers.
	From a command line, use ipconfig (using `ipconfig /all`) to verify assigned IP addresses.
	Unless DNS is being used to resolve the Vontu server, check that the `c:\windows\system32\drivers\etc\hosts` file contains server name and accurate IP addresses for the Vontu server. If you reset these, reboot the server afterwards.
	Ping the Vontu server (using both IP and hostname) from each server or remote server to verify they are accessible on the network and resolve properly.

Table 2-2: Verifying the Microsoft Windows Server Installation

✓	**Steps to verify the Microsoft Windows Server Installation**
	Verify that ports 443 (SSL) and 3389 (RDP) are open and accessible from the Vontu servers to the desktop location where you will be accessing the server.
	Turn on remote desktop connections for each Vontu server. In Windows, right-click **My Computer**, click **Properties**, then select **Remote**>**Allow users to connect remotely to this computer**. Verify that you can use Remote Desktop to log into the Vontu server from the local workstation assigned to you.
	Verify that Port 25 is not being blocked. The Vontu server uses Port 25 (SMTP) for the email alerting functionality.
	Verify that the detection server NIC is receiving the correct traffic from the SPAN PORT or TAP. Install Ethereal and use it to verify traffic on the server for non-Endace cards. Use `dagsnap -o out.pcap` from a command line for Endace cards. The output from dagsnap can then be reviewed in Ethereal.
	Create users with local administrator privileges on each of the Windows machines. These users need not be domain users. They will be used for installation, and the Vontu services will run under these user accounts after installation. The passwords for all of the users (on the Vontu detection server and Enforce Server) and the services password should be the same (recommended).
	Place all servers in the same time zone, independent of their physical location and ensure that all servers are synchronized with the same time (to the minute). Ensure the servers are updated with DST 2007 patches.
	For an Email Prevent Server: ◆ Make sure you can access the MTA from the local hardware via Putty or a similar SSH client. ◆ Make sure the Linux firewall is configured correctly so that you can Telnet from the Vontu Email Prevent Server to the MTA on port 25, and that you can Telnet from the MTA to the Vontu Email Prevent Server on port 10026.
	For a Web Prevent Server: Follow your proxy server's integration guide (for example, BlueCoat, or Cisco) to configure the proxy server.

Post-Installation Steps

This section describes the post-installation steps you need to perform after installing the Vontu suite.

The post-installation steps are as follows:

- "Vontu Security Configuration", see page 28.
- "Windows Security Lockdown Guidelines", see page 34.
- "Anti-virus Scans and Hot FileSystem Backups", see page 42.
- "Microsoft Asian Language Packs", see page 43.

Vontu Security Configuration

Vontu secures data communications between all of the Vontu servers by encrypting the data being transmitted and requiring servers to authenticate with each other. Vontu also secures data communications and authenticates between the Endpoint Server and Endpoint Agents. While your Vontu installation is secure, Vontu highly recommends you change the default Vontu security settings to ensure your Vontu installation uses unique certificates or keys. The following sections describe the Vontu security configuration and how to change the default security configuration.

Vontu SSL Client/Server Certificates

To ensure confidentiality, Vontu secures all data flowing between the Enforce Server and the Vontu detection servers using the Secure Socket Layer/Transport Layer Security (SSL/TLS) protocol. The SSL/TLS protocol not only encrypts the data being transmitted, Vontu also uses it for mutual authentication between the Vontu servers. Authentication is implemented via the mandatory use of client and server side certificates or keys. By default, connections between the Vontu servers use a single self-signed certificate that is embedded securely inside the Vontu software. Every Vontu installation uses this same certificate.

While the default security configuration in Vontu is secure, Vontu highly recommends you generate unique client and server side certificates or keys for your organization's Vontu installation. These new certificates replace the default certificates that come with the Vontu application.

Vontu provides the *sslkeytool* utility to generate your own unique pair of certificates; you store the first certificate on the Enforce Server, while you store the second certificate on each detection server. While the *sslkeytool* utility is installed on all Vontu servers, you should run it on only one of the Vontu servers (Vontu recommends the Enforce Server) to simplify certificate management.

To learn how to generate a unique pair of certificates, see the *Vontu 7.1 Utility Guide*.

Vontu Enforce Server and Browser Security

The Vontu Enforce Server provides a Web interface (administration console) for reporting and administration purposes. This interface is accessed via a Web browser. The Enforce Server and browser communicate through a SSL connection.

To ensure confidentiality, all communication between the Enforce Server and the browser is encrypted using a symmetric key. During connection initiation, the Enforce Server and the browser negotiate the encryption algorithm (algorithm, keysize, and encoding) that will be used, as well at the encryption key itself.

By default, connections between the Enforce Server and the browser use a single self-signed certificate that is embedded securely inside the Vontu software. Every Vontu installation uses this same certificate. While the default security configuration in Vontu is secure, Vontu highly recommends you generate a unique certificate or key for your organization's Vontu installation. This new certificate replaces the default certificate that comes with the Vontu application.

▶ **To generate a unique Enforce Server certificate:**

1. Collect the following information to generate a certificate request:
   - Common Name: The fully qualified DNS name of the Enforce Server machine (must be the actual name of the server accessible by all the clients, for example https://<servername>/policymananger)
   - Organization Name: For example, Vontu, Inc.
   - Organizational Unit: (optional)
   - City: For example, San Francisco
   - State: For example, CA
   - Country: For example, US
   - Expiration: Desired expiration time in days (90).
2. Use the `keytool.exe` to create the "self-signed" certificate (keystore file), which you need to generate the .CSR. Keytool is a key and certificate management utility that enables users to administer their own public/private key pairs and associated certificates for use in self-authentication (where the user authenticates to other users/services) or data integrity and authentication services, using digital signatures. It also allows users to cache the public keys (in the form of certificates) of their communicating

peers. To create this file, first go to the root directory where the Vontu application resides.

a. Change directory to `<drive>\vontu\jre\bin`, where `<drive>` is the drive on which you installed the Vontu Enforce Server. The `keytool.exe` is located in this directory.

b. Run the following command with the information collected in step 1:

```
keytool -genkey -alias tomcat -keyalg RSA -keysize 1024 -
keystore .keystore -validity <Expiration> -storepass protect -
dname "cn=<Common Name>,o=<Organization Name>,ou=<Organization
Unit>,l=<City>,s=<State>,c=US"
```

The `-storepass protect` command sets the password to "protect". Enter this if you are prompted for a password after running this command. This will create the "self-signed" certificate (`.keystore`) in the `<drive>vontu\jre\bin` directory.

3. Generate the certificate signing request (CSR) file. This is the request that you submit to the Signature Authority to obtain a signed certificate.

From the `<drive>\vontu\jre\bin` directory and run the following command:

```
keytool -certreq -alias tomcat -keyalg RSA -keystore .keystore -
storepass protect -file "VontuEnforce.csr"
```

If you are prompted for a password, press Enter. This will create a file called "`VontuEnforce.csr`". You submit this file to the Signature Authority.

4. To generate a certificate you send the .CSR file to a Certified Signature Authority (your own or a third party, for example, VeriSign).

- Internal Signature Authorities: To obtain a Signed Certificate from your internal Signature Authority, contact your system administrator for instructions.
- VeriSign Signature Authority:
  - Current Customers: If you are a current VeriSign customer, go the following page, http://www.VeriSign.com/products-services/security-services/ssl/current-ssl-customers/index.html, and buy an additional certificate. You will need your Common Name, Order Number, or Serial Number to begin the transaction, as well as the CSR.
  - New Customers: If you are not a current customer and wish to purchase the signed certificate from VeriSign, go to the following page, http://www.VeriSign.com/products-services/security-

services/ssl/buy-ssl-certificates/index.html. To purchase the signed certificate, you will need the following, in addition to the CSR:

- The length of time for the certificate (1 or 2 years).
- The number of servers hosting a single domain (up to 5 servers, only 1 required for Vontu).
- The server platform.
- The organization, organizational unit, country, state or locality (all spelled without abbreviations).
- Payment information and a billing contact.
- The common name. This is the host + domain name such as "www.company.com" or "company.com".
- An email where VeriSign can reach you to validate the information.
- Documentation to demonstrate that your organization is legitimate.

- Other Signature Authorities: To obtain signed certificates from other Signature Authorities, go to their web sites and follow the instructions to enroll and obtain a signed certificate. The process will be similar to the VeriSign process, however check with the organization to identify any additional environment information that may be needed for the certificate.

5. The certified Signature Authority sends you the signed certificate (this might take 3-5 days). Internal Signature Authorities must return the root certificate along with the signed certificate.

6. Place the signed certificate into the directory (`<drive>\vontu\jre\bin`) with the `.keystore` file. If the signed certificate is provided in the body of an email, paste it into a text document exactly as it appears on the screen, including the top and bottom lines (-----Begin Certificate----- and -----End Certificate-----). Make sure that no extra lines, spaces, trailing carriage returns, or characters have been inadvertently added, or the file will not work. Save this file in the same directory where the `.keystore` file is

located. If the signed certificate is provided as an attachment to an email, copy this file into the same directory where the `.keystore` file is located.

7. Keep a copy of both the `.keystore` file and the signed certificate file in a separate, secure location.

8. Confirm the signed certificate is correct. Open a command prompt and run the following command to view the certificate's fingerprint(s).

   ```
   keytool -printcert -file <<Signed Certificate filename>>
   ```

   The following is an example output:

   ```
   Owner: CN=ll, OU=ll, O=ll, L=ll, S=ll, C=ll

   Issuer: CN=ll, OU=ll, O=ll, L=ll, S=ll, C=ll

   Serial Number: 59092b34

   Valid from: Thu Sep 25 18:01:13 PDT 1997 until: Wed Dec 24
   17:01:13

   PST 1997

   Certificate Fingerprints:

      MD5:  11:81:AD:92:C8:E5:0E:A2:01:2E:D4:7A:D7:5F:07:6F

      SHA1: 20:B6:17:FA:EF:E5:55:8A:D0:71:1F:E8:D6:9D:C0:37

      37:13:0E:5E:FE
   ```

9. Call or email the person who sent the certificate and compare the fingerprint(s) you see with the fingerprint(s) they sent you. If the fingerprint(s) are not exactly equivalent, the certificate may have been replaced in transit by an attacker's certificate.

   If you used an Internal Signing Authority, also view the fingerprint(s) of the root certificate using the same `-printcert` command.

   ```
   keytool -printcert -file <<name of Root Certificate provided by
   Internal Signature Authority>>
   ```

   Compare the displayed fingerprint with the well-known fingerprint (obtained from a newspaper or the root CA's webpage). Contact the certificate's issuer if you have questions.

   When you execute the command, the `-import` command will print out the certificate information and prompt you to verify it.

10. Return to the `<drive>Vontu\jre\bin` directory and update the local `.keystore` file with the signed certificate.

    - Internal signature authority

      Use the following command to update the `.keystore` file with the root certificate:

      ```
      keytool -import -file <root certificate filename>
      ```

      Use the following command to update the `.keystore` file with the signed certificate:

      ```
      keytool -import -alias tomcat -keystore .keystore -trustcacerts
      -file <signed certificate filename>
      ```

    - Versign or third-party signature authority

      Use the following command to update the local `.keystore` file with the signed certificate:

      ```
      keytool -import -alias tomcat -keystore .keystore -trustcacerts
      -file <signed certificate filename>
      ```

11. Copy the updated `.keystore` file into the `<drive>Vontu\Protect\tomcat\conf` directory.

12. Restart the Vontu Manager services.

Vontu Endpoint Server and Endpoint Agent Security

Vontu secures all communications between the Endpoint Server and the Endpoint Agents, as well as the Endpoint Agent shadow cache, using the Advanced Encryption Standard (AES) technology. AES is a symmetric key encryption technology that supports key sizes of 128, 192, and 256 bits. Vontu uses three different sets of AES keys: one to secure the shadow cache, one to authenticate the Endpoint Server to the Endpoint Agent, and one to encrypt traffic between the Endpoint Server and Endpoint Agent. While the shadow cache key is only used at the Endpoint Agent, the authentication and traffic encryption keys must be shared between the Endpoint Server and Endpoint Agent.

By default, Vontu uses predefined shadow cache and authentication 128-bit keys. The traffic encryption key is a randomly generated session key that is negotiated every time the Endpoint Agent connects to the Endpoint Server.

While the existing security in Vontu is secure, Vontu recommends you change the default keys. You can change the shadow cache and authentication keys, and you can change the AES key size (128, 192, 256).

You should change these default settings (change to use unique keys or change the key size) before you deploy the Endpoint Agents.

To learn more about Endpoint Server/Endpoint Agent security and how to generate unique Endpoint Server/Endpoint Agent keys or change the key size, see the *Vontu 7.1 Utility Guide*.

Windows Security Lockdown Guidelines

This section provides a set of basic hardening procedures that you should complete after you install a Vontu server. You should adapt these guidelines to suit your organizations standards for secure communications and hardening procedures.

Table 2-1 and Table 2-2 list a standard set of Windows Services that should be running on a Vontu server post-installation. Table 2-1 lists required services; while Table 2-2 lists services that you should disable.

In addition, tables Table 2-3 through Table 2-7 list Windows system administrative security settings that you can adjusted for additional security hardening.

Required Windows Services

You should confirm the Windows services listed in Table 2-1 on page 34 are running.

Table 2-1: Microsoft Windows Required Services

✓	**Required To Run—Service Name**
	Alerter
	COM+ Event System
	DCOM Server Process Launcher
	Defwatch—for Symantec
	DNS Client
	Event Log
	Interix Subsystem Startup—for UNIX Services for Windows (for RA's)
	IPSEC Services
	Logical Disk Manager
	Network Connections
	OracleOraDb10g_home1TNSListener—OracleOraDb10g_Home1 is the default name. Your name might vary if the Oracle home name is not the default one.
	OracleServicePROTECT—Vontu Enforce Server only.
	Plug and Play
	Protected Storage
	Remote Procedure Call (RPC)

Table 2-1: Microsoft Windows Required Services

✓	Required To Run—Service Name
	Removable Storage
	Security Accounts Manager
	Server—Required only for Enforce if EDMs will be used. Otherwise, not required.
	Symantec AntiVirus
	System Event Notification
	Task Scheduler
	TCP/IP NetBIOS Helper Service
	Terminal Services
	User Name Mapping—For UNIX Services for Windows (for RAs)
	Vontu Incident Persister—For Vontu Enforce Server only
	Vontu Enforce—For Vontu Enforce Server only
	Vontu Monitor—For Vontu detection servers only
	Vontu Notifier—For Vontu Enforce Server only
	Vontu Update
	Windows Management—Instrumentation
	Windows Management—Instrumentation Driver Extensions Workstation
	Windows Time—Required if no alternative Enforce/detection server system clock synchronization is implemented
	Workstation—Required for Alerter Service

Windows Services To Be Disabled

You should disable the Windows services listed in Table 2-2 on page 35.

Table 2-2: Microsoft Windows Services To Disable

✓	Disable—Service Name
	DHCP Client
	Dist. File System
	Dist. Link Tracking Client
	Dist. Link Tracking Server
	Dist. Transaction Coordinator
	Error Reporting Service—New addition
	Help and Support
	Messenger
	Print Spooler

Table 2-2: Microsoft Windows Services To Disable

✓	Disable—Service Name
	Remote Registry—New addition
	Wireless Config

Administrative Security Settings

The following tables provide additional administrative settings available on a Microsoft Windows system that can be adjusted for additional security hardening.

Security Settings

Table 2-3: Security Settings

✓	Policy	Security Setting
	Account Lockout Policy	
	Account lockout duration	0
	Account lockout threshold	3 invalid logon attempts
	Reset account lockout counter after	15 minutes

Password Policy

Table 2-4: Password Policy

✓	Password Policy	Security Setting
	Enforce password history	24 passwords remembered
	Maximum password age	60 days
	Minimum password age	2 days
	Minimum password length	10 characters
	Password must meet complexity requirements	Enabled
	Store passwords using reversible encryption	Disabled

Local Audit

Table 2-5: Local Audit

✓	Local Audit	Security Setting
	Audit account logon events	Success, Failure
	Audit account management	Success, Failure
	Audit directory service access	Success, Failure
	Audit logon events	Success, Failure
	Audit object access	Success, Failure

Table 2-5: Local Audit

✓	**Local Audit**	**Security Setting**
	Audit policy change	Success, Failure
	Audit privilege use	Success, Failure
	Audit process tracking	No auditing
	Audit system events	Success, Failure
	Restore files and directories	Administrators, Backup Operators
	Shut down the system	Administrators, Power Users, Backup Operators
	Synchronize directory service data	
	Take ownership of files or other objects	Administrators

User Rights Assignment

Table 2-6: User Rights Assignment

✓	**User Rights Assignment**	**Security Setting**
	Access this computer from the network	Everyone, Administrators, Users, Power Users, Backup Operators
	Act as part of the operating system	
	Add workstations to domain	
	Adjust memory quotas for a process	LOCAL SERVICE, NETWORK SERVICE, Administrators
	Allow log on locally	Administrators, Users, Power Users, Backup Operators
	Allow log on through Terminal Services	Administrators, Remote Desktop Users
	Back up files and directories	Administrators, Backup Operators
	Bypass traverse checking	Everyone, Administrators, Users, Power Users, Backup Operators
	Change the system time	Administrators, Power Users
	Create a pagefile	Administrators
	Create a token object	
	Create global objects	Administrators, SERVICE
	Create permanent shared objects	
	Debug programs	Administrators
	Deny access to this computer from the network	
	Deny log on as a batch job	

Table 2-6: User Rights Assignment

✓	User Rights Assignment	Security Setting
	Deny log on as a service	
	Deny log on locally	
	Deny log on through Terminal Services	
	Enable computer and user accounts to be trusted for delegation	
	Force shutdown from a remote system	Administrators
	Generate security audits	LOCAL SERVICE, NETWORK SERVICE
	Impersonate a client after authentication	Administrators, SERVICE
	Increase scheduling priority	Administrators
	Load and unload device drivers	Administrators
	Lock pages in memory	
	Log on as a batch job	LOCAL SERVICE
	Log on as a service	NETWORK SERVICE
	Manage auditing and security log	Administrators
	Create a pagefile	Administrators
	Create a token object	
	Create global objects	Administrators, SERVICE
	Create permanent shared objects	
	Debug programs	Administrators
	Deny access to this computer from the network	
	Deny log on as a batch job	
	Deny log on locally	
	Deny log on through Terminal Services	
	Enable computer and user accounts to be trusted for delegation	
	Force shutdown from a remote system	Administrators
	Generate security audits	LOCAL SERVICE, NETWORK SERVICE
	Impersonate a client after authentication	Administrators, SERVICE
	Increase scheduling priority	Administrators
	Load and unload device drivers	Administrators
	Lock pages in memory	
	Log on as a batch job	LOCAL SERVICE
	Deny log on locally	

