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Live Backup Installation and Setup Guide

for Microsoft Windows® Server 2003, Windows Server 2008 and
Windows Server 2008 R2

Atempo 

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CHAPTER 1

Getting started with Live Backup



Live Backup provides centralized storage management and administration of distributed data on desktop and laptop workstations throughout the enterprise. It provides the most effective and timely recovery of data and systems distributed on computer workstations, laptops, and Web servers by

- Providing continuous, immediate file backup for the most reliable recovery of the most recent data or system changes.
- Enabling users to simply roll back to a previously working state whenever they have problems with their system.
- Enabling users to perform a complete, bare-metal system recovery in case of a disaster such as hard drive failure or computer theft.

Live Backup protects data by replicating changes to a network server. This process occurs transparently as a background task on the client computer, with no individual client configuration required on the client computer. Once replicated, this data can be recovered easily at the client PC using Explorer context menus or the Recovery Assistant, an interview-style wizard accessible from the Windows System Tray. Users can recover an entire copy of a lost file (*mirroring*), or can revert to a previously saved version (*versioning*), restoring their data safely, with little effort and no system administrator intervention. Live Backup also takes system management flexibility a step further, beyond system rollback, by allowing users to roll back their system files while their document files remain intact. Live Backup Administrators may also push a rollback to a client, to automatically restore it to a previously working configuration, without ever having to visit the client workstation.

The communication between the Live Backup Client copying files and the Live Backup Server storing them is virtually seamless. Live Backup functions at the file system level—any changes to files are transmitted quickly to the server when the computer is connected to the LAN, or opportunistically when the computer is only intermittently connected, as is the case with a portable computer. This continuous nature means that the most recent backup is always available. It also means that network performance will not suffer, as backups are streamed to the server on a real-time basis, instead of in bulk.

Live Backup components

The Live Backup storage management and recovery system consists of the following components:

- **Live Backup Server** Live Backup Server stores and manages distributed data in your enterprise. It contains a storage server, which uses Microsoft® SQL Server to store each client computer's complete set of files in its own individual database. It also includes a Live Backup Console, which is a Microsoft® Management Console snap-in that enables you to fine tune client configurations, secure data, manage storage, set up users and security, track statistics and alerts, generate reports, and manage aged data. Although you as the administrator do not *have* to intervene for client file recovery, you can determine which recovery options are available to Live Backup Client users, and you can push a system rollback to the client computer. The Live Backup Server maintains ultimate control.
- **Live Backup Client** Live Backup Client executes all operations on each individual client computer. It transmits data to the Live Backup Server for storage and tracks file changes as they are made. It also enables users to recover individual files, roll back their system, save system checkpoints, and request system images.

The remainder of this manual is devoted to helping you configure your system and install the core Live Backup Server and Client components.

Installation and setup overview

To install and set up Live Backup on your network, you must complete the following steps:

1. **Prepare your server for installation:** see [“Preparing to install” on page 7](#).
2. **Install Live Backup Server:** see [“Installing Live Backup Server” on page 28](#).
3. **Add the clients you want to protect to the Live Backup Console:** see [“Creating groups” on page 46](#).
4. **Set up user privileges:** see [“Configuring user privileges” on page 57](#).
5. **Install Live Backup client on workstations throughout the enterprise:** see [“Installing Live Backup Clients” on page 59](#).

Important Make sure you also review [“Special configuration considerations” on page 93](#) for tips on your particular network configuration.

Using this guide

This *Installation and Setup Guide* consists of the following chapters, which include the information necessary to get Live Backup up and running in your enterprise. When you complete the steps in this manual, Live Backup will be installed, set up, and protecting your enterprise's valuable data that is distributed across desktop and laptop computers.

Chapter 1: Getting started with Live Backup This chapter, which you are now reading, provides an overview of Live Backup and the Live Backup documentation.

Chapter 2: Preparing to install Learn what you need to install Live Backup, including system requirements, Windows setup, and special configuration requirements.

Chapter 3: Installing Live Backup Server Learn how to install Live Backup Server, run the Live Backup Console, and increase the number of Live Backup Servers managed by one Live Backup Console.

Chapter 4: Adding Live Backup clients and users Learn how to add and configure groups and clients in Live Backup and how to add and assign privileges to your users and clients. You should complete these steps before deploying Live Backup Client to the computer workstations in your enterprise.

Chapter 5: Installing Live Backup Clients Learn how to install Live Backup Client on a desktop or laptop computer connected to the Live Backup Server. This chapter describes several different installation methods, including manual installation from a network, CD-ROM drive, or other media, Web installation, and command line installation.

Chapter 6: Uninstalling Live Backup Learn how to remove Live Backup Server and Live Backup Client completely from the computers in your enterprise.

Chapter 7: Upgrading Live Backup Learn how to upgrade an existing installation of Live Backup Server, upgrade Microsoft SQL Server (with Live Backup installed), and then deploy the Live Backup Client upgrade to your protected clients.

Appendix A: Special configuration considerations This appendix includes information on special configuration requirements such as Novell NetWare networks and firewall configurations.

Using the Live Backup documentation

Live Backup includes a comprehensive documentation set that explains the crucial concepts behind Live Backup as well as procedures for accomplishing specific tasks. You can use both the printed and online aids described below.

Overview of the printed documentation

Live Backup Installation and Setup Guide: Provides an overview of Live Backup plus all the information you need to get Live Backup up and running in your enterprise.

Live Backup Administrator's Companion: Provides both reference and step-by-step information necessary for the administrator to set up Live Backup Server, manage client computers, track statistics, generate reports, and respond to alerts.

Live Backup Group Administrator's Guide: Provides step-by-step information necessary for Group Administrator's to run the console and manage clients assigned to them.

Live Backup Client User Guide: Provides complete details on how Live Backup Client protects data and how to recover a file, folder, or an entire system.

Live Backup Express Client User Guide: Provides complete details on how Live Backup Client protects data and how to recover a file or a folder. Distribute this guide to your client users if you have purchased an Express license for Live Backup.

Documentation conventions

Throughout the printed documentation, the following conventions are used to help you understand the information presented.

Convention	Used for
UPPERCASE	File paths
Bold	Menus, commands, dialog box options, and text to be typed as shown
“in quotes”	References to other sections within the same printed guide
<i>Italic</i>	References to other sources of information and new terms in the text
Monospace	Code samples and operating system commands
Click	Click the primary mouse button once
Right-click	Click the secondary mouse button once
Double-click	Click the primary mouse button twice quickly

Using online help

After installing Live Backup, online help is available using the HTML Help Viewer.

To view help for Live Backup Server:

- In Live Backup Console, click the **Help** menu and choose **Help on Live Backup Servers**. Or click the **Help** button in the toolbar.

To view help for Live Backup Client:

- Right-click the **Live Backup** tasktray icon and select **Help**.

To get context sensitive help:

- Click **Help** in a dialog box, or right-click a control and choose **What's This?**.

Customer Support

If you have a problem that you can't solve given the information in this user guide, check the *Help on Live Backup Servers*.

If you don't find an answer in this documentation, then see the Knowledge Base, located at <http://www.atempo.com/support/kb/>.

If you need further assistance, Customer Support is available subject to either the terms of your maintenance agreement or Atempo's support policies.

- For the US and APAC, email to livesupport@atempo.com or call 1-866-417-0200 option 3 or 1-650-812-3099
- For Europe, email to support@atempo.com or call + 33 1 64 86 83 83

CHAPTER 2

A large, bold, black number '2' is centered within a white square box with a thin black border. The box is set against a light gray background.

Preparing to install

Before you install Live Backup, you must prepare your server and client computers for the installation and subsequent replication. In this section, you will learn about the recommended steps to take prior to installation, including:

- Deployment considerations
- Live Backup upgrades
- Platform requirements
- Live Backup Server system requirements
- Live Backup Client system requirements
- Recommended installation procedure for prerequisites
- Windows configuration
- Microsoft SQL Server configuration

Deployment considerations

Atempo provides a detailed deployment guide for Live Backup. This guide helps you plan for storage and network requirements, client rollout, and initial replication.

Important Initial replication times vary significantly depending on many factors, including the number of clients, amount of data, data storage type and size, and network bandwidth.

To obtain a copy of this guide in PDF format, go to the [Knowledge Base](#).

Live Backup upgrades

You may upgrade an existing installation of Live Backup Server or Console 3.30 or later to version 3.33. You may upgrade Live Backup Client 3.00 or later to Live Backup 3.33. Live Backup 3.33 supports Live Backup Clients 3.20 and later. For best results, you should upgrade both the server and all clients to the most recent version available. For more information, see [“Upgrading Live Backup” on page 83](#).

If you are applying a patch to an existing version of Live Backup, then see the documentation you received with the patch to learn how to apply it.

Platform requirements

The following platform configuration is required for installing Live Backup.

Live Backup Client

Operating System	Hardware	Minimum Required	Minimum Recommended ^a
Windows XP Professional or Home Edition	Processor RAM (MB) Free Disk Space	Pentium, AMD Athlon or Duron 128 (256 Network DR) 100 MB	Pentium Pro 300+ MHz 512 1 GB
Windows Server 2003 Service Pack 2 32-bit Standard or 64-bit Enterprise editions	Processor RAM (MB) Free Disk Space	Pentium, AMD Athlon or Duron 512 100 MB	Pentium Pro 1 GHz 1 GB 1 GB
Windows Vista SP2 32- or 64-bit edition	Processor RAM (MB) Free Disk Space	Pentium, AMD Athlon or Duron 512 100 MB	Pentium Pro 1 GHz 1 GB 1 GB
Windows Server 2008 R2	Processor RAM (MB) Free Disk Space	Pentium 1.4 GHz 512 100 MB	Pentium Pro 2 GHz 2 GB 1 GB
Windows 7 Professional, Enterprise, or Ultimate	Processor RAM (MB) Free Disk Space	Pentium 1.4 GHz 512 100 MB	Pentium Pro 2 GHz 2 GB 1 GB
Mac OS X 10.4.11 (Tiger), 10.5.x (Leopard), or 10.6.x (Snow Leopard)	Processor RAM (MB) Free Disk Space	Mac PC, PowerPC or Intel Processor 1 GB 100 MB	Mac PC, PowerPC or Intel Processor 1 GB 500 MB

^a. The recommended disk space requirement on all platforms is either 100 MB or 50 MB plus twice the size of the largest file you want to protect, whichever is larger.

