

Installing Parity

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About This Book

This preface describes the contents of *Installing Parity*.

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Intended Audience

This manual provides information for system administrators or network managers who will install and deploy Parity software. Staff who install the software should be familiar with networking concepts and have experience with the Windows operating system and SQL Server management. In addition, if your site will use features that integrate Parity and Active Directory, administrators and installers should be familiar with Active Directory concepts and use.

Chapter Overview

Installing Parity is your guide to installing and configuring the Parity Server; it also includes basic information about installing Parity Agent software on client computers. See the *Using Parity* guide for information about configuring and operating Parity Server, and for additional information about agent installation.

Note

This guide, which focuses on Parity Server installation, does not include full instructions for installing third-party products, such as Windows Server. and SQL Server. For any third-party product that you install separately for use with Parity, see the documentation that came with the product.

Installing Parity is organized as follows:

	Chapter	Description
1	Before You Begin	Provides an installation overview, hardware and software prerequisites, and background information helpful to know before you begin installing Parity.
2	Installing Parity	Explains how to install (or upgrade) and start the Parity Server software.
3	Logging In to Parity	Explains how to log in to the Parity Console.

In the HTML version of this manual, page cross-references from the print version are replaced by links labeled "go!" — you can click these to reach the correct location.

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Chapter 1

Before You Begin

This chapter describes the contents of your Parity shipment and lists recommendations for associated hardware and software. It also provides an installation overview, preparation requirements, and general information about third-party applications integrated or compatible with Parity.

Your Bit9 Technical Support representative may provide a separate *Operating Environment Guidelines* document specific to your version of Parity. In most cases, these guidelines will be either current with or newer than the information in this chapter. Where there is a difference in information between this chapter and the guidelines document, use the guidelines document or consult your Bit9 representative.

This manual includes instructions for upgrading Parity from a previous version. However, you may receive additional upgrade documentation from your Bit9 Support representative, and, if so, you should have it available for the upgrade process.

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About Your Shipment

Bit9 supplies a Parity CD-ROM disc that includes the Parity Server installation program, documentation, and integrated third-party applications. Alternatively, you might receive instructions for downloading Parity. New installations also will receive a Parity license key to be used during installation.

Table 1: Parity CD Contents

CD Contents	Description
Parity Software	Parity Server and Parity Agent software.
Documentation	To display Parity documentation in a browser, open the file documentation_index.htm on the Parity CD. Parity includes the following user documentation:
	Release notes cover general information about the release including new features, application highlights, system requirements, upgrade preparation, contact information, and known problems.
	Installation and user guides in PDF and HTML format are included on the Parity CD.
	Context-sensitive online Help is launched from application Help (?) buttons in the Parity Console.
	Note: If you do not have a Parity CD, you can access the documentation through the Bit9 Support web site.

Parity License Keys

Parity Server can be licensed at two feature levels:

- Parity Visibility: This level provides all of Parity's file and event tracking and reporting capabilities, but does not include support for control features such as file bans and device blocking.
- Parity Suite: This provides the full features of Parity Visibility and Parity Control.

These licenses are based on the number of agents running at each level. You can mix licenses on the same server, having, for example, 20 Parity Visibility licenses and 50 Parity Suite licenses. In addition, you can purchase the Parity Control upgrade at any time to bring Parity Visibility licenses up to Parity Suite level.

Important

During a new Parity Server installation, you will be prompted for a license key. This license key determines the number of licenses you have at each feature level. Have this key ready before you begin the installation process. A new installation completed without a license key is a full-featured, 30-day evaluation version. You can, however, add a license key after installation, through the System Configuration page of the Parity Console.

Upgrade installations and reconnections to existing Parity databases do not require a license key, but if one is provided by Bit9, apply it during the installation process, or after installation on the System Configuration/Licensing page in Parity Console.

For instructions on adding licenses after installation, see the Parity Configuration chapter in the *Using Parity* guide.

Installation Overview

Parity comprises server and agent software. Server software installs on standard Windows-based computers, and can be run on a virtual machine if you choose. Agent software installs on networked, Windows-based server, desktop, and laptop computers, and on POS systems, and makes these systems able to interact with the Parity Server. The installation procedure handles all operating system configuration except for IIS, for which you must follow the configuration on page 17.

A Parity Server installation follows these high-level steps:

Step 1: Determine your appropriate hardware and database configuration.

Parity Server and its database may be set up on a single system using the Parity Server setup program alone. However, depending upon your own preferences and the number of clients you will manage with Parity, you may need or prefer additional hardware, separate database software, Syslog management, or a virtualized environment. See the requirements sections below to determine the right choices for your environment.

Step 2: Procure required hardware for the Parity Server.

Choose a computer to run the Parity Server software. Bit9 recommends a dedicated server. Ensure that the hardware can support the number of computers you anticipate having run Parity Agent on your network.

Step 3: Install Windows Server, IIS, and .NET on the Parity Server hardware.

Be sure to have a clean Windows Server installation (see "Operating System Requirements" on page 14) with all the latest security patches from Microsoft. Then install the Internet Information Services (IIS) version supplied with your Windows Server version, using the configuration described in "Supported Web Server" on page 17. Also, install Microsoft .NET 3.5 SP1 framework with the default settings and the latest patches.

Step 4 - option 1: Install your own licensed copy of SQL Server on the same system as Parity Server *before* you install Parity Server.

Follow the SQL Server configuration instructions in "Supported Databases" on page 16; in particular, note whether the number of endpoints you plan to manage requires the use of option 2.

- or -

Step 4 - option 2: To use a remote database server, procure the hardware, operating system, and your own licensed copy of SQL Server, then prepare the system.

Connect the SQL Server system and the Parity server by a gigabit backbone, with minimum latency. Be sure to follow the hardware, network, and database requirements detailed in this chapter.

Step 5: Install and configure Parity Server software.

Install Parity Server software on the dedicated computer.

Hardware Requirements

Parity Server

Parity Server software runs on dedicated server hardware. System requirements vary according to system load, which is determined primarily by how many computers running Parity agent are supported by the server. Parity Server supports up to 50,000 agent systems. For adequate performance, your hardware should meet the specification shown in Table 2. Note that these are recommended configurations — you should not configure a system with lower specifications than those shown for the number of agents you plan to connect, but you may choose to use higher specifications for better performance or future expandability.

Table 2: Server Hardware Specifications

Physical Single-Tier System < 5000 Clients			Physical 2-Tier System > 5000 Clients	
Requirement	Combined Parity Server/ SQL Server Specifications		Parity Server Specifications	SQL Server Specifications
	< 300 Clients	300 - 5000 Clients		
Processor	Dual Core Server Class	Dual Core or Dual Processor Server Class	Dual Core Server Class (<10000 Clients)	Dual or Quad Core Server Class
			Quad Core Server Class (>10000 Clients)	
Disk space	40 GB	2 drives: 40GB for Parity, 72GB for SQL	40 GB	72 GB+
RAM	2-4 GB	4 GB	4 GB+	4 GB+
Network	1 GB NIC	1 GB NIC	1 GB NIC	1 GB NIC
IP address	Static IP address only (no DHCP) with an assigned FQDN or alias. Computers running the Parity Agent recognize the server by either its fixed IP address, DNS-name lookup or an alias. IPv4 must be the default protocol for the server.			

Important

Even if you are only testing Parity, be aware that older, underconfigured systems may experience communication problems. Inadequate memory, in particular, can cause system timeouts.

Also, for 2-tier systems, you should connect the Parity Server and the SQL Server via a gigabit connection, and be sure to limit the latency between the two to the minimum possible (i.e., avoid slow, multi-hop routing).

Running Parity in a Virtualized Environment

To run VMware ESX Server v4.0+ to create a virtualized environment for Parity:

- the virtual environment must meet all of the minimum configurations shown for a non-virtual environment
- memory meeting the configurations must be allocated as "reserved"
- minimum dual virtual processors are required for all configurations
- VMware ESX Server should be patched to the current level

Computers Running Parity Agent

Agent systems should be in compliance with all hardware requirements for the OS you are running. Consider all processes you run on the agent systems when determining hardware configuration.

- RAM: Parity Agent normally uses 25-50M of RAM. Systems running WePOS, POSReady or XPe should have at least 512M of RAM; other supported Windows OSs should have at least 1G of RAM.
- **Disk Space:** Parity Agent requires at least 200M of free disk space on the system volume of each agent computer; 500M is recommended. Actual storage requirements depend on factors such as the number of files on the computer and the Parity Server configuration. If Parity is installed to a location other than the system volume, 100M of free space must be available on the installation volume.

Note

Downloadable Parity Agent installers are generated from the server according to protection levels you specify for computers associated with a policy. Separate media is not required for agent installation. For information about installing the Parity Agent on computer systems, please refer to the *Using Parity* guide.

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Operating System Requirements

Table 3 shows the supported operating systems for Parity Server and Agent. You can download required Microsoft operating system updates at http://download.microsoft.com.

