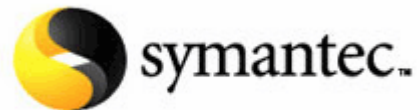


Symantec Ghost™ Solution Suite

Version 1.0

Reviewer's Guide



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Symantec Ghost™ Solution Suite Version 1.0

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Quick profile

Product: Symantec Ghost™ Solution Suite 1.0

Summary: Symantec Ghost™ Solution Suite is the industry's most widely used PC management solution with ease-of-use for managing the entire PC lifecycle including operating system deployment, software distribution, PC migration and retirement.

Pricing: Band A (10 – 24) \$39.20
Band D (250 – 499) \$19.30

Discounts are available for upgrades from Symantec Ghost 7.5/8.0 and Symantec DeployCenter Library.

Special crossgrade prices are available for Symantec DeployCenter 5.5 customers upgrading to Symantec Ghost Solutions Suite.

For pricing outside these bands, contact Symantec Sales.

Availability: Symantec Ghost Solution Suite is available through Symantec's worldwide network of VARS, integrators, and resellers.

For more information about purchasing Symantec Ghost Solution Suite, call 1-800-745-6054, or visit the following Web site:

www.symantec.com

Introducing Symantec Ghost Solution Suite 1.0

Symantec Ghost Solution Suite is the industry's most widely used PC management solution with ease-of-use for managing the entire PC lifecycle including operating system deployment, software distribution, PC migration and retirement. The Solution Suite reduces IT costs by streamlining networked desktop and laptop management in an enterprise environment. It provides both file-based and sector-based imaging technology, hardware and software inventory, a client staging area, and multicast file transfer to enable fast and easy PC management and secure data disposal.

The Solution Suite enables IT administrators to reduce the cost and time required to:

- Create standard system images for new workstations and servers.
- Deploy new Windows and Linux operating systems across an enterprise.
- Migrate users to new computers or Windows operating systems while preserving user settings, preferences, application settings and data.
- Deploy new or updated applications and distribute updates.
- Create detailed reports on hardware and software inventory.
- Retire computers by securely disposing of confidential data.

Three leading technologies in one solution

Symantec Ghost Solution Suite contains three leading-industry applications in one suite:

- Symantec Ghost
- Symantec DeployCenter
- Symantec Client Migration

With the combination of Symantec Ghost and DeployCenter technologies, Symantec now offers the only solution on the market with both file-based and sector-based imaging technologies. Symantec's file-based imaging technology delivers optimum ease-of-use and flexibility for customizing and updating images, while its sector-based imaging provides the ultimate in accuracy by retaining Windows optimizations when creating system images. And with Symantec Client Migration, administrators can utilize a user migration tool that provides unique features such as Web-based self-service and highly secure encrypted communication for mobile users, even over the Internet.

Key benefits in this release

Several benefits make Symantec Ghost Solution Suite a powerful, versatile and efficient PC and server management solution.

Efficient deployment of new systems

Administrators can easily create an image of a PC or Windows server, utilizing either file-based or sector-based imaging technology, and simultaneously deploy hundreds of PCs across the network in a matter of minutes. Symantec Ghost Solution Suite also provides image multi-casting to minimize bandwidth usage and speed the deployment of new images. They can also use Symantec Ghost Solution Suite's hardware/software inventory function from a centralized console and created detailed reports through fully customizable filters and views. Administrators can then manage a group of target computers based upon hardware and software attributes. For example, administrators can identify computers that have specific properties and use the selected computers as the target for a task. Administrators can easily automate and customize Windows deployments—such as configuring unique machine names, network settings, and device drivers. Additionally, imaging and deployment can be done within Microsoft's Windows Pre-Installation Environment (WinPE). This accelerates and automates Windows deployments while reducing the cost, complexity and time required in deploying Windows XP.

Easy migration of system and application settings and user data

Symantec Client Migration is the secure software solution that allows IT administrators to quickly and cost-effectively migrate user data, and operating system and application settings. By automating many of the repetitive tasks associated with migration planning and deployment, Symantec Client Migration accelerates the migration process and reduces administrative costs. Symantec Client Migration provides two options for the administrator:

- A user-driven migration - End-users can initiate and complete their own user migration via the use of a unique web-based interface.
- An administrator-driven migration - Administrator controls all aspects of a user migration.