Table 2-6: User Rights Assignment

✓	User Rights Assignment	Security Setting
	Deny log on through Terminal Services	
	Log on as a service	NETWORK SERVICE
	Manage auditing and security log	Administrators
	Modify firmware environment values	Administrators
	Perform volume maintenance tasks	Administrators
	Profile single process	Administrators, Power Users
	Profile system performance	Administrators
	Remove computer from docking station	Administrators, Power Users
	Replace a process level token	LOCAL SERVICE, NETWORK SERVICE
	Restore files and directories	Administrators, Backup Operators
	Shut down the system	Administrators, Power Users, Backup Operators
	Synchronize directory service data	
	Take ownership of files or other objects	Administrators

Security Options

Table 2-7: Security Options

✓	Security Options	Security Settings
	Accounts: Administrator account status	Enabled
	Accounts: Guest account status	Disabled
	Accounts: Limit local account use of blank passwords to console logon only	Enabled
	Accounts: Rename administrator account	protectdemo
	Accounts: Rename guest account	Guest
	Audit: Audit the access of global system objects	Disabled
	Audit: Audit the use of Backup and Restore privilege	Disabled
	Audit: Shut down system immediately if unable to log security audits	Disabled
	Devices: Allow undock without having to log on	Enabled
	Devices: Allowed to format and eject removable media	Administrators
	Devices: Prevent users from installing printer drivers	Enabled

Table 2-7: Security Options

✓	Security Options	Security Settings
	Devices: Restrict CD-ROM access to locally logged-on user only	Enabled
	Devices: Restrict floppy access to locally logged-on user only	Enabled
	Devices: Unsigned driver installation behavior	Do not allow installation
	Domain controller: Allow server operators to schedule tasks	Enabled
	Domain controller: LDAP server signing requirements	Not Defined
	Domain controller: Refuse server account password changes	Not Defined
	Domain member: Digitally encrypt or sign secure channel data (always)	Enabled
	Domain member: Digitally encrypt secure channel data (when possible)	Enabled
	Domain member: Digitally sign secure channel data (when possible)	Enabled
	Accounts: Administrator account status	Enabled
	Accounts: Guest account status	Disabled
	Accounts: Limit local account use of blank passwords to console logon only	Enabled
	Accounts: Rename administrator account	protectdemo
	Accounts: Rename guest account	Guest
	Domain member: Disable server account password changes	Disabled
	Domain member: Maximum server account password age	30 days
	Domain member: Require strong (Windows 2000 or later) session key	Enabled
	Interactive logon: Do not display last user name	Enabled
	Interactive logon: Do not require CTRL+ALT+DEL	Disabled
	Interactive logon: Message text for users attempting to log on	
	Interactive logon: Message title for users attempting to log on	Not Defined
	Interactive logon: Number of previous logons to cache (in case domain controller is not available)	10 logons
	Interactive logon: Prompt user to change password before expiration	14 days

Table 2-7: Security Options

✓	Security Options	Security Settings
	Interactive logon: Require Domain Controller authentication to unlock workstation	Disabled
	Interactive logon: Require smart card	Disabled
	Interactive logon: Smart card removal behavior	Force Logoff
	Microsoft network client: Digitally sign communications (always)	Enabled
	Microsoft network client: Digitally sign communications (if server agrees)	Enabled
	Microsoft network client: Send unencrypted password to third-party SMB servers	Disabled
	Microsoft network server: Amount of idle time required before suspending session	15 minutes
	Microsoft network server: Digitally sign communications (always)	Enabled
	Microsoft network server: Digitally sign communications (if client agrees)	Enabled
	Microsoft network server: Disconnect clients when logon hours expire	Enabled
	Network access: Allow anonymous SID/Name translation	Disabled
	Network access: Do not allow anonymous enumeration of SAM accounts	Enabled
	Network access: Do not allow anonymous enumeration of SAM accounts and shares	Disabled
	Network access: Do not allow storage of credentials or .NET Passports for network authentication	Disabled
	Network access: Let Everyone permissions apply to anonymous users	Disabled
	Network access: Named Pipes that can be accessed anonymously	COMNAP, COMNODE, SQL\QUERY, SPOOLSS, EPMAPPER, LOCATOR, TrkWks, TrkSvr
	Network access: Remotely accessible registry paths	System\CurrentControlSet\Control\ProductOptions, System\CurrentControlSet\Control\Server Applications, Software\Microsoft\Windows NT\CurrentVersion

Table 2-7: Security Options

✓	Security Options	Security Settings
	Network access: Remotely accessible registry paths and sub-paths	System\CurrentControlSet\Control\Print\Printers, System\CurrentControlSet\Services\Eventlog,
	Network access: Do not allow anonymous enumeration of SAM accounts	Enabled
	Network access: Do not allow anonymous enumeration of SAM accounts and shares	Disabled
	Network access: Do not allow storage of credentials or .NET Passports for network authentication	Disabled

Anti-virus Scans and Hot FileSystem Backups

Because the Vontu application can exhibit virus-like behavior when accessing files and directories, certain Vontu and Oracle directories need to be omitted from anti-virus scans on Vontu servers. This section presumes you have already installed an anti-virus software application.

Excluding Vontu Directories and Files From Anti-virus scans

Using the pre-installed anti-virus software, omit the following Enforce Server directories from anti-virus scanning:

- `\Vontu\Protect\incidents`
- `\Vontu\Protect\index`
- `\Vontu\Protect\logs`
- `\Vontu\Protect\temp`
- `\Vontu\Protect\tomcat\temp`
- `\Vontu\Protect\tomcat\webapps\webdav\index`
- `\Vontu\Protect\tomcat\webapps\webdav\logs`
- `\Vontu\Protect\tomcat\work`

Using the pre-installed anti-virus software, omit the following Network Monitor Server directories from anti-virus scanning:

- `\drop`
- `\drop_pcap`
- `\icap_spool`
- `\packet_spool`
- `\Vontu\Protect\incidents`
- `\Vontu\Protect\index`

- `\Vontu\Protect\logs` (with subdirectories)
- `\Vontu\Protect\temp` (with subdirectories)

Excluding Oracle Directories and Files From Anti-virus scans

Using the pre-installed anti-virus software, omit the following Oracle directories from anti-virus scanning:

- `\oracle\oradata\Protect`
- `\oracle\product\10.2.0\db_1`

Most Oracle data files to be excluded are located in these two directories; however there might be additional Oracle data files or temporary files. Use the Oracle Enterprise Manager to view the location and names of database datafiles (`*.DBF` files). The only specific file names are: `.CTL`, `.DBF` and `REDO.LOG`.

Microsoft Asian Language Packs

You must install the Microsoft Asian Language Packs on the machine from which you will view the Vontu Enforce Server administration console. For more information, See "MS Asian Language Packs" on page 17.

Chapter 3

Installing Oracle 10g

This chapter describes the steps to perform a new Oracle 10g installation and to create a Vontu database. It also discusses backing up the Vontu database and auditing unsuccessful login attempts.

This chapter is intended for the two-tier and single-tier Vontu installations. If your organization already uses Oracle 10g software and you have a database administration team, you should consider using your organization's existing Oracle 10g environment. For more information about how to create and configure a Vontu database using your organization's Oracle 10g environment, contact your Vontu representative.

After you create the Vontu database and complete the Vontu installation, you can change the database password using the Vontu DBPasswordChanger utility. For more information about the Vontu DBPasswordChanger utility, see the *Vontu 7.1 Utility Guide*.

The following topics covered are:

Downloading the Oracle 10g Software

Download the Oracle 10g software listed in Table 3-1 from the `support.vontu.com` FTP site. You will need a Vontu customer support user name and password.

If you have problems accessing the FTP site or downloading the software, contact your Vontu representative.

Table 3-1: Oracle 10g Software and Download Locations

Software	Download Location	Filename
Oracle 10g Release 10.2.0.1	/pub/Vontu_7_Windows/Vontu_7.1/Oracle/Oracle10gFiles/	10201_database_win32.zip
Oracle 10g Patchset 10.2.0.3	/pub/Vontu_7_Windows/Vontu_7.1/Oracle/Oracle10gFiles/	p5337014_10203_WINNT.zip
Oracle Security Patch Update	/pub/Vontu_7_Windows/Vontu_7.1/Oracle/CriticalPatchUpdate-2007-07-17	p6116131_10203_WINNT.zip
Oracle database template for Vontu	/pub/Vontu_7_Windows/Vontu_7.1/Oracle/Oracle10gFiles/	10g_Installation_Tools.zip
Oracle 10g Client	/pub/Vontu_7_Windows/Vontu_7.1/Oracle/Oracle10gFiles/	10201_client_win32.zip

Installing Oracle 10g

To install Oracle 10g and create the Vontu database, you must perform the following steps, in order, on the Enforce Server machine:

1. Download the Oracle software. See "Downloading the Oracle 10g Software" on page 45.
2. Install the Oracle 10g Release 10.2.0.1 software. See "Installing Oracle 10g Release 10.2.0.1" on page 46.
3. Install the Oracle Patchset 10.2.0.3 software. See "Installing Oracle Patchset 10.2.0.3" on page 47.
4. Install the Oracle Security Patch Update software. See "Installing the Oracle Security Patch Update" on page 48.
5. Create and configure the TNS Listener. See "Creating and Configuring the TNS Listener" on page 50.
6. Create the Vontu database. See "Creating the Oracle Database for Vontu" on page 52.

Oracle releases Security Patch Updates approximately once every three months. Vontu tests these Oracle Security Patch Updates to ensure they do not negatively impact the operation of the Vontu suite, then Vontu releases the Oracle Security Patch Update to customers. You should contact your Vontu representative before installing a new Oracle Security Patch Update that has not been tested and released by Vontu.

Installing Oracle 10g Release 10.2.0.1

This section describes how to install the Oracle 10g base software. You must install the base software before installing the Oracle Patchset and Oracle Security Patch Update software.

The Enforce Server uses the Oracle thin driver and the Oracle client. Vontu has packaged the `.jar` files for the Oracle thin driver with the Vontu software; however, you must also install the Oracle client. The Vontu installer needs SQL*PLUS to create tables and views on the Enforce Server, therefore the Windows user account used to installed Vontu needs access to SQL*Plus.

▶ To install Oracle 10g Release 10.2.0.1

1. Shut down the following services if they are running in Windows Services:
   - All Oracle services
   - Distributed Transaction Coordinator service

2. Unzip the `10201_database_win32.zip` file and navigate to the **database** directory.

   The directory to which you extract the zip file must not contain spaces.

3. To install the Oracle software, double-click on the Oracle Universal Installer file, `setup.exe`.

4. At the Installation Method screen, do the following:

   a. Select **Basic Installation**.

   b. Verify the **Oracle Home Location** is `<drive>\oracle\product\10.2.0\db_1`

   c. Select the **Standard Edition (1.1GB)** installation type.

Oracle Standard Edition is not the default setting; you must select Oracle Standard Edition.

   d. Uncheck **Create Starter Database** and click **Next**.

5. At the Product-Specific Prerequisite Checks screen, click **Next**.

6. At the Summary screen, click **Install**.

   The Oracle software installs.

7. At the End of Installation screen, click **Exit** then **Yes**.

Installing Oracle Patchset 10.2.0.3

Before installing the Oracle Patchset 10.2.0.3, you must install the Oracle 10g Release 10.2.0.1 software (see "Installing Oracle 10g Release 10.2.0.1" on page 46).

▶ **To install the Oracle Patchset 10.2.0.3**

1. Shut down the following services if they are running in Windows Services:

   - All Oracle services
   - Distributed Transaction Coordinator service

2. Unzip the `p5337014_10203_WINNT.zip` file and navigate to the **Disk1** directory.

   The directory to which you extract the zip file must not contain spaces.

3. To install the Oracle Patchset software, double-click on the Oracle Universal Installer file, `setup.exe`.
4. Click **Next**.
5. At the Specify Home Details screen, verify the **Name** and **Path** values are as follows, the click Next:
   a. **Name**: `OraDb10g_home1`
   b. **Path**: `<drive>\oracle\product\10.2.0\db_1`

The **Path** value must be the same as the Oracle Home Location. See "Installing Oracle 10g Release 10.2.0.1" on page 46, step 4.b.

6. At the Summary screen, click **Install**.
7. At the **End of Installation** screen, click **Exit** then **Yes**.

Installing the Oracle Security Patch Update

Before installing the Oracle Security Patch Update, you must install the Oracle 10g Release 10.2.0.1 software (see "Installing Oracle 10g Release 10.2.0.1" on page 46) and the Oracle Patchset 10.2.0.3 software (see "Installing Oracle Patchset 10.2.0.3" on page 47).

You will use Oracle's OPatch utility to apply the Oracle Security Patch Update. For more information about this utility, see the OPatch documentation located in the Oracle home directory, (for example, `c:\oracle\product\10.2.0\db_1\OPatch\docs\Users_Guide.txt`).

▶ To install the Oracle Security Patch Update

1. Open a command prompt and set the `%ORACLE_HOME%` variable to the Oracle Home Location, for example, `c:\oracle\product\10.2.0\db_1`.

   ```
   > set ORACLE_HOME=<drive>\oracle\product\10.2.0\db_1
   ```

2. Verify the version of the command line OPatch utility, which you will use to install the Oracle Security Patch Update.

   ```
   > %ORACLE_HOME%\OPatch\opatch version
   ```

   It should be version 10.2.0.3.0.

3. Unzip the `p6116131_10203_WINNT.zip` file. By default, the file unzips to the a folder called 6116131.

   If you choose to unzip the file to another location, then the directory to which you extract the file must not contain spaces. You will need to know this directory path for step 5.a.

For more information about this Oracle Security Patch Update, see the release documentation located in the directory where you extracted the Oracle Security Patch Update software, (for example, `c:\Oracle10gSoftware\p6116131_10203_WINNT\` 6116131 `\README.html`).

4. Shut down the following services if they are running in Windows Services:

   - All Oracle services
   - Distributed Transaction Coordinator service

If Microsoft Windows Services for UNIX (SFU) is installed, remove it from the Windows PATH environment variable, because it is known to cause problems with the OPatch utility.

5. Install the Oracle Security Patch Update using the OPatch utility.

   a. Change directory to the directory where you extracted the Oracle Security Patch Update software. If you followed step 3, then you extracted the `p6116131_10203_WINNT.zip` file to `c:\Oracle10gSoftware\p6116131_10203_WINNT\6116131`.

      ```
      > cd <drive>:\Oracle10gSoftware\p6116131_10203_WINNT\6116131
      ```

   b. Run OPatch to apply the Oracle Security Patch Update.

      ```
      > %ORACLE_HOME%\OPatch\opatch apply
      ```

      Follow the on screen command prompts.

Creating and Configuring the TNS Listener

You must create and configure an Oracle Net Listener to make remote connections to your Oracle database possible.

Creating the TNS Listener

▶ **To create a TNS Listener:**

1. Start the Oracle Net Configuration Assistant.

   Choose **Start**>**All Programs**> **Oracle - OraDb10g_home1**> **Configuration and Migration Tools**>**Net Configuration Assistant**.

2. Select **Listener configuration** and click **Next**.
3. Select **Add** and click **Next**.
4. Enter a listener name and click **Next**.
5. Select the **TCP** protocol and click **Next**.
6. Select **Use the standard port number of 1521** and click **Next**.
7. When prompted to configure another listener, select **No** and click **Next**.
8. When prompted that the listener configuration is complete, click **Next**.
9. Click **Finish** to exit the Oracle Net Configuration Assistant.

Configuring the TNS Listener

▶ **To configure a TNS Listener:**

1. Open the `listener.ora` file located in the `%ORACLE_HOME%\NETWORK\ADMIN` folder (for example, `C:\oracle\product\10.2.0\db_1\NETWORK\ADMIN`), using a text editor.
2. Delete the following lines:

```
SID_LIST_LISTENER =
  (SID_LIST =
    (SID_DESC =
      (SID_NAME = PLSExtProc)
      (ORACLE_HOME = C:\oracle\product\10.2.0\db_1)
      (PROGRAM = extproc)
    )
  )
```

3. Add the following line anywhere in the file:

   ```
   ADMIN_RESTRICTIONS_listener=on
   ```

4. Save the `listener.ora` file.

5. In Windows Services, start the TNS Listener service, if it is not already running. (For example, start **OracleOraDb10g_home1TNSListener**. The `<OraDb10g_home1>` portion of the TNS Listener name reflects the Oracle name variable.)

6. From the command prompt, set the password for the TNS Listener.

   a. Type `LSNRCTL` and press Enter.

      ```
      > LSNRCTL
      ```

   b. Type `set password <password>` and press Enter.

      ```
      LSNRCTL> set password <password>
      ```

      Store the TNS Listener password in a secure location for future use.

   c. Type `exit` and press Enter.

      ```
      LSNRCTL> exit
      ```

Creating the Oracle Database for Vontu

After you install the Oracle 10g Release 10.2.0.1 software, the Oracle Patchset 10.2.0.3 software, the Oracle Security Patch Update software, and create and configure the TNS Listener, you need to create the Vontu database. Vontu supplies a database template for this purpose. The Vontu database template contains all the default configurations of the Vontu database, including default data files.

Perform the following steps in order to create and setup the Vontu database:

1. Create the Vontu database. See "Creating the Vontu database" on page 52.
2. Create a new Oracle user. See "Creating an Oracle User Called "Protect"" on page 55.
3. Lock the Oracle "dbsnmp" user account. See "Locking the Oracle "dbsnmp" User Account" on page 55.
4. Verify the Vontu database. See "Verifying the Vontu Database" on page 56.
5. Backup the Vontu database. See "Backing Up the Vontu Oracle 10g Database" on page 58.
6. Log all unsuccessful Oracle login attempts. See "Auditing Unsuccessful Login Attempts" on page 60.

Creating the Vontu database

▶ **To create the Vontu database:**

1. If you logged in as a domain user, you need to set the `sqlnet.ora` file's `SQLNET.AUTHENTICATION_SERVICES=()` value to `none`; otherwise, go to step 2.
   a. Open the `sqlnet.ora` file located in the `%Oracle_Home%\network\admin` folder (for example, `c:\oracle\product\10.2.0\db_1\NETWORK\ADMIN`), using a text editor.
   b. Change the `SQLNET.AUTHENTICATION_SERVICES=(NTS)` value to `none`.

      ```
      SQLNET.AUTHENTICATION_SERVICES=(none)
      ```

   c. Save and close the `sqlnet.ora` file.
2. Extract the database template file, `Oracle_10g_Database_for_Vontu.dbt` from the `10g_Installation_Tools.zip` file to the

`%ORACLE_HOME%\assistants\dbca\templates` folder, (for example, `c:\oracle\product\10.2.0\db_1\assistants\dbca\templates`).

3. Start the Oracle Database Configuration Assistant to create the Vontu database.

   Choose **Start**>**All Programs**>**Oracle - OraDb10g_Home1**> **Configuration and Migration Tools**>**Database Configuration Assistant**.