Live Backup Server

Operating System	Hardware	Minimum Required	Minimum Recommended
Windows Server 2003 Standard or Enterprise, SP2 (or higher)	Processor RAM (MB) ^a Free Disk Space	Pentium III, 600 MHz 2GB 5 GB	Pentium 4 XEON, 1 GHz 4 GB 20 GB
Windows Server 2008 Windows Server 2008 R2	Processor RAM (MB) Free Disk Space	Pentium III 1.4 GHz 2 GB 5 GB	Pentium 4 XEON 2GHz 4 GB 20 GB

^a Disk space requirements noted here are *minimal*. Actual requirements depend on the number and size of the client computers you are protecting, the type of protection you are configuring, and the number of months you want to provide protection.

See Also [“Live Backup Server system requirements”](#) on page 10, and [“Live Backup Client system requirements”](#) on page 14.

Live Backup Server system requirements

The system requirements are different for Live Backup Server, which manages storage, and the Live Backup Console, which enables you to configure and administer Live Backup. For the initial installation of Live Backup, you will install both these components on the same computer. Therefore, make sure your system meets the superset of requirements for both components.

Later, you may want to install the Live Backup Console alone on a separate computer, to enable you to manage Live Backup from a remote location. For more information on remote administration, see “Chapter 11: Administering Live Backup from a remote location” in the *Live Backup Administrator’s Companion* guide.

Server hardware requirements

The following hardware requirements are the minimum required to install and evaluate Live Backup with a small test bed of client computers. Actual hardware requirements vary depending on required throughput. For more information, see the *Live Backup Deployment Guide*, which you can download from the [Knowledge Base](#).

- 1 GHz (x86 processor) or 1.4 GHz (x64 processor); 2 GHz or faster processor recommended
- 2 GB RAM; 4 GB or more recommended.
- 5 GB hard disk space plus adequate disk space for the client backup files. See *Note*, below.
- 3 GB of disk space on the drive with the tempdb is located.
- 645 MB of free disk space on the Windows installation drive to store temporary files. Most of this disk space will be freed when installation completes; the remaining 93 will be used to store uninstall information.
- SCSI/RAID subsystem (recommended)
- Network card (1 Gbps or better recommended)
- Computer dedicated to Live Backup only

Note The amount of hard disk space required to protect your clients' files depends on the number of clients protected, protection configuration, the length of time you are providing protection, and data aging settings. In general, allow for 50% of the total client data size for server storage: 25% for the initial replication, plus an additional 25% for future versions.

For example, if you have 500 clients with an average of 5 GB of data per client, you should allow for 50% of 2500 GB, i.e., 1.25 TB.

Note Server performance improves with increased RAM and multiple SCSI disks.

Server software requirements

Software requirements for Live Backup Server

- Operating systems (English and French only)
 - Windows Server 2003¹ Standard or Enterprise edition with Service Pack 2. 32- and 64-bit supported.
 - Windows Server 2008 Standard or Enterprise edition. 32- and 64-bit supported.
 - Windows Server 2008 R2 Standard or Enterprise edition, 64-bit.
- IIS 6.0² for Windows Server 2003; or IIS 7.0 for Windows Server 2008. 32-bit. 64-bit not supported.
- .NET Framework 3.5 SP1. Live Backup installs for you for all operating systems except Windows Server 2008 R2. For instructions on installing in Windows Server 2008 R2, see “.NET Framework installation” on page 18.
- TCP/IP
- Internet Explorer 5.01 or higher (5.5 with SP 2 included)
- Microsoft SQL Server 2000 Standard or Enterprise Edition with Service Pack 3a.³ or SQL Server 2005 or 2008 Standard, Enterprise, or Workgroup edition, 32-bit and 64-bit. SQL Server 2008 is supported only on Windows Server 2008 and Windows Server 2008 R2 operating systems.
- All domain configurations are supported.⁴
- Windows Installer 3.0 (included)

1. For Windows Server 2003, the Active Server Pages feature of the World Wide Web Service must also be installed. For details on how to install this feature, see the Knowledge Base:<http://www.atempo.com/support/kb/article.asp?aid=312>. Windows Server 2003 Web edition is not supported.
2. The IIS World Wide Web Publishing Service must be started and set to Automatic Startup. IIS 6.0 is not installed by default as part of Windows Server 2003. You must add this component using Windows Add/Remove Components.
3. SQL 2000 Standard and Enterprise Editions are supported; SQL 2000 Personal Edition and Server 2000 Desktop Engine are not supported. SQL Server 2005 or 2008 Express are not supported. During evaluation, SQL Evaluation Edition may be used.
4. Although you can install Live Backup Server on a domain controller, you should not promote the server to a domain controller after Live Backup Server has already been installed.

Note To implement user-based feature lockdown, you must either install Live Backup Server on a server with NT Domain networking or Active Directory, or you must mirror user accounts on the local computer and Live Backup Server. For this reason, user-based feature lockdown is not available on Live Backup Clients installed on Macintosh computers. This configuration is not necessary for computer-based feature lockdown. See [“Configuring user privileges” on page 57](#).

Note Do not install Live Backup Server on a Microsoft Sharepoint Server, as they cannot share IIS.

Software requirements for Live Backup Console

- Operating systems
 - Windows 2000 Professional¹
 - Windows 2000 Server or Advanced Server
 - Windows Server 2003 Standard or Enterprise edition
 - Windows XP Professional
 - Windows Vista 32- or 64-bit edition²
 - Windows 7 32- or 64-bit
 - Windows Server 2008 Standard and Enterprise editions.
 - Windows Server 2008 R2 64-bit Standard and Enterprise editions.
- Internet Explorer 5.01 or higher (5.5 with SP 2 included)
- MMC 1.1 or higher (1.2 included)
- MDAC 2.1 with Service Pack 1 (2.6 included)
- HTML Help update (for help viewing, included)
- Computer membership in the Windows domain or trusted domain of the Live Backup Server
- Administrator privileges on the Live Backup Server computer and the local computer
- Windows Installer 2.0

1. The Disaster Recovery Boot Media Wizard is not supported when the Live Backup Console is installed on Windows 2000 Professional.

2. You can install Live Backup Console on Windows Vista or XP 64-bit, but it will run as a 32-bit application in Windows 32-bit emulation mode.

Live Backup Client system requirements

Hardware

- PC or compatible with a Pentium PRO Processor or AMD Athlon or Duron Processor (Pentium II recommended). For Mac OS X, PowerPC or Intel Processor.
- 512 MB RAM
1 GB for Mac OS and Windows Server
- 100 MB of free disk space (500 MB recommended)
- Network connection (modem, WAN, and wireless are supported)
- MBR or GPT disks for file and folder protection; MBR disks only for system protection and Disaster Recovery.

Software

- Operating systems
 - Windows XP Professional or Home Edition
 - Windows Vista SP2 32- or 64-bit¹
 - Windows 7 Professional, Enterprise, or Ultimate, 32- and 64-bit
 - Windows Server 2003 Service Pack 2, 32-bit Standard or 64-bit Enterprise editions (see Windows Server Protection notes, below)
 - Windows Server 2008 R2 64-bit, Standard or Enterprise editions (see Windows Server Protection notes, below)
 - Mac OS X 10.4.11 (Tiger)
 - Mac OS X 10.5.x (Leopard)
 - Mac OS X 10.6.x (Snow Leopard)
- Microsoft Internet Explorer 5.01 (5.00.2516.1900) or later for Windows Clients
- TCP/IP for Windows Clients
- Windows Installer 2.0 for Windows Clients

Note Although you may install Live Backup Client on Windows XP 64-bit edition, the 64-bit edition is not certified with Live Backup Client. Atempo has certified only Windows XP 32-bit edition.

Windows Server Protection notes

- The total number of files protected on one Windows Server must not exceed two million.
- The total protected file size must not exceed 250GB.
- Live Backup supports only individual file protection on servers; protection of server applications/services that require mutual consistency such as databases, directories, etc. is not certified. Full System Protection is not supported.

User account requirements

- Local administrative privileges for installation only

Recommended installation procedure for prerequisites

Before Live Backup is installed, you must make sure the operating system and other prerequisite software is installed, and the appropriate patches are applied.

For details on installing software or a patch, see the documentation provided with that software.

Important You can visit Microsoft's Web site to obtain all current Service Packs, hotfixes, and security updates for Windows Server 2003, Windows Server 2008, and SQL Server 2000 and SQL Server 2005.

Prepare the operating system for your installation by installing prerequisite software in the following order.

1. Install Windows Server 2003 or 2008 with TCP/IP support: see [“TCP/IP configuration” on page 20](#). Make sure IIS is installed as well.¹
2. If you installed Windows Server 2008 R2, then install .NET Framework 3.5. See [“.NET Framework installation” on page 18](#)
3. Install Microsoft SQL Server 2008 or 2005 or Microsoft SQL Server 2000 with Service Pack 3a. See [“Microsoft SQL Server configuration” on page 22](#).

1. For Windows Server 2003, the Active Server Pages feature of the World Wide Web Service must also be installed. Windows Server 2003 Web edition is not supported.

4. Set the following services to Autostart mode:
 - W3SVC “World Wide Web Publishing Server”
 - MSSQLServer
 - SQLServerAgent

Important IIS, which is required to support Live Backup, is a potential security risk for a Windows Domain Controller. Therefore, environments with security concerns should install IIS and Live Backup Server onto a member server rather than a Domain Controller.

Note All prerequisite software is third-party software over which Atempo has no direct control. Therefore, the information provided in this manual is based on Atempo’s best knowledge at the time of printing. For detailed and up-to-date information, see the Knowledge Base at <http://www.atempo.com/support/kb>, as well as the documentation for the individual software components.