In both options, the migration is completely managed with full control over the file-types and applications that are included and excluded. For example, the administrator can specify that he or she wants to capture all XLS and DOC files, but exclude MP3 and AVI files.

Fast and easy deployment of patches, updates, and applications

By using the hardware and software inventory functionality of the Symantec Ghost Console, administrators can identify machines that have, or have not had, the latest and greatest hot-fixes installed. Those machines can then be targeted, and the hot-fix can be deployed using the Symantec Ghost's multicast file transfer abilities. This allows Symantec Ghost to deploy individual files to multiple machines simultaneously without incurring the dramatic hits on network bandwidth that traditional Unicasting causes.

Additionally, Symantec Ghost AutoInstall (AI) allows administrators to create and customize application packages, which can then be deployed within the Symantec Ghost Console.

Secure retirement and disposal of computers

Symantec Ghost Solution Suite reduces the risk and liability associated with computer retirement and data disposal—and implements best practice strategies that meet the highest industry standards. In fact, the GDisk component provides a solution that meets the highest levels of secure data disposal for the U.S. Department of Defense (DOD 5220.22-M). The solution ensures confidential data cannot be recovered from recycled, retired, or leased PCs.

User scenarios

There are some common ways in which Symantec Ghost Solution Suite is used.

Migrating to a new operating system company-wide

Scenario

Roll out Windows XP to every computer in your company using Symantec Ghost Solution Suite.

Solution

To roll out Windows XP

1. Use the inventory feature in the Symantec Ghost Console identify all computers that do not have Windows XP installed and that have the minimum Windows XP specifications.
2. Create a model computer that has Windows XP installed.
3. Create an image file of the model computer with an Image Create task.
4. Transfer the image file to the client computer staging area with a File Transfer task.
5. Capture user data from client computers with Symantec Client Migration, and store it in the client staging area.
6. Restore the computer from the image file with a Clone task, executed from the Symantec Ghost Console. Using the Preserve Files option, preserve the image file and user data.
7. Restore the captured user data from the client staging area to client computers using Symantec Client Migration.

PC Management, including remote control and migration

Scenario

Manage computers and user data on a network remotely.

Solution

To manage computers and user data on a network

1. Install the Symantec Ghost Console client remotely onto all client computers.
2. Take an image of one or more computers that serve as a company baseline.
3. Manage computers with any of the following tasks:
 - Clone computers.
 - Set computer configurations.
 - Roll out software.
 - Execute commands on the client.
 - Create detailed reports on hardware and software inventory.
4. Migrate and backup user data with Symantec Client Migration.

Deploying security patches to computers on the network

Scenario

Discover those computers that are not up-to-date with security patches, and deploy the patches to those computers.

Solution

To identify and update computers with current security patches

1. Use the inventory feature in the Symantec Ghost Console to identify all computers that are not up-to-date with a security patch.
2. Transfer to and execute the patch on client computers using a multicast File Transfer and Execute Command task.

Symantec Ghost 8.2

Symantec Ghost is a comprehensive enterprise tool for operating system deployment and software distribution.

Streamlining networked server, desktop, and notebook management reduces IT costs. Administrators can deploy or restore an operating system or application onto a computer in minutes, and easily migrate user settings and profiles to customize computers.

Symantec Ghost enables administrators to choose to deploy entire operating systems, application packages, user profiles, and security hot fixes. File preservation capability maintains the client staging area's contents during the restore process, thereby preserving a local backup and recovery image. With the Symantec Ghost client installed, there's no need to visit the target computer to conduct routine deployment or maintenance.

Fast and easy PC management is enabled with improved centralized and remote management from the Symantec Ghost Console, a client staging area, local cloning support, and multicast file transfer. The Symantec Ghost Console also enables administrators to easily migrate user profiles, including computer settings and data. Additionally, IT managers can remotely clone multiple workstations and then quickly configure critical workstation data such as TCP/IP settings and machine, workgroup, and domain names.

A 32-bit version of Symantec Ghost for Microsoft® Windows® Preinstallation Environment (WinPE) allows administrators to create image files on hard drives that are accessible via WinPE through a variety of methods, including the GhostCast Server. Full NTFS read and write functionality, expanded Linux support, and external media support enable migration using the latest technologies.