4. In the Welcome screen, click **Next**.

5. Select **Create a Database** and click **Next**.

6. Select **Oracle 10g Database for Vontu** from the list of templates and click **Next**.

7. Enter a database name (**Global Database Name**) and a database instance name (Oracle System Identifier or **SID**).

   a. Enter `protect` for the **Global Database Name**.

   b. Enter `protect` for the **SID** and click **Next**.

You *must* use the default **Global Database Name** (`protect`) and **SID (**`protect`) values. The Vontu application requires these two values to be `protect` for Vontu to work.

   Note the database and database instance names as you will need them later when you install the Vontu software.

8. Check **Configure the Database with Enterprise Manager** and select **Use Database Control for Database Management**, then click **Next**.

9. Create an Oracle database user account password, specify and confirm the password, then click **Next**.

   You can use the same password for all user accounts or use different passwords for each user account. The various user accounts are `SYS`, `SYSTEM`, `DBSNMP`, and `SYSMAN`.

   Follow these guidelines for an acceptable Oracle user account password:

   - Passwords cannot contain quotation marks.
   - Passwords are not case sensitive.
   - A password must begin with an alphabetic character.
   - Passwords can contain only alphanumeric characters and the underscore (_), dollar sign (`$`), and pound sign (`#`). However, Oracle strongly discourages you from using `$` and `#`.

- A password cannot be an Oracle reserved word such as `SELECT`.

10. Select **File System** and click **Next**.
11. Select **Use Database File Locations from Template** and click **Next**.
12. The Recovery Configuration step is optional. Click **Next**.

    Enabling archiving allows online database backup and recovery. It also guarantees complete data recoverability; however, it does require more disk space and management.

    You should discuss your backup and recovery strategy with a Vontu representative to determine if this option is appropriate for your environment.
13. Check **Enterprise Manager Repository** and click **Next**.
14. Select **Custom** and accept the default template values, then click **Next**.
15. Click **Next** to skip the Database Storage step.
16. Check **Create Database** and click **Finish**.
17. When the confirmation screen appears, click **OK**.

    When the database creation process is approximately 58% complete an error message appears.

    Vontu recommends that you resize the Oracle window so that when the ORA-22973 error message appears it is not blocked from view; otherwise, you might think the create database process is progressing when it is not.

    When the "ORA-22973: size of object identifier exceeds maximum size allowed" error message appears, click **Ignore**.

    When the "ORA-04043: objectXDB_DATASTORE_PROC does not exist" error message appears, click **Ignore**.

    The database is created, which can take up to 20 minutes to complete.

    If the database creation process fails or hangs, check the Oracle Database Configuration Assistant logs for errors. The logs are located in the `<%ORACLE_HOME%>\cfgtoollogs\dbca\<SID>` folder (for example, `c:\oracle\product\10.2.0\db_1\cfgtoollogs\dbca\protect`).
18. When the database creation process is complete, another Database Configuration Assistant window opens and displays the database details.

    Note the Database Control URL to access the Enterprise Manager later, (for example, `http://<server hostname>.<domain>:1158/em`, where `<server hostname>` is your database server name).

19. Click **Exit**.

Creating an Oracle User Called “Protect”

▶ **To create a new Oracle user called “protect”:**

1. Extract the SQL script file, `oracle_create_user.sql`, from the `10g_Installation_Tools.zip` file to a local directory.
2. Open a command prompt and change directory to the directory where you extracted the `oracle_create_user.sql` file.
3. Start SQL*Plus.

   ```
   > sqlplus /nolog
   ```

4. Run `oracle_create_user.sql`.

   ```
   SQL> @oracle_create_user.sql
   ```

5. Enter the SYS user account password, which you created in step 9 of the “To create the Vontu database:” section on page 52.

   ```
   SQL> <sys_password>
   ```

6. Create a password for the new “protect” database user account and note the password for future use.

   ```
   SQL> <protect_password>
   ```

   Choose a password according to the guidelines set out in step 9 of the “To create the Vontu database:” section on page 52. After you complete the Vontu installation, you can change the database password, see the *Vontu 7.1 Utility Guide*.

Locking the Oracle “dbsnmp” User Account

▶ **To lock the Oracle “dbsnmp” user account:**

1. Open a command prompt and start SQL*Plus.

   ```
   > sqlplus /nolog
   ```

2. Log in as the SYS user, which you created in step 9 of the “To create the Vontu database:” section on page 52.

   ```
   SQL> connect sys/<sys_password> as sysdba
   ```

3. Lock the “DBSNMP” user account.

   ```
   SQL> ALTER USER dbsnmp ACCOUNT LOCK;
   ```

Verifying the Vontu Database

► **To verify the Vontu database was created correctly:**

1. Open a command prompt and start SQL*Plus.

   ```
   > sqlplus
   ```

2. Log in as the SYS user, which you created in step 9 of the "To create the Vontu database:" section on page 52.

   ```
   SQL> connect sys/<sys_password> as sysdba
   ```

3. Verify the screen displays the following information:

   ```
   Oracle10g Release 10.2.0.3.0 - Production
   ```

4. Run the following query:

   ```
   SQL> SELECT * FROM v$version;
   ```

5. Verify the output contains the following information:

   ```
   BANNER
   ----------------------------------------------------
   Oracle Database 10g Release 10.2.0.3.0 - Production
   PL/SQL Release 10.2.0.3.0 - Production
   CORE    10.2.0.3.0      Production
   TNS for Windows: Version 10.2.0.3.0 - Production
   NLSRTL Version 10.2.0.3.0 - Production
   ```

6. Run the following query:

   ```
   SQL> desc dba_tablespaces;
   ```

7. Verify the output contains the following information:

   ```
   RETENTION     VARCHAR2(11 CHAR)
   BIGFILE       VARCHAR2(3 CHAR)
   ```

8. Exit from SQL*Plus.

   ```
   SQL> exit
   ```

9. Log in as the "protect" database user.

   ```
   >sqlplus protect/<protect_password>@protect
   ```

10. Exit from SQL*Plus.

    ```
    SQL> exit
    ```

Adding Additional Data Files

After building the Vontu database, you can add more space to the database by creating additional data files.

▶ **To add additional data files to the Vontu database:**

1. Start the Oracle Enterprise Manager. Open a browser and enter the Oracle Enterprise URL, which you noted in step 18 of the "To create the Vontu database:" section on page 52.
2. Log in to the Oracle Enterprise Manager.
   a. In the **User Name** field, enter the SYS user account name.
   b. In the **Password** field, enter your SYS password.
   c. For **Connect As**, select **SYSDBA**, then click **Login**.
   d. In the license information screen, click **I agree**.
3. Click on the **Administration** tab, and then click on **Datafiles** in the Database Administration Storage section.
4. On the Datafiles screen, select the following options, then click **Go**:
   a. Select the **..\USER01.DBF** data file name.
   b. Select **Create Like** from the **Actions** dropdown list box.
5. On the Create Datafile screen, select the following options, then click **OK**:
   a. In the **File Name** field, enter a data file name.
   b. In the **File Directory** field, select a file directory for the new data file.
   c. In the **File Size** field, enter the file size.
   d. Deselect the **Reuse existing file** checkbox.
   e. In the Storage section, check **Automatically extend data file when full** and check **Unlimited** for Maximum File Size.

      Each of these files has a maximum size of 32 GB.
6. Create as many data files as needed up to 80% of the drive size.
7. Click **Logout** to exit the Oracle Enterprise Manager.

Backing Up the Vontu Oracle 10g Database

This section outlines how to perform a Vontu Oracle 10g database backup. You should back up the Vontu database before performing any actions that could corrupt the database, for example, performing an upgrade.

▶ **To back up the Vontu database:**

1. You need to backup all the files that are located in the `<drive>\oracle\product\10.2.0\ORADATA\PROTECT` folder. These include the `*.DBF`, `*.LOG`, and `*.CTL` files).
2. Shutdown any Vontu services running on the machine.
3. Shutdown all Oracle TNS Listeners. (There might be more than one listener configured. A listener should look like `OracleOraDb10g_home1TNS Listener`).
4. This step is optional. Run the following SQL query as the `SYS` database user to determine the size of the database that needs to be backed up, it will return the database size in bytes. Make sure the disk has enough space for backup files.

```
SELECT ROUND(SUM(bytes)/1024/1024/1024, 4) GB
FROM (
   SELECT SUM(bytes) bytes
   FROM   dba_data_files
   UNION ALL
   SELECT SUM(bytes) bytes
   FROM   dba_temp_files
   UNION ALL
   SELECT SUM(bytes) bytes
   FROM   v$log
);
```

5. Shut down all Oracle services.
6. Copy `<drive>\oracle\product\10.2.0\ORADATA\PROTECT` directories into a backup location. There might be additional data files or temporary files created. Make sure that all files in this directory are copied to the backup location.

   If a recover from this backup is required, you need to copy these files back to their original locations. Make sure you note where these files were copied from so that you can replace them in the original location when needed.

7. Copy the password file `<drive>:\oracle\product\10.2.0\db_1\database\PWDPROTECT.ora` into the backup location.
8. Restart the Oracle services.

Auditing Unsuccessful Login Attempts

This section outlines how to turn on or off the auditing of unsuccessful login attempts. You can write the audit trail to a database or to the operating system.

- **To write the audit trail to the database:**

  1. From the command line, enter the following:

     ```
     sqlplus /nolog

     SQL> connect sys/<password>@protect as sysdba

     SQL> ALTER SYSTEM SET audit_trail = DB SCOPE = spfile;

     SQL> audit connect whenever NOT successful;

     SQL> exit
     ```

  2. Restart the Oracle server.

     The audit trail is stored in `dba_audit_trail` system view and can be viewed using the following SQL while logged into SQL*Plus as SYS user.

     ```
     SELECT os_username, username, timestamp, audit_option, action_name

     FROM   dba_audit_trail;
     ```

  3. Auditing on unsuccessful login attempts can be turned off using the following SQL command:

     ```
     noaudit connect;
     ```

  4. The audit trail takes space and should be purged periodically using the following SQL command:

     ```
     TRUNCATE TABLE sys.aud$;
     ```

- **To write the audit trail to the operating system:**

  1. You can set `audit_file_dest` to any directory in the system. To maintain accountability, it is recommended that the `audit_file_dest` parameter

should be set to a location where the database administrator does not have rights, but the OS administrator does have access.

From the command line, enter the following:

```
sqlplus /nolog

SQL> connect sys/<password>@protect as sysdba

SQL> ALTER SYSTEM SET audit_trail = OS SCOPE = spfile;

SQL> ALTER SYSTEM SET audit_file_dest =
'<drive>:\ORACLE\ADMIN\PROTECT\ADUMP' scope = spfile;

SQL> audit connect whenever NOT successful;

SQL> exit
```

2. Restart the Oracle server.
3. Auditing on unsuccessful login attempts can be turned off using the following SQL command:

```
noaudit connect;
```

Chapter 4

Installing Vontu Enforce Server

This chapter describes the steps to install the Vontu Enforce Server. You must install the Oracle 10g software before installing the Enforce Server. See "Installing Oracle 10g" on page 44.

The following topics are covered:

Downloading the Vontu Software

Download the Vontu software listed in Table 4-1 from the `support.vontu.com` FTP site. You will need a Vontu customer support user name and password.

If you have problems accessing the FTP site or downloading the software, contact your Vontu representative.

Table 4-1: Vontu Software and Download Locations

Software	Download Location	Filename
Vontu software	/pub/Vontu_7_Windows/Vontu_7.1/NewInstalls/	ProtectInstaller_7.1.exe

Installing the Vontu Enforce Server

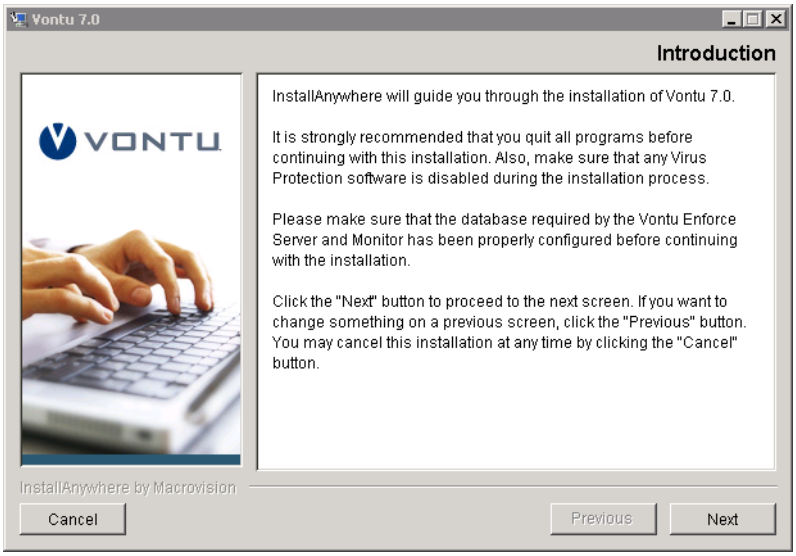
This section describes how to install the Vontu Enforce Server. You must install the Oracle 10g software before installing the Enforce Server. See "Installing Oracle 10g" on page 44.

Vontu strongly recommends that you disable any antivirus, pop-up blocker, and registry protection software before you begin the Vontu installation process.

▶ **To install the Vontu Enforce Server:**

1. Log in (or remote log in) as Administrator to the machine where you will install the Vontu Enforce Server. Copy the Vontu installer (`ProtectInstaller_7.1.exe`) to a local directory.
2. Choose **Start**>**Run** and browse to the folder where you copied the `ProtectInstaller_7.1.exe` file.
3. Double-click on `ProtectInstaller_7.1.exe` to select the file, and then click **OK**.

   The Vontu Introduction screen displays.



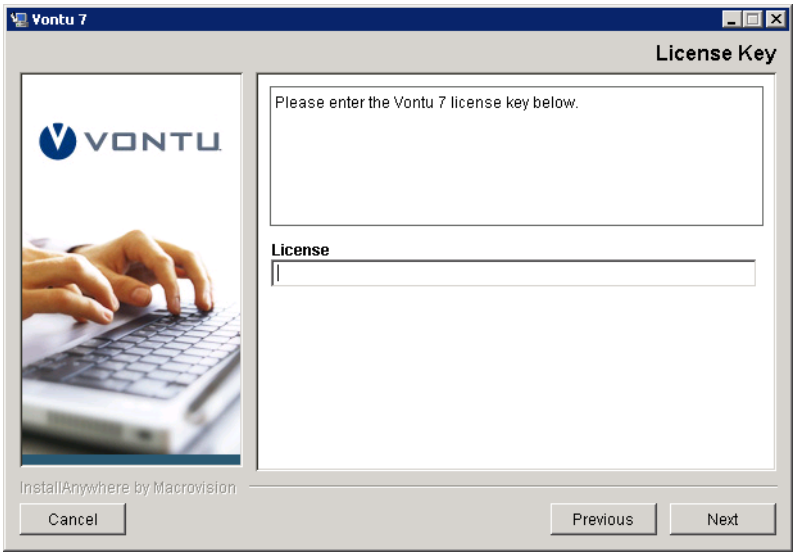
4. Throughout the Vontu installation process, the right side of the screen displays information and installation options. Use the following buttons to navigate through the installation process:
   - Click **Next** to display the next installation screen.
   - Click **Previous** to return to the previous installation screen.

- Click **Cancel** to terminate the installation process.

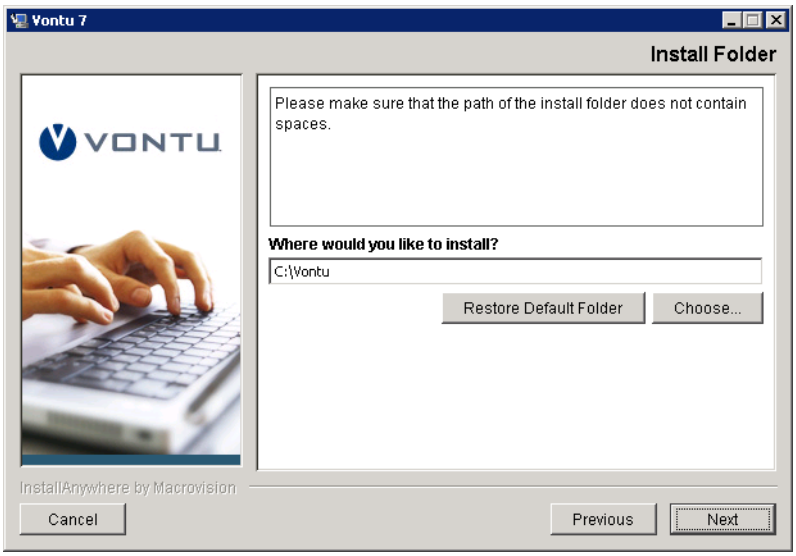
Click **Next**.

5. Select the **Vontu Enforce** installation option and click **Next**.

6. Enter your Vontu product license key and click **Next**.

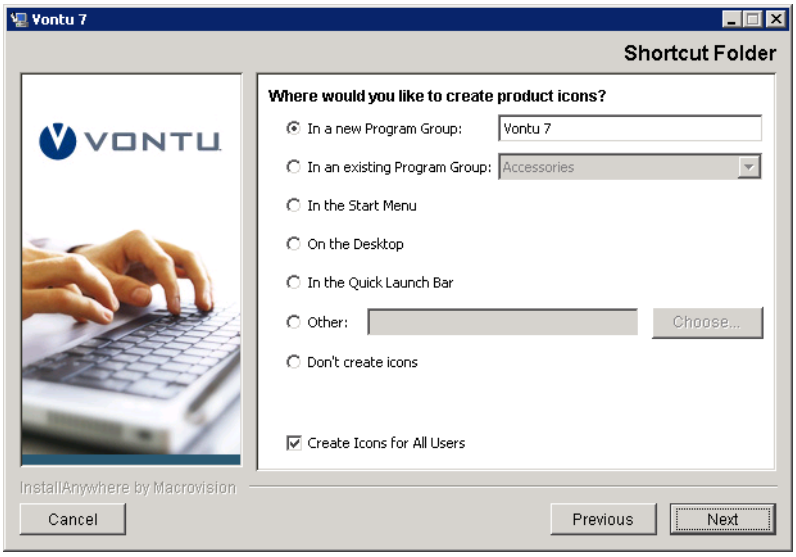


7. Accept the Vontu default installation location (at the server root level, for example, `C:\Vontu`), and click **Next**.