Table 3: Supported Operating Systems

	Operating System	
Parity Server Computer	Microsoft Windows Server 2003 SP2 (32-bit, US English only); Microsoft Internet Information Services (IIS) version 6.0, with latest patches. - or - Windows Server 2008 (32-bit or 64-bit, US English Only) -or- Windows Server 2008 R2 (64-bit, US English only) For Windows Server 2008 versions, install Microsoft Internet Information Services (IIS) version 7.0, with any patches and the configuration specified in "Supported Web Server" on page 17. For any server platform, install .NET 3.5 SP1, with the latest patches.	If you install Windows Server yourself, use the appropriate Microsoft documentation — the Windows Server installation information in this guide is a supplement only. Bit9 recommends that you install Windows Server with the Microsoft default options (except use the IIS configuration on page 17) on a clean system. During Parity installation, the installation procedure configures Windows for optimal use with Parity. For Parity installations with more than 5000 clients, a 64-bit operation system is recommended to take full advantage of the required 4 GB of RAM.
Client Computers	Windows 7 (32- or 64-bit) Windows Server 2008 SP2 or greater (32-bit) Windows Vista SP1 or greater (32-bit or 64-bit) Windows XP SP2 or greater (32-bit) Windows Server 2003 SP1 or greater (32-bit) Windows Server 2003 (64-bit) this platform does not support Parity memory protection rules. WePOS SP2 or higher Windows Embedded POSReady 2009 Windows XPe	Client Computers include all computers running Parity Agent on the network, including server, desktop, laptop and POS machines. Note: Some operating systems do not support one or more of Parity's memory protection rules on Parity Agents. See the "Memory Rules" chapter in the separate "Using Parity" guide (or online Help) for details. Note: Filter manager (fltMgr.sys) may not be installed by default in embedded operation systems, especially XPe. It is required for Parity.
SQL Server Computer in 2-Tier Arch.	Windows Server 2003 SP2 US English version (64-bit, US English only) - or - Windows Server 2008 SP2 US English version (64-bit, US English only)	The 64-bit version of the operating system is necessary to take advantage of required memory for supporting a large number of Parity Agents.

Installing the Platform Software

Follow these guidelines for installing or upgrading the platform software for Parity Server:

- **1.** Ensure that the server is a dedicated, trusted computer that uses the NTFS file system, not FAT or FAT32.
- **2.** If you are repurposing another computer to use as the Parity Server, reformat the disk. During reformatting, select NTFS (the default file system).

Important

- Commercial servers commonly bundle vendor-specific servermanagement utilities with Windows Server. If you install Parity on a server that is bundled with server management utilities, there might be unexpected interactions between the utilities and Parity.
- If your company has any server-hardening procedures that you intend to use on this server, contact Bit9 Support to confirm that Parity Server will run in the environment you create.
- Apply server-hardening procedures before installing Parity Server.
- **3.** If the operating system is not preinstalled, follow the standard Microsoft instructions for installing it. Be sure you are using the US English version. Bit9 recommends that you select the default installation options.
- **4.** Make sure IPv4 is the default internet protocol on this system; Parity Server cannot be installed on a system using IPv6.
- **5.** If you have a network domain and you want to use Parity Server's Active Directory integration, add the server to the domain.
- **6.** Install Internet Information Services (IIS) you may need the Windows Server CD. See "Supported Web Server" on page 17 for the required IIS configuration.

Note

Once IIS is installed, you cannot change the server name and still have IIS function correctly. If you need to change the server name for any reason, contact Bit9 Support.

- **7.** If you currently have an earlier version of Windows than those listed in the Parity operating system requirements, upgrade to the required version and service pack.
- **8.** Install Microsoft .NET 3.5 SP1 Framework on the Parity Server. If necessary, go to http://www.microsoft.com/downloads and choose the latest version for download.
- **9.** Download and install any current patches for each element of the platform software.

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Network Requirements

Your Parity environment should meet the following network requirements:

- The Parity Server requires DNS (Domain Name Server) configuration for proper operation. Verify that the Domain Name Server for your network works. During Parity Server installation, specify a fully qualified DNS domain name. (Although not recommended, you can use a static IP address, but DNS is still required).
- When installed on separate computers, the Parity Server and its database should be on a gigabit backbone.
- If you intend to use the Active Directory integration features of Parity Server, the server must be a member of a domain. See the *Using Parity* guide for more information on Active Directory integration features.
- Bit9 recommends that your Parity Server have access to a remote network share for backup purposes, or that you make other reliable backup arrangements.

Supported Databases

Table 4 shows the database configuration choices for Parity Server. Please also keep the following in mind while managing your Parity database:

- The Parity database is configured to use the **Simple Recovery Model.** Do not change this to any other recovery model.
- Monitor your Parity database regularly to be sure it does not overflow and prevent Parity from operating.

Table 4: Database Choices for Parity Server:

Database Choices < 300 Client Computers > 300 Client Computers SQL Server 2005 Express SP2 or SQL The Standard or Enterprise version of SQL Server 2005 SP2 or above, or SQL Server 2008 Express. You must provide Server 2008 SP1 or above is required for your own licensed copy. Parity Servers managing more than 300 Bit9 recommends keeping SQL Server computers. You must provide your own Express updated with the latest service licensed copy. The server you use can be pack. an instance in an existing SQL cluster. When installing SQL Server Express, you Bit9 recommends keeping SQL Server should also install SQL Express updated with the latest service pack. Management Studio and enable xp_cmdshell; these are required for Parity When installing SQL Server Standard or backups. Enterprise, you should also install and run SQLAgent, and enable SQL Server Contact Bit9 Support for complete Database Services and Analysis Services. guidelines on installing a SQL Server Contact Bit9 Support for complete Express instance for use with Parity. guidelines on installing a SQL Server See Table 2 for hardware requirements. instance for use with Parity. See Table 2 for SQL Server hardware requirements.

Data Export Options

Parity provides data export options including downloadable reports in CSV format, readonly views into certain elements of the database, and Syslog messaging that exposes relevant event data and statistics for programmatic analysis. For any database configuration, your events will be stored in the primary Parity Server database. If you want to log Parity events to an external SQL Server, see "Parity Configuration" in the *Using Parity* guide. For more information on the external views into the database, see "Live Inventory SDK: Database Views" in the *Using Parity* guide.

Supported Web Server

Parity works with either the IIS 6.0 web server running on Windows Server 2003 or IIS 7.0 web server running on Windows Server 2008. Do a clean IIS installation before you install Parity. In normal use with Parity, the web server starts at boot time. Parity does not support substitution or co-installation of any other web servers.

Once IIS is installed, you cannot change the server name and still have IIS function correctly. If you need to change the server name for any reason, contact Bit9 Support.

If you are using IIS 7.0, in the **IIS Roles Manager**, verify the following configuration:

- Common HTTP Features: All
- Application development:
 - ASP.NET
 - .NET Extensibility
 - CGI
 - ISAPI Extensions
 - ISAPI Filters
- Health & Diagnostics:
 - HTTP Logging
 - Logging Tools
 - Request Monitor
 - Tracing
- Security:
 - Basic Authentication
 - Windows Authentication
 - URL Authorization
 - Request Filtering
 - IP and Domain Restrictions
- Performance: None
- Management Tools:
 - IIS Management Console
 - IIS Management Scripts and Tools
 - Management Service
- FTP Publishing Service: None

Supported Web Browsers

Parity provides a Web-based user interface called the Parity Console. Although other browsers with HTML frame support should work, these Bit9-certified browsers are recommended:

- Microsoft Internet Explorer Version 7.0 or higher
- Mozilla Firefox 3.0 or higher

Note

In Internet Explorer, you may need to adjust your overall security settings or set to the Parity Console address to be part of your Local Intranet or Trusted Sites zone in order to access the Parity Console. The security settings are accessed by choosing **Tools > Internet Options** in Internet Explorer and clicking on the **Security** tab.

For all browsers, access to the console and the Parity online Help system require that the browser be enabled for JavaScript.

Firewall Settings

The following ports are used for Parity Server operation:

Table 5: Enabled Ports

Port	Required?	Description
443 (TCP, outbound)	Optional; required for Parity Knowledge	For HTTPS connections to Parity Knowledge Service: • allows connections to services.bit9.com • proxy connections are allows
443 (TCP, inbound)	Yes	Port for IIS. For upgrade communications with Parity Agent and all communications with Parity Console. For agent upgrades, you have the option of using a Windows file server instead.
41002 (TCP)	Yes	Default port for Parity Server communications with Parity Agents. Optionally, you can configure a different port.
41001 (TCP)	Yes, but not external	Default port for Parity Server user interface. Optionally, you can configure a different port. Note: This port is for internal communications on the Parity Server, so does not require external firewall configuration.
514 (UDP, outbound)	Optional	Default port for Syslog connections (optional). You can configure a different port if you choose.