Key features

Clone computers	Directly clone disk-to-disk or partition-to-partition to create an exact copy on a fresh disk or partition.
Manage computers	Manage all client computers remotely from a central Symantec Console and execute tasks on client computers from the Symantec Console or from the client.
Hardware and software inventory	Manage hardware and software inventory from the centralized Symantec Console. Create detailed reports from fully customizable filters and views. Create dynamic folders to manage a group of target computers based upon hardware or software attributes to streamline operating system migration.
Client staging area	Use a directory on a client computer as a repository for Symantec

	Ghost image files, application packages, user profiles, or other files.
	Preserve the contents of a selected directory during the restore process, keeping a local backup and recovery image file.
Local resource support	Run Symantec Console tasks using images, files, and packages that are stored locally on a client computer. Restore a disk or partition with a Symantec Ghost image stored on the same disk or partition.
Multicast file transfer	Transfer all files, including installation packages, using the multicasting functionality from the Symantec Console. Reduce network traffic by sending an individual file to multiple recipients simultaneously. Flexible file transfer lets you specify where a file transfer goes.
Image file editing	Edit FAT, FAT32, and Linux image files using Symantec Ghost Explorer.
Restore individual files	Restore individual files from an image file using Symantec Ghost Explorer.
Disk and partition management	Run GDisk from DOS or in a command shell from within Windows to manage partitions and disks.
Tutorials	Access a set of tutorials that is included in Symantec Ghost for a demonstration of the most commonly used functions.
Clone computers	Directly clone disk-to-disk or partition-to-partition to create an exact copy on a fresh disk or partition.
NTFS support	Write to and read from NTFS partitions. You can store an image file on an NTFS drive and restore from an image file located on an NTFS drive.
Windows version of Ghost	Run Ghost.exe on Windows 9x/NT/2000/XP/PE.
Support for FireWire (IEEE1394), USB 1.1, USB 2.0	Back up, restore, and clone directly to and from supported FireWire, USB 1.1, and USB 2.0 devices, including hard disks and supported CD-R/RW and DVD drives.
DVD support	Back up to and restore from supported DVD+R/RW and DVD-R/RW drives.

Expanded CD-R/RW support	Get increased support for most new CD-R/RW drives.
Large drive support	Get support for backing up, restoring, and cloning IDE drives larger than 128 GB.
Linux support	Get full LILO and GRUB support for Linux EXT2/3 file systems.
GDisk compliance with DoD requirements	Get GDisk compliance with the U.S Department of Defense requirements for securely wiping disks.
OmniFS	Get a general purpose utility for manipulating files and directories in a locally attached NTFS or FAT file system (including FAT hidden partitions), from DOS or Windows.

What's new in Symantec Ghost

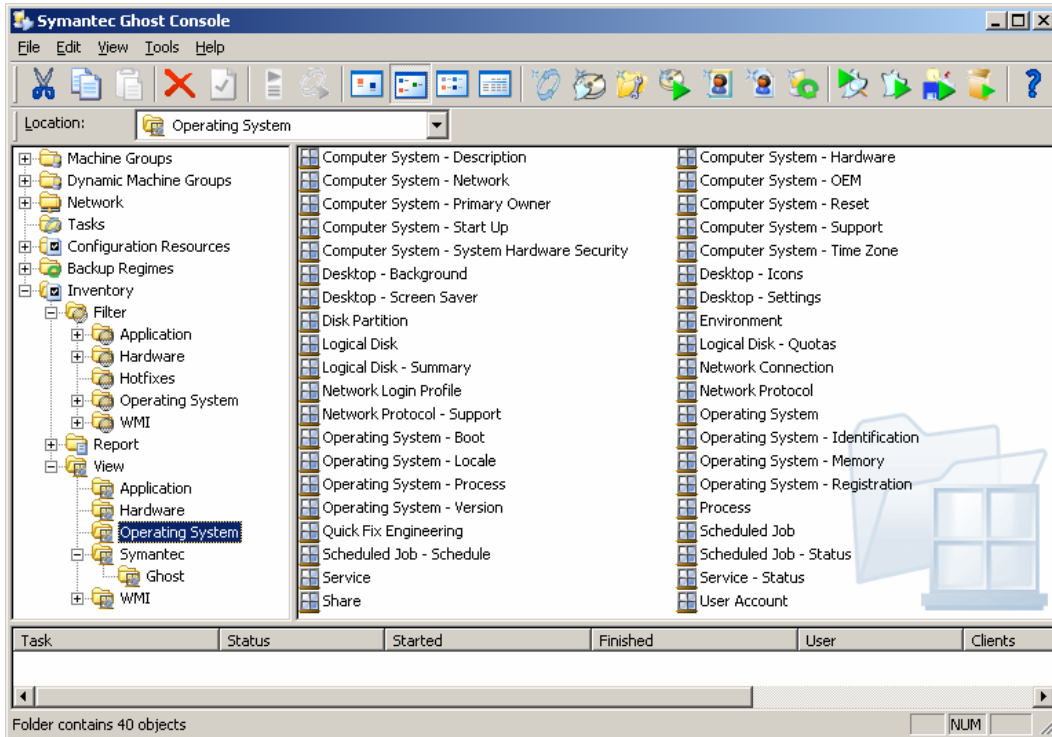
New features in Symantec Ghost 8.2 include the following:

- Support for Microsoft Windows SP2.
- Use DeployCenter images from the Symantec Ghost Console.
- Integrate with Symantec Client Migration via Client Staging Area.

Symantec Ghost components

Symantec Ghost Console

The Symantec Ghost Console is a Windows server-based application for remote management of computers. Using the Symantec Ghost Console, IT managers can group targeted computers for a task and initiate the process from the Symantec Ghost Console.

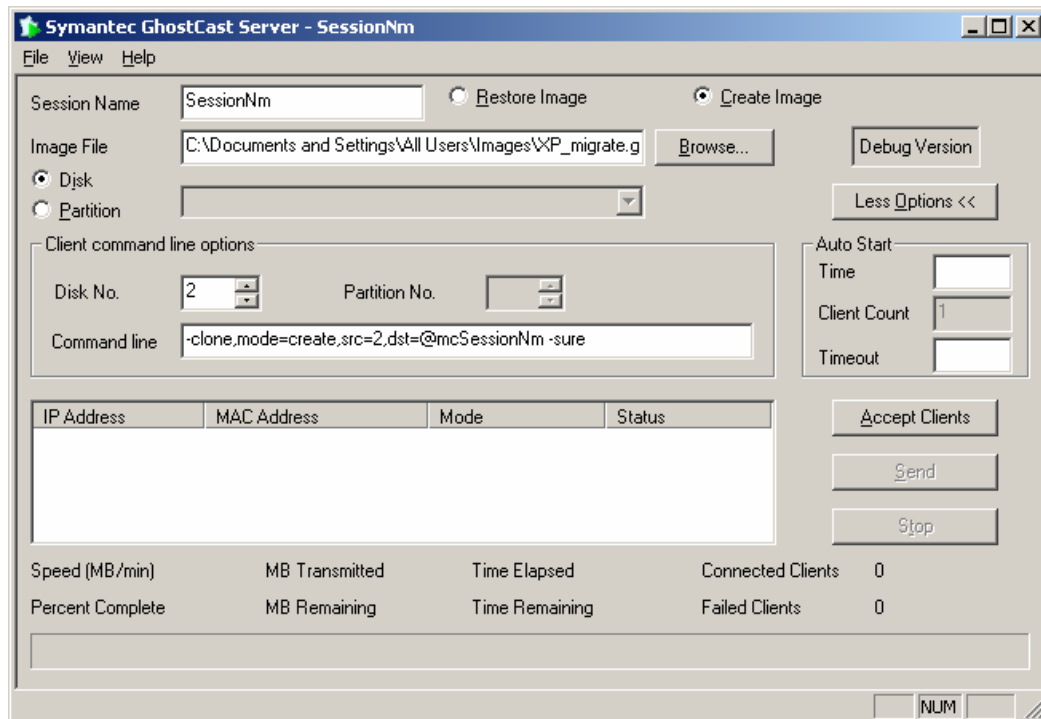


Symantec Ghost Console client

The Symantec Ghost Console client includes a Windows agent and a Ghost partition. The client is installed on all Windows 9x/NT/XP/Me/2000 computers, enabling remote control from the Symantec Ghost Console. The Windows agent is an unobtrusive application that lets the computer start from the virtual or boot partition when required by the Symantec Ghost Console and coordinates tasks sent by it.

Symantec GhostCast Server

The GhostCast Server delivers an image file to multiple computers simultaneously using a single IP GhostCast transmission. This minimizes the impact on network bandwidth. The Symantec GhostCast Server sends images to, or receives images from, one or more computers rather than accessing a mapped network drive, which is slower than GhostCasting.



