What’s New in Ghost Solution Suite 3.0

This document highlights some of the most impactful new features of Ghost Solution Suite 3.0

For more comprehensive information, please view the Ghost Solution Suite product page or refer to the release notes.
# Table of Contents

- **Introduction** ........................................... 1
  - General Enhancements and Improvements ........................................... 2
    - New OS and Hardware Support ........................................... 2
    - Updated SQL Database Support ........................................... 2
  - What’s New for GSS 2.5 Administrators ........................................... 3
    - Powerful New Console ........................................... 3
      - Manage More Systems More Efficiently ........................................... 3
      - Organize Jobs in Customizable Folder Structure ........................................... 3
      - Assign, Repeat, or Cancel Jobs Simply and Effectively ........................................... 4
      - Tailor Access to Jobs or Computers with Console User Account Permissions ........................................... 5
  - PXE Server Integration ........................................... 6
    - Configure PXE from the GSS Console ........................................... 6
    - Offer Custom Boot Images Through the Network Boot Menu ........................................... 7
    - Easily Provision New Systems Using Initial Deployment Jobs ........................................... 8
  - What’s New for Deployment Solution 6.9 Administrators ........................................... 9
    - Integrated No-Cost Database ........................................... 9
    - Integrated Ghost Recovery Kit ........................................... 10
    - Integrated GhostCast Server ........................................... 10
    - Organize Managed Systems More Flexibly With Dynamic Machine Groups ........................................... 11
Introduction

Ghost Solution Suite 3.0 is a long awaited major release that incorporates the best elements of Deployment Solution (DS) 6.9 and Ghost Solution Suite (GSS) 2.5. This powerful new integrated offering extends the capabilities for operating system deployment, configuration, PC "personality" migration, and software deployment across multiple hardware platforms and OS types, and scales easily from small business to large enterprise environments. With the latest Ghost binaries at its core, the release of GSS 3.0 signals a renewed commitment by Symantec to our loyal deployment and imaging customers around the world.

The purpose of this document is to introduce some of the new features provided in Ghost Solution Suite 3.0, including those of particular interest to GSS 2.5 or DS 6.9 administrators.

Specifically, this document highlights the following topics:

- General Enhancements and Improvements
  - New OS and Hardware Support, and Updated SQL Database Support
- What’s New for GSS 2.5 Administrators
  - Powerful New Console
    - Manage More Systems More Efficiently
    - Organize Jobs in Customizable Folder Structure
    - Assign, Repeat, or Cancel Jobs Simply and Effectively
    - Tailor Access to Jobs or Computers with Console User Account Permissions
  - PXE Server Integration
    - Configure PXE from the GSS Console
    - Offer Custom Boot Images Through the Network Boot Menu
    - Easily Provision New Systems Using Initial Deployment Jobs
- What’s New for DS 6.9 Administrators
  - Integrated No-Cost Database
  - Ghost Recovery Kit
  - GhostCast Server
  - Dynamic Machine Groups
General Enhancements and Improvements

Ghost Solution Suite 3.0 has made a number of technological fixes and improvements based on numerous customer requests, including adding support for new operating systems and hardware. Some of the new general enhancements include:

New OS and Hardware Support

- Support for Windows Server 2012 R2, Windows 8.1, Mac OS X 10.10 Yosemite
- Updated hardware support (UEFI 32-bit and 64-bit)
- Support for WinPE 5.1 pre-boot operating systems
- Includes LinuxPE pre-boot environments (x86 and x64) – [Note: it is the same version as shipped with Deployment Solution 6.9 SP6]

Updated SQL Database Support

- Support for Microsoft SQL Server 2014 and SQL 2014 Express
What’s New in Ghost Solution Suite 3.0

What’s New for GSS 2.5 Administrators

Administrators familiar with Ghost Solution Suite 2.5 will be interested in the many features and enhancements brought to GSS from Deployment Solution’s powerful console and integrated PXE server management. Both topics are presented in greater detail, below.

Powerful New Console

The new Ghost Solution Suite console comes from Deployment Solution 6.9, and is a high performing 32-bit console with robust features that support real-time management of thousands of clients and provide numerous ways to organize both the client computers and the jobs to manage them.

The new console provides the following features:

- Manage more systems more efficiently
- Organize jobs in customizable folder structure
- Assign, repeat, or cancel jobs simply and effectively
- Tailor access to jobs or computers with console user account permissions

Manage More Systems More Efficiently

The previous GSS console reached its max efficiency at one hundred computers, making management of larger environments difficult. In contrast, the new console allows the management of thousands of computers in real time.

Organize Jobs in Customizable Folder Structure

The new console provides flexible management of jobs, which are used to perform any GSS management or deployment activity, such as capturing an image, running a script, or installing an operating system. Jobs can be sorted by function, as in the sample jobs shown below, or into custom folders and subfolders, making them easier to locate and utilize.
Assign, Repeat, or Cancel Jobs Simply and Effectively

The new console simplifies assignment of jobs to computers by providing a drag-and-drop interface within the GUI. An administrator can simply drag a computer to a job or drag a job to a computer in order to assign that job to that client system. Similarly, an entire computer group can be assigned the same job by dragging and dropping the group to the job or vice versa.

After a drag-and-drop operation has been performed, a pop-up scheduling window allows the administrator to verify the assignment before proceeding, allowing easy cancellation if anything was selected incorrectly.

When scheduling a job, an administrator can:

- Cancel a previously scheduled job by selecting the radio button ‘Do not schedule’
- Run the job immediately
- Run the job at a particular date and time

Additional options that an administrator may select include:

- Repeat this job at a customizable interval that can be specified in minutes, hours, days, or weeks
- Allow user deferral for a set number of minutes, hours, days, or weeks
- Perform the job in batches (of a specified number of client systems) at customizable intervals set in minutes

Allowing user deferral can prevent user disruption and potential data loss in the event of a logged on user performing activities when a machine is scheduled to perform maintenance. Even allowing a few minutes for users to finish an activity or save their work can have a positive effect.

Assigning a job to be performed in batches can prevent a large job from overwhelming the network, especially in situations where multicast is not used.
Tailor Access to Jobs or Computers with Console User Account Permissions

Console users and groups can be created in the GSS console or imported from Active Directory.

Ghost Solutions Suite 3.0 provides a security system based on associating job and computer objects with console user and group permissions, letting IT personnel be assigned to different security groups to manage operations on specific computer groups or job folders. Each security group can perform only a defined scope of deployment operations on each computer group or job folder.

For example, a full administrator can set up a Technicians group that has only basic access and permissions limiting deployment operations. This prohibits members of the group from re-imaging the Server computer group or even seeing them displayed in the console.
PXE Server Integration

The new console includes an integrated PXE server configuration tool, centralizing the management of all local and remote PXE servers to supply network boot images as needed across the environment.

The PXE Server configuration utility offers the following features:

- Configure PXE from the GSS console
- Offer custom boot images through the network boot menu
- Easily provision new systems using initial deployment jobs

Configure PXE from the GSS Console

Everything necessary to configure local and remote PXE servers is available in the PXE Configuration utility, which is accessed directly through the console. The Shared Configuration is used by all PXE servers in the environment and is sufficient for most environments.

If needed, a custom configuration can be applied to a specific PXE server if there is a need for special settings such as response delay or DHCP server discovery.
Offer Custom Boot Images Through the Network Boot Menu

GSS 3.0 allows administrators to create many varieties of boot images to offer computers through the network boot menu. Boot images can be created for custom or generic computer hardware configurations and architectures, and they can be displayed in any order in the boot menu.

Administrators have granular control over precisely what is contained by each boot image file, including specifying the pre-boot operating system (such as WinPE 5.1 x64 or LinuxPE x86), selecting specific network and storage drivers, and optionally adding administrative tools or other files.

Once the boot image files are created, they are shared to all PXE servers in the environment. Administrators can pre-select a boot image for client computers to use automatically in a deployment job, or technicians can boot machines to the network and select a boot image manually from the menu.
Easily Provision New Systems Using Initial Deployment Jobs

PXE Server can be used to offer Initial Deployment jobs to any computer that boots to the network and is unknown to the GSS console (no matching record in the database). This greatly simplifies the initial deployment process, whether an organization purchases bare hardware with no OS or administrators need to customize vendor-supplied OS installs on new devices such as Dell desktops or Lenovo laptops. Whatever the starting configuration, the end result is a standard image, with a corporate logo, domain account, security settings, and required software installed.

Initial Deployment works through a combination of PXE and the deployment console. When a machine boots to the network, if the MAC address is known to the console, PXE checks to see whether a job has been assigned to this system. If so, the client computer runs that job. However, if the MAC address is unknown, and PXE is configured to respond to unknown computers, the Initial Deployment menu is offered. Initial Deployment can be configured to automatically run a standard image deployment job by default on any new computer after a designated period of time, or can be configured to wait for human input.

If desired, the menu can contain a wide selection of configurations and jobs, so that a technician can make choices where appropriate. For example, one configuration might add a computer to the domain, while another might configure computers in a test workgroup. Different jobs could be created to distribute Windows 7 or erase the hard disk.

Any job that can be created in the console can be offered to new computers through the Initial Deployment menu.
What’s New for Deployment Solution 6.9 Administrators

Administrators familiar with Deployment Solution 6.9 will be interested in the enhancements brought to GSS 3.0 from the integration of existing DS 6.9 capabilities with popular features from GSS 2.5 such as an integrated no-cost database, Ghost Recovery Kit, GhostCast Server, Dynamic Machine Groups, and the DeployAnywhere utility for hardware-independent imaging. These features are presented in greater detail, below.

**Integrated No-Cost Database**

The no-cost database SQL Server 2014 Express is now included and can be installed easily as part of the GSS installation. SQL Server 2014 Express is excellent for smaller business environments as it does not require the purchase of a separate SQL license, nor require separate hardware to host the database. This light database can be installed easily through the Ghost installation wizard using one of the following two methods:

- During a Simple Install, say ‘Yes’ at the prompt, and SQL Express will install.
- During a Custom Install, if SQL Server is not detected on the local machine, there will be a checkbox option to install SQL Server Express.
Integrated Ghost Recovery Kit

GSS 3.0 also includes the Ghost Recovery Kit, which allows VARs and system integrators to provide a recovery option to end users and customers.

Using the Recover Kit you can create a recovery system that lets an end user quickly and simply recover a system or individual files. The recovery system can be accessed from either the hard disk or from CD/DVD.

Integrated GhostCast Server

The GhostCast Server feature allows administrators to more efficiently deploy images over a network.

Multicast can be a great way to reduce network traffic and speed up the imaging process. With regular multicast, multicast session management relies heavily on the Ghost executable itself, giving administrators poor visibility into which machines are in a session and making troubleshooting difficult.

In contrast, the integrated GhostCast Server gives an administrator very granular control of the multicast process. The GhostCast Server control interface is accessed directly from within the console. Each session is configured explicitly by name. Computers are assigned an imaging job that will use that multicast session, and they reboot and connect to the GhostCast Server.

The administrator sees the list of clients that have connected to the multicast session in a waiting state. Once all the computers are present, the administrator clicks ‘Send’ to begin the imaging process for all connected clients.
Organize Managed Systems More Flexibly With Dynamic Machine Groups

Dynamic groups allow flexible management of computers based on a wide range of filter criteria such as device manufacturer, amount of installed RAM, or department. A single computer can appear in multiple dynamic machine groups, which was not possible in DS 6.x.

Dynamic machine groups are formed by applying filters based on computer attributes to a static group. To manage computers, administrators commonly want to group them by operating system type or function, such as “All Windows Servers”, “All Mac Clients”, or “All SQL Servers”. Any criterion that is available through inventory or user supplied information can be used as a filter.

Filters can be based upon one or more criteria; combining criteria is a very useful way to create a custom dynamic group such as “Windows Servers with at least 4 GB RAM”. These groups help ensure that jobs only get assigned to the machines that are applicable. For example, in a migration job, an administrator would want to avoid targeting machines with insufficient memory to support the new operating system. Utilizing a dynamic machine group that includes the old OS plus the RAM requirement as filter criteria would ensure a more successful migration.
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