Chapter 2

Installing Parity

This chapter explains how to install and start the Parity Server.

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Pre-installation Check

Before installing Parity, ensure that the server on which you will install it meets the following requirements:

- It is running one of the following operating systems (US English versions only, patched to the current level): Windows Server 2003 SP2 (32-bit), Windows Server 2008 (32-bit or 64-bit), or Windows Server 2008 R2 (64-bit)
- It is running IIS 6.0 (for Server 2003) or IIS 7.0 (for Server 2008), patched to the current level and configured for Parity.
- It is has .NET 3.5 SP1 Framework installed, patched to the current level.
- It is a clean, trusted system.
- You have installed a supported version of SQL Server 2005 or 2008.

Important

SQL Server 2005 or 2008 is required for Parity Server operation. You must install SQL Server *before* installing Parity Server. See "Supported Databases" on page 16 for more details. Have the SQL Server location, instance (if any), and login information available during Parity Server installation.

Installing Parity Server Software

You install Parity Server using standard installation dialogs. During installation, you specify system-configuration information about the server and optionally provide your own web-server certificate. You must log in as a Windows administrator to install Parity.

The system on which you install the server must have an IP address that is visible to all computers running the Parity Agent, with a fully qualified DNS domain name or alias. In addition, to use Parity's Active Directory integration features without special configuration, the Parity Server must be installed in the same AD forest as:

- users you plan to allow Parity Console access via their AD login
- computers and users whose AD information you plan to use for automatic security policy assignment

Important

If you need to have the Parity Server in a different AD forest than computers and users you want to use in Parity integrations, contact your Bit9 Technical Support representative for special instructions.

If you are installing a completely new Parity Server, follow the steps in "Installing a New Parity Server" on page 22.

If you are installing new Parity Server software with a backup Parity database, skip to "Installing Parity and Restoring or Reconnecting to a Database" on page 35.

If you are upgrading from a previous version of Parity Server, skip to "Upgrading from a Previous Parity Version" on page 46. You also might receive a supplemental document with newer instructions for Bit9 Parity upgrade from your Bit9 Technical Support representative.

Important

Several Parity Server adminstrative features are disabled by a reinstallation or upgrade of the server. Log in to Parity Server and reenable the ones you use:

- System backup is disabled. To re-enable, go to the System Backup section of the System Configuration page.
- External event logging is may be disabled in some cases. To reenable, go to the External Event Logging section of the System Configuration page.
- Automatic upgrades of agents are disabled. To re-enable, go to the Management Configuration section of the System Configuration page.

Installing a New Parity Server

These instructions are for a completely new installation of Parity, with a new database (no restorations of or reconnections to an existing Parity database).

To install a new Parity Server:

1. Log in using an account with local Windows administrator credentials. If you plan to use Windows Authentication to login to a remote Parity database, install Parity using an account with full access to the database. Bit9 strongly encourages using a specific Domain account for installing and logging in to Parity Server to simplify control of both database and Active Directory permissions.

Important

Do not change the privileges of the account used to install Parity after installation. This account must continue to have local administrator privileges for Parity Server to function properly.

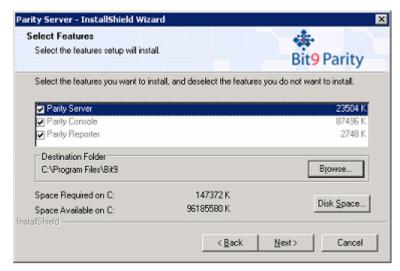
- **2.** Insert the Bit9 CD labeled Parity in the installation drive of the local or remote computer, or if you received Parity via download, make the Parity Server installation file available to the installation computer.
- **3.** Run the installer in either of the following ways:
 - **a.** To install on a local server, double-click the ParityServerSetup.exe file to start the installation program. Continue to the next step.
 - **b.** To install from a remote desktop, copy the ParityServerSetup. exe file to the installation computer and execute the file.



4. From the Welcome page, click **Next**. The License Agreement screen appears.



5. Review the Bit9 Parity software license agreement. You must agree to the license terms to install Parity. When you click **I accept** and continue, you agree to all terms of use. To continue, click the **Next** button. The Select Features dialog appears.



6. On the Select Features screen, keep the default installation folder (which differs from 32-bit to 64-bit systems) or click **Browse** and navigate to the folder in which you want to install Parity. If you don't choose the default, use a path that has only valid ASCII characters, not Unicode. When you have chosen the folder, click **Next**.

Note

Although they have checkboxes, Parity Console, Parity Server, and Parity Reporter are always installed — they cannot be deselected. Parity Console is the web interface to Parity Server. Parity Reporter is the service that connects Parity Server to Bit9's Parity Knowledge service, which provides information about files you may encounter on your network. It also provides essential reporting capabilities for Parity Server. Parity Reporter will appear as a service in Windows.

Important

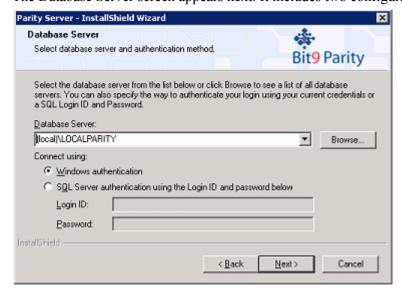
Parity Server requires that you use IPv4 as the default protocol. If you are running IPv6, you will see the following message at this point in the installation process:

Warning: Parity Server requires IPv6 to be disabled and IPv4 set as the default protocol. Do you want Setup to perform this action for you automatically? This will require a reboot. Clicking No will exit the setup.

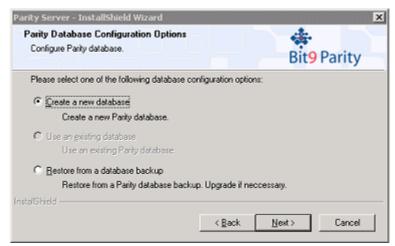
Choose **Yes** to disable IPv6 and reboot the system so that you can restart the Parity Server installation program.

Choose **No** to exit the Parity Server installation program without disabling IPv6. If you choose no, you will not be able to install Parity Server on this system with its current IP configuration.

7. The Database Server screen appears next. It includes two configuration choices:



- **a.** In the Database Server field, enter the name of the SQL server, and (if any), its instance name, you are using for Parity Server data.
- **b.** Connect Using radio buttons allow you to choose Windows Authentication or SQL Server Authentication. If you choose SQL Server Authentication, provide the Login ID and Password.
- **c.** When you have entered all database information, click **Next**.
- **8.** The Parity Database Configuration Options screen appears next.



On the Parity Database Configuration Options dialog, choose **Create a new database** if you are installing Parity for the first time and then click **Next**.

Note

The other database configuration options, *Use an existing database* and *Restore from a database backup*, are described in "Installing Parity and Restoring or Reconnecting to a Database" on page 35.

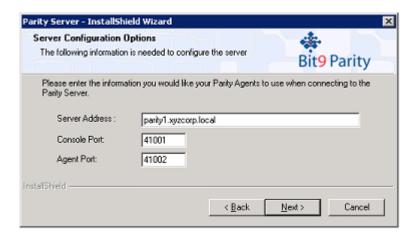
9. On the Logon Information screen, choose the logon account to be used by the Parity Server. You can choose one of two modes of logging in:



- **a.** The Local System Account radio button instructs the installation to configure Parity to use the built-in Windows system account.
- **b.** The Specify Account radio button activates the Username and Password fields so that you can provide account information. As the screen notes, the account you provide must be in the format DOMAIN\Username and have full access to the SQL database server. The default for this choice is the currently logged in user.

Notes

- Bit9 strongly encourages using the Specific Account option to simplify control of database and Active Directory permissions. In general, the installer should be run by this same Domain account.
- For local SQL Server Express databases, the currently logged in user *must* be the same as the user specified in the Logon Information installation dialog. If you enter a different user, an error message appears and you must re-enter the current user.
- For remote databases, to use a Domain account to access the SQL database, you must run the installer as that account and choose the Specific Account option for that account. If you provide an invalid login account, Parity installation will fail later in the process, and you will need to reinstall.
- **c.** When you have provided logon information, click **Next**.
- **10.** The Server Configuration Options screen appears next.



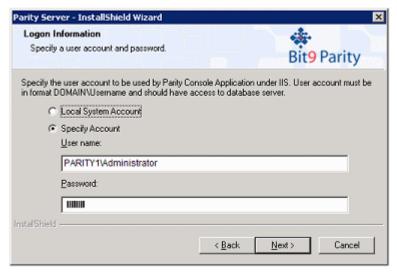
From the Server Configuration Options screen, review the configuration settings. In the Server Address field, the preferred address for Parity Server is a fully qualified DNS name or alias that is resolvable by all computers running Parity Agent. Although not recommended, if the server is assigned a static IP address that will not change at reboot time, you can keep the default IP address selected for the Parity Server. The installation program automatically supplies the correct information for the installation machine. **Port 1**, which is used for SSL communication with Parity Agents, is 41002. **Port 2**, which is used for communications between the Parity Server and Parity Console, is 41001.

Notes

- Bit9 strongly recommends the use of a fully qualified DNS name or alias for Server Address whenever possible. Use of a CNAME (alias) may provide more flexibility and reliability.
- If you use multiple NICs, make sure the FQDN you use in the Server Configuration screen refers to the address of the card(s) you want the Parity agents to connect to.
- An SSL certificate is automatically generated to protect communications between the Parity Server and its agents. If the Common name of the server does not match the server name configured here, server and agents will be unable to communicate correctly.

When you have reviewed the server configuration and made any necessary changes, click **Next**.

11. If you chose Specify Account in the (Parity Server) Logon Information screen (step 9), another Logon Information screen appears next, for Parity Console (under IIS).



This screen allows you to specify a different logon for the Parity Console, the web-based user interface for the Parity Server.

- **a.** Choose **Local System Account** to configure Parity to use the built-in Windows system account for Parity Console logons.
- **b.** Choose **Specify Account** to activate the Username and Password fields so that you can provide account information. As the screen notes, the account you provide must be in the format DOMAIN\Username.

Note

If you use a logon other than the current user, a warning dialog will be shown: "The Parity Server installer is unable to validate whether the specified account is able to access the SQL database server. Are you sure you want to continue?" If you are certain the account you provided is valid, choose **Yes**.

c. Click Next.

12. The Certificate Options screen appears next. Choose the digitial-certificate that will appear to Parity Console users. You either create a certificate using a template provided by Bit9 or substitute your company's certificate.

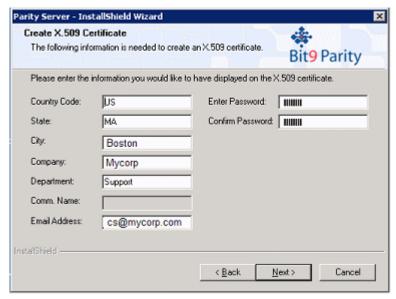


- a. If you do not have your own certificate, choose **Create Certificate**. This allows you to create a Bit9 self-signed certificate. You can either leave Bit9's default information or supply certificate information that identifies your own organization instead. Self-signed certificates will generate warning boxes when you log in to Parity Console using Internet Explorer or Firefox, although Firefox will allow you to permanently accept the certificate to eliminate future warnings. To create a certificate, choose **Create Certificate**, click the **Next** button, and skip to Step 13.
- **b.** To substitute your own certificate, choose **Use Pre-existing Certificate**, click the **Next** button, and skip to Step 14.

Note

The Bit9 self-signed certificate cannot be universally trusted because it is not created through a trusted provider such as Verisign or Thawte. This is why it generates a warning on login. While this doesn't interfere with Parity operation, you may want to acquire your own, trusted certificate to avoid this warning.

13. If you chose Create Certificate, the Create X.509 Certificate screen appears.



- a. You can leave all of the Bit9 information in place if you choose. Note that the password for the certificate is set to password by default. There is no security risk to keeping this password; the certificate is required only for the web server and does not provide added security. If you change the password, be sure not to forget it. When the certificate is generated, it uses the *Comm. Name* (common name) address, which is by default the IP address/DNS name for the Parity Server. This field cannot be changed.
- **b.** To use the Bit9 self-signed certificate but change the certificate information so that it appears to be signed by your company, edit the associated text.
- **c.** When the information you want is in all fields, click **Next** to create the certificate and skip to the Server Passphrase screen (step 15).
- **14.** If you chose Use Pre-existing Certificate, the Use Pre-existing X.509 Certificate screen appears. Enter the required information:



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- **a.** Click the **Browse** button next to the *Enter Certificate File* field, navigate to the certificate file you want to use, and click **Open** when you have located the file. The filename appears in the certificate file box.
- **b.** Click the **Browse** button next to *Enter Private Key*, navigate to the key file you want to use, and click **Open**. The key filename appears in the private key box.
- **c.** When you have entered the certificate file and the key, click **Next** and move to the Server Passphrase screen.
- **15.** On the Server Passphrase screen you provide the passphrase Parity will use to associate existing computers with the server whenever you reinstall the Parity Server. The passphrase must be at least 10 characters long and may contain spaces (the spaces are not included in the character count).

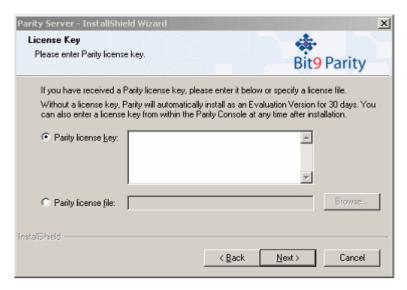


a. Enter your passphrase and enter it again in the confirmation box.

Important

The passphrase enables computers running Parity Agent to reconnect if you need to reinstall the server and you do not have a Parity Server backup. Without a passphrase during reinstallation, you must reinstall the Parity Agent on all computers. Do not forget your passphrase!

b. To submit the passphrase, click the **Next** button. The License Key screen appears.



- **16.** On the License Key screen, you enter the license key provided by Bit9. This key determines how many agents you can run at each of the two Parity feature levels: Parity Visibility and Parity Suite. You have two options for entering the key:
 - **a.** Click the *Parity license key* radio button if you want to cut and paste the license key (for example, from an email message or other communication). -or-

Click the *Parity license file* radio button if you want to provide the name and path to a license file containing the key. License key files have the file extension **.lic**. When you click this radio button, the Browse button is activated so that you can locate and select the license file using the standard Windows Choose File dialog.

Note

You do not have to enter a license key. When no key is provided, Parity Server is installed with a 30-day evaluation license. After installation, you can update the license at any time from the System Configuration page of the Parity Console.

b. When you have provided either the license key text or a license file, or have chosen not to enter a key, click **Next**. The Parity Agent Management screen appears.



- 17. On the Parity Agent Management screen, you can enable global access to agent management commands used for diagnostics, recovery, and other special situations. Although you can configure this after installing Parity, it is highly recommended that you configure this feature before installing agents since your choice (or lack of one) is built into the agents when you install them. It is especially important to set up a global access method if you will have agents that are offline frequently or at all times. The choices are:
 - **a.** Specify a global password for managing agents: Check this box, then enter and confirm a password, if you want to enable access to agent management commands on all agents via a single password.
 - **b.** Specify a user or group allowed to manage agents: Check this box if you want to enable access to agent management commands by choosing a pre-defined group from a menu or by entering a user or group name used at your site.

Notes

- If you define both a user/group and a password, *either* access method is sufficient on its own.
- If you plan to manage clients from computers running Vista or Windows 7, use of pre-defined Windows groups for access privileges is not recommended because Windows UAC may not provide the expected membership in a group.
- See "Configuring Agent Management Privileges" in the *Using Parity* guide for more information about configuring agent management access.
- **c.** Click **Next**. The Ready to Install screen appears.
- **18.** If you are satisfied with your installation choices, click the **Install** button on the Ready to Install screen:



19. Parity installation commences, and an installation status bar appears, showing progress.



20. When the InstallShield Wizard Complete screen appears, the installation is complete. Click the **Finish** button. Parity Server, which runs as a service, begins to operate after you click this button.



Installing Parity and Restoring or Reconnecting to a Database

Parity's installation program provides the option of reconnecting to an existing database. In addition, you can restore a database from backup, if necessary, and then reconnect to that.

- If your database server and Parity Server are on the same machine, you can *reconnect* to an existing database or *restore* the database from backup using the procedure below. The Parity installation program will prompt you for all necessary information.
- If you have a remote Parity database and that database is operational, you can *reconnect* to it using the procedure below. The Parity installation program will prompt you for all necessary information. *Restore* is not an option for remote databases.
- If you need to *restore* a Parity database on a remote system, contact Bit9 Support for instructions.

Important

- When you reinstall Parity Server or upgrade to a new version, system backup and automatic agent uprades are disabled. External event logging may be disabled as well. All can be re-enabled in the System Configuration pages of the Parity Console. The agent upgrade can be enabled on the Management Configuration page.
- If the database you want to restore or reconnect to is a SQL Server 2005 Express database, contact Bit9 Support before continuing.
- If you are upgrading from a previous version of Parity Server, see section "Upgrading from a Previous Parity Version" on page 46. You may also receive supplemental Bit9 Parity field upgrade instructions from your Bit9 Support representative.

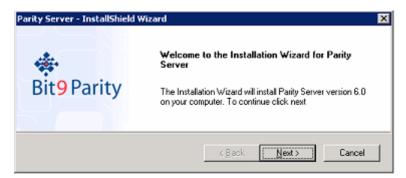
To install Parity Server and restore a backup database:

1. Log in as a local Windows administrator.

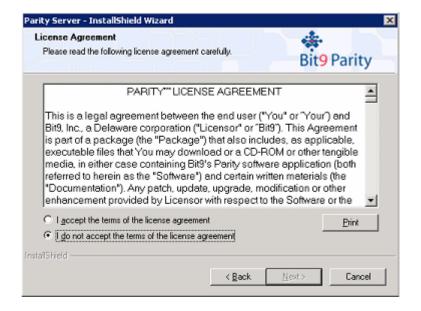
Important

Do not change the privileges of the account used to install Parity after installation. This account must continue to have local adaministrator privileges for Parity Server to function properly.

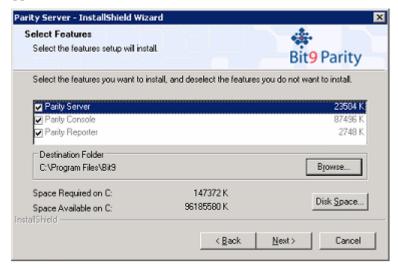
- 2. Insert the Bit9 Parity CD in the installation drive of the local or remote computer, or if you received Parity via download, make the Parity Server installation file available to the computer on which you will install the server.
- **3.** Run the installer in either of the following ways:
 - **a.** To install on a local server, double-click the ParityServerSetup. exe file to start the installation program. Continue to the next step.
 - **b.** To install from a remote desktop, copy the ParityServerSetup. exe file to the installation computer and execute the file. Continue to the next step.



4. From the Welcome page, click **Next**. The License Agreement screen appears.



5. Review the Bit9 Parity software license agreement. You must agree to the license terms to install Parity. When you click the **I accept** button and continue, you agree to all terms of use. To continue, click the **Next** button. The Select Features dialog appears.

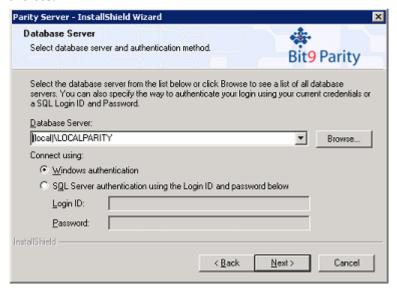


a. Keep the default installation directory or click the **Browse** button and navigate to the directory in which you want to install Parity. If you choose a different location, its path must include only valid ASCII characters, not Unicode.

Notes

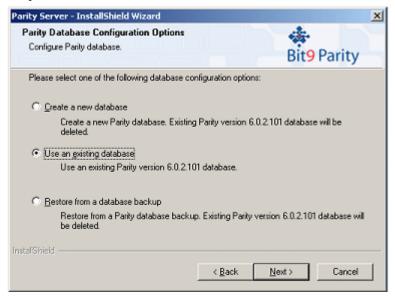
- The installation directory must be empty. If files are detected in it, you will see a warning dialog.
- Although they have checkboxes, Parity Console, Parity Server, and Parity Reporter are always installed they cannot be deselected. Parity Console is the web interface to Parity Server. Parity Reporter is the service that connects your Parity Server to Bit9's Parity Knowledge service, which provides up-to-date information about files you may encounter on your network. It also provides essential reporting capabilities for Parity Server. Once installed, Parity Reporter will appear as a service in Windows.
- b. Click Next.

6. The Database Server screen appears next. This screen includes two configuration choices:

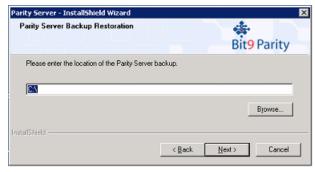


- **a.** Database Server is the name of the SQL server, and optionally, its instance. Enter the server name and instance name (if any) you use to connect to the server. If the database server is local, you will be able to reconnect, and if necessary, restore from backup files you have on the server. If the database server is remote, you will be able to reconnect only.
- **b.** The Connect Using radio buttons allow you to choose Windows Authorization or SQL Server Authorization. If you choose SQL Server Authorization, provide the Login ID and Password.
- **c.** When you are finished entering database information, click **Next**.

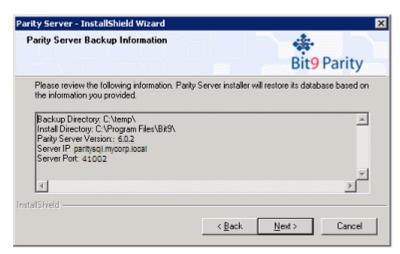
7. The Parity Database Configuration Options screen appears. The options on the screen depend upon whether a Parity database was detected at the location you provided on the previous screen:



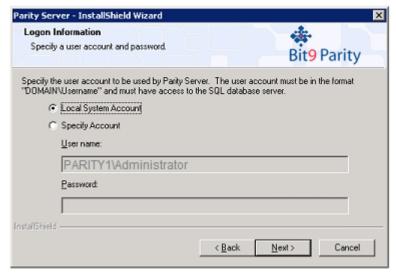
- **a.** If the installation program detects a usable Parity database, your choices are to create a new Parity database (and delete the existing database) or use an existing Parity database and upgrade it to 6.0.2. Choose **Use an existing database** to preserve your Parity data and upgrade the database, and then click **Next**. If you choose this option, a warning appears reminding you to backup your Parity database before proceeding. If you have recent backups, click **Yes** to continue, and skip to step 10.
- **b.** If the database location you provided is local, the **Restore from a database backup** option is enabled. Choose this option to restore your previous database from a backup file, and click **Next** to continue.
- **8.** If you chose **Restore from backup**. The Parity Server Backup Restoration screen appears.



9. On the Backup Restoration screen, enter the path to the folder containing the backup database, or use the **Browse** button to locate it. Click **Next**. The Parity Server Backup Information screen appears. Click **Next** if the information is correct; if it is not, click **Back** and select a different backup location.



10. Once you confirm the Parity Server Backup Information, the Logon Information screen appears. On this screen, choose the logon account to be used by the Parity Server. You can choose one of two modes of logging in:



- **a.** The Local System Account radio button instructs the installation to configure parity to use the built-in Windows system account.
- **b.** The Specify Account radio button activates the Username and Password fields so that you can provide account information. As the screen notes, the account you provide must be in the format DOMAIN\Username and have full access to the SQL database server. The default for this choice is the currently logged in user.

Note

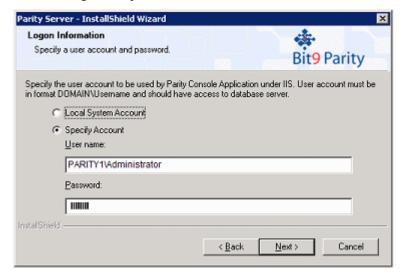
- Bit9 strongly encourages using a specific Domain account and the Specific Account option to simplify control of both database and Active Directory permissions. In general, the installer should be run by this same Domain account.
- In Parity 6.0.2, an SSL certificate is automatically generated to protect communications between the Parity Server and its agents. If the Common name of the server does not match the configured server name, then server and agents will be unable to communicate correctly.
- For local SQL Server Express databases, the currently logged in user must be the same as the user specified in the Login Account installation dialog. If you attempt to enter a different user, an error message appears and you must re-enter the current user.
- In the case of remote databases, the installation program cannot confirm the validity of the account you provide. Note that if you provide an invalid login account, Parity installation will be unsuccessful and you will need to reinstall.
- **11.** When you have provided logon information, click **Next**. The Server Configuration Options screen appears.



12. From the Server Configuration Options screen, review the configuration settings. In the Server Address field, the preferred address is a fully qualified DNS name (or alias) that is resolvable by all computers running Parity Agent. Although not recommended, if the server is assigned a static IP address that will not change at reboot time, you can keep the default IP address selected for the Parity Server. The installation program automatically supplies the correct information for the installation machine. Console Port, which is used for communications between the Parity Server and its user interface, is 41001. Agent Port, which is used for communication with Parity Agents, is 41002.

Note

- Bit9 strongly recommends the use of a fully qualified DNS name for Server Address whenever possible. Use of a CNAME (alias) may provide even more flexibility and reliability.
- If you use multiple NICs, make sure the FQDN you use in the Server Configuration screen refers to the address of the card(s) you want the Parity agents to connect to.
- If you are reconnecting to an existing Parity database, and you enter a Server Address other than the one you used previously, a dialog box appears asking you to choose one of the two addresses. If the new address you provided is actually a different server, click **Yes** to modify the database with the new name. If the new address you provided is an *alias* for the address currently in the database, click **No** to use the existing address from the database. Note that if you use the new address (i.e., click **Yes**), any existing Parity Agents will not be able to reconnect to the server unless you provide a DNS alias between the new and old names. If you are not sure which to choose or you made an error in entering the name, click **Cancel** to return to the configuration screen.
- **13.** If you chose Specify an Account in the (Parity Server) Logon Information screen (step 10), another Logon Information screen appears next, for Parity Console (under IIS). Otherwise, go to step 14.



This screen allows you to specify a different logon for the Parity Console, the web-based user interface for the Parity Server.

- **a.** Choose **Local System Account** to configure Parity to use the built-in Windows system account for Parity Console logons.
- **b.** Choose **Specify Account** to activate the Username and Password fields so that you can provide account information. As the screen notes, the account you provide must be in the format DOMAIN\Username.

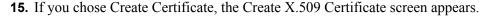
Note

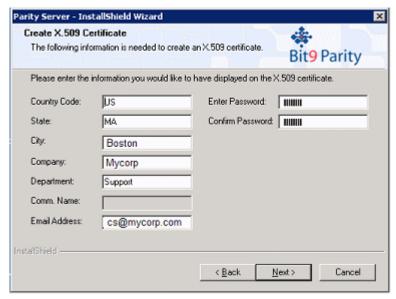
If you use a logon other than the current user, a warning dialog will be shown: "The Parity Server installer is unable to validate whether the specified account is able to access the SQL database server. Are you sure you want to continue?" If you are certain the account you provided is valid, choose **Yes**.

- **c.** When you have provided Parity Console logon information, click **Next**.
- **14.** The Certificate Options screen appears. From the Certificate Options screen, choose the digitial certificate that will appear to Parity Console users. You either create a certificate using a template provided by Bit9 or substitute your company's certificate.



- a. If you do not have your own certificate, choose Create Certificate. This allows you to create a Bit9 self-signed certificate. You can either leave Bit9's default information or supply certificate information that identifies your own organization instead. Self-signed certificates will generate warning boxes when you log in to Parity Console using Internet Explorer or Firefox, although Firefox will allow you to permanently accept the certificate to eliminate future warnings. To create a certificate, choose Create Certificate, click the Next button, and skip to Step 15.
- **b.** To substitute your own certificate, choose **Use Pre-existing Certificate**, click the **Next** button, and skip to Step 16.





- a. You can leave all of the Bit9 information in please if you choose. Note that the password for the certificate is set to password by default. There is no security risk to keeping this password; the certificate is required only for the web server and does not provide added security. If you change the password, be sure not to forget it. When the certificate is generated, it uses the *Comm. Name* (common name) address, which is by default the IP address/DNS name for the Parity Server. This field cannot be changed.
- **b.** To use the Bit9 self-signed certificate but change the certificate information so that it appears to be signed by your company, edit the associated text.
- **c.** When the information you want is in all fields, click **Next** to create the certificate and skip to step 17.
- **16.** If you chose Use Pre-existing Certificate, the Use Pre-existing X.509 Certificate screen appears. Enter the required information:



- **a.** Click the **Browse** button next to the Enter certificate file field, navigate to the certificate file you want to use, and click **Open** when you have located the file. The filename appears in the certificate file box.
- **b.** Click the **Browse** button next to Enter Private Key, navigate to the key file you want to use, and click **Open**. The key filename appears in the private key box.
- **c.** When you have entered the certificate file and the key, click **Next** and move Ready to Install screen.
- **17.** If you are satisfied with your installation choices, click the **Install** button.



18. Parity installation commences, and an installation status bar shows progress. When the InstallShield Wizard Complete screen appears, the installation is complete. Click the **Finish** button. Parity, which runs as a service, is started immediately and begins monitoring file activity.



19. From the Windows Task Manager or **Control Panel > Adminstrative Tools > Services**, verify that Parity services (ParityServer and ParityReporter) are running. Also make sure that ODBTP Service is running — it is required for the Parity Console

Upgrading from a Previous Parity Version

The installation package for Parity 6.0.2 allows you to upgrade from Parity versions 5.0 and greater. Upgrades from older Parity versions are not supported by the installation program, but Bit9 Support can help you make a transition from an earlier version.

Note

Changing the Parity Server name at upgrade is not recommended, especially if you use your own distribution methods to upgrade Parity Agents. Consider using a CNAME for the Parity Server to avoid changing the configured name in Parity.

Upgrade Installation Overview

Upgrading Parity to version 6.0.2 involves the following high-level steps, most of which are described in more detail in later in this section:

- Read through Chapter 1, "Before You Begin," to be sure your server platform meets the current hardware and software requirements for Parity 6.0.2.
- Read through this upgrade section to get a full view of the upgrade process.
- Contact Bit9 Technical Support (<u>support@bit9.com</u> or 877-248-9098) for any recent changes to upgrade procedures, or for advice on special cases, including strategies for getting to version 6.0.2 from a pre-5.0 version of Parity and what to do if you are currently running a Parity-installed version of SQL Server Express.
- If you upgrading from a pre-6.0 version, make the transition to Pure mode if you have not already done so.
- Backup the Parity Server database.
- Disable third-party Parity Agent deployment mechanisms (such as SCCM).
- Run Parity Server installation (ParityServerSetup.exe).
- Wait for automatic post-installation server updates to complete.
- Make any needed System Configuration changes to Parity Server.
- If you distribute agents using your own deployment mechanism, upgrade Parity Agent distribution points and re-enable deployment mechanisms.
- If you upgrade agents using Parity Server, re-enable Parity Server's upgrade features (using the strategy you choose, including staggering the agent upgrade process).
- For agent upgrades, reboot on systems that prompt you to do so. This should only be necessary for certain systems running Windows XP.

Note

You cannot upgrade Parity Agents running on Windows 2000 systems. You can continue to run v5.x agents on those systems, but they will not have full v6.0.2 functionality.

Upgrade Pre-installation Requirements

Your existing Parity Server must be at least at the v5.0 level to be upgradable to 6.0.2.

Transition to Pure Mode

If you upgraded from Parity version 4.3.x to 5.x, it was possible to continue running 4.3.x agents in 4.3 compatibility mode. Before you can upgrade to Parity Server verson 6.0.2 from pre-v6.0 versions, you must make the transition from this compatibility mode to Pure mode (only agents running 5.0 or greater may connect to the server).

You initiate this process by clicking **4.3 Compatibility Mode** on the System Configuration page of the Parity Console. This also shows you how many agents are at each version level. If this compatibility mode choice does not appear on the menu, you are already in Pure mode.

Transitioning to pure mode requires a reboot of Parity Server. After the reboot, it will take from several minutes to half an hour (or sometimes more) to complete the migration to pure mode. If you are able to log in to the Parity console, the transition is complete.

See "Managing 4.3 Compatibility Mode for Upgrades" in Chapter 10 of the Parity Server **version 5.x** *Using Parity* guide for complete instructions for preparing for and completing the transition.

All agents on all systems you plan to use with version 6.0.2 should be at least at the 5.0 level. See "Upgrade Parity Agents Using Parity Server" on page 49 for details.

Replace Parity-installed SQL Server Express

There is no longer an option to install SQL Server Express as part of Parity installation. In addition, existing instances of SQL Server Express that were installed by pre-v6.0 Parity must be replaced with a customer-supplied version before an upgrade to v6.0.2 can proceed. If you run the upgrade program without replacing the obsolete version of SQL Server Express, the installation program will display a warning and stop running when it completes its database configuration scan.

Contact Bit9 Technical Support for assistance in upgrading your database software.

Backup Parity Server

Bit9 recommends that you backup Parity Server *before* running the Parity Server installer for an upgrade. On the Parity Console System Configuration page, choose **System Backup** and make sure you have backups enabled, and that the status shows a recent successful backup to a location that will be unaffected by any upgrade activity on the Parity Server. Note that the Parity backup mechanism is disabled during the upgrade to provide a rollback database if necessary.

Important

System Backup in Parity Server does not backup your certificates. Please backup certificates separately on a system other than Parity Server.

Disable Software Deployment Mechanisms

Please disable any software deployment mechanisms, such as SCCM, used to distribute Parity Agent until after the upgrade completes and you have had an opportunity to update their respective distribution points with the upgraded Parity installers.

Run the Parity Upgrade Installation

Make the Parity 6.0.2 CD or dowloaded Parity 6.0.2 files available to your Parity Server. If you have a CD and no physical CD drive is present on the Parity Server, you can insert the CD in another machine, "share" the drive and mount that "share" from the Parity Server machine. Launch the **ParityServerSetup.exe** application to validate and upgrade the Parity Server components.

After the installer finishes and exits, the Parity Server starts running again and updates the existing .MSI packages. This process takes a few minutes, exact time depending on the number of policies you have. If you are refreshing the version of Parity Agent installer on distribution points for a software deployment mechanism, make sure the agent installer has completed the upgrade to 6.0.2.

Review Post-Upgrade Server Configuration

After you run the Parity Server upgrade installation, complete the following checklist prior to upgrading agents:

- In the **Software Rules** section of Parity Console, review **Updaters** as necessary (e.g., to see any new updater versions or new updaters).
- In the **System Configuration** section of Parity Console, modify **System Backup** configuration if necessary and then re-enable backup.
- External Event Logging may be disabled in the upgrade process. You can check this in the **System Configuration** section of Parity Console on the **External Event Logging** screen. If you were using external logging and it is disabled, to re-enable:
 - Update the external event database schema using the script Parity Server\sql\external events.sql
 - On the External Event Logging screen in Parity Console, re-enable logging if it was disabled.
- Automatic Agent Upgrade is disabled in the server upgrade process. To re-enable:
 - Be sure that you have configured the policies you want to upgrade first for automatic upgrade, and those you don't need upgraded right away not to upgrade. Upgrading large numbers of agents at once can create a large load on the server.
 - In the **System Configuration** section of Parity Console, choose **Management Configuration** from the menu and re-enable automatic Parity agent upgrades.
- If you use a third-party software distribution system to install Parity Agent, re-enable the distribution system and update the distribution points as the next section specifies.

Upgrade Parity Agents Manually

For offline systems or if you are using a software distribution system such as SCCM or Altiris to distribute upgrades, you will have to distribute Parity Agent installation files to the endpoints or distribution server. Installation files for Parity Agent are located on the Parity Server in **Program Files\Bit9\hostpkg** on 32-bit systems and **Program Files** (x86)\Bit9\hostpkg on 64-bit systems. Parity provides different files for upgrading the agent depending upon what version of the agent you currently are running:

- Use **Parity6.0MaintenancePack.msp** to upgrade from 6.0.0 and 6.0.1 agents only (not for upgrades from other 6.0.2 builds).
- Use **ParityHostAgent.msi** to upgrade from a pre-6.0 agent.

• The hostpkg folder also includes a file called **ParityAgent6.0.2.msp**. This is for use as directed by Bit9 Technical Support in special situations in which you are doing a build-to-build upgrade; this is an upgrade within the same three-part version number (e.g., 6.0.2). This msp should *not* be used for upgrades from one version to a different version (e.g., 6.0.1 to 6.0.2).

Important

If you are using MSIEXEC to upgrade agents from one 6.x version or build to another, you must provide the full path to the upgrade installer -- otherwise the upgrade will fail. Upgrades from 5.x can use the full path or just the MSI name. See Table 6 for the command line format.

Table 6: Command Lines for Manual Upgrade to 6.0.2 Agent

Old Agent Version	Command Line
5.x	<pre>msiexec /i <path>\ParityHostAgent.msi B9_CONFIG= https://<parityserverip>/hostpkg/pkg.php?pkg= configlist.xml B9_SERVER_IP=<parityserverip> B9_SERVER_PORT= <serverport> /L*v c:\ParityHostAgentUpgrade.log</serverport></parityserverip></parityserverip></path></pre>
6.0.0 or 6.0.1	<pre>msiexec /p <path>\Parity6.0MaintenancePack.msp B9_SERVER_IP=</path></pre>
6.0.2.xxx	Contact Bit9 Support for assistance with doing build-to-build upgrades within the same version using ParityAgent6.0.2.msp.

Notes

- Replace <path> with the full path to the MSI or MSP file you are using. If you use a
 network path or mapped drive, the path must be accessible to the Parity Agent so that
 the integrity of the upgrade installer can be confirmed.
- Replace <parityserverIP> with the IP address of your Parity Server.
- Replace <serverport> with the port you are using for agent upgrade communications with Parity Server. By default, this is 41002.

Policy-specific MSI files are not required for agent upgrades. However, if you are using a third-party software distribution system and you plan to install some *new* Parity Agents, update the policy-specific MSIs (or AD-default policy) on your distribution points. See the "Managing Computers" chapter of the *Using Parity* guide for more information

Upgrade Parity Agents Using Parity Server

During the server upgrade process, the flag that will automatically trigger the Parity agent upgrade process will be set to "Disabled". If you are distributing new agents via Parity Server itself, this allows the server upgrade to be verified prior to any agent upgrades starting on client computers. If you wish to upgrade agents using your own software deployment mechanisms, you can elect to not perform any automatic agent upgrades.

Parity 6.0.2 does not *require* an agent upgrade. Existing Parity agents at version 5.0 or greater will continue to operate, but may not provide full information to the Parity Server. When an older agent affects a Parity 6.0.2 feature, you will see a warning on the Parity Console page for that feature.

You can manage agent upgrades on a Policy-by-Policy basis. Once you enable the upgrade notification to the clients on the System Configuration/Management Configuration page, those policies with the upgrade flag set will upgrade their computers—the automatic upgrade setting of each policy is not changed by the server upgrade.

Important

- Before you re-enable system-wide agent upgrades, be sure you *disable* upgrades for policies you don't want upgraded immediately.
- Upgrading a large number of agents simultaneously can impact system performance. Contact Bit9 Support for best practices to accomplish bulk agent upgrades.

To choose which computers (by policy) will be upgraded immediately:

- 1. Click on Manage Policies in the Parity Console menu bar (on the left).
- 2. In the Policies table, click the **Edit** button (pencil icon) for a policy whose members you want to upgrade now or delay upgrading.
- **3.** In the Create/Edit Policy table for that policy:
 - **a.** For policies whose agents you want to update immediately, check the **Allow** agent upgrade box and click **Update** to store the changes.
 - **b.** For policies whose agents you *do not* want to update immediately, make sure the **Allow agent upgrade** box is *not* checked, and click **Update** to store the changes.
- **4.** Repeat steps 2 and 3 for each policy.

Once you have configured the policies whose computers you want upgraded for automatic upgrade and disabled automatic upgrade on those policies whose computers you don't want upgraded, you can turn upgrades back on for Parity Server.

To enable the agent upgrade process for Parity Server:

- 1. Log in to the Parity Console.
- 2. On the console menu, click **System Configuration** and then click **Management Configuration** on the System Configuration menu.
- 3. On the Management Configuration page, click Edit.
- **4.** In the Agent upgrades section of the page, choose **Enabled** on the Automatic Parity agent upgrades menu.
- **5.** Click **Update** and choose **Yes** in the confirmation dialog.

After you complete these steps, agents in a policy that has automatic agent upgrade activated begin an upgrade as they connect to the Parity Server. Computers moved into the policy (manually or by Active Directory mapping) will also have their agent upgraded.

The Server will stagger the upgrades, as computers running Parity agent check in, to regulate the amount of additional traffic created on the network at any given point. Client computers will download an upgrade package, stop the Parity Server service, replace the drivers to be upgraded, upgrade the Parity agent and restart all the services. A reboot is not *forced* on the computers undergoing agent upgrade; however, the upgrade is not complete until a reboot takes place, as the kernel drivers cannot be replaced while running.

Upon rebooting the agents will re-register as 6.0.2 and run normally. Prior to rebooting, the previous version of the agents will continue to operate.

To make the upgrade process easier to manage, the Managing Computers page in Parity Console visually differentiates between computers running 6.0.2 agents and those running previous versions. On this page, computers running previous agent versions show an orange dot in the "Connected" field while up-to-date agents are shown with a blue dot. In addition, there is an Upgrade Status column in which agents not at version 6.0.2 will show a status of "Awaiting upgrade" and then "Reboot required" as they go through the upgrade process and required subsequent reboot. Clients transition to a Policy status of "Up to Date" when all their upgrade processing has been completed.



You can sort on these fields to quickly see which systems remain to be upgraded. Another field you might want to add is the "Parity agent version" field, which show you what version of the agent is running on each of your clients.

Starting and Stopping the Parity Server

Parity Server and related services are started automatically when the Parity Server hardware starts; they are stopped automatically at system shutdown.

If you need to stop Parity Server without shutting down the system, use the **NET STOP ParityServer** command; you can then restart it with **NET START ParityServer**. You also can stop, start, and restart Parity Server using Services in Windows Control Panel.

Uninstalling Parity Server Software

The server uninstallation program removes all Parity files and associated third-party software installed on the system. You must log in as a Windows administrator to uninstall Parity. The uninstall program is on the **Start > All Programs > Bit9** menu, although you can also use the **Add or Remove Programs** interface in the Windows Control Panel.

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Important

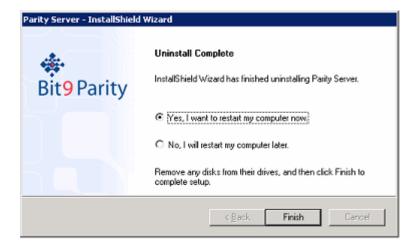
- If you are uninstalling and do not intend to reinstall the Parity server, place all policies in SecCon-80 (Agent Disabled) before uninstalling. Otherwise, computer users will not be able to uninstall the agent without special assistance. If you attempted to uninstall Parity server without changing all policies to SecCon-80 first, contact Bit9 support.
- Uninstalling Parity Server reverts the IIS configuration to its state prior to Parity Server installation. Any configuration changes applied during the time Parity Server was installed are lost.

To uninstall the Parity Server software:

1. On the Windows Start menu, choose **All Programs > Bit9 > Uninstall Parity Server**. A confirmation dialog appears.



2. Click the **Yes** button to start the uninstallation process. When the uninstallation process is complete, the Uninstall Complete screen appears.



- **3.** Generally, you do not need to reboot your system after uninstalling Parity. If a reboot is necessary (which is true only if the uninstall program could not remove certain Parity files), the screen includes reboot options. If the options appear, rebooting now is recommended unless you have other immediately necessary activity on the server (for example, an error in uninstalling).
 - **a.** Choose a reboot option if prompted.
 - b. Click Finish.

Notes

- For instructions on uninstalling the Parity Agent, refer to the *Using Parity* guide or online Help system.
- The Parity Server uninstall program will *not* remove the Parity databases. They must be deleted separately.

Enabling Firewall Connections

Set your firewall to permit connections from computers running Parity Agent to the agent communication port on the Parity Server. If any computer users run a personal firewall, instruct them to authorize internet access for the Parity Agent. Additional ports may need to be enabled depending upon the Parity features you choose to use. See "Firewall Settings" on page 18 for more information.

 Table 7: Firewall Specifications for Server - Agent Communication

Port	Description
41002 (default port)	Communication between Parity Agent (parity.exe) and Parity Server; diagnostics. Optionally, you may configure a different port <i>during</i> Parity Server installation.
443	Normally used for HTTPS secure sockets layer (SSL) connections for downloading and installing agent upgrades; not necessary if Window file server is used instead.

Installing Parity Agent Software

Parity is not fully functional until you install agent software on computer systems. New agent installation includes the following general steps, which are described in more detail in the "Managing Computers" chapter of the *Using Parity* guide and in the online Help:

- 1. Create policies and settings that suit the security requirements of your organization and its staff. Each policy you create generates its own agent installation package.
- 2. Decide whether you will be using Active Directory data to determine the security policies applied to computers on your network, and if so, create mappings between AD groups and Parity policies.

- **3.** Install agent software on the computer system one or more of the following ways:
 - **a.** You or your users can download the installer from the predefined download area and perform the installation. If you are not using AD to assign policy, be sure to choose the specific installer for the policy to which you want each computer assigned. The publicly accessible URL for download page takes the following format: https://parityservername/hostpkg
 - b. Mass-deploy the Parity agent via system management software and deployment processes in use at your site. New Parity installations use a standard MSI file (one for each policy) in noninteractive mode. Using capabilities of your deployment software, you can optionally create an interactive end-user installation experience. Because Parity Agent immediately begins initialization and contacts the server with file information after it is installed, be sure to keep the scale of your network in mind when deciding how many agents to deploy at one time.
 - **c.** You can copy agent installer packages to a shared file system and inform users of their location.

Notes

- The Parity Agent installer must be run either by Local System or by a user account that has administrative rights and a loadable user profile.
- Parity Agent should only be deployed as a *per-machine* application, not per-user.
- If you are upgrading from a previous version of Parity, agent upgrades can be done selectively. See "Managing Policies" in the *Using Parity* guide or online Help system, and also "Upgrade Parity Agents Using Parity Server" on page 49 of this guide.
- **4.** Exclude Parity Agent from AV scanning. Antivirus products should be configured to exclude the following from on-access scanning:
 - **a.** the Parity process (**Parity.exe**)
 - b. the Parity program directory (**Program Files\Bit9** on 32-bit systems and **Program Files (x86)\Bit9** on 64-bit systems)
 - c. the Parity data directory (ProgramData\Bit9\Parity Agent on Vista, Windows 7 and Windows 2008 systems and \Documents and Settings\All Users\Application Data\Bit9\Parity Agent on other supported systems)



Chapter 3

Logging In to Parity

This chapter explains how to log in to the Parity console as an administrator. Logged in as an administrator, you can configure all aspects of the system and create hierarchical user accounts.

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Logging In to the Parity Console

Parity employs a browser-based user interface called the *Parity Console*. You can log in to the console from a web browser on any computer with network access to Parity Server, including the Parity Server itself.

To use Parity Console and online help, Javascript must be enabled on your browser. In Internet Explorer, you may need to adjust your security settings or set the Parity Server address to be part of your Local Intranet or Trusted Sites zone in order to access the Parity Console. The security settings are accessed from the Internet Explorer **Tools > Internet Options** menu, on the **Security** tab.

For your initial login, you use the built-in administrator account admin.

To log in to Parity:

1. From any supported web browser, enter the fully qualified domain name or alias of the Parity Server (IP addresss may be used but FQDN or alias are preferred):

```
https://server name
```

If you installed a verifiable digital certificate from a third-party authority as part of Parity Server installation, you go directly to the Pairty login screen (step 3).

2. If you chose the Bit9 self-signed SSL certificate during Parity Server installation, the first time you enter the Parity Server URL, a certificate error appears. You can safely ignore the warning and click through the remaining confirmation screens. The warning appears because the authority of the self-signed certificate cannot be verified.

Note

To avoid seeing certificate warnings in Firefox the next time you log in, accept the certificate permanently.

To avoid seeing certificate warnings in Internet Explorer 7.0 or 8.0 the next time you log in, after you receive the initial warning and chose to proceed, click the Certificate Error button in the IE toolbar and install the self-signed certificate.

3. When the Parity login screen appears, enter the default user name (admin) and password (admin).



4. Click the **Submit** button. The Parity Console Home page appears.

You should change the password for the admin account after logging in. See "Changing the Administrator Password" on page 57.

Note

For environments requiring best security practices, Bit9 recommends mapping Active Directory accounts for Parity login. See the "Using Parity" guide for instructions on adding other Parity Console users.

Logging Out of the Parity Console

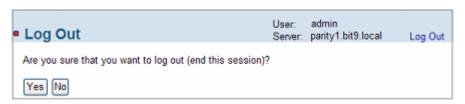
A logout link appears in the top right corner of the banner of the Parity web page. Logging out ends your Parity browser session.

To log out of Parity:

1. From the console banner, click the **Log Out** link:



2. Respond to the confirmation prompt:



Changing the Administrator Password

For security, regularly change your administrator password. After logging in to the built-in administration account admin for the first time, you should immediately change the password, which initially also is admin.

To change the default administrator password:

- 1. From the left menu bar in Parity Console, go to the Administration section and click **Login Accounts.**
- 2. On the Login Accounts page, click the Edit (pencil) button next to the admin user.
- **3.** From the Edit Login Account, change the password as follows:
 - **a.** In the Password field, enter the new password.
 - **b.** In the Verify Password field, enter the password again to confirm it.
 - c. Click the Save button.

Note

A Parity administrator can use this same series of steps to change the passwords of other users if their accounts were created *in* Parity. If a user logged in to Parity Console with an AD user account, that user's details, including password, cannot be modified in Parity.

For environments that require best security practices, Bit9 recommends using AD-based login accounts. See the separate *Using Parity* guide for more information about AD-based logins.

Viewing User Activities in the Events Table

You can review the combined event and exception logs in the Parity Console Events table. Messages include a record of user actions, including logins, new users created, and changes to user accounts.

To view Parity log entries:

- 1. In the Parity Console menu bar, click **Events**. The Events page appears, and by default shows All Events in the past hour in the table at the bottom of the page. If this is not the report you see, choose (**none**) from the Saved Views menu, which returns the table to the initial, unfiltered view.
- 2. If you want to use a different time range, choose a time from the Maximum age menu, or click the Show/Hide Filters button to configure and **Apply** a more complex time range. The report table at the bottom of the page updates to show the new time range.

The "Monitoring Events and File Activity" chapter in *Using Parity* describes other event report types.

Notes

- The log of events, which grows over time, is automatically pruned by Parity according to the schedule you set so it requires no manual maintenance. For more information, see the *Using Parity* guide or Help.
- To configure events to be output to a Syslog server from the Parity Console after installation, see the *Using Parity* guide or online Help.

Using Help

If you have questions about features outside of the installation and configuration tasks described in this manual, the Parity Console provides a context-sensitive Help system from which you can also navigate to other topics:

- When you click the **Using Parity** link in the Help section of the menu bar, the Using Parity guide opens with an introductory screen and a table of contents.
- When you click a help button on an application page, the topic relevant to that page appears in addition to the table of contents.

To display online documentation within Parity:

- 1. Launch **Help** either of the following ways:
 - From any application table, click the Help 1 button.
 - From the menu bar, click the **Using Parity** link.
- **2.** From the contents frame, review the displayed help topic or select your topic of interest.
- **3.** To view more topics, expand the contents tree.
- **4.** To view an alphabetic listing of topics, click the **Index** button. Each index entry is hyperlinked to the associated topic.
- **5.** To search key words:
 - From the contents frame, click the **Search** button. The Search dialog appears in place of the contents tree.
 - Enter the keyword for your search. For recognized keywords, the help system returns one or more priority-ranked entries.

Installing Parity



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