Symantec Ghost Boot Wizard

The Symantec Ghost Boot Wizard lets you create boot packages. A boot package can be a boot disk, a Ghost image file, or a Preboot Execution Environment (PXE) image. Boot packages are used for all cloning jobs, from creating a simple boot disk for Symantec GhostCasting, to providing a boot image for use with PXE applications such as DynamicAccess boot services from 3Com or Microsoft Remote Installation Service. The Symantec Ghost Boot Wizard guides you to the drivers needed to create a boot package.

Symantec Ghost AutoInstall

Symantec Ghost AutoInstall has two components, AI Builder and AI Snapshot, so you can create and customize an application image, which you can then deploy to your target workstations from the Symantec Ghost Console.

Symantec Ghost DOS executable

The Symantec Ghost executable (Ghost.exe) can back up, restore, and clone computers. Because the executable is small and has minimal conventional memory requirements,

you can run it easily from a DOS boot disk set or hard drive. Symantec Ghost can restore a computer from an image file that contains Windows XP Home Edition and a full installation of Microsoft Office in less than one minute.

Note: Tests were performed on P4, HD 7,200 RPM.

Symantec Ghost Windows executable file

Ghost32.exe is a Win32 version of Ghost.exe that is designed to run on Microsoft Windows 9x/NT/2000/XP/PE. Using Ghost32.exe, you can create image files on hard drives that are accessible from these operating systems, and communicate with the GhostCast Server.

Configuration client (Standalone)

The Standalone configuration client feature lets you apply configuration settings directly to a computer. This lets you run a post-clone configuration without using the Symantec Ghost Console.

OmniFS

OmniFS is a general-purpose utility for manipulating files and directories in a locally attached NTFS or FAT file system (including FAT hidden partitions), from DOS or Windows.

OmniFS performs selected file input and output operations on a file system that is not accessible from a utility's operating environment (in particular, accessing NTFS volumes from DOS or Windows 9x, and FAT32 volumes from Windows NT).

The following versions of OmniFS are supplied:

OmniFS	Runs in DOS
OmniFS32	Runs from the command line in a Windows operating system

Ghost Walker

Ghost Walker assigns statistically unique security identifiers (SIDs) to restored and cloned Microsoft Windows NT/2000/XP workstations. The SID is an important part of the Windows NT/2000/XP security architecture as it provides a unique identifier when a computer is networked.

Ghost Explorer

Ghost Explorer lists all of the files and directories within image files. On FAT and Linux file systems, you can also add, recover, and delete individual directories and files to or from an image file. On NTFS file systems, you can extract files from an image file.

GDisk

GDisk is a complete replacement for the FDISK and FORMAT utilities that allows the following:

- FAT file system formatting.
- Batch mode operation.
- Hiding and unhiding of partitions.
- Secure disk wiping to U.S. DoD requirements.
- Extensive partition reporting.

Unlike FDISK, which uses interactive menus and prompts, GDisk is command line-driven and offers faster configuration of a disk's partitions.

The following versions of GDisk are supplied:

GDisk Runs in DOS

GDisk32 Runs from the command line in a Windows operating system

The disk wipe feature in GDisk conforms to the standards detailed in the following two documents:

U.S. Department of Defence NISPOM *National Industrial Security Program Operating Manual*, DoD 5220.22-M, January 1995.

Assistant Secretary of Defense, *Memorandum of Disposition of Unclassified DoD Computer Hard Drives*, 4 June 2001.

Symantec Client Migration 3.0

Symantec Client Migration features a Web-based front end to allow end-users to perform their own migration and application update tasks without the need to install another client. The desktop settings, personal files, and application settings that make up a user personality are not lost when hardware or software is upgraded. You can fully customize a migration Web page with a logo and unique support details. Uncomplicated implementation, maintenance and user-based operation reduce the cost and risk associated with client migrations.

You can use Symantec Client Migration to help you do the following:

- Reduce the amount of manual work required when rolling out a new operating system.
- Upgrade a set of applications.
- Automate the transfer of desktop settings and personal data from one computing environment to another.

You can move desktop settings such as wallpaper and mapped network drives, and personal data such as files, address books, favorites, custom dictionaries, and bookmarks.