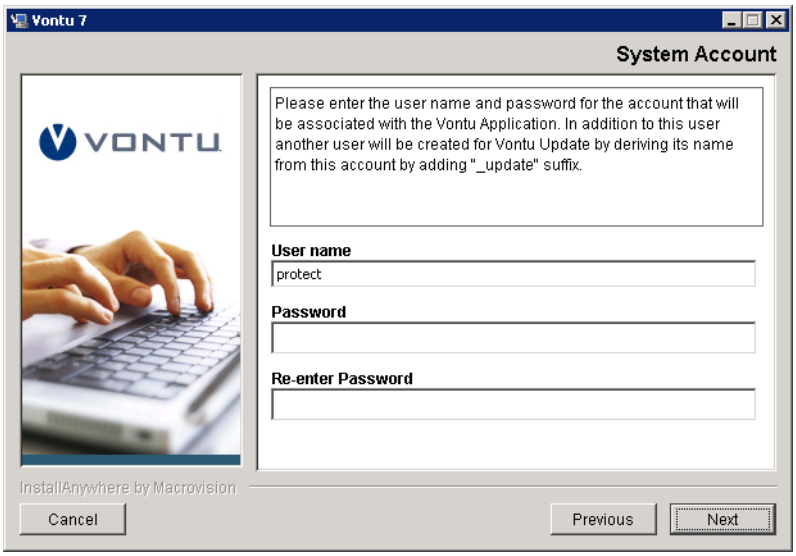


Vontu recommends you use the default installation location; however, you can click **Choose** to navigate to a different installation location instead. Do not install Vontu in a folder or path that includes spaces (for example, `C:\my documents\Vontu` is not a valid installation location).

8. Select a radio button to choose where to create product icons. Optionally, select **Create Icons for All Users** to make the product icons available in the same location for all users of the Enforce Server. Click **Next**.



9. Enter a System Account user name and password for the Vontu services, confirm the password, and then click **Next**.

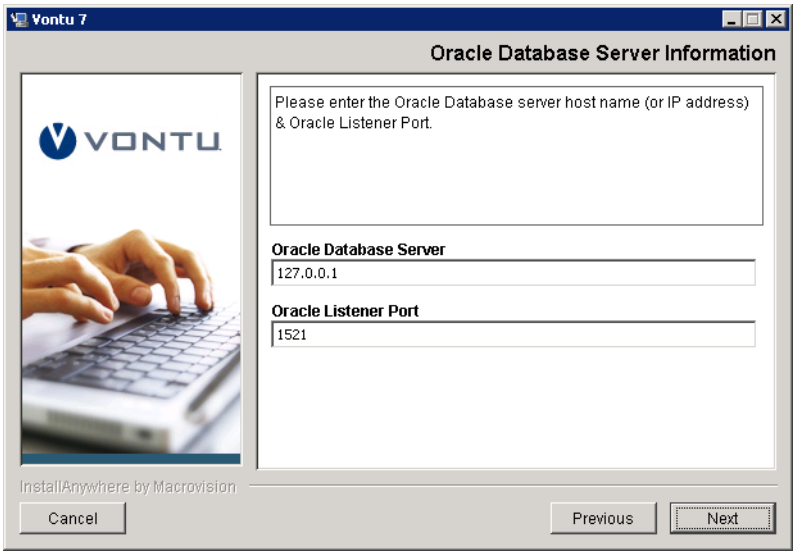


10. Enter an Administrator Account password to access the Vontu Enforce Server administration console, confirm the password, and then click **Next**.

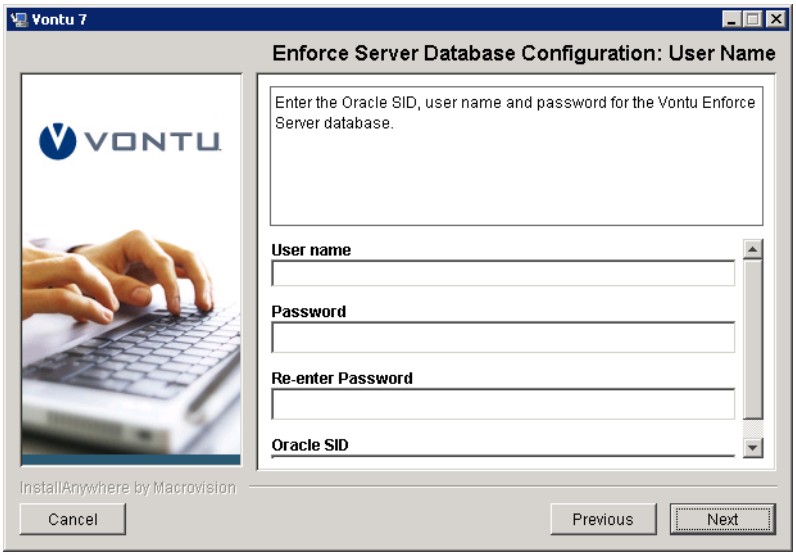
The Administrator password must contain a minimum of 8 characters. You can change the Administrator password from the Enforce Server administration console at any time.

11. Enter the Oracle Database Server host name or IP address and the Oracle Database Server (TNS) Listener Port, then click **Next**.

- For a two-tier Vontu installation (the Oracle database and the Enforce Server are on the same machine), specify the 127.0.0.1 in Oracle Database Server field.
- For a three-tier Vontu installation (the Oracle database is located on a separate machine from the Enforce Server), specify the Oracle server host name or IP address in Oracle Database Server field.

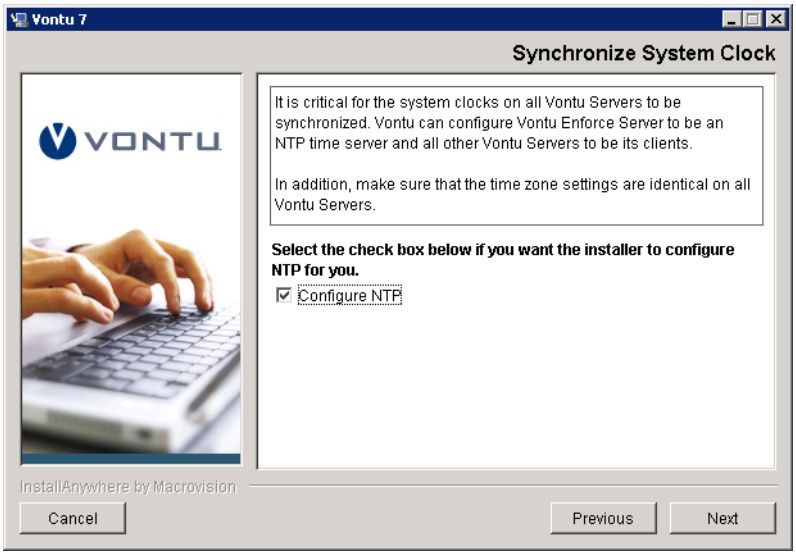


12. Enter the Vontu Enforce Server database user name and password, confirm the password, enter the database SID, and then click **Next**.



You created the Vontu Enforce Server database user name, and password in step 6 of the "To create a new Oracle user called "protect":" section on page 55. You created the Vontu Enforce Server database SID in step 9 of the "To create the Vontu database:" section on page 52.

13. If you want Vontu to configure time synchronization between the Vontu Enforce Server and all other Vontu servers, select **Configure NTP** and click **Next**.



Vontu recommends that the system clocks for the Enforce Server and all other Vontu servers are synchronized. Vontu recommends using the Network Time Protocol (NTP) service; however, you can choose an alternative method to synchronize the Vontu servers' system clocks.

If you select the Configure NTP checkbox, the Vontu installer designates the Enforce Server as the NTP server and all other Vontu servers as its clients. You must choose the same synchronization method when installing all Vontu servers.

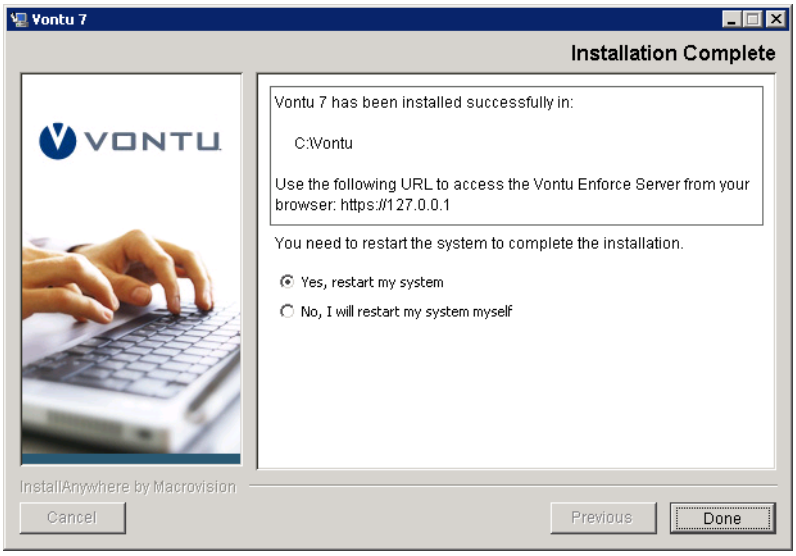
14. You have completed entering the Vontu Enforce Server installation settings. Review the Pre-installation Summary screen to confirm your installation configuration.

    - To change settings, use the **Previous** button to return to the appropriate screen to make a change.
    - To confirm the settings and start the installation, click **Install**.

15. The Installing Vontu screen appears and displays an installation progress bar.

16. The Installation Complete screen appears.

- Select **Yes, restart my system** and click **Done** to shutdown all applications and restart the Enforce Server.
- Select **No, I will restart my system myself** and click **Done** to end the Vontu installation process and return to the desktop. You must restart the Enforce Server machine before you use the Enforce Server.



Vontu recommends you restart the Enforce Server machine immediately after the installation process is complete.

17. Verify the Vontu Enforce Server is installed correct, see "To verify the Enforce Server installation:" on page 71.

18. You must import a Vontu solution pack after installing the Enforce Server and before installing any other Vontu server. See "Vontu Solution Packs" section on page 75.

▶ To verify the Enforce Server installation:

1. Confirm that Oracle Services (`OracleTNSListener` and `OracleServiceProtect`) automatically start upon reboot.

2. Confirm the Vontu Services (Vontu Manager, Vontu Incident Persister, Vontu Notifier, Vontu Update, and Vontu Monitor Controller) automatically start upon reboot and that they are running as the `Protect` or `Protect_update` user.

If the Vontu Services are running as the Windows system user, uninstall Vontu Enforce Server and reinstall it using a password for the `Protect` user that meets the security requirements.

3. If Vontu services are not started, check the log files for possible issues (for example, connectivity, password, or database access issues). The Oracle logs can be found in `<installdir>:\<ORACLE_HOME>\admin\protect\`. The Vontu logs can be found in `<installdir>\Vontu\` and `<installdir>:\vontu \protect\logs`.

   - `Vontu_7_InstallLog.log`

- `VontuIncidentPersister.log`
- `VontuManager.log`
- `VontuMonitorController.log`
- `VontuNotifier.log`
- `VontuUpdate.log`

Chapter 5

Importing a Vontu Solution Pack

This chapter describes how to import a Vontu solution pack. You should import a solution pack only immediately after installing the Enforce Server and before installing a Vontu detection server. If you are performing a single-tier installation, then you should import a solution pack immediately after the single-tier installation is complete.

The following topics are covered:

Downloading the Vontu Solution Packs

Download the Vontu solution packs listed in Table 5-1 from the `support.vontu.com` FTP site. You will need a Vontu customer support user name and password.

If you have problems accessing the FTP site or downloading the solution packs, contact your Vontu representative.

Table 5-1: Vontu Software and Download Locations

Software	Download Location	Filename
Vontu Solution Packs	/pub/Vontu_7_Windows/ Vontu_7.1/Solution_Packs/	Energy_v7.1.vsp
		EU_UK_v7.1.vsp
		Federal_v7.1.vsp
		Financial_v7.1.vsp
		Health_Care_v7.1.vsp
		High_Tech_v7.1.vsp
		Insurance_v7.1.vsp
		Manufacturing_v7.1.vsp
		Media_Entertainment_v7.1.vsp
		Pharmaceutical_v7.1.vsp
		Retail_v7.1.vsp
		Telecom_v7.1.vsp
		Vontu_Classic_v7.1.vsp

Vontu Solution Packs

Vontu provides various solution packs that, when imported, further your Enforce Server configuration. Each solution pack is designed to include configuration settings, such as policies, roles, reports, protocols, and incident statuses, that support the data loss prevention needs of a particular industry or organization.

It is important that you adhere to the following rules when importing a solution pack:

- Import a solution pack only immediately after installing the Enforce Server and before installing any other Vontu server. (If you are performing a single-tier installation, then you should import a solution pack immediately after the installation is complete.)
- Import a solution pack that was created specifically for the Vontu Enforce Server version you installed. Do not import a solution pack that was released with a previous version of Vontu.
- Do not attempt to import a solution pack on an Enforce Server that you have modified after the initial installation, as the solution pack import will fail.
- Do not attempt to import more than one solution pack on the same Enforce Server, as the solution pack import will fail.

Importing a Vontu Solution Pack

You import a Vontu solution pack on the Enforce Server machine.

▶ **To import a Vontu solution pack:**

1. Log in (or remote log in) as Administrator to the Vontu Enforce Server.
2. Copy a Vontu solution pack (for example, `Vontu_Classic_v7.1.vsp`) to a local directory.
3. In Windows Services, stop all Vontu services except for the Vontu Notifier service. The Vontu Notifier service must remain running.

   Stop the Vontu services in the following order:

   - Vontu Update
   - Vontu Incident Persister
   - Vontu Manager
   - Vontu Monitor (if a single-tier installation)
   - Vontu Monitor Controller

4. From the command line prompt, change directory to where the `SolutionPackInstaller.exe` file is located, `<%Vontu system folder%>\protect\bin` folder. (For example, `C:\Vontu\Protect\bin`).

   ```
   > cd c:\Vontu\Protect\bin
   ```

5. Import a solution pack by running `SolutionPackInstaller.exe` and specifying the solution pack directory path, `<%Solutionpack_path%>`, and file name, `<%Solutionpack_filename%>`, (for example, `c:\vontudownloads\Vontu_Classic_v7.1.vspVontu_Classic_v7.1.vsp`). The solution pack directory path must not contain any spaces.

   ```
   > SolutionPackInstaller.exe import <drive>:\<%Solutionpack_path%>\
     <%Solutionpack_filename.vsp%>
   ```

6. Restart the Vontu services you stopped in step 3 and make sure the Vontu Notifier service is also running. If the Vontu Notifier service is not running, start Vontu Notifier first, then the other Vontu services.

   Start the Vontu services in the following order:

   - Vontu Manager
   - Vontu Monitor (if a single-tier installation)
   - Vontu Incident Persister
   - Vontu Update
   - Vontu Monitor Controller

7. Once you have completed importing a solution pack, do one of the following depending on the type of installation you are performing:

   - Three-tier Vontu installation—install a detection server, see "Installing a Detection Server" on page 77.
   - Two-tier Vontu installation—install a detection server, see "Installing a Detection Server" on page 77.
   - Single-tier installation—add and configure the detection server, see "Adding and Configuring the Vontu Detection Servers" on page 106.

Chapter 6

Installing a Detection Server

This chapter describes how to install a Vontu detection server. You must install Oracle 10g, create a Vontu database, install the Vontu Enforce Server, and import a Vontu solution pack on the Enforce Server machine before you install a Vontu detection server on a separate machine.

The following topics are covered:

Downloading the Vontu Software

Download the Vontu software listed in Table 6-1 from the `support.vontu.com` FTP site. You will need a Vontu customer support user name and password.

If you have problems accessing the FTP site or downloading the software, contact your Vontu representative.

Table 6-1: Vontu Software and Download Locations

Software	Download Location	Filename
Vontu software	/pub/Vontu_7_Windows/Vontu_7.1/NewInstalls/	ProtectInstaller_7.1.exe
Ethereal software	/pub/Vontu_7_Windows/Vontu_7.1/Third_Party/	ethereal-setup-0.10.10.exe
WinPCap version 3.0	/pub/Vontu_7_Windows/Vontu_7.1/Third_Party/	WinPcap_3_0.exe
Windows Services for UNIX Version 3.5—required for a Discover Server that will run a scan on a UNIX machine.	Microsoft Download Center (http://www.microsoft.com/downloads/details.aspx?familyid=896C9688-601B-44F1-81A4-02878FF11778&displaylang=en)	SFU35SEL_EN.exe

The WinPCap software is only required for the Network Monitor Server; however, Vontu recommends you install WinPCap no matter which type of detection server you plan to install and configure.

Installing a Vontu Detection Server

The Vontu suite includes five different types of detection servers, which are described in Table 6-2 on page 79. These detection servers are managed by the Enforce Server.

You must first install the Enforce Server and import a solution pack before installing any of the detection servers. You install all the Vontu servers, including the Enforce Server, using the same installer executable, `ProtectInstaller_7.1.exe`.

After you install a detection server, you must use the Vontu Enforce Server administration console to add the server to the list of servers managed by the Enforce Server. It is during the add server process (see "Adding and Configuring the Vontu Detection Servers" on page 106) that you configure which type of detection server the new server will be.

Table 6-2: Vontu Detection Servers

Server Name	Description
Network Monitor Server	Inspects network communications for confidential data, accurately detects policy violations, and precisely qualifies and quantifies the risk of data loss, such as intellectual property or customer data.
Email Prevent Server	Prevents data security violations for data in motion by blocking email communications that contain confidential data. It can also conditionally route traffic with confidential data to an encryption gateway for secure delivery and encryption policy enforcement.
Web Prevent Server	Stops data security violations for data in motion over web communications and file transfer protocols.
Discover Server	Identifies unsecured confidential data exposed on open file shares, Web servers, and individual desktops and laptops. In addition, the Protect product functionality secures confidential data at rest with the ability to automatically quarantine or copy sensitive files.
Endpoint Server	Monitors the use of sensitive data at the endpoint and accurately detects policy violations.

Vontu strongly recommends that you disable any antivirus, pop-up blocker, and registry protection software before you begin the Vontu installation process.

▶ **To install a Vontu detection server:**

1. Log in (or remote log in) as Administrator to the machine where you will install the Vontu detection server.

2. Install `WinPcap_3_0.exe` on the server before installing the Vontu Detection Server.

   a. Copy `WinPcap_3_0.exe` to a local drive.

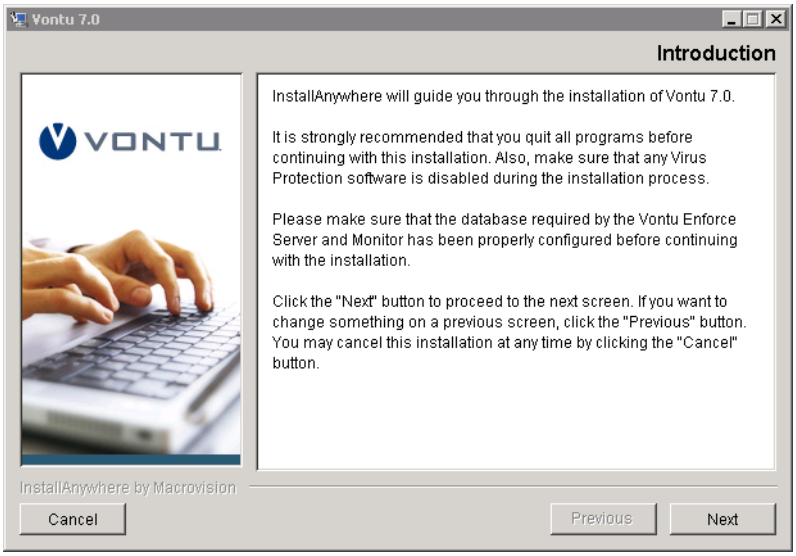
   b. Double-click on `WinPcap_3_0.exe` and follow the on screen installation instructions.

3. Copy the Vontu installer (`ProtectInstaller_7.1.exe`) to a local directory.

4. Choose **Start**>**Run** and browse to the folder where you copied the `ProtectInstaller_7.1.exe` file.

5. Double-click on `ProtectInstaller_7.1.exe` to select the file, and then click **OK**.

   The Vontu Introduction screen displays.



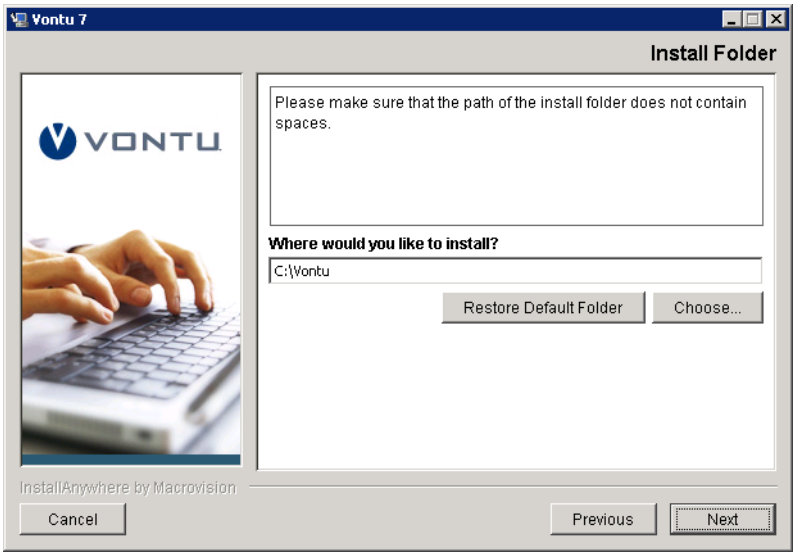
6. Throughout the Vontu installation process, the right side of the screen displays information and installation options. Use the following buttons to navigate through the installation process:

   - Click **Next** to display the next installation screen.
   - Click **Previous** to return to the previous installation screen.
   - Click **Cancel** to terminate the installation process.

   Click **Next**.

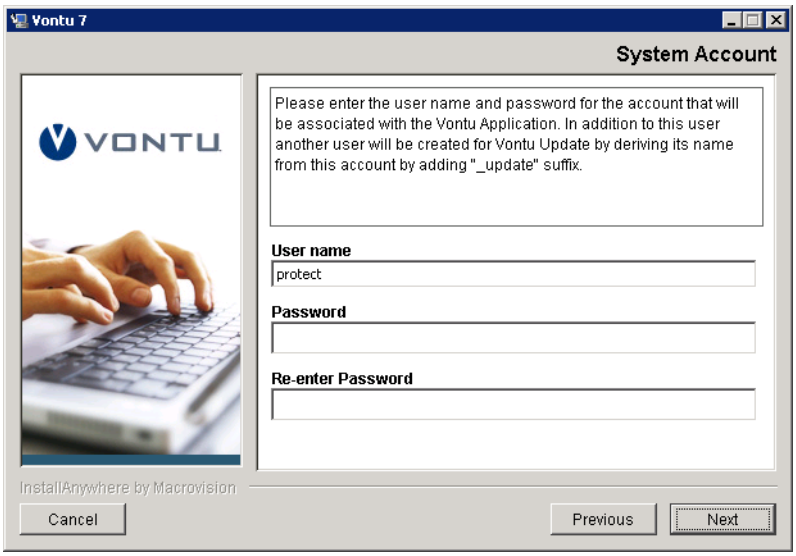
7. Select the Vontu Monitor, Prevent, Discover, Protect, or Endpoint server installation option and click **Next**.

8. Accept the Vontu default installation location (at the server root level, for example, `C:\Vontu`), and click **Next**.



Vontu recommends you use the default installation location; however, you can click **Choose** to navigate to a different installation location instead. Do not install Vontu in a folder or path that includes spaces (for example, `C:\my documents\Vontu` is not a valid installation location).

9. Enter the System Account user name and password for the Vontu services, confirm the password, and then click **Next**.



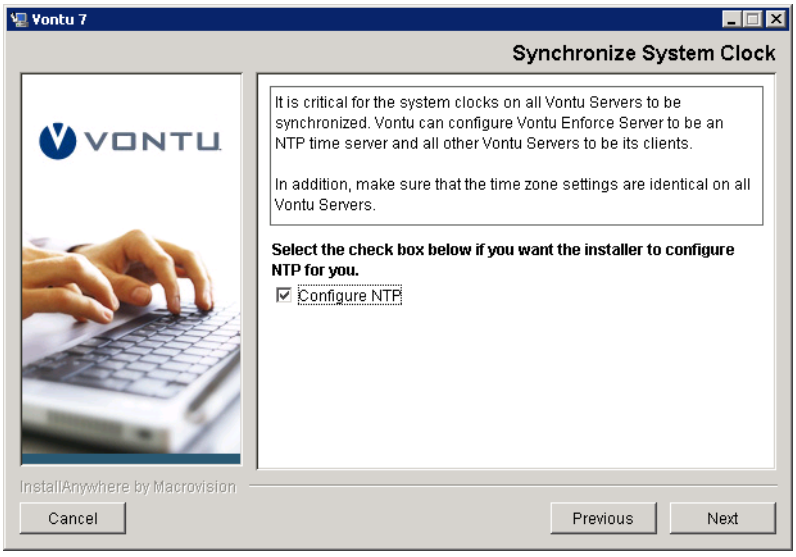
10. Enter the Transport Configuration settings and click **Next**.

    a. In **Port**, accept the default port number on which the detection server should accept connections from the Enforce Server. You can change this default to any port higher that port 1024.

    b. In **Network Interface (Bind Address)**, enter which detection server network interface to use to communicate with the Enforce Server. If there is only one network interface, leave this field blank.

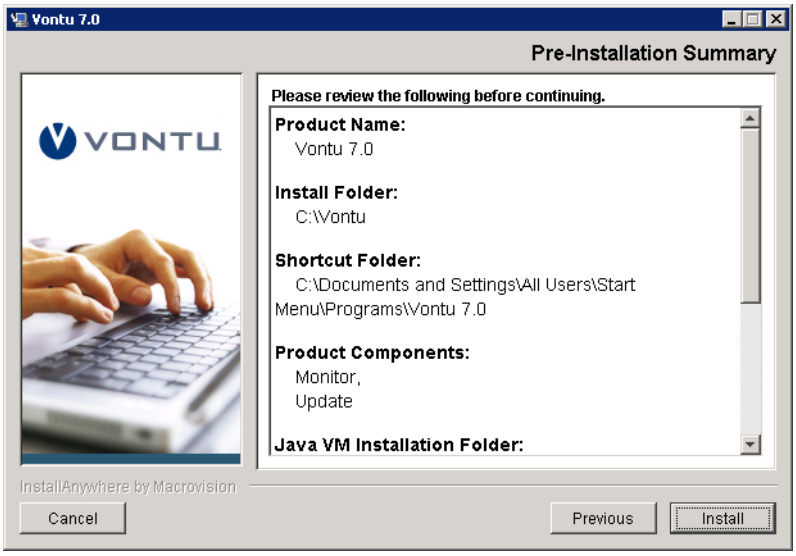
11. When installing a detection server, you must choose the same system clock synchronization method that you chose when you installed your Enforce Server.

    - If you previously chose Vontu to configure time synchronization between the Vontu Enforce Server and all other Vontu servers, select **Configure NTP** and click **Next**.
    - If you previously chose to use a different synchronization method (external to Vontu), leave the **Configure NTP** unselected and click **Next**.



12. You have completed entering the Vontu detection server installation settings. Review the Pre-installation Summary screen to confirm your installation configuration.

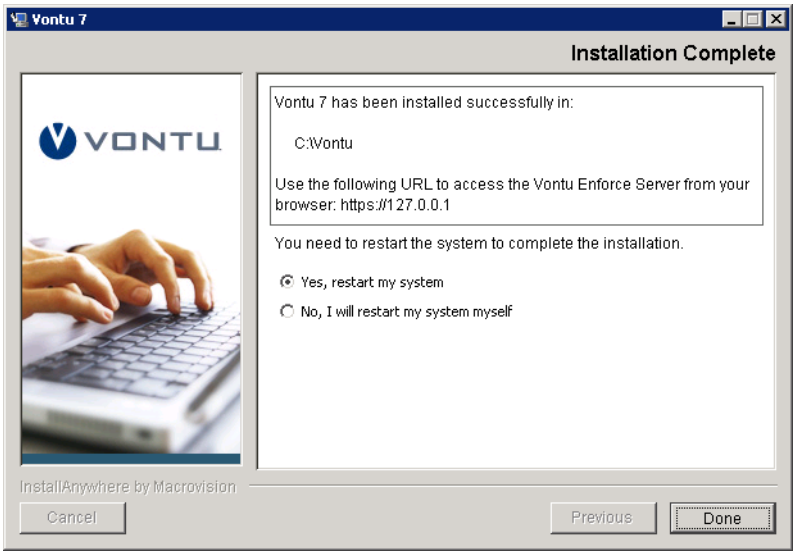
    - To change settings, use the **Previous** button to return to the appropriate screen to make a change.
    - To confirm the settings and start the installation, click **Install**.



13. The Installing Vontu screen appears and displays an installation progress bar.

14. The Installation Complete screen appears.

- Select **Yes, restart my system** and click **Done** to shutdown all applications and restart the Detection Server.
- Select **No, I will restart my system myself** and click **Done** to end the Vontu installation process and return to the desktop. You must restart the Detection Server machine before you add it to your Enforce Server.



Vontu recommends you restart the detection server machine immediately after the installation process is complete.

The Vontu installation process creates a log file, `Vontu_7_InstallLog.log`, which is stored in the Vontu installation folder (for example, `c:\Vontu\`). You can use this log file to view the status of installed Vontu components.

15. Verify the detection server installation, see "To verify the detection server installation:" on page 85.

16. You must add and configure the detection server using your Enforce Server administration console. See "Adding and Configuring the Vontu Detection Servers" section on page 106.

▶ To verify the detection server installation:

1. Confirm the Vontu Services (`VontuMonitor.exe` and `VontuUpdate.exe`), `PacketCapture.exe`, and at least two Java `.exe` processes are running.

2. If the Vontu services do not start, check log files for possible issues (for example, connectivity, password, or database access issues). The Oracle logs can be found in `<installdir>:\<ORACLE_HOME>\admin\protect\`. The Vontu logs can be found in `<installdir>\Vontu\` and `<installdir>:\vontu\protect\logs`.

   - `Vontu_7_InstallLog.log`
   - `VontuIncidentPersister.log`
   - `VontuManager.log`
   - `VontuMonitorController.log`

- VontuNotifier.log
- VontuUpdate.log

Chapter 7

Installing a Single-Tier Vontu Server

This chapter describes how to install at single-tier Vontu installation. For a description of the Vontu single-tier installation, see “Single-Tier Installation” on page 14.

The following topics are covered:

Downloading the Vontu Software

Download the Vontu software listed in Table 7-1 from the `support.vontu.com` FTP site. You will need a Vontu customer support user name and password.

If you have problems accessing the FTP site or downloading the software, contact your Vontu representative.

Table 7-1: Vontu Software and Download Locations

Software	Download Location	Filename
WinPCap version 3.0	/pub/Vontu_7_Windows/Vontu_7.1/Third_Party/	WinPcap_3_0.exe
Vontu software	/pub/Vontu_7_Windows/Vontu_7.1/NewInstalls/	ProtectInstaller_7.1.exe

The WinPCap software is only required for the Network Monitor Server; however, Vontu recommends you install WinPCap no matter which type of detection server you plan to install and configure.

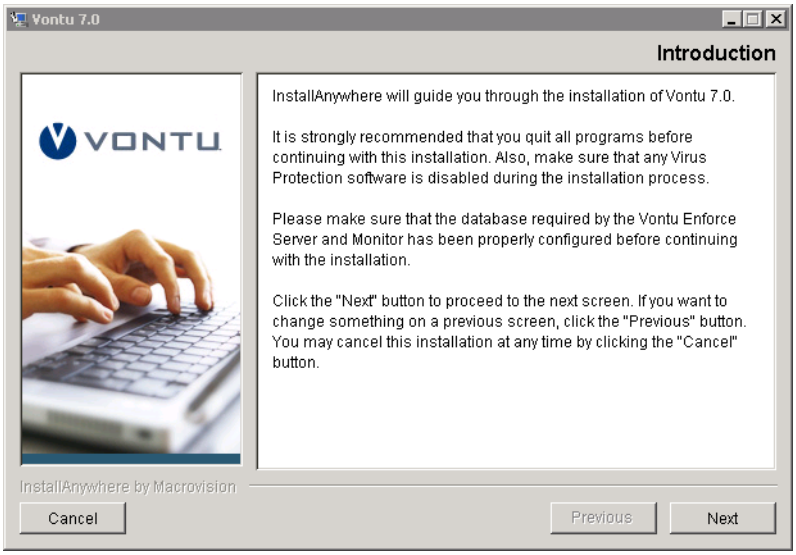
Installing the Vontu Single-Tier Server

Vontu strongly recommends that you disable any antivirus, pop-up blocker, and registry protection software before you begin the Vontu installation process.

▶ **To install the Vontu single-tier server:**

1. Log in (or remote log in) as Administrator to the machine where you will install the Vontu single-tier installation.
2. Install `WinPcap_3_0.exe` on the server before installing the Vontu single-tier server.
   a. Copy `WinPcap_3_0.exe` to a local drive.
   b. Double-click on `WinPcap_3_0.exe` and follow the on screen installation instructions.
3. Copy the Vontu installer (`ProtectInstaller_7.1.exe`) to a local directory.
4. Choose **Start**>**Run** and browse to the folder where you copied the `ProtectInstaller_7.1.exe` file.
5. Double-click on `ProtectInstaller_7.1.exe` to select the file, and then click **OK**.

   The Vontu Introduction screen displays.



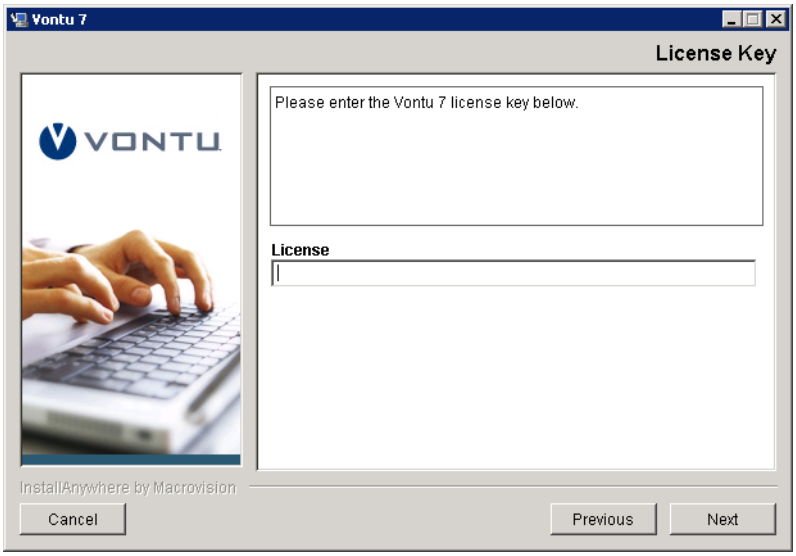
6. Throughout the Vontu installation process, the right side of the screen displays information and installation options. Use the following buttons to navigate through the installation process:

   - Click **Next** to display the next installation screen.
   - Click **Previous** to return to the previous installation screen.
   - Click **Cancel** to terminate the installation process.

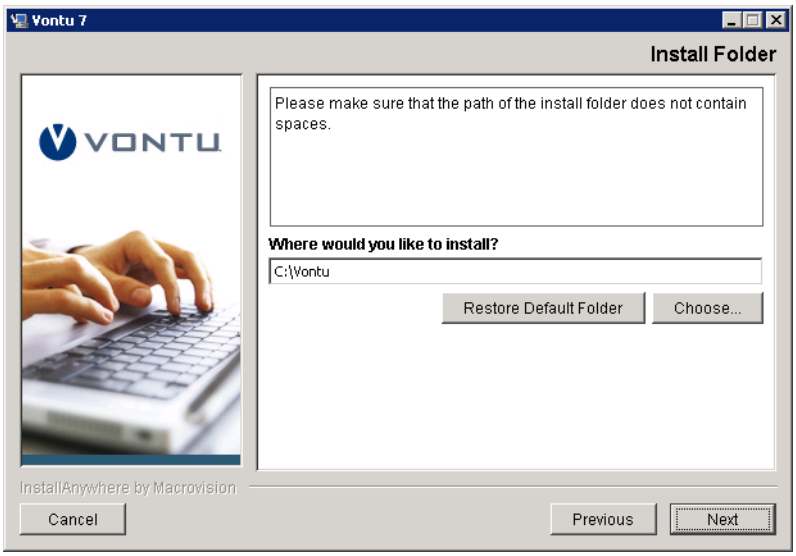
   Click **Next**.

7. Select the **Vontu Single-Tier** installation option and click **Next**.

8. Enter your Vontu product license key and click **Next**.

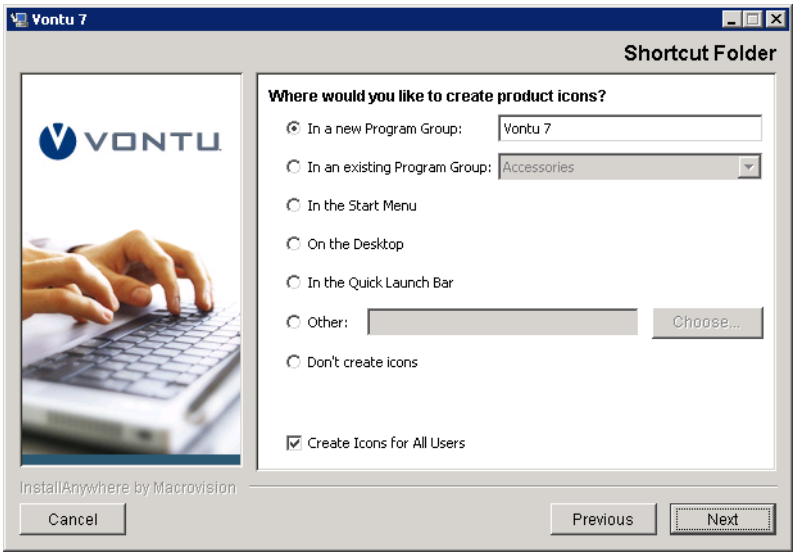


9. Accept the Vontu default installation location, (at the server root level, for example, `C:\Vontu`), and click **Next**.

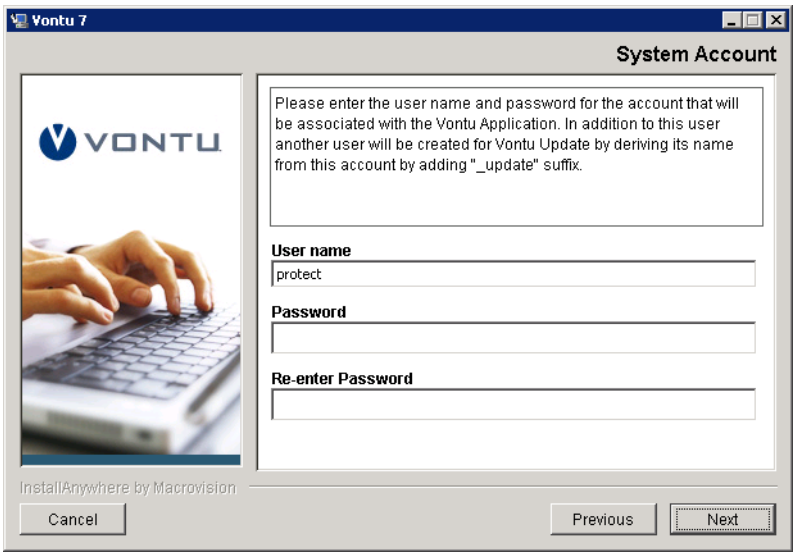


Vontu recommends you use the default installation location; however, you can click **Choose** to navigate to a different installation location instead. Do not install Vontu in a folder or path that includes spaces (for example, `C:\my documents\Vontu` is not a valid installation location).

10. Select a radio button to choose where to create product icons. Optionally, select **Create Icons for All Users** to make the product icons available in the same location for all users of the Enforce Server. Click **Next**.



11. Enter a System Account user name and password for the Vontu services, confirm the password, and then click **Next**.

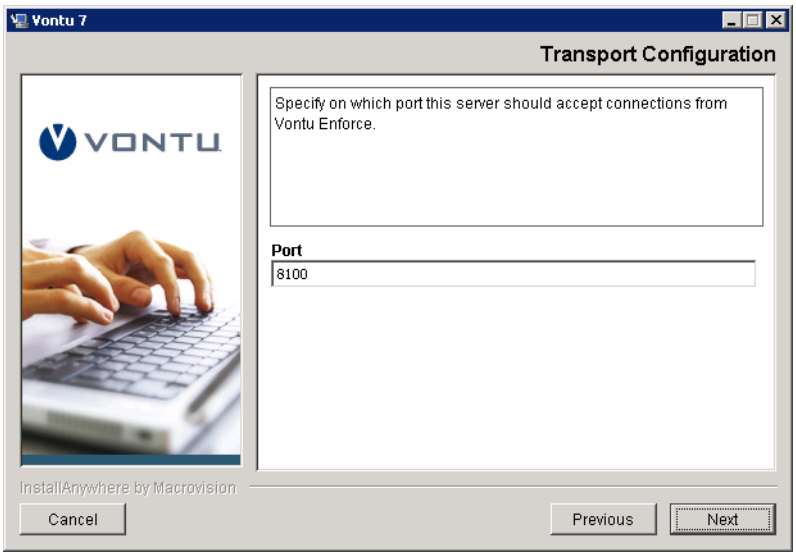


12. Enter an Administrator Account password to access the Vontu Enforce Server administration console, confirm the password, and then click **Next**.

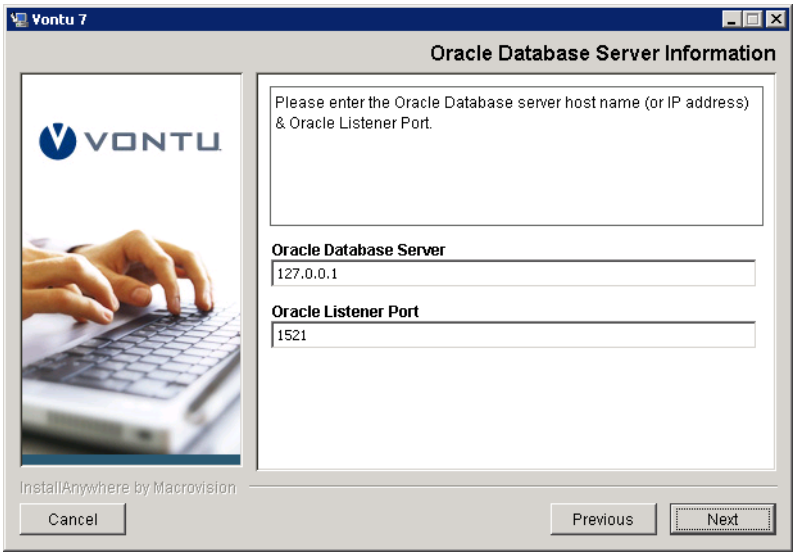
The Administrator password must contain a minimum of 8 characters. You can change the Administrator password from the Enforce Server administration console at any time.

13. Enter the Transport Configuration settings. In **Port**, accept the default port number on which the detection server should accept connections from the

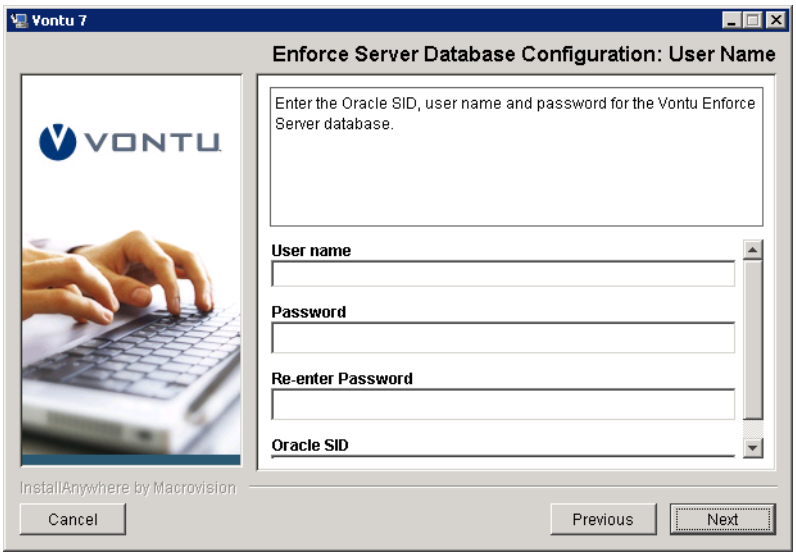
Enforce Server and click **Next**. You can change the default port to any port higher than 1024.



14. Enter the Oracle Database Server host name or IP address and the Oracle Database Server Listener Port, then click **Next**.

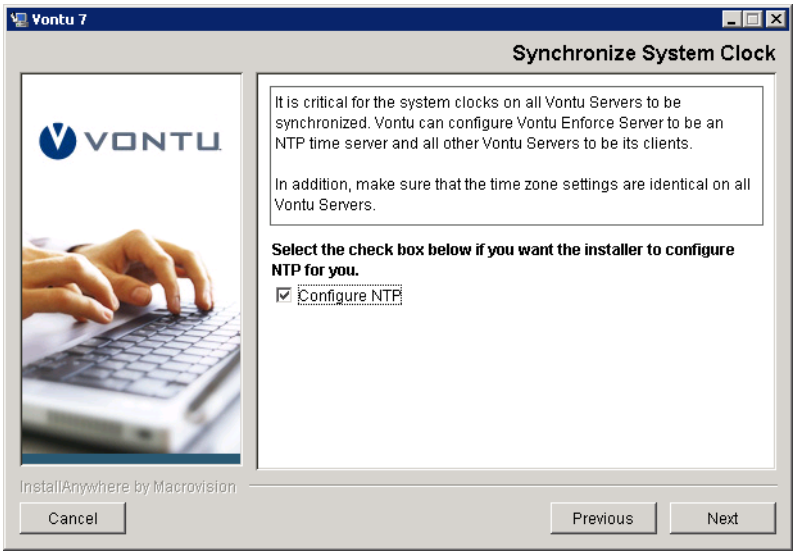


15. Enter the Vontu Enforce Server database user name and password, confirm the password, enter the database SID, and then click **Next**.



You created the Vontu Enforce Server database SID, user name, and password in steps 7 and 9 of the "To create the Vontu database:" section on page 52.

16. If you want Vontu to configure time synchronization between the Vontu Enforce Server and all other Vontu servers, select **Configure NTP** and click **Next**.



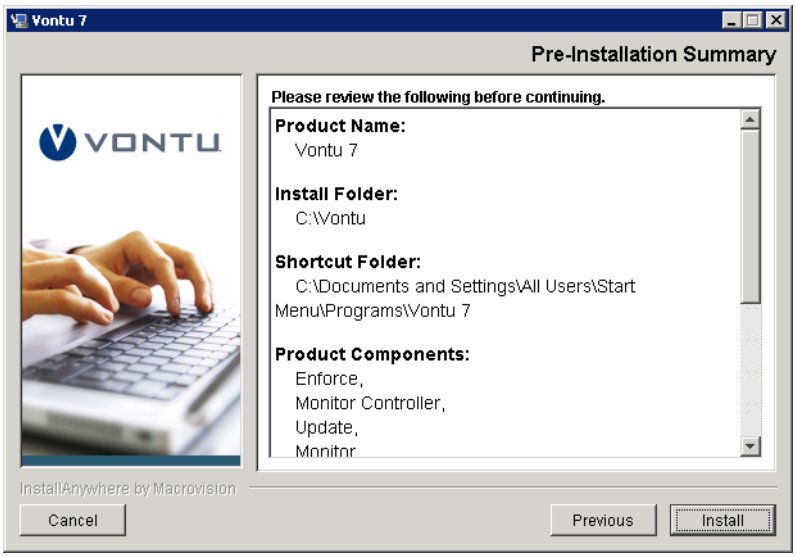
Vontu recommends the system clocks for the Enforce Server and all other Vontu servers to be synchronized. Vontu recommends using the Network

Time Protocol (NTP) service; however, you can choose an alternative method to synchronize the Vontu server's system clocks.

If you select the Configure NTP checkbox, the Vontu installer designates the Enforce Server as the NTP server and all other Vontu servers as its clients. You must choose the same synchronization method when installing all Vontu servers.

17. You have completed entering the Vontu single-tier installation settings. Review the Pre-installation Summary screen to confirm your installation configuration.

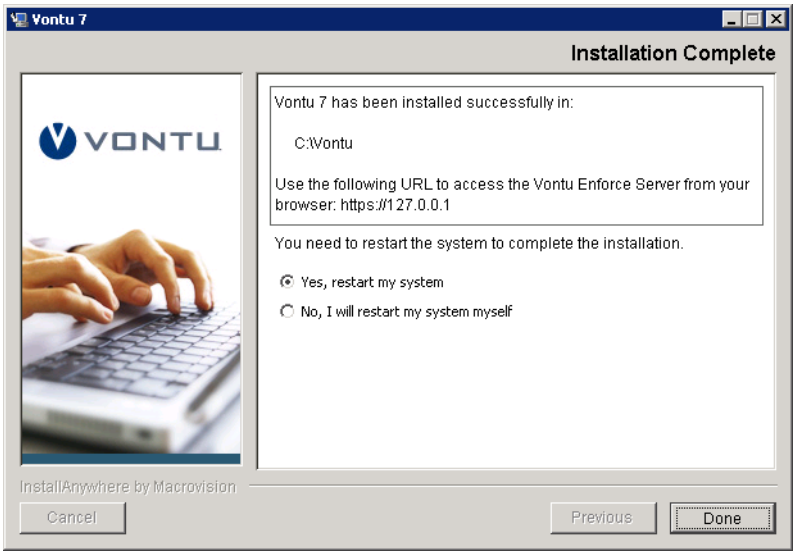
- To change settings, use the **Previous** button to return to the appropriate screen to make a change.
- To confirm the settings and start the installation, click **Install**.



18. The Installing Vontu screen appears and displays an installation progress bar.

19. The Installation Complete screen appears.

- Select **Yes, restart my system** and click **Done** to shutdown all applications and restart the Enforce Server.
- Select **No, I will restart my system myself** and click **Done** to end the Vontu installation process and return to the desktop. You must restart the Enforce Server machine before you use the Enforce Server.



Vontu recommends you restart the Enforce Server machine immediately after the installation process is complete.

20. Verify the Vontu single-tier installation, see "To verify the Vontu single-tier installation:" on page 97.

The Vontu installation process creates a log file, `Vontu_7_InstallLog.log`, which is stored in the Vontu installation folder (for example, `c:\Vontu\`). You can use this log file to view the status of installed Vontu components.

21. You must import a Vontu solution pack immediately after installing the Vontu single-tier server, and before changing any Vontu single-tier server configurations. See "Importing a Vontu Solution Pack" section on page 73.

▶ To verify the Vontu single-tier installation:

1. Confirm that Oracle Services (`OracleTNSListener` and `OracleServiceProtect`) automatically start upon reboot.
2. Confirm the Vontu Services (Vontu Manager, Vontu Incident Persister, Vontu Notifier, Vontu Update, Vontu Monitor Controller, and Vontu Monitor) automatically start upon reboot and that they are running as the `Protect` or `Protect_update` user.

If the Vontu Services are running as the Windows system user, uninstall Vontu Enforce Server and reinstall it using a password for the `Protect` user that meets the security requirements.

3. If Vontu services are not started, check the log files for possible issues (for example, connectivity, password, or database access issues). The Oracle logs can be found in `<installdir>:\<ORACLE_HOME>\admin\protect\`. The Vontu logs can be found in `<installdir>\Vontu\` and `<installdir>:\vontu\protect\logs`.
   - `Vontu_7_InstallLog.log`
   - `VontuIncidentPersister.log`
   - `VontuManager.log`
   - `VontuMonitorController.log`
   - `VontuNotifier.log`
   - `VontuUpdate.log`

Chapter 8

Installing Vontu Endpoint Agent

To use Vontu to protect data at the endpoint, you must install and configure at least one Endpoint Server, create policies and apply them to the server, and then deploy Endpoint Agents to the desired endpoints. (You can update or create new policies after you install the Endpoint Agents.) For details on installing an Endpoint Server, see "Installing a Detection Server" on page 77. For details on adding and configuring an Endpoint Server, see "Adding and Configuring the Vontu Detection Servers" on page 106. For details on creating policies and policy groups, see the Vontu online help.

This chapter describes how to deploy Endpoint Agents to your endpoints. After you install the Agents, you can monitor them on the Enforce Server administration console.

If you want to change the default Vontu security configuration for the Endpoint Server and Endpoint Agents (create unique keys or change the key size), you must make these security configuration settings before deploying Endpoint Agents. See "Vontu Endpoint Server and Endpoint Agent Security" on page 33.

The following topics are covered:

Obtaining the Vontu Software

To obtain the Vontu Agent software, you need to contact your Vontu representative. You will be given the zip file, `VontuWindowsAgentInstaller_7.1.zip`, which contains the following files:

- `setup.exe`—the Endpoint Agent executable file.
- `VontuAgentInstaller.msi`—the Endpoint Agent MSI file.
- `install_agent.bat`—a sample batch file to install the Endpoint Agent using the `VontuAgentInstaller.msi` file.
- `uninstall_agent.bat`—a sample batch file to uninstall the Endpoint Agent using the `VontuAgentInstaller.msi` file.

System Requirements

This section describes system requirements for machines running Endpoint Agents.

Hardware

Endpoint Agents hardware requirements:

- 300-megahertz (MHz) processor (Intel Pentium/Celeron or AMD K6/Athlon/Duron)
- 256 megabytes (MB) of RAM
- 1.5 gigabytes (GB) of available space on the hard disk

Software

Endpoint Agents software requirements:

- Windows XP Pro, SP2

Installing Endpoint Agents

This section describes how to install Endpoint Agents. You can install Endpoint Agents manually or using system management software.

Before you begin, make sure you have installed and configured an Endpoint Server. For details on installing an Endpoint Server see "Installing a Detection Server" on page 77. For details on adding and configuring an Endpoint Server see "Adding and Configuring the Vontu Detection Servers" on page 106.

What Gets Installed

Vontu installs the following components on each endpoint:

- A driver (`vfsmfd.sys`) that detects activity in the endpoint file system and relays the information to the Vontu Agent service. This driver is installed at `<WindowsDir>\System32\drivers`. For example, `C:\windows\System32\drivers`.
- The Vontu Agent service that receives information from the driver and relays it to the Endpoint Server. When creating the installation command (as described in "Installation with System Management Software" on page 101), you must use the `SERVICENAME` parameter to designate the name under which this service appears in the endpoint computer's task manager and service list.

Vontu creates the following files when you start the Vontu Agent service:

- A shadow cache (`ShadowCache.cf`), created in the installation directory, which stores copies of files the end user copies or downloads to the endpoint hard drive or to USB devices.
- A log file (`<SERVICENAME>.log`), created in the installation directory. For example, if you set the `SERVICENAME` parameter to `VontuAgent`, then the log file name would be `VontuAgent.log`.

Other Security Applications and the Endpoint Agent

Before installing Vontu Endpoint Agent, identify all security applications currently running on your endpoint computers and configure those applications to allow Vontu Endpoint Agent to function fully. Some applications, such as Norton Internet Security and Trend Micro PC-cillin Internet Security, generate alerts when they detect the installation or initial launch of Vontu Endpoint Agent. Such alerts reveal the presence of Vontu Endpoint Agent and they sometimes let users block the Vontu Endpoint Agent entirely.

Installation with System Management Software

You can use your system management software (SMS) to deploy Endpoint Agents to endpoint computers. This section describes the information you need for

configuring your SMS to deploy Endpoint Agents. For details on entering this information into your particular SMS, see your SMS documentation.

When configuring your SMS, specify the following information:

- `VontuAgentInstaller.msi`—name of the Endpoint Agent MSI package. (This package is included in the `VontuWindowsAgentInstaller_7.1.zip` file, available at `ftp://support.vontu.com`.)
- Installation parameters:
  - `TARGETDIR`—(required) the installation directory. (Default is `<INSTALLDIR>\Vontu\Endpoint Agent`. For example, `C:\Program Files\Vontu\Endpoint Agent`.)
  - `ENDPOINTSERVER`—(required) the hostname or IP address of the Endpoint Server. For example, type `server.company.com`. This value must be consistent with the **Agent Listener**>**Bind Address (**Host/IP) value you set for the Endpoint Server on the Vontu Enforce Server **Configure Server** page.
  - `PORT`— (required) the number of the port over which the Endpoint Server communicates with Endpoint Agents. Use the port you specified in the Vontu Enforce Server administration console when you configured the Endpoint Server. See "Configuring an Endpoint Server" step 2.b on page 114. For example, type `8000`.
  - `SERVICENAME`—(required) the name you assign to the Vontu Agent service. This is the name under which the service will appear in the endpoint computer's task manager and service list.
  - `KEY`—(optional) the authentication key that the Vontu Agent and Endpoint Server use to establish a secure connection. Vontu Agents include a default authentication key, but you can also create your own key using the endpointkeytool utility (as described in the *Vontu 7.1 Utility Guide*). To use your own key, specify it with the `KEY` parameter during deployment and installation. If you decide to specify the key *after* after installing Vontu Agents, you must reinstall the Agents to specify the key.
  - `ARPSYSTEMCOMPONENT`—(optional) the parameter that prevents Vontu Agent from appearing in the endpoint computer's Add or Remove Programs list. Set this parameter to `"1"` to prevent Vontu Agent from appearing in the list. If you leave this parameter out (or if you leave the value blank), Vontu Agent *will appear* in the Add or Remove Programs list.

When you deploy Endpoint Agents, your SMS issues a command similar to the following on the specified endpoints:

```
msiexec /i VontuAgentInstaller.msi /q TARGETDIR="C:\Program
Files\Vontu\Endpoint Agent\" ENDPOINTSERVER="server.company.com"
PORT="8000" SERVICENAME="endpoint" ARPSYSTEMCOMPONENT="1"
```

—where `msiexec` is the Windows command for executing MSI packages; `/i` takes the name of the package; `/q` specifies a silent install; `TARGETDIR`, `ENDPOINTSERVER`, `PORT`, and `SERVICENAME` are the Vontu-required parameters; and `ARPSYSTEMCOMPONENT` is the optional parameter preventing Vontu Agent from appearing in the endpoint computer's Add or Remove Programs list. (Note that Vontu ships with an example installation command in `<vontu_install_dir>\Endpoint\install_agent.bat`.)

After installing Endpoint Agents, the Vontu Endpoint Agent service automatically starts on each endpoint computer. After you start this service on all endpoints, log in to the Enforce Server and go to **Administration**>**Agent Management**>**Overview**. Verify that the newly-installed Agents are registered (in other words, that they appear in the list on this screen).

Manual Installation

This section describes how to install Endpoint Agents manually on your endpoints.

▶ **To install Endpoint Agents manually:**

1. Log in to the endpoint computer as administrator.
2. Copy the Endpoint Agent `setup.exe` file to endpoint computer and double-click on `setup.exe`.

   The Endpoint Agent installation wizard starts up, displaying the Endpoint Agent Setup screen.
3. Click **Next** to accept the copyright agreement.
4. Click **Next** to accept the license agreement.

   If your computer is not already running Windows Installer 3.1, the Endpoint Agent installer initiates the installation of that program. In this case, you are prompted to restart the computer after the Windows Installer installation. Upon restart, the Endpoint Agent installer resumes.
5. Type the appropriate values in the following fields:

   - **Endpoint Server**— (required) the hostname or IP address of the Endpoint Server. For example, type `server.company.com`. This value must be consistent with the **Agent Listener**>**Bind Address (**Host/IP) value you set for the Endpoint Server on the Vontu Enforce Server **Configure Server** page.
   - **Port**—(required) the number of the port over which the Endpoint Server communicates with Endpoint Agents. Use the port you

specified in the administration console when configuring the Endpoint Server. For example, type `8000` (the default value in the administration console).

- **Service Name**—(required) the name you assign to the Vontu Agent service. This is the name under which the service will appear in the endpoint computer's task manager and service list.
- **Key**—(optional) the authentication key that the Vontu Agent and Endpoint Server use to establish a secure connection. Vontu Agents include a default authentication key, but you can also create your own key using the *endpointkeytool* utility (as described in the *Vontu 7.1 Utility Guide*). To use your own key, specify it with the `KEY` parameter during deployment and installation. If you decide to specify the key *after* installing Vontu Agents, you must reinstall the Agents to specify the key.

Click **Next**.

6. Accept the default installation directory or enter a new one, and then click **Next**. (Default is `C:\Program Files\Manufacturer\Endpoint Agent`.)
7. On the Confirm Installation screen that appears, click **Next**.

   The installation takes a couple moments. When it finishes, the Installation Complete screen appears.
8. Click **Close**.
9. Go to **Start**>**Control Panel**, double-click **Administrative Tools**, and then double-click **Services**. Find the Vontu Agent service (listed under the name you typed in the Service Name field during installation) and make sure it is running.

   Endpoint Agent is now monitoring the endpoint.
10. Log in to the Enforce Server and go to **Administration**>**Agent Management**>**Overview**. Verify that the Agent is registered (in other words, that it appears in the list).

Uninstalling Endpoint Agents

This section describes how to uninstall Endpoint Agents. You can uninstall Agents manually or using system management software.

Uninstallation with System Management Software

You can use your system management software (SMS) to uninstall Endpoint Agents from endpoint computers. This section describes the information you need for configuring your SMS to uninstall Endpoint Agents. For details on entering this information into your particular SMS, see your SMS documentation.

When you uninstall Endpoint Agents, your SMS issues a command similar to the following on the specified endpoints:

```
msiexec /uninstall VontuAgentInstaller.msi /q
```

—where `msiexec` is the Windows command for executing MSI packages; `/uninstall` takes the name of the package; and `/q` specifies a silent uninstall.

Manual Uninstallation

This section describes how to uninstall Endpoint Agents manually. Manual uninstallation is only possible if during deployment you configured the Endpoint Agent to appear in the endpoint computer's Add or Remove Programs list. (For details on this configuration option and others, see "Installing Endpoint Agents" on page 101.)

▶ **To uninstall Endpoint Agent manually:**

1. Go to **Start>Control Panel** and double-click **Add or Remove Programs**.
2. Select **Endpoint Agent** and click **Remove**.

Chapter 9

Adding and Configuring the Vontu Detection Servers

This chapter describes how to add and configure a Vontu detection server. Before adding and configuring a detection server, you must install the detection server. See "Installing a Detection Server" on page 77.

The following topics are covered:

Logging In To the Enforce Server

You add a Detection Server using the Vontu Enforce Server administration console. To access the administration console you must first log in to the Enforce Server.

▶ **To log in to the Vontu Enforce Server administration console:**

1. Log in (or remote log in) as Administrator to the Vontu Enforce Server machine.
2. Select **Start**>**All Programs**>**Vontu 7**>**Vontu Enforce**.
3. On the Vontu login screen, enter the Administrator username and password.
   a. In **Username**, enter `Administrator`.
   b. In **Password**, enter the Administrator password.
      - If you installed a two-tier Vontu installation, you created the Administrator password in step 10 of the "To install the Vontu Enforce Server:" section on page 64.
      - If you installed a single-tier Vontu installation, you created the Administrator password in step 12 of the "To install the Vontu single-tier server:" section on page 89.
4. Click **Login**.

   The Vontu Enforce Server administration console appears and displays an Executive Summary report.

Adding and Configuring a Detection Server

Before adding and configuring a detection server, you must install the detection server. See "Installing a Detection Server" on page 77. Once the Detection Server is installed, you use the Vontu Enforce Server administration console to add the detection server, then configure it to be the Detection Server of your choice. For a list of the different Vontu detection servers, see Table 6-2, "Vontu Detection Servers," on page 79.

▶ **To add a Vontu detection server:**

1. On the left navigation panel under **Administration**>**System**, click **Overview**.

   The System Overview page appears.

2. Click **Add Server**.

3. Select the type of detection server to add and click **Next**. The detection server options are:

   - Vontu Network Monitor
   - Vontu Discover or Vontu Protect
   - Vontu Email Prevent
   - Vontu Web Prevent
   - Vontu Endpoint

If you want to install Vontu Protect, select the Discover Server option. Vontu Protect provides additional protection features to the Discover Server.

(For more information about the types of detection servers, see Table 6-2, "Vontu Detection Servers," on page 79.)

The Configure Server page appears. The information displayed on the Configure Server page depends on which type of server you selected.

- To configure a Network Monitor Server, see "Configuring a Network Monitor Server" section on page 109.
- To configure a Discover Server or Protect Server, see "Configuring a Discover Server or a Protect Server" section on page 110.
- To configure a Email Prevent Server, see "Configuring an Email Prevent Server" section on page 111.
- To configure a Web Prevent Server, see "Configuring a Web Prevent Server" section on page 112.

- To configure a Endpoint Server, see "Configuring an Endpoint Server" section on page 114.

4. Configure your corporate firewall to allow communication between the Enforce Server and any detection servers you have installed in your DMZ. See "Configuring Your Firewall" on page 116.

5. The Detection Server configuration is now complete; however, for some detection servers you must also perform additional steps.

   - Discover Server (if scanning Lotus Notes)—see "Configuring a Discover Server for Lotus Notes Targets" on page 117.
   - Email Prevent Server—see the *Vontu 7.1 Email Prevent MTA Integration Guide*.
   - Web Prevent Server—see your Web proxy server's configuration guide or contact your Vontu representative for more information.
   - Endpoint Server—see "Vontu Security Configuration" on page 28 and see "Installing Vontu Endpoint Agent" on page 98.

Configuring a Network Monitor Server

▶ **To configure a Network Monitor Server:**

1. Enter the Network Monitor Server's General information. This information defines how the server will communicate with the Enforce Server.

   a. In **Name**, enter a unique name for the detection server.

      Vontu recommends you include the server type in the name to help you recognize its type on the System Overview page. (For example, "Network Monitor Server-HR.")

   b. In **Host**, enter the detection server's host name or IP address. (If this is a single-tier installation, then click the **Same as Enforce** checkbox to autofill the host information.)

   c. In **Port**, enter the port number the detection server will use to communicate with the Enforce Server. If you chose the default port when you installed the detection server, then enter 8100. However, if you changed the default port, then enter the same port number here (it can be any port higher than 1024).

2. On the **Packet Capture** tab, you can add settings for the Source Folder, Archive Folder, and Network Interfaces.

   a. In **Source Folder Override**, do not enter a value. This field exists for backward compatibility with earlier versions of Vontu.

b. In **Archive Folder**, do not enter a value at this time.

c. In **Network Interfaces**, do not enter a value at this time. Network Interfaces section will be empty until a detection server is fully configured and started for the first time. Return to this page later to configure the Network Interfaces.

d. In the **Protocol** section, click the check box next to one or more protocols to select those protocols for monitoring by this server.

You can click on the edit icon to customize the protocol and click **Save**.

3. On the **SMTP Copy Rule** tab, you can add the Source Folder Override setting.

a. In **Source Folder Override**, do not enter a value. This field exists for backward compatibility with earlier versions of Vontu.

4. Click **Save**.

The Server Detail page appears.

5. Review the Server Detail page to confirm the Network Monitor Server configuration, then click **Done**.

The System Overview page appears and displays the newly added Network Monitor Server. The server Status should display as Starting or Running.

Configuring a Discover Server or a Protect Server

▶ **To configure a Discover Server or a Protect Server:**

1. Enter the Discover Server or Protect Server's General information. This information defines how the server will communicate with the Enforce Server.

a. In **Name**, enter a unique name for the detection server.

Vontu recommends you include the detection server type in the name to help you recognize its type on the System Overview page. For example, "Discover Server-HR.")

b. In **Host**, enter the detection server's host name or IP address. (If this is a single-tier installation, then click the **Same as Enforce** checkbox to autofill the host information.)

c. In **Port**, enter the port number the server will use to communicate with the Enforce Server. If you chose the default port when you installed

the detection server, then enter 8100. However, if you changed the default port, then enter the same port number here (it can be any port higher than 1024).

2. Click **Save**.

   The Server Detail page appears.

3. Review the Server Detail page to confirm the Discover Server or Protect Server configuration, then click **Done**.

   The System Overview page appears and displays the newly added Discover Server. The server Status should display as Starting or Running.

Configuring an Email Prevent Server

▶ **To configure an Email Prevent Server:**

1. Enter the Email Prevent Server's General information. This information defines how the server will communicate with the Enforce Server.

   a. In **Name**, enter a unique name for the detection server.

      Vontu recommends you include the server type in the name to help you recognize its type on the System Overview page. (For example, "Email Prevent Server-HR.")

   b. In **Host**, enter the detection server's host name or IP address. (If this is a single-tier installation, then click the **Same as Enforce** checkbox to autofill the host information.)

   c. In **Port**, enter the port number the detection server will use to communicate with the Enforce Server. If you chose the default port when you installed the detection server, then enter 8100. However, if you changed the default port, then enter the same port number here (it can be any port higher than 1024).

2. Click **Save**.

   The Server Detail page appears.

3. Review the Server Detail page to confirm the Email Prevent Server configuration, then click **Done**.

   The System Overview page appears and displays the newly added Email Prevent Server. The server Status should display as Starting or Running.

4. You must integrate the Email Prevent Server into your organization's email message stream. For information on how to do this, see the *Vontu 7.1 Email Prevent MTA Integration Guide*.

Configuring a Web Prevent Server

▶ **To configure a Web Prevent Server:**

1. Enter the Web Prevent Server's General information. This information defines how the server will communicate with the Enforce Server.

   a. In **Name**, enter a unique name for the detection server.

      Vontu recommends you include the server type in the name to help you recognize its type on the System Overview page. (For example, "Web Prevent Server-HR.")

   b. In **Host**, enter the detection server's host name or IP address. (If this is a single-tier installation, then click the **Same as Enforce** checkbox to autofill the host information.)

   c. In **Port**, enter the port number the detection server will use to communicate with the Enforce Server. If you chose the default port when you installed the detection server, then enter 8100. However, if you changed the default port, then enter the same port number here (it can be any port higher than 1024).

2. On the ICAP tab, you can add settings for Trial Mode, Request Filtering, Response Filtering, and Connection.

   a. Select **Trial Mode** to test the prevention capability without actually blocking requests. When this check box is selected, the incidents are generated and appear as blocked in the incident reports, but no transmissions are actually blocked.

   b. In the Request Filtering section, you can add settings for filtering requests.

      - In **Ignore Requests Smaller Than**, enter the minimum size of the body of HTTP requests you want the server to inspect. The maximum value is 4096 bytes.
      - Select **Ignore Requests without Attachments** to inspect only HTTP requests containing attachments.
      - In **Ignore Requests to Hosts or Domains**, enter the host names or domains to which you want to ignore requests.

- In **Ignore Requests from User Agents**, enter the names of user agents from which you want to ignore requests.

c. In the Response Filtering section, you can add settings for filtering responses.

- In **Ignore Responses Smaller Than**, enter the minimum size of the body of HTTP responses you want the server to inspect.
- In **Inspect Content Type**, add additional content types that you want the server to the inspect.
- In **Ignore Responses from Hosts or Domains**, enter the names of user agents from which you want to ignore responses.
- In **Ignore Responses to User Agents**, enter the names of user agents from which you want to ignore responses.

d. In the Connection section, you can add connection settings.

- In **TCP Port**, accept the default TCP port number or enter a different port number on which you want this detection server to listen to ICAP requests. The same value must be configured on the HTTP proxy sending ICAP requests to this server. The recommended (default) value is 1344.
- In **Maximum Number of Connections**, accept the default maximum number value (25), or enter a different maximum number value, of simultaneous ICAP connections from the HTTP proxy you want to allow.
- In **Connection Backlog**, accept the default maximum number value (2), or enter a different maximum number value, of waiting connections you want to allow. Each waiting connection means that a user is waiting at his or her browser. The minimum value is 1.

3. Click **Save**.

The Server Detail page appears.

4. Review the Server Detail page to confirm the Web Prevent Server configuration, then click **Done**.

The System Overview page appears and displays the newly added Web Prevent Server. The server Status should display as Starting or Running.

Configuring an Endpoint Server

► **To configure an Endpoint Server:**

1. Enter the Endpoint Server's General information. This information defines how the Endpoint Server will communicate with the Enforce Server.

   a. In **Name**, enter a unique name for the detection server.

      Vontu recommends you include the server type in the name to help you recognize its type on the System Overview page. (For example, "Endpoint Server-HR.")

   b. In **Host**, enter the host name or IP address the Endpoint Server will use to communicate with the Enforce Server. (If this is a single-tier installation, then click the **Same as Enforce** checkbox to autofill the host information.)

   c. In **Port**, enter the port number the Endpoint Server will use to communicate with the Enforce Server. If you chose the default port when you installed the detection server, then enter 8100. However, if you changed the default port, then enter the same port number here (it can be any port higher than 1024).

2. On the **Endpoint Server** tab, you can add the Endpoint Server host and port setting. This information defines how the Endpoint Server will communicate with Endpoint Agents.

   a. In **Host**, enter the host name or IP address the Endpoint Server will use to communicate with Endpoint Agents.

   b. In **Port**, accept the default port number (8000) or enter a different port number the Endpoint Server will communicate with Endpoint Agents. You must use the same port number when you configure an Endpoint Agent.

3. On the **Agent** tab, you can add settings for removable media, built-in storage, and Endpoint Agent/Endpoint Server communication.

   a. In the Removable Media Performance Filters section, enter settings for ignore files smaller than, ignore files larger than, and enter settings for ignore and include file types.

b. In the Built-in Storage Performance Filters section, select **Monitor local Filesystem for sensitive download** to inspect data on built-in storage devices.

c. In the Built-in Storage Performance Filters section, enter settings to ignore file sizes smaller or larger than, ignore and include files in path settings, and ignore and include file types.

d. In the **Communication: Agent - Endpoint Server** section, enter bandwidth throttle and shadow cache settings.

- In **Bandwidth Throttle**, accept the default value (5) or enter a different bandwidth value in mbps.
- For **Shadow Cache Size**, choose shadow cache size by **% of total** (accept the 5% default value or enter a different value) or shadow cache size by **bytes** (enter the number of bytes).

4. Click **Save**.

The Server Detail page appears.

5. Review the Server Detail page to confirm the Endpoint Server configuration, then click **Done**.

The System Overview page appears and displays the newly added Endpoint Server. The server Status should display as Starting or Running.

Configuring Your Firewall

This section describes firewall requirements for Vontu 7. The instructions in this section assume your Enforce Server is installed inside your corporate LAN behind a firewall and that your detection servers (for example, your Network Monitor Servers) are installed in the DMZ. If this is the case, update your corporate firewall settings as follows:

- Allow connections from the Enforce Server on the corporate network to the detection servers in the DMZ. Configure your firewall to accept connections on the port you entered when installing the detection servers. By default, the Enforce Server and the detection servers communicate over port 8100, but you can configure Vontu to use any port higher than 1024. You should use the same port number for all your detection servers.
- Allow Windows Remote Desktop Client connections (TCP port 3389). This can be useful for setup purposes.
- Review your firewall settings and close any ports no longer required for communication between the Enforce Server and the detection servers. In previous versions of Vontu, port assignment was random; therefore, all ports over 1024 had to be open to enable communication between the Enforce Server and the detection servers. In Vontu 7, the servers communicate over a single port number. (By default, this is port 8100, though you can configure Vontu to use any port higher than 1024.) Since Vontu no longer requires all ports over 1024 to be open, you should adjust your firewall settings accordingly.

Configuring a Discover Server for Lotus Notes Targets

To use the Discover Server to scan a Lotus Notes target, you need to perform additional configuration steps. The Discover Server can either access Domino servers directly (non-native mode) using Domino Internet Inter-Orb Protocol (DIIOP) or go through a Lotus Notes client (native mode). Each mode has its own configuration procedure.

Scanning Lotus Notes using the non-native mode

The Discover Server accesses Domino servers directly using DIIOP and HTTP. Before the Discover Server can successfully scan Domino servers and databases using DIIOP, the Lotus Notes administrator must perform the following tasks.

▶ **To directly scan Domino servers (non-native):**

1. Add two Lotus Notes `.jar` files (`Notes.jar` and `NSCO.jar`) to the Discover Server's `<drive>:\Program Files\Vontu\Protect\plugins` directory.
   a. On a machine where the Lotus Notes 6.5 client is installed, go to the Lotus Notes installation directory usually located at `<drive>:\Program Files\Lotus\Notes`.
   b. Locate the `Notes.jar` and `NSCO.jar` files, then copy and paste these files into the `<drive>:\Program Files\Vontu\Protect\plugins` directory on the Discover Server.
2. Start the HTTP service on the Domino server being scanned.
3. Configure the "Allow HTTP connections to browse databases" setting to 'true'.
4. Start the DIIOP service on the Domino server being scanned.
5. Create an Internet password so the scan user account can access the Domino server.

Scanning Lotus Notes using the native mode

Vontu can go through the Lotus Notes client to access the Domino servers and databases owned by that Lotus Notes client. Using this native mode does not require any configuration on the Domino server; however, the following modifications must be made to the Discover Server to work through the client.

▶ **To scan Domino servers through the Lotus Notes client (native):**

1. Add two Lotus Notes `.jar` files (`Notes.jar` and `NSCO.jar`) to the Discover Server.

a. On a machine where the Lotus Notes 6.5 client is installed, go to the Lotus Notes installation directory usually located at `<drive>:\Program Files\Lotus\Notes`.

b. Locate the `Notes.jar` and `NSCO.jar` files, then copy and paste these files into the `<drive>:\Program Files\Vontu\Protect\plugins` directory on the Discover Server.

2. Change `lotusnotescrawler.use.diiop` scanning configuration property setting on the Discover Server.

a. On the Discover Server, go to `<drive>:\Program Files\Vontu\Protect|config\Crawler.properties`.

b. Open the `Crawler.properties` file in a text editor.

c. Locate the `lotusnotescrawler.use.diiop` parameter and change the value from 'true' to 'false'.

d. Save and close the file.

3. Use IBM's installation procedure to install the Lotus Notes client on the Discover Server.

4. Give the "protect" user write permission to the `notes.ini` file.

a. Locate the `notes.ini` file at `<drive>:\Program Files\Lotus\Notes`.

b. Right-click on the `notes.ini` file and select the **Properties** option.

c. Select the **Security** tab.

d. In the Group or user names section, select the 'protect' user.

e. In the Permissions section, select the **Write** check box in the Allow column, and click **OK**

5. Add the Notes home directory to the PATH system variable.

a. From the **Start** menu, select **Control Panel**.

b. Double-click on **System** to display the **System Properties** dialog box.

c. Click **Environment Variables**.

d. In the System variables section, scroll down the list of variables to the **Path** variable.

e. Double-click the **Path** variable to display the **Edit System Variable** dialog box.

f. In the **Variable value** field, at the end of the text string, type a semi-colon and the path to the Notes directory.

For example, `;C;\Program Files\Lotus\Notes`.

g. Click **OK** and close all of the dialog boxes.

6. Copy the `user.id` file supplied by the Lotus Notes administrator to the Notes directory on the Discover Server (`<drive>:\Program Files\Lotus\Notes`).

Access to the Domino server and the success of scanning operations is determined by the permissions granted to this `user.id` file. The Lotus Notes administrator must ensure that the `user.id` has the proper permissions to access all files that need to be scanned.

7. Restart the Discover Server so that the changes to the server's configuration can take effect.

Adding Vontu Protect Functionality

Vontu Protect adds protection functionality to Vontu Discover. If you purchase Vontu Protect to add to Vontu Discover, you will receive a new Vontu license key that turns on the Vontu Protect functionality. You must copy and paste this new license into the System Settings page's **Key** field, see "To change the Vontu license key:" on page 120.

After adding Vontu Protect, the **Discover Targets**>**Add File System Target** page displays an extra tab called **Protect**. When you create a new file-system target, use this Protect tab to configure what Vontu Protect will do with files that violate your policies.

You can configure Vontu Protect to perform the following actions when incidents are found in the target file system:

- Copy—Copies the target to another location. A copy of the file is made and placed wherever specified but the file is left in its original location.
- Quarantine—Moves the target to the quarantine area you specify. The file is actually removed from its original location where it was found.

To copy or quarantine files, you must create response rules telling Vontu to copy or quarantine files, and then add those rules to active policies. For more information about creating response rules, see the Vontu online help's *Setting Up Response Rules* topic.

Vontu Protect adds a remediation icon (copied or quarantined) to the Vontu incident list, if any response rule applied.

For more information about Vontu Protect functionality, see the *Protect* section of the Vontu online help's *Adding or Editing a Target* topic.

▶ **To change the Vontu license key:**

1. Select **Settings**>**System Settings** and click **Configure**.
2. On the Edit System Settings page, copy and paste the new Vontu license key into the **Key** field
3. Click **Save**.
4. Log out of the Vontu Enforce administration console and log in again.
5. Select **Settings**>**System Settings** and verify the new license description.

Chapter 10

Getting Started

This chapter describes how to start using Vontu once you have installed the Enforce Server and at least one detection server.

The following topics are covered:

Vontu Enforce Server Administration Console

This section describes how to log in to the Enforce Server administration console, use the online help, and outlines high-level steps for setting Vontu up to protect your data.

Logging In to the Enforce Server Administration Console

This section describes how to log in to the Enforce Server administration console.

▶ **To log in to the Enforce Server administration console:**

1. Log in (or remote log in) as Administrator to the Vontu Enforce Server machine.
2. Select **Start**>**All Programs**>**Vontu 7**>**Vontu Enforce**.
3. On the Vontu login screen, enter the Administrator username and password.
   a. In **Username**, enter `Administrator`.
   b. In **Password**, enter the Administrator password you created in step 10 of the "To install the Vontu Enforce Server:" section on page 64.
4. Click **Login**.

   The Vontu Enforce Server administration console appears and displays an Executive Summary report.

Logging Out of the Enforce Server

This section describes how to log out of the Enforce Server administration console. Before logging out, make sure you have saved any edits.

▶ **To log out:**

1. Click **logout** at top right of the screen.

   Vontu prompts you to confirm the logout.
2. Click **OK**.

   Vontu displays a message confirming the logout was successful.

Changing Your Password

Passwords must be at least eight characters long and they are case-sensitive. If your system administrator has configured Vontu to require a strong password, you must specify a password that meets that requirement. Check with your system administrator for instructions.

When your password expires, Vontu displays the Password Renewal window the next time you try to log in. When this happens, type your old password, then type your new password once and then a second time to confirm it.

▶ **To change your password:**

1. Click **profile** in the upper right corner of the administration console.
2. On the Edit Profile screen that appears, type your current password, then type your new password once and then a second time to confirm.
3. Click **Save**.

Using Online Help

To access online help, click **help** in the upper right corner of any screen in the administration console. Vontu displays the help in a separate window, showing the table of contents in the left pane and context-sensitive help in the right pane.

In the Help window, you can:

- Navigate through the table of contents to see any topic in the help. Click to open a help chapter, then click to close it. Click any topic to view its content in the right pane. Click or to browse through the topics in each chapter.
- Click **Index** to look up information alphabetically.
- Click **Search**, enter a word or phrase, and click **Go** to find specific words or phrases in the help.
- Click **Glossary** to select unfamiliar terms and view their definitions.
- Click **Back** to return to the last topic viewed.

Initial Vontu Setup

This section provides a high-level outline of the initial steps you need to perform to set up Vontu. It assumes that you have completed all tasks described in the previous chapters of this guide. Check off tasks as you perform each one. Each high-level step included here contains one or more cross-references to more detailed instructions.

Initial Setup Check List

Table 10-1: Initial setup steps

✓	**Steps to set up Vontu for the first time**
	Change the Administrator's password to a unique password.
	Set up mail server information and add an email address for the Administrator user account so you can be notified of system events.
	Review roles, users, and policy groups, and add user accounts for all users who are authorized to use the system, and provide them with their login information.
	Review policies and content set up by the Solution Pack.
	If you installed Vontu Discover, set up Discover targets.

Initial Setup Detailed List

1. Change the Administrator's password to a unique password known only to you. For details about changing passwords, see "Changing Your Password" on page 123.
2. Add an email address for the Administrator user account so you can be notified of system events. For details on adding an email address, open the Vontu online help and go to **Administration**>**Users**> **Users> Editing the Administrator Account**.
3. Add user accounts for all users who are authorized to use the system, and provide them with their login information. For details on user accounts, open the Vontu online help and look at the topics under **Administration**>**Users**.
4. Review the policy templates provided with the system to familiarize yourself with their content and data requirements. Note that, for compliance-monitoring policies based on industry standards and regulations, columns in any data profiles you use must correspond to the data requirements in the template. For details on policy management, open the Vontu online help and go to **Policy Management**>**Policies**. You can find descriptions of policy

templates under **Policy Management**>**Policies** >**Working with Policies**>**Policy Templates**.

5. Optionally, add the data profiles that you plan to associate with policies. Note that this step is necessary only if you are licensed for data profiles and if you intend to use them in policies. For details on data profiles, open the Vontu online help and go to **Policy Management**>**Protected Content** >**Exact Data**.
6. If you are responsible for adding policies, add one or more policies.

   If not, notify the policy administrator(s) that data profiles have been added and they can proceed with policy addition. Be sure that you have added user accounts with policy access for each policy administrator in your organization and provided them with their login information.
7. Determine your organization's incident management workflow and add incident attributes. For details, open the online help and go to **Administration**>**Settings**>**Attributes**.

After the initial system configuration is complete, you can continue to add data profiles, policies, and reports, and modify your settings, if desired, to suit your organization's needs.

Chapter 11

Uninstalling Vontu

This chapter describes how to uninstall a Vontu server or a specific Vontu component.

Uninstalling Vontu

This section describes how to uninstall a Vontu server (Enforce Server or a detection server) or a specific Vontu component using the Windows Start or Remove Programs functionality. Alternatively, you can uninstall Vontu using the `Uninstall.exe` file located in the Vontu installation folder (for example, `C:\Vontu\Uninstall`).

▶ **To uninstall the Vontu server or component:**

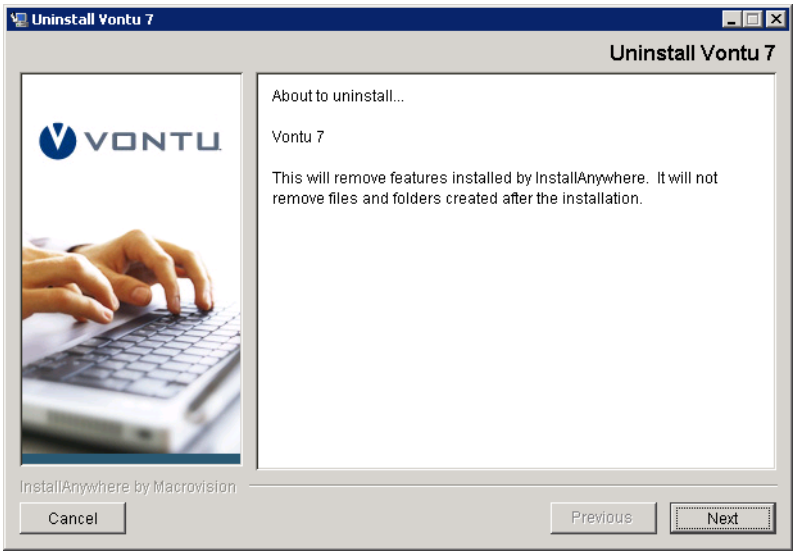
1. Select **Start>Control Panel**, and double-click on **Start or Remove Programs**.

   The Start or Remove Programs window appears.

2. Scroll down to Vontu and click **Change/Remove**.

   The Vontu Uninstall window appears.

3. To uninstall, click **Next**.



   The Uninstall Options window appears.

4. From the Uninstall Options window, you can completely remove a Vontu server or just remove specific Vontu features and components.

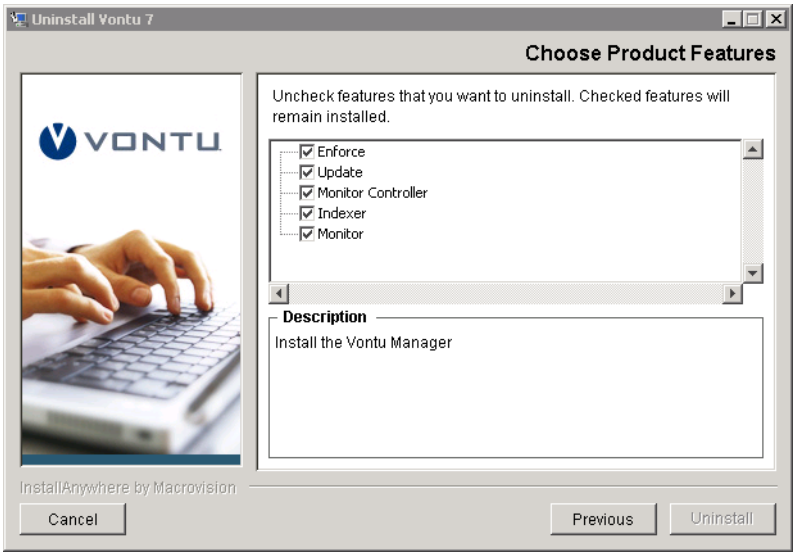
   - **Complete Uninstall**—Select to completely remove Vontu features and components. Any files and folders that you created after the Vontu installation are not removed.

- **Uninstall Specific Features**—Select to remove selected Vontu features or components.

Select an uninstall option and click **Next**.

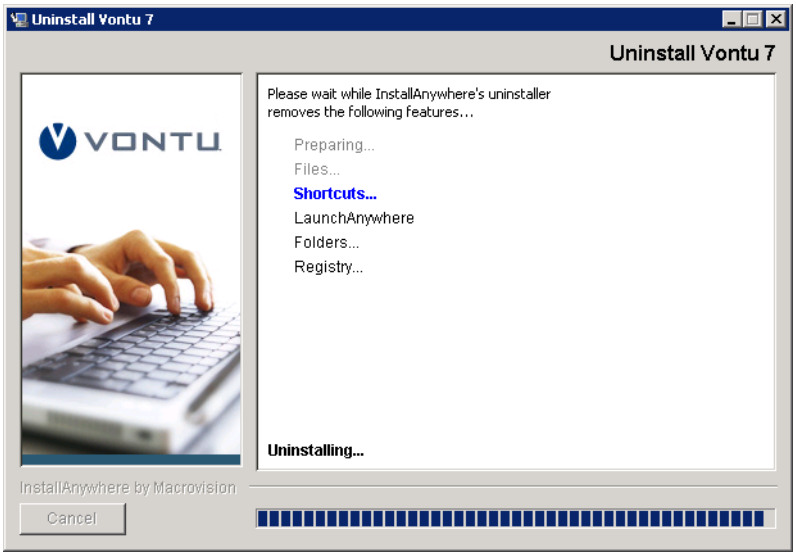
5. If you selected Uninstall Specific Features, the Choose Product Features window appears. The features and components you can uninstall depends on the type of Vontu server you are uninstalling.

   Uncheck the features or components you wish to uninstall and click **Uninstall**.



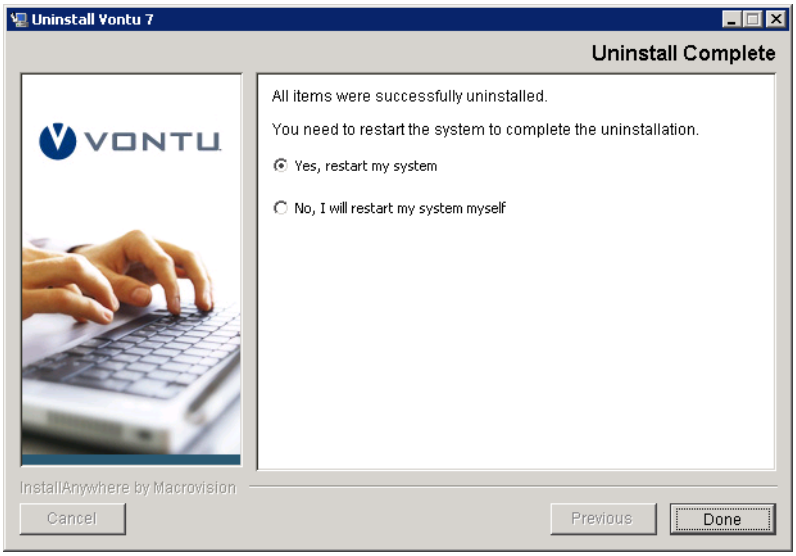
When the uninstall process is finished the Uninstall Complete window appears, see step 7 on page 129.

6. If you selected Complete Uninstall, the Uninstall Vontu window appears.



When the uninstall process is finished the Uninstall Complete window appears.

7. To complete the uninstall process, click **Done**.



8. You must restart the machine after you uninstall Vontu to ensure all Vontu services are removed.

Appendix A

Syslog Logging

You have the option to send severe Vontu system events to a syslog server. To do this you must modify the `config\Manager.properties` file.

You can also configure Vontu to send email notifications of severe system events. For details, open the Vontu online help and go to **Administration**>**System**>**Alerts**>**Alerts Overview**.

▶ **To enable syslog logging:**

1. Locate and open the `config\Manager.properties` file.
2. Uncomment the following lines:

```
#systemevent.syslog.host=
#systemevent.syslog.port=
#systemevent.syslog.format= [{0}] {1} - {2}
```

3. Type values for each of these parameters, as follows:
   - `host`—syslog server host or IP address
   - `port`—syslog server port number (default is 514)
   - `format`—log file message format. Specify one or more of the following indicators:
     - `{0}`—includes the name of the server on which the event occurred
     - `{1}`—includes a brief summary of the event

- `{2}`—includes a detailed description of the event

For example:

```
systemevent.syslog.host=galapagos
systemevent.syslog.port=600
systemevent.syslog.format= [{0}] {1} - {2}
```

In this example, event records will consist of the server name in brackets, followed by a brief summary, a hyphen, and then a detailed description.