Windows configuration

This section describes Windows and network configuration for Live Backup, including

- IIS Configuration
- .NET Framework installation
- User accounts
- TCP/IP configuration
- IP address configuration

IIS Configuration

Live Backup requires that IIS be installed and configured properly on the Live Backup Server.

IIS 6.0 is required for Windows Server 2003; or IIS 7.0 for Windows Server 2008. For both, 32-bit is supported, but 64-bit is not.

See special configuration information about each version of IIS, below.

IIS 6.0

You must install IIS 6.0 on your Windows Server 2003 system. This component is not installed by default, so you'll need to add it using Windows Add/Remove Components.

1. Start Add/Remove Windows Components.
2. From the **Components** list, select **Application Server**, and then click **Details**.
3. If you are running Windows Server 2003 32-bit, then in the **Application Server** dialog box, select the **ASP.NET** check box.
4. Select **Internet Information Services**, and click **Details**. In the **Internet Information Services** dialog box, select **World Wide Web Service**, and then click **Details**.
5. In the **World Wide Web Service** dialog box, select the **Active Service Pages** check box and the **World Wide Web Service** check box.
6. Confirm all changes by clicking **OK** in each of the dialog boxes.

Note that the IIS World Wide Web Publishing Service must be started and set to Automatic Startup.

IIS 7.0

You must install IIS 7.0 on Windows Server 2008; it is not installed by default. After you install, Live Backup requires that certain Roles are installed for proper functionality under Windows Server 2008 and IIS. Before installing Live Backup Server, make sure to configure IIS 7.0 as follows:

1. Start the Server Manager by clicking the **Server Manager** icon on the Quick Launch toolbar or by clicking **Start, Administrative Tools, Server Manager**.
2. In the left pane, expand Server Manager, and then click **Features**.
3. Under Feature Summary in the right pane, click **Add Features**.
The Add Features Wizard appears.
4. In the Features list, expand **Remote Server Administration Tools**, then expand **Role Administration Tools**, and then select the **Web Server (IIS) Tools** check box. Click **Next**.
5. Click **Install**, and then allow installation to complete.
6. In Server Manager, select the **Roles** node in the left pane, and then under **Roles Summary**, click **Add Roles**.
7. In the Add Roles Wizard Welcome page, click **Next**.
8. On the Select Server Roles page, select the **Web Server (IIS) role**. Click **Next**.

9. Review the information under Introduction to Web Server (IIS), and then click **Next**.
10. The Add Features Required For Web Server page, which lists the features that are required to install a Web server appears. Click **Add Required Features** to close the dialog box and add the Windows Activation Service components to the Web server installation. Click **Next** twice to continue. On the Select Role Services page, add the following role services to those selected by default:
 - Under **Web Management Tools**, select **IIS 6.0 Management Compatibility**, including all subservices.
 - Under **Application Development Features**, select **ASP**.
 - Also under **Application Development Features**, make sure that **ASP.NET** is selected.
 - Under **Security Features**, select **Windows Authentication**.
11. Click **Next**.
12. On the Confirm Installation Options page, click **Install**.
13. When Setup finishes installing the application server with the features you've selected, you'll see the Installation Results page. Review the installation details to ensure that all phases of the installation completed successfully. For more information on IIS 7.0 Configuration, see the Microsoft Web site "Deploying IIS 7.0 in the Enterprise" at <http://technet.microsoft.com/en-us/library/cc505875.aspx>.

.NET Framework installation

Live Backup requires .NET Framework 3.5.1. For all Windows operating systems other than Windows Server 2008 R2, Live Backup installs .NET Framework as part of the server installation. In Windows Server 2008 R2, you must install it yourself.

1. On the Live Backup Server computer, click Start and then click Control Panel.
2. Under Programs, click the link to Turn Windows Features on or off.
The Server Manager appears.
3. In the Server Manager tree, click **Features**, and then in the details pane, click **Add Features**.
The Add Features Wizard appears.
4. In the Features list, expand .NET Framework 3.5.1 Features, and then select the **.NET Framework 3.5.1** check box. Click **Next**.
5. On the confirmation page, click **Install**.
6. When installation completes, click **Close**.

User accounts

To install and administer Live Backup Server, the user requirements depend on the type of computer in the domain on which you have installed Live Backup Server—*member server* or *domain controller*. To administer Live Backup Server on a member computer, you must have local administrative rights on that computer. To administer Live Backup Server on a domain controller, you must have administrative rights in the domain.

By default, Live Backup manages user security for Live Backup clients on a per-client basis. Each Live Backup Client computer has a set of default privileges assigned to it, and all users who have logged into a Live Backup Client computer have the same access to its features. This feature security is configured at the same time as the client is added to the Live Backup Console for protection. In addition to this default security, you can impose restrictions or grant rights to individual users. When a user logs in to a Live Backup Client computer, s/he will receive the highest level of privileges available, whether assigned to the client or the individual user.

During installation, Live Backup adds the user account “LBU_servername” to the local SAM. This local account is used for anonymous access from the Web and is required by Live Backup Server. Depending on your server configuration, this account may expire automatically after a certain number of days. To prevent expiration, go to Users under Windows Active Directory Users and Computers and make sure that the **Password Never Expires** option is selected for this account.

See Also To add, change, or learn more about User Accounts, use the *Windows Active Directory Users and Computers* utility.

TCP/IP configuration

A protocol is a set of rules and standards for transferring data over a network. If any two computers on a network need to communicate with each other, then they must use the same protocol. Live Backup Server communicates with Live Backup Client computers over HTTP using the TCP/IP protocol. After you install Windows Server, you must install the TCP/IP protocol on the server computer and all client computers that will use Live Backup.

The easiest way to check the protocol configuration of the Live Backup Server and Client computers is to make sure they connect to the internet using Internet Explorer.

See Also Windows online help contains extensive documentation on installing and configuring TCP/IP. Please refer to this documentation before you install Live Backup.

IP address configuration

When you install Live Backup Clients, you must specify the name of the Live Backup Server. The clients must be able to resolve this name to determine the IP address of the server. For proper configuration, set up your clients and server according to the following table:

^a Server IP address is	and . . .	specify server name as . . .	Notes
Static	You want the easiest setup.	IP Address	Do not change the server IP address
	All clients are on the internal network, and they do not require Internet access.	NetBIOS name	Requires WINS: Configure both the server and clients to resolve names at the same WINS server or at synchronized servers.
	Some clients require Internet access.	DNS address	Requires DNS: Configure the server with the correct registration in the DNS system, and configure the client to resolve names at DNS.
Dynamic	All clients are on the internal network, and they do not require Internet access.	NetBIOS Name	Requires WINS: Configure both the server and clients to resolve names at the same WINS server or at synchronized servers.
	Some clients require Internet access.	Dynamic DNS address	Requires Dynamic DNS: Configure the DNS server to look up the dynamic IP registration in the WINS server.

^a You cannot set up clients to use the IP address if the server's IP address is dynamic.

Tip For the most predictable results, install Live Backup Server on a computer with a static IP address, and then use that IP address when specifying the server during client installation.

See Also For more information on setting up IP addresses, DNS, and WINS, see your Windows documentation.

Microsoft SQL Server configuration

You must install and configure Microsoft SQL Server 2000 and Service Pack 3a, Microsoft SQL Server 2005, or Microsoft SQL Server 2008 R2 prior to installing Live Backup Server. 32- and 64-bit editions of SQL Server 2005 and 2008 are supported. For SQL Server 2000, Service Pack 3a provides support for multiple CPU's, which is required for Live Backup's data aging process. Atempo and Microsoft recommend installing the latest available Service Packs for SQL Server.

Before you install SQL Server, make sure that you have a valid license. SQL Server is typically licensed per seat (CAL mode) or per CPU (CPU mode). You can purchase SQL Server CPU licenses through Atempo, but either license type will work with Live Backup. If you choose to use per seat licensing, then you must have one license for each Live Backup Client you plan to protect. If you do not configure SQL Server properly for the intended number of CPU's or CAL's, then Live Backup performance may be affected and/or you may violate Microsoft's SQL Server end user license agreement.

See Also *Microsoft SQL Server Introduction* guide and *Microsoft SQL Server* online help, as well as the Microsoft SQL Server Web site at <http://www.microsoft.com/sql>

Important Make sure that databases are not set up on compressed disks or directories with NTFS compression or third-party software compression. This configuration is not supported by Microsoft SQL Server and will cause many Live Backup functions such as creating clients to fail. For more information, see *SQL Server 2000 Administrator's Pocket Consultant: Core Database Administration* at <http://www.microsoft.com/technet/prodtechnol/sql/2000/books/c04ppcsq.msp>.

Note Consider enabling the AWE option in SQL Server when LiveBackup Server is installed on a 32-bit operating system. This option enables SQL Server to use more than 2 GBs of memory, as available. If AWE is disabled, then SQL Server is limited to 2 GB of memory.

If you choose to enable AWE, then we recommend that you follow Microsoft's guideline on setting the Max Server Memory option. For more information on AWE and other SQL Server options, see your Microsoft SQL Server documentation

Install SQL Server 2008

Microsoft SQL Server is required for Live Backup. Following are instructions for installing Microsoft SQL Server 2008 for proper functionality with Live Backup Server, including instructions for installing the SQL Server 2005 Backward Compatibility Components. Live Backup Supports SQL Server 2008 only on Windows Server 2008 operating systems.

Note that if you are upgrading an existing Live Backup Server from Microsoft SQL Server 2005 to 2008, there is a special procedure to follow within Live Backup. See “Upgrading Microsoft SQL Server” on page 86.

Make sure to install Service Packs as instructed during the Microsoft SQL Server installation.

The following procedure describes how to install SQL Server 2008 R2. Selections in SQL Server 2008 might be slightly different, but you can use this procedure as a guide.

1. On the computer where you plan to install Live Backup Server, insert the Microsoft SQL Server installation disc.

The Microsoft SQL Server installation begins.

2. Follow the instructions on your screen.
3. On the Setup Role page, choose **SQL Server Feature Installation**, and then click **Next**.
4. On the Feature Selection page, select the follow options:

- **Database Engine Services** (clear SQL Server Replication and Full Text Search)
- **SQL Server books online**
- **Management Tools - Basic**

- **Management tools - Complete**

- **Client Tools Connectivity**

Click **Next**.

5. On the Instance Configuration page, choose **Default instance**, and then click **Next**.
6. On the Disk Space Requirements page, click **Next**.
7. On the Server Configuration page, click the **Use the same account for all SQL Server services** button.

In the Use the same account for all SQL Server 2008 services dialog box, choose the account **NT Authority\System**. Then click **OK**.

On the same page, select the startup type Automatic for the following Services

- **SQL Server Agent**

- **SQL Server Database Engine**

The SQL Server Browser Service is not required.

8. On the Server Configuration page, click the **Collation** tab.

Under Database Engine, click **Customize**. Select the **Windows collation designator and sort order** option, and then select **Latin1_General** from the drop down list.

On the same page, select the **Binary** check box.

Click **Next**.

9. On the Database Engine Configuration page, choose **Windows Authentication mode**.

To specify the current user as the SQL Server administrator, click **Add Current User**; otherwise, click **Add** to specify any other user as the administrator.

10. Allow installation to complete.
11. After installation completes, install **SQL Server 2005 Backward Compatibility Components**: run `SQLServer2005_BC.msi` available on SQL Server installation media in the following folder:

SQL Server 2008 R2:

- **32-bit:** `\\1033_ENU_LP\x86\Setup\x86`

- **64-bit:** `\\1033_ENU_LP\x86\Setup\x64`

Note that the path differs if you are installing in a language other than English. Use the path `10XX_YYY_LP` where `XX` is the country locale and `YYY` the language, for example, `1036_FRA_LP` for French.

SQL Server 2008:

- **32-bit:** \\x86\Setup\x86
 - **64-bit:** \\x64\Setup\x64
12. Make sure that the SQL Distributed Management Objects (SQL-DMO) option is selected, and then allow installation to complete.

Install SQL Server 2005

SQL Server is required for Live Backup. SQL Server 2005 may be used with either Windows Server 2003 or Windows Server 2008. However, SQL Server 2008 is supported only under Windows Server 2008. See “Install SQL Server 2008” on page 23.

Make sure to install Service Packs as instructed during the Microsoft SQL Server installation.

1. On the computer where you plan to install Live Backup Server, insert the Microsoft SQL Server installation disc.
The Microsoft SQL Server installation begins.
2. Follow the instructions on your screen. You will need to insert SQL Server disc that came with your Live Backup product package.
3. During the installation, make sure you select the following options:
 - On the Components to install page, make sure to choose **SQL Server Database Services** and **Workstation Components, Books Online and development tools**.
 - On the Instance Name page, choose the **Default instance of SQL Server** (not a named instance).
 - On the Service Account page, choose **Use the built-in System account: Local System** (recommended). Then. . .
 - On the same page, **Start services at the end of setup: SQL Server** and **SQL Server Agent**.
 - On the Authentication page, choose **Windows Authentication**.
 - On the Collation Settings page, choose the **Collation designator and sort order option**, and select **Latin1_General** from the drop down list. Select the **Binary** check box. (recommended).
4. Allow installation to complete.

Install SQL Server 2000 Service Pack 3a

If you have an existing installation of Microsoft SQL Server 2000 that you plan to use, you must install Service Pack 3a. You can launch the Service Pack 3a installation from Live Backup's product disc 1. When you install Service Pack 3, note the following:

- Before installing Service Pack 3a, you must stop IIS. Type **iisreset /stop** in the **Start\Run** dialog box. After you complete the installation and restart the computer, IIS will be restarted.
- When you install SQL Server Service Pack 3a, you must enable **Cross-database ownership chaining**. If it is disabled, Live Backup will not function properly. For more tips on a successful upgrade to SQL Server Service Pack 3(a) on the Live Backup Server computer, see the Knowledge Base at <http://www.atempo.com/support/kb/article.asp?aid=224>
- After installation, make sure that Microsoft SQL Server's **Use Windows NT fibers** option is disabled.

CHAPTER 3

3

Installing Live Backup Server

Once you have prepared your system as described in [“Preparing to install” on page 7](#), you are ready to install the Live Backup Server. This installation procedure will install the following components:

- **Live Backup Console** This Microsoft Management Console (MMC) snap-in enables you to manage clients, change disk space usage quotas, configure protection settings, lock down features on a per-user and/or per-client basis, and generate system recovery images for disaster protection.
- **Live Backup Storage Server** This component receives data from clients and stores it in a Microsoft SQL Server database. It also transmits files back to the clients upon a file, folder, or system recovery request.

This chapter describes everything you need to know to install Live Backup Server and check Windows component configuration afterward. It also describes how to run the Live Backup Console and add more servers after installation.

Installing Live Backup Server

Once you have set up the server as described in [“Preparing to install” on page 7](#), you can continue with the installation of Live Backup Server. Before continuing, make sure the computer where you will install Live Backup Server meets the system requirements described in [“Live Backup Server system requirements” on page 10](#).

This installation includes an evaluation license good for five Windows clients, five Mac clients, and 5 Small Server clients. This evaluation license enables file and system recovery for only 30 days. Although protection will continue after the 30 days have expired, you will not be able to recover client files without a valid license code. You will be reminded of this expired state every time you start Live Backup Console and any time you attempt to create clients or access recovery features. To obtain a valid license code, contact Atempo. Upon upgrading to the full version, you will receive instructions for unlocking Live Backup recovery features.

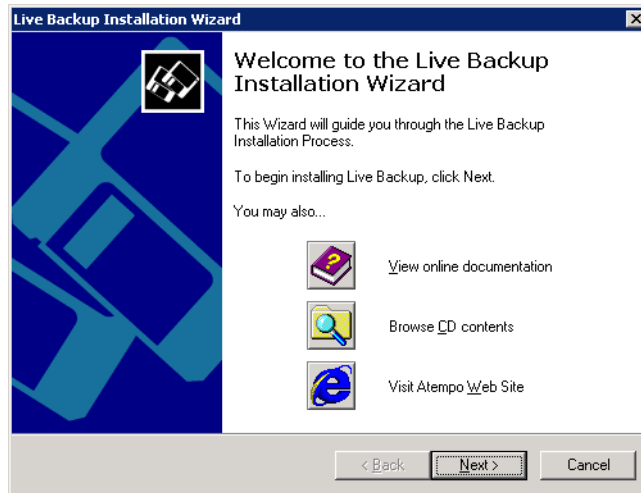
Important If you have a previous version of Live Backup Server installed, see [“Upgrading Live Backup” on page 83](#).

Important Do not change the name of the Live Backup Server computer either after installing Microsoft SQL Server or after installing Live Backup Server.

See Also If you want to configure ports for server/client configuration, see [“Changing ports used for server/client communication” on page 95](#).

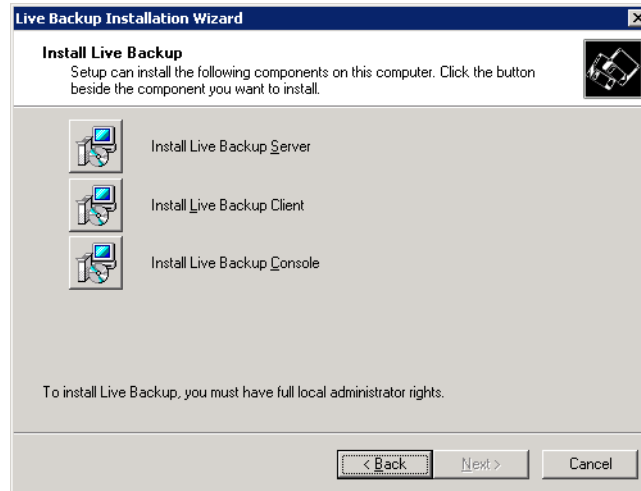
1. Login to the server using a domain account that has local administrative privileges.
2. Insert the Live Backup Disc 1 into the drive, or run LBSetup.exe.

The Welcome to the Live Backup Installation Wizard screen appears.



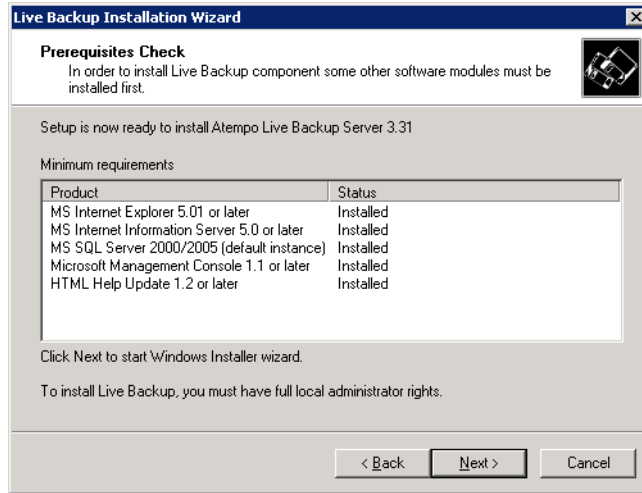
3. Click **Next**.

The Install Live Backup screen appears.



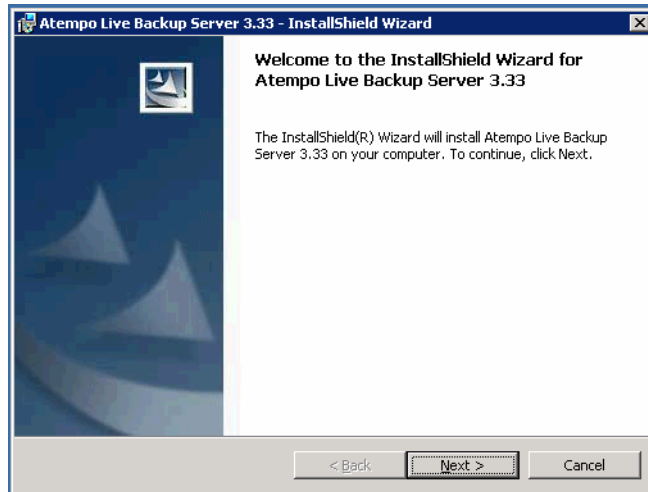
4. Click **Install Live Backup Server**.

The Prerequisites Check page appears.



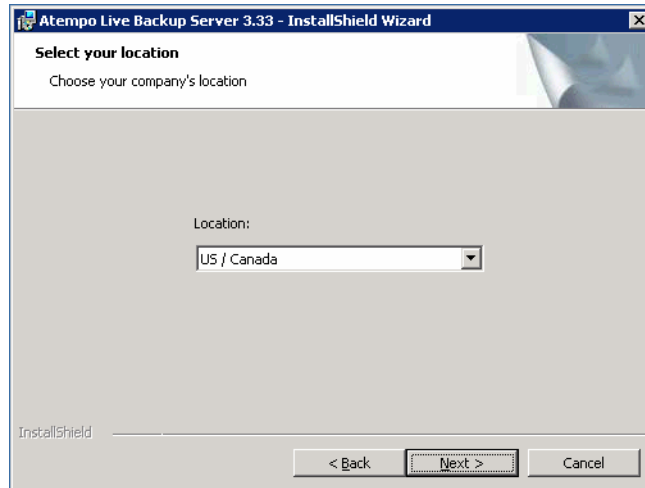
5. Make sure all prerequisites are installed, and then click **Next**. If Microsoft SQL Server is not yet installed, you must install it now. See [“Microsoft SQL Server configuration” on page 22](#).

The Live Backup Server installation begins.



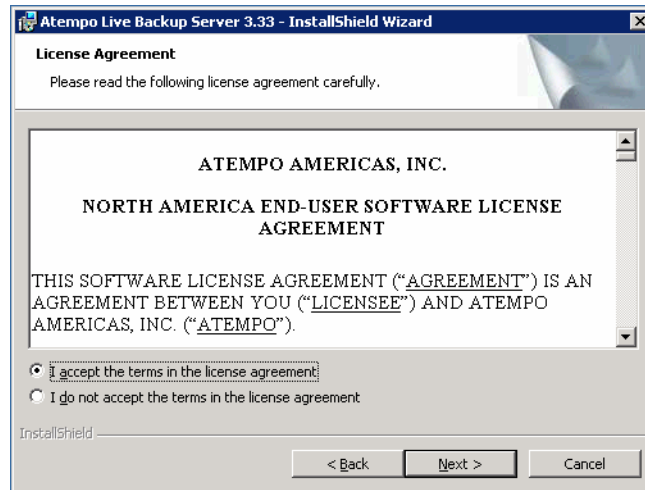
6. Read the Welcome page and click **Next**.

The Select your Location page appears.



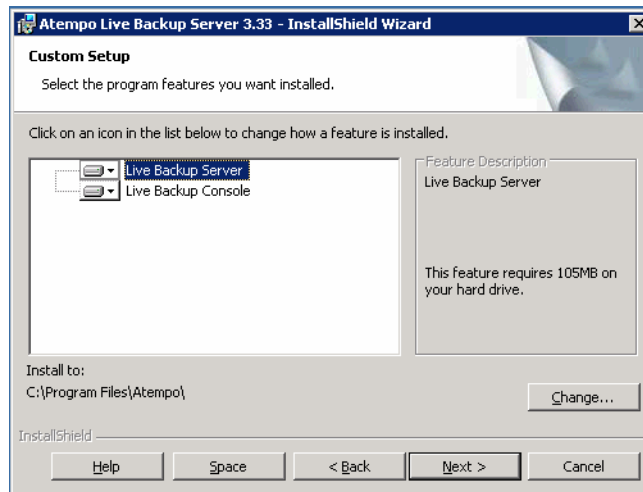
7. From the **Location** list, choose the country in which your company is located. Click **Next**.

The License Agreement page appears.



8. On the License Agreement page that appears, select **I accept the terms in the license agreement**, and then click **Next**.

The Custom Setup screen appears.

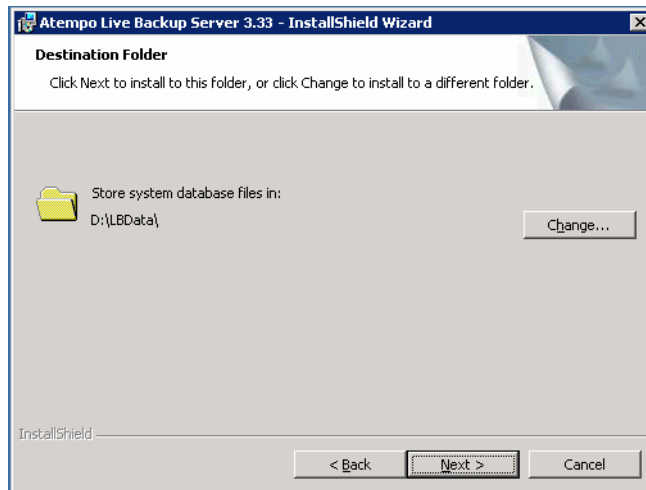


9. Select the Live Backup Server components that you want to install.
 - Click the down arrow beside a component name, and choose how you want to install:

To install the selected component to the local hard drive, select **This feature will be installed on local hard drive**. If you are modifying the installation, and this feature was installed previously, then this selection does nothing. If you are repairing the installation, this selection reinstalls the feature.

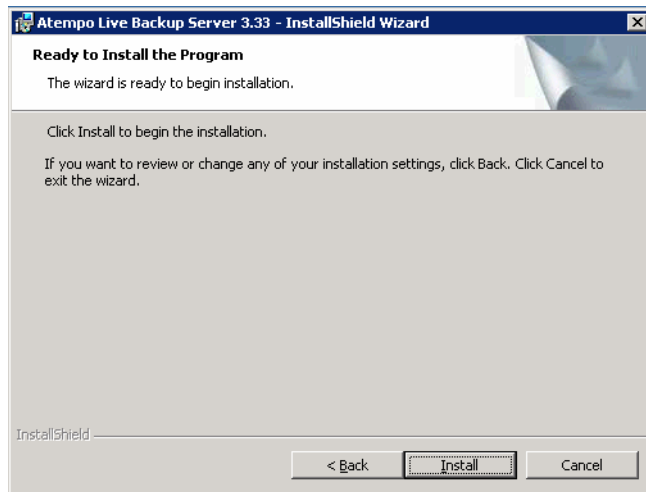
If you don't want to install a particular feature, or if you want to uninstall an existing feature during a modify or repair, then select **This feature will not be available**.
 - To change the folder location where any Live Backup component will be installed, click the component name, and then click **Change**. In the Change folder dialog box, select a new location, and then click **OK**.
 - Click **Next**.

The Destination Folder page appears.



10. On the Destination Folder page, choose the location where you want to store Live Backup system database files. By default, these files are saved in an LBDATA folder on the local drive with the most free disk space.

To change this location, click **Change**, and select a path. Click **Next**.



11. On the Ready to Install the Program screen, click **Install**.
12. If .NET Framework 3.5 SP1 is not installed on the server computer, a message appears. To install it now, click **Install** on the message window. A progress screen appears as Live Backup Server is installed onto your computer.
13. When the installation is complete, The InstallShield Wizard Completed screen appears. Click **Finish**.

14. The Live Backup for Mac - Windows Service installation now begins. Click **Next**, and then on the Ready to Install page, click **Install**.

Note If you are running the setup program from a network share, then the Live Backup for Mac - Windows Service installation may not start automatically. If not, run it manually from `\\LIVEBACKUP\WINFE\LBMACSERVICESETUP.MSI`.

15. When installation completes, restart the server.

Post installation checks

During installation of Live Backup Server, several Windows components are configured for use with Live Backup Server. This section describes that configuration and how to verify that it completed properly. It covers

- IIS configuration
- Live Backup Server user account

IIS configuration

Live Backup configures IIS for running its Web-based utilities. The configuration is different for IIS 6, which is part of Windows Server 2003, and IIS 7, which is part of Windows Server 2008.

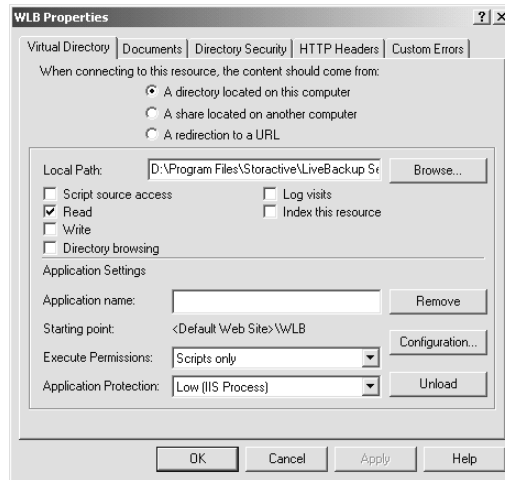
See Also If you want to configure ports for server/client configuration, see [“Changing ports used for server/client communication” on page 95](#).

IIS 6.0

1. Run Internet Services Manager as follows:
Click **Start**, point to **Programs**, and then point to **Administrative Tools**. Click **Internet Services Manager**.
2. Expand *servername*.
3. Expand **Default Web Site**.
4. Verify that the following Virtual Directory was created: **WLB**

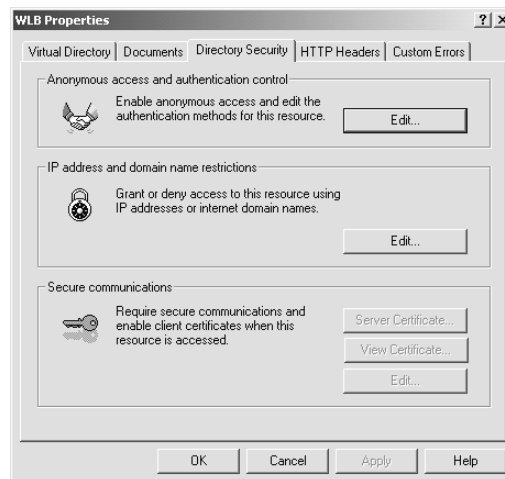
5. Verify the properties of the WLB folder:

Virtual Directory tab



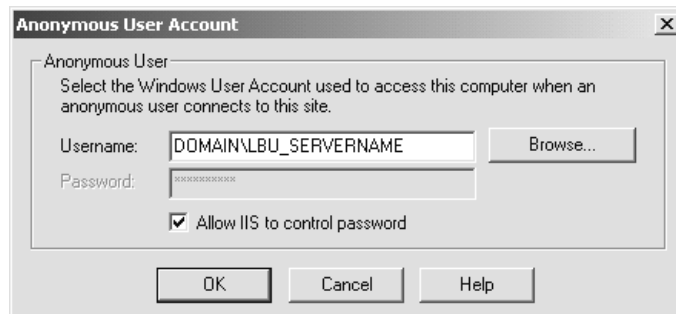
- **Local path:** %Live BackupServerInstallationPath%\WLB
- **Access flags under Local path:** Select **Read**, but clear all others
- **Application name:** Blank
- **Execute permissions:** Scripts only
- **Application protection:** Low (IIS Process)

Directory Security tab



Directory Security\Edit.

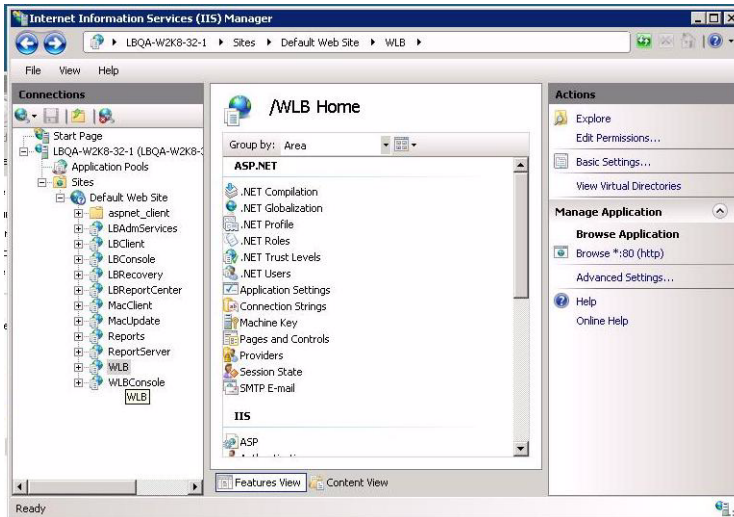
- **Anonymous access:** enabled
- **Integrated Windows authentication:** enabled

Authentication Methods\Edit

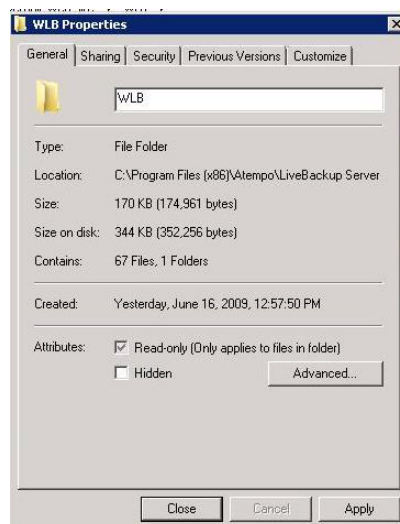
- **User name:** [DOMAINNAME]\LBU_[COMPUTERNAME]
 - **Allow IIS to control password:** enabled
6. Make sure that the **Default Web Site** is started.
 7. Exit Internet Services Manager.

IIS 7.0

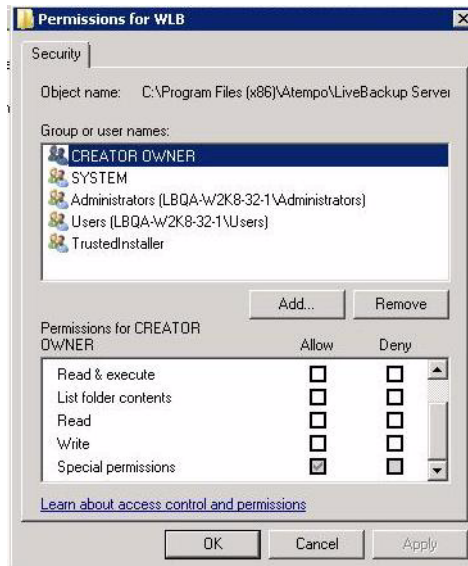
1. Run Internet Services Manager as follows:
Click **Start**, point to **Programs**, and then point to **Administrative Tools**. Click **Internet Services Manager**.
2. Expand *servername*.
3. Expand **Default Web Site**.
4. Verify that the following Virtual Directory was created: **WLB**



5. Under **Actions**, click **Edit Permissions**.

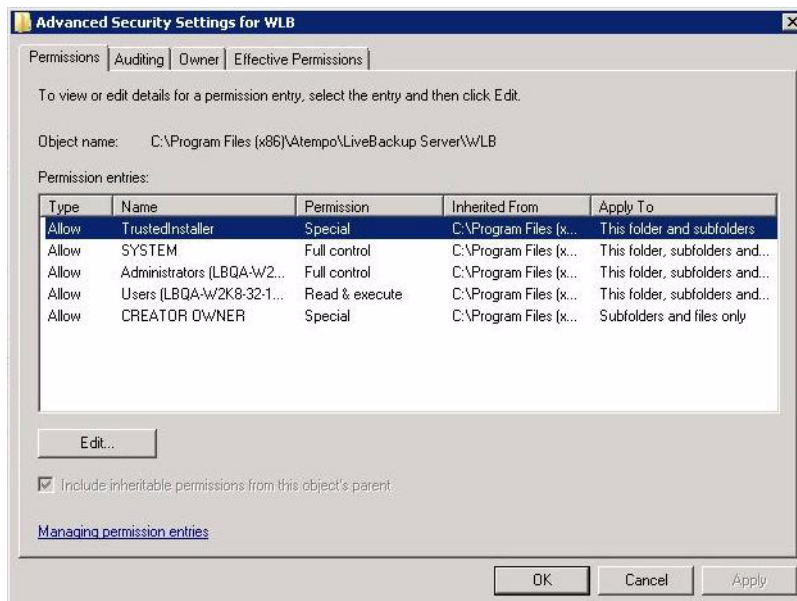


- Click the **Sharing** tab: WLB is not shared.
- Click the **Security** tab, and then under **Group or user names**, select **Creator Owner**, and then click **Edit**.



Special permissions are allowed. All other permissions cleared. Click **OK**.

- Back on the Security page, click **Advanced**.



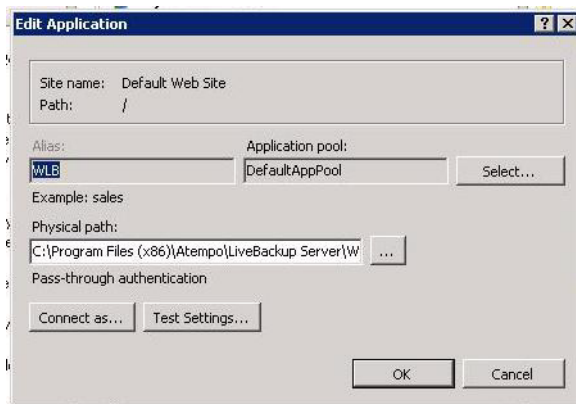
Check the following options:

- **TrustedInstaller:** Special permissions
- **System:** Full control
- **Administrators:** Full control
- **Users:** Read and execute
- **Creator owner:** Special permissions

Click **OK**.

- Click **OK** to close the WLB Properties dialog box.

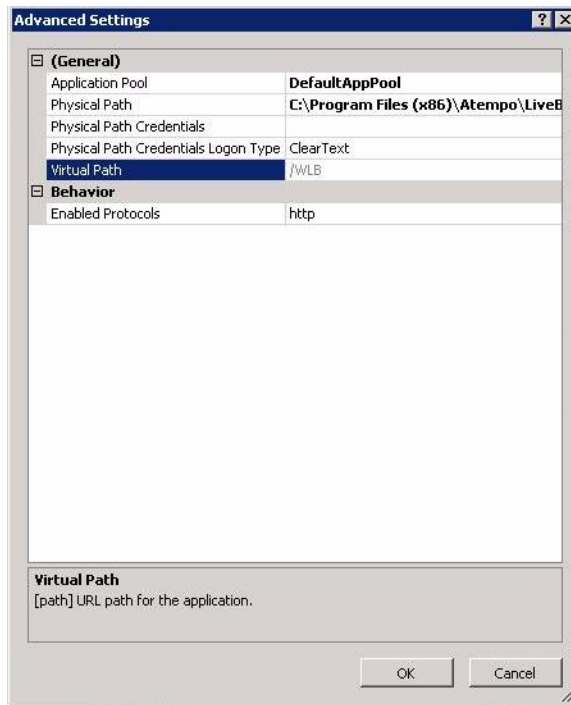
6. Under **Actions**, click **Basic Settings**.



Check the following options:

- **Site name:** Default Web site
- **Path:** /
- **Alias:** WLB
- **Application pool:** DefaultAppPool
- **Physical path:** %Live BackupServerInstallationPath%\WLB
- **Pass-through authentication**

7. Under **Actions**, click **Advanced Settings**.



The Advanced Settings should be identical to the Basic Settings, with the addition of the **Enabled Protocol: http**.

8. Make sure that the **Default Web Site** is started.
9. Exit Internet Services Manager.

Live Backup Server user account

During installation, Live Backup adds the user account “LBU_servername” to the local SAM. This local account is used for anonymous access from the Web and is required by Live Backup Server. Depending on your server configuration, this account may expire automatically after a certain number of days. To prevent expiration, go to the Users section under Windows Computer Management or Windows Active Directory Users and Computers and make sure that the **Password Never Expires** option is selected for this account.

Starting Live Backup Server

Live Backup Server has the following components:

- Live Backup Storage Server (SQL)
- Live Backup Front End Server (IIS)
- Live Backup Console

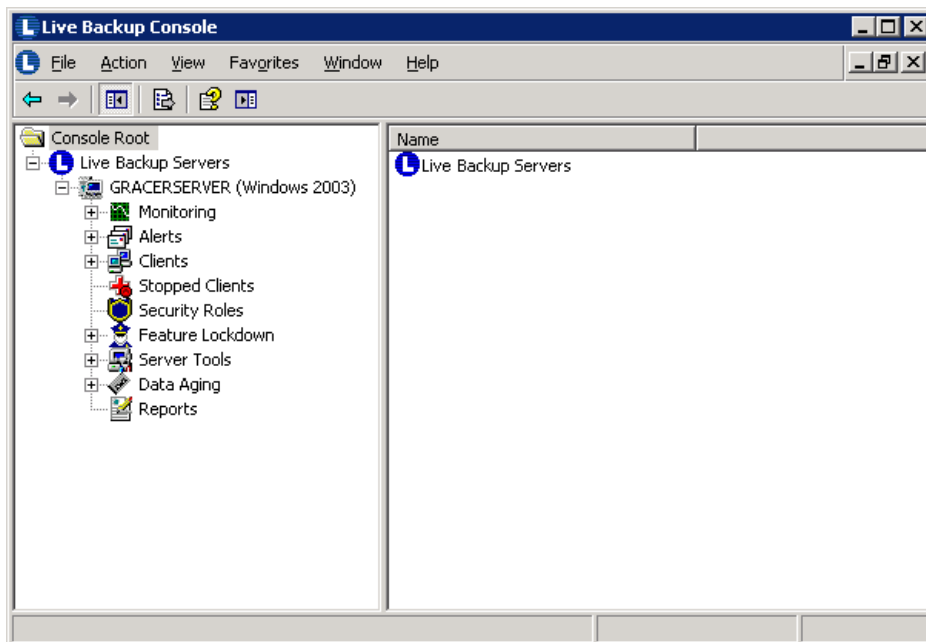
The Live Backup Storage Server, which works with SQL Server to store your clients' backup files, is always running as long as the SQLServerAgent and MSSQLServer services are running.

The Live Backup Console is a Microsoft Management Console (MMC) snap-in that enables you to add and configure clients and configure specific server settings. You can run this console at any time.

To run the Live Backup Console:

- Click **Start** and point to **Programs**. Point to **Atempo Live Backup Console**, and then click **Live Backup Console**.

The contents of the Live Backup Server snap-in appear.



You can use this snap-in to manage the Live Backup Server and clients, get Live Backup information, generate reports, and respond to alerts.

See Also To learn how to use the Live Backup Console, refer to the *Live Backup Administrator's Companion* guide.

See Also For general information about MMC, including help with both general concepts and specific tasks, see the *Microsoft Management Console Help*. To view this help file, from the Console's **Help** menu, choose **Help Topics**.

Adding servers

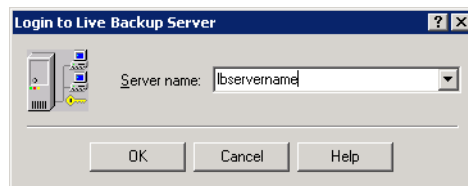
You can set up as many Live Backup Servers as you want and manage them all from the same console. Add servers if the number of clients Live Backup Server is protecting demands the additional processing and storage resources that additional servers can provide.

To add a server, first install Live Backup Server on the new computer as described in the previous sections. Then add the new server to the existing Live Backup Console as described in the following procedure.

To add a Live Backup Server:

1. On the computer from which you want to manage all instances of Live Backup Server, run the Live Backup Console: Click **Start** and point to **Programs**, then point to **Atempo Live Backup Console**, and click **Live Backup Console**.
2. Right-click **Live BackupServers** and click **Connect to server**.

The Login to Live Backup Server dialog box appears.



3. In the **Server name** box, type or select the name or IP address of the computer where you installed Live Backup Server.

If you changed the default port of the Live Backup Server, make sure you type the new port in this box as well. For example, **lbserver.domain.com:777**.

4. Click **OK**.

A new node for the server computer you added appears in the Live Backup Console. You can now create clients to be managed by the new Live Backup Server. See [“Adding clients to Live Backup Server” on page 49](#).

Important The Live Backup Server computer must be within the same domain or a trusted domain of the computer on which you are working to add it to the Live Backup Console.

CHAPTER 4



4

Adding Live Backup clients and users

After the Live Backup Server is installed, you can begin creating and setting up the groups in which you want to create clients, planning client creation, and then installing Live Backup Client on computer systems that Live Backup protects.

Each computer protected by Live Backup must have an account on the Live Backup Server. Adding the client accounts enables Live Backup to recognize the client computers and collect their data, track the changes, and store their files once Live Backup Client software is installed on the workstation or laptop computer. You can add clients manually or automatically.

You can group clients to enable the power and flexibility of protection property inheritance. Each client created within a group inherits the properties of the group by default. Later, if you choose, you can turn off the inheritance and customize protection properties for each client individually.

In addition to creating the client accounts within Live Backup Server, you can configure user access to client features.

This chapter describes

- Creating groups
- Adding clients to Live Backup Server
- Configuring client or group properties
- Configuring user privileges

Creating groups

Before you add clients, you should either configure Live Backup to create groups automatically and/or create the groups in which the client computers will be located. This is an easy way to add multiple clients with identical protection configurations, because all clients inherit the protection configuration of their group. Likewise nested groups may inherit the protection configuration of their parent group. When you change the configuration of the group, the change applies to all client members and subgroups.

Each individual client and group is identified by this group hierarchy, with a full compound name of *ClientName@GroupName.ParentGroup*. By identifying clients using their full compound name, Live Backup enables you to give clients the same name as long as they are located in different groups.

Note Storage and Auto-Creation properties are inherited from the group to the subgroup, but do not apply to existing clients. Storage properties may be configured independently for each client.

In this section, you will learn how to

- Create groups automatically
- Create groups manually
- Add clients to a group

Create groups automatically

Live Backup can create groups automatically with the default protection configuration.

To create groups automatically, first you must configure Live Backup to accept these requests. In the Client Account Creation Policies dialog box, make sure the Create groups automatically check box is selected. See [“Automatically create clients” on page 49](#).

Then when you install the Live Backup Client software, specify the group as well as the client in the Client Name page of the Installation Wizard. You can do this by typing both the client name and the group name as follows: *ClientName@GroupName.ParentGroup*.

You can also specify this group name during Web installations by sending a link to the full group and client name specification as part of the Web URL as follows:
`http://servername/lbclient?ClientName@GroupName.`

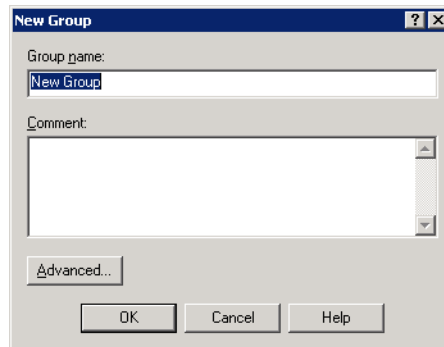
See “Installing Live Backup Clients” on page 59.

See also “Chapter 6: Configuring Clients” in the *Live Backup Administrator’s Companion*.

Create groups manually

1. Expand **Live Backup Servers**, and then expand *servername*.
2. Right-click **Clients** or any group to which you want to add a group, and point to **New**. Click **Group**.

The New Group dialog box appears.



3. In the **Group name** box, type a unique name describing the group you want to add. This name may identify the type of protection you are configuring, such as *Full Protection*, or it might represent a company department, such as *Accounting*.

Note that the group name must not contain the characters @ (“at” symbol) or . (period). The group name may be up to 50 characters, but the full compound group and client name must not exceed 255 characters.

4. In the **Comment** box, type a description and details about the group you are creating. This information may include the type of clients contained within the group, client users, contact information, as well as any other custom details about the group. You may type up to 4,000 characters.

5. You can now configure advanced protection properties, or you can create the group with the properties inherited from its parent group.
 - To view or set protection properties for this client, click the **Advanced** button. Live Backup creates the group, and then displays the Group Properties dialog box, in which you can configure protection. To learn how, see [“Configuring client or group properties” on page 56](#).
 - To create the group with the default properties, click **OK**.

You can now add individual clients to the group. Each client that you create within the group will inherit all of the settings you configured for the group.

Add clients to a group

You can add clients to a group both automatically and manually. To learn how to add clients automatically, see [“Automatically create clients” on page 49](#).

To learn how to add clients manually, see [“Create individual clients” on page 54](#).

Once installed on the client computer, Live Backup will protect all clients that you added using the protection settings of the group.

Adding clients to Live Backup Server

You can create clients one at a time before installing them, or you can enable Live Backup to create clients automatically upon first connection to the Live Backup Server. If you configure Live Backup in this manner, then you do not have to create all the clients in the Live Backup Console before installing them. See below to determine which method you should use.

- **Create clients manually and install individually at each client computer:** Use this method if you have only a few clients that you want to create within Live Backup Console before deploying the client software to the computers in your company.
- **Automatically create clients:** Use this method if you want to install the clients first, and then automatically create those clients within predefined groups already configured with their protection settings. This method is particularly effective with large deployments of Live Backup (100 or more).

In this section, you will learn how to

- Configure Live Backup to create clients automatically.
- Create individual clients manually.

Automatically create clients

When you set up Live Backup for the first time, you can create all the clients you plan to protect with Live Backup manually. However, you can also set up Live Backup to create clients that are installed after your initial setup automatically.

After you install Live Backup on a client computer and reboot, that client will attempt to connect to the Live Backup Server immediately. You can configure Live Backup Server to create an account for that client as soon as it tries to connect, specify in which group the account will be created, and determine when client replication begins.

If you do not configure Live Backup to create clients automatically, then when a connection is attempted, Live Backup Server will reject the client and post an alert. You can then create the client manually, if you wish.

By default, clients that have been deleted are blacklisted and refused for auto-creation.

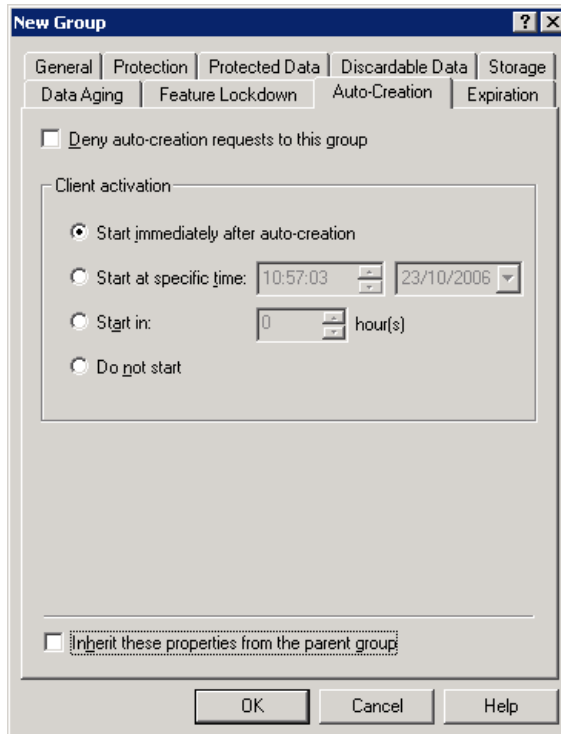
To create clients automatically, you must first configure groups to enable clients to be created automatically within them and specify when those clients will begin replication. You can then configure Live Backup to automatically create clients within specified groups.

In this section, you will learn how to

- Enable client auto-creation within a group.
- Configure Live Backup to create clients automatically.
- Exclude clients from auto-creation.

To enable client auto-creation within a group:

1. Expand **Live Backup Servers**, and then expand *servername*.
2. Expand **Clients**.
3. Right-click the group that you want to configure and select **Properties**.
4. Click the **Auto-Creation** tab.



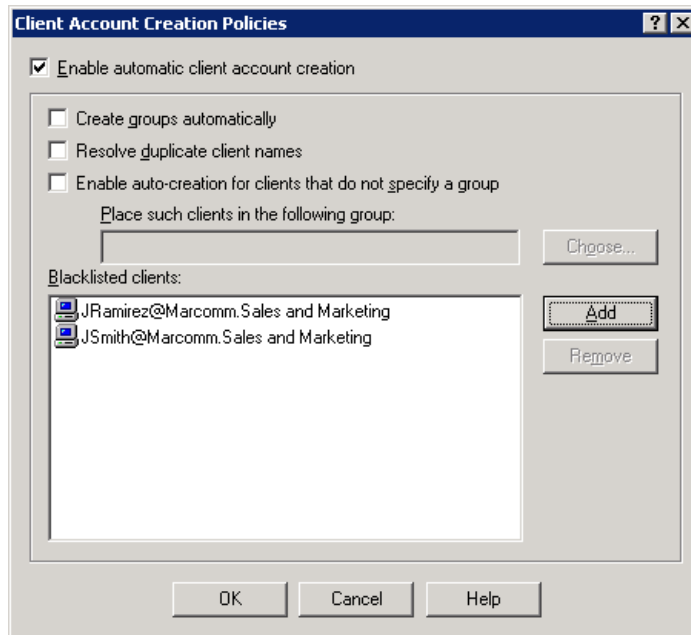
5. If you want this group to inherit the settings applied to its parent group, make sure the **Inherit these properties from the parent group** check box is selected. This is the default selection. All other options in the properties sheet become disabled, and the parent properties apply.

If you want to customize properties for this particular group, clear the **Inherit these properties from the parent group** check box, and proceed to step 6.
6. To enable clients to be created automatically within this group, clear the **Deny auto-creation requests to this group** check box.
7. In the **Client activation** area, select when to begin copying files from the automatically created client to the Live Backup Server. Select one of the following options:
 - **Start immediately after auto-creation:** Begins copying files to the Live Backup Server as soon as the client database is created. Select this option if you expect only a few clients to be replicating simultaneously, and therefore have no concerns about network traffic or performance.
 - **Start at specific time:** Begins copying files at the time and date you specify. Select this option to delay replication to off-peak days and/or hours such as weekends or the middle of the night.
 - **Start in:** Begins copying files a fixed number of hours after creating the client account. Select this option to delay replication by only several hours or so.
 - **Do not start:** Does not copy files to the Live Backup Server. Select this option if you want to manually launch replication for the client by selecting **Activate** from its action menu.
8. Click **OK**.

To configure Live Backup to create clients automatically:

1. Expand **Live Backup Servers**, and then expand *servername*.
2. Expand **Server Tools**, and then click **System Settings**.
3. Right-click **Client Account Creation Policies**, and then click **Configure**.

The Client Account Creation Policies dialog box appears.



4. Select the **Enable automatic client account creation** check box.
5. To create new groups that are specified during client installation, select the **Create groups automatically** check box.
If a new group name is specified during client installation, then Live Backup will create both the group and the client.
6. To rename a client whose default name already exists in Live Backup Server, select the **Resolve duplicate client names** check box.
If the client that is being created has the same name as an existing client account, then the new client will have a ~X appended to its name, where X is replaced with a number.
7. To create clients within a specified group, select the **Enable Auto-creation for clients that don't specify a group** check box. Then, in the **Place such clients in the following group** box, type the name of the group in which you want to create these clients. If you are not sure of the group name, click **Choose**, and then select it from the Select Group dialog box.

Note that this option applies only to clients that attempt to connect to the Live Backup Server without a group specification. The group name may be specified during client installation.

Note also that the group you specify here must be configured to accept automatic client creation. See [“To enable client auto-creation within a group:”](#) on page 50

8. Click **OK**.

Once a newly installed client tries to connect to the Live Backup Server, Live Backup creates the client account with an *Activation pending* status. The client will begin copying files at the time specified in the Auto-Creation page of the Group Properties.

Note To disable auto-creation, clear the **Enable automatic client account creation** check box.

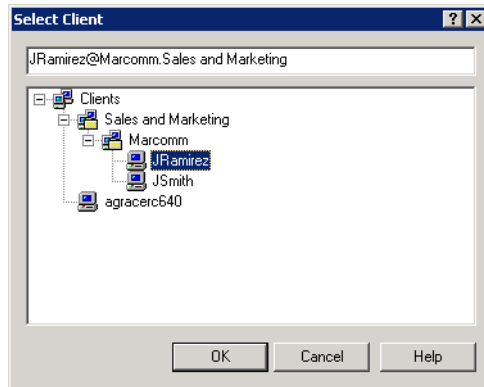
Note To begin replication of an *Activation pending* client, right-click the client and choose **Activate**.

To exclude a client from auto-creation:

For improved security, you may want to prevent Live Backup from creating particular clients automatically. By default, manually created clients and deleted clients are excluded from auto-creation. To prevent automatic creation of specific clients, you can prepare a list of clients refused for auto-creation.

1. Expand **Live Backup Servers**, and then expand *servername*.
2. Expand **Server Tools**, then click **System Settings**.
3. Right-click **Client Account Creation Policies**, and then click **Configure**.
The Client Account Creation Policies dialog box appears.
4. Beside the **Blacklisted clients** list, click **Add**.

The Select Client dialog box appears.



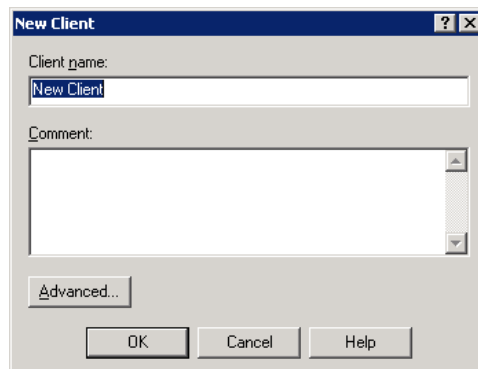
5. Type or select the name of the client that you do not want Live Backup to automatically create upon connection. Make sure you type the full compound client name, including group and client as follows: **ClientName@Group.ParentGroup**. Click **OK**.
6. In the Client Account Creation Policies dialog box, click **OK**.

Create individual clients

You can add each client in your network individually to the Live Backup Server. Although this process may take a while, adding the clients individually enables you to configure unique protection settings for each client. See [“Configuring client or group properties” on page 56](#).

1. Expand **Live Backup Servers**, and then expand *servername*.
2. Right-click **Clients** or any group to which you want to add a client, and point to **New**. Click **Client**.

The New Client dialog box appears.



3. In the **Client name** box, type the name of the computer you want Live Backup to protect. You may give the client any name: it may be the same as the NetBIOS computer name, which is the default, or any other name you choose. Note that the client name must not contain the characters @ (“at” symbol) or . (period).

The client name you enter will be appended to the group name to create the full compound name with the format *ClientName@GroupName.ParentGroup*. Each individual client and group name must not exceed 50 characters, and the compound name must not exceed 255 characters.

You should specify the name you give here when you install Live Backup Client on the computer you want to protect.
4. In the **Comment** box, type a description and details about the client you are creating. This information may include the type of client computer, location, client users, or contact information. You may type up to 4,000 characters.
5. You can now configure advanced protection properties, or you can create the client with the properties inherited from its parent group.

- To view or set protection properties for this client, click the **Advanced** button. Live Backup creates the client, and then displays the Client Properties dialog box, in which you can configure protection. See [“Configuring client or group properties” on page 56](#).
- To create the client with the group properties, click **OK**.

Live Backup adds the client account to the Live Backup Console with an *Activation pending* status, and then