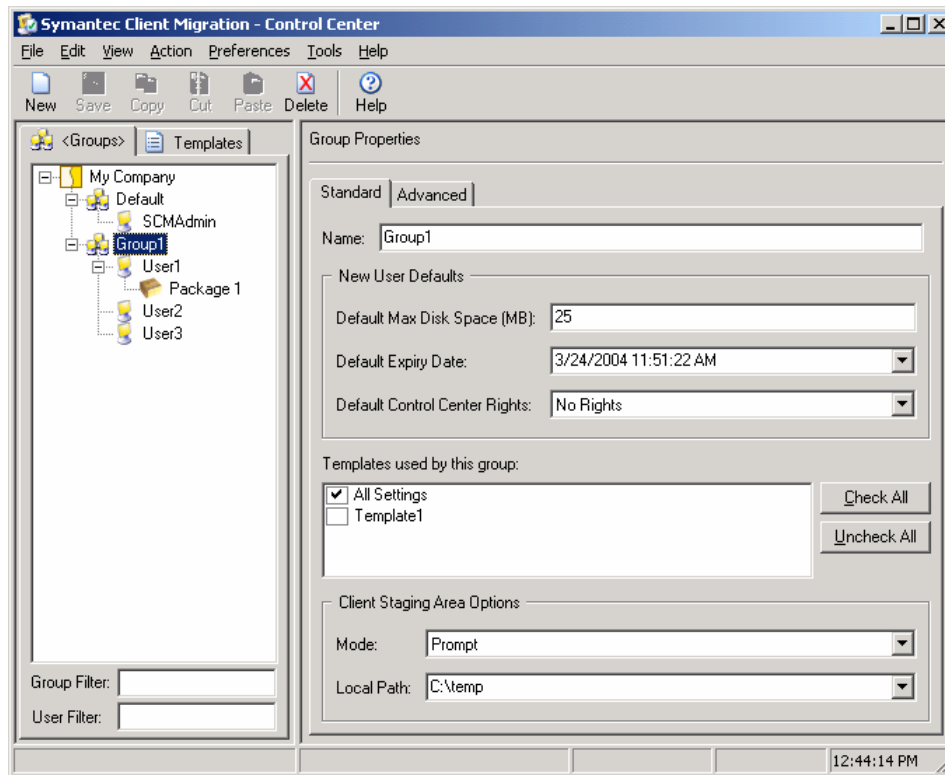
Symantec Client Migration components

Symantec Migration Server

The Symantec Migration Server is the core of the Symantec Client Migration application. It runs on a dedicated computer and handles all the migration resources, client logins, and data storage.

Symantec Migration Control Center

The Symantec Migration Control Center is a management console that lets you set up and organize your migration projects. You can install the Symantec Migration Control Center on any computer that has local network access to the Symantec Migration Server.



Symantec Migration Client

The Symantec Migration Client includes a Web-based interface and an ActiveX control that are downloaded to the client computer when the user logs in to the Symantec Migration Server. This download is automatic and transparent to the user.

Symantec AutoMigrate	Symantec AutoMigrate is a utility that lets you automate the migration process. You can create, restore, and delete packages on client computers. Symantec AutoMigrate is executed with no interface and no input from the user. You can run it from the command line or in a scripting environment.
Symantec Client Migration Licensing Center	The Licensing Center is installed as part of the Symantec Client Migration installation process. It lets you load and maintain the Symantec license file that is required to license your Symantec Migration Server.

Symantec DeployCenter 5.6

Symantec DeployCenter is a collection of tools providing a solution for Windows deployment, migration, and system refresh.

What's new in Symantec DeployCenter

New features in Symantec DeployCenter 5.6 include the following:

- Microsoft Windows SP2 is supported.
- You can now deploy DeployCenter images from the Symantec Ghost Console.

Symantec DeployCenter imaging technology

Symantec DeployCenter uses sector-based imaging to help you deploy an exact image of a hard drive and manage multiple workstation images. You can use DeployCenter to deploy or upgrade Windows workstations:

- Create a standard.
- Customize work environment for faster deployment of new computers.
- Introduce new systems to the network.

Symantec DeployCenter components that serve different functions

ImageCenter	Creates and restore image files and copy information from an existing disk to a new one during a hardware upgrade.
Boot Disk Builder	A wizard interface that lets you create boot disks, including virtual floppy disks, for connecting to a network, PowerCast server, or Unicast server, or to run ImageCenter without network connectivity.
PowerCast Server	Lets you deploy an image to multiple machines simultaneously.
Unicast Server	Establishes a Unicast server to which workstations can connect as a point-to-point Unicast client to create and deploy images.
ImageExplorer	Lets you create and copy image files, copy partitions within image files, compress/uncompress partitions, and restore individual files from images.
DeployPrep	Aids in the use of Microsoft SysPrep for deploying images with Windows 2000 or Windows XP. It automates the testing of a SysPrep configuration and also adds additional configuration options to Microsoft SysPrep.
Symantec VF Editor	Enables you to modify virtual floppy files created by Boot Disk Builder.
PARTINFO	Generates a diagnostic report that includes information about your hard disk.

Symantec Deploy Toolkit

The Deploy Toolkit includes utilities to perform tasks that are common and useful for a configuration center or an IT department: PQIDeploy, Partition Information (PartInfo), PTEdit, and Virtual Boot Environment.

The Deploy Toolkit enables you to perform unattended imaging, manipulate partitions, generate partition diagnostics, access hidden or unsupported partitions, adapt processes based on environment variables, restore individual files and directories from within images, modify files within images, and create and modify a virtual boot environment that eliminates the need to visit workstations.

The programs are available for multiple operating systems, so they are easy to integrate with your existing procedures. In addition, many of the programs are scriptable, so you can automate common processes.

Where to find more information

Symantec Ghost documentation

- *What's in the box*
- *Symantec Ghost Getting Started Guide*
- *Symantec Ghost Implementation Guide*
- *Symantec Ghost Reference Guide*
- *Installing a boot partition*
- *DoD wipe*
- *Initiating DeployCenter images from the Symantec Ghost Console*

Symantec Client Migration documentation

- *Symantec Client Migration Implementation Guide*
- *Symantec Client Migration Supported Applications and Caveats*

Symantec DeployCenter Library documentation

- *Symantec DeployCenter User Guide*
- *Symantec Deploy Toolkit Manual*
- *Initiating DeployCenter images from the Symantec Ghost Console*

Technical Support and Customer Service

As part of Symantec Security Response, the Symantec global Technical Support group maintains support centers throughout the world. The Technical Support group's primary role is to respond to specific questions on product features, functions, installation, and configuration, as well as to author content for our Web-accessible Knowledge Base. The Technical Support group works collaboratively with the other functional areas within Symantec to answer your questions in a timely fashion. For example, the Technical Support group works with Product Engineering as well as Symantec Security Response to provide Alerting Services and Virus Definition Updates for virus outbreaks and security alerts.

Symantec technical support offerings include:

- A range of support options that give you the flexibility to select the right amount of service for any size organization.
- Telephone and Web support components that provide rapid response and up-to-the-minute information.
- Upgrade insurance that delivers automatic software upgrade protection.
- Content Updates for virus definitions and security signatures that ensure the highest level of protection.
- Global support from Symantec Security Response experts, which is available 24 hours a day, 7 days a week worldwide, in a variety of languages for those customers enrolled in the Platinum Support Program.
- Advanced features, such as the Symantec Alerting Service and Technical Account Manager role, offer enhanced response and proactive security support.

Please visit our Web site for current information on Support Programs. The specific features available may vary based on the level of support purchased and the specific product that you are using.

Contacting Technical Support

Customers with a current support agreement may contact the Technical Support group via phone or online at:

<http://www.symantec.com/techsupp>

Customers with Platinum support agreements may contact Platinum Technical Support via the Platinum Web site at:

www-secure.symantec.com/platinum/

Contacting Customer Service

To contact Enterprise Customer Service online, go to:

<http://www.symantec.com/>

Select the appropriate Global Site for your country, then choose Service and Support. Customer Service is available to assist with the following types of issues:

- Questions regarding product licensing or serialization.
- Product registration updates such as name or address changes.
- General product information (features, language availability, local dealers).
- Latest information on product updates and upgrades.
- Information on upgrade insurance and maintenance contracts.
- Information on Symantec Value License Program.
- Advice on Symantec's technical support options.
- Nontechnical presales questions.
- Missing or defective CD-ROMs or manuals.

About Symantec

Symantec, the world leader in Internet security technology, provides a broad range of content and network security software and appliance solutions to individuals, enterprises, and service providers. Symantec is a leading provider of client, gateway, and server security solutions for virus protection, firewalls and virtual private networks, vulnerability management, intrusion detection, Internet content and email filtering, remote management technologies, and security services to enterprises and service providers around the world. Symantec's Norton brand of consumer security products is a leader in worldwide retail sales and industry awards. Headquartered in Cupertino, California, Symantec has worldwide operations in 36 countries. For more information, please visit the following Web site:

<http://www.symantec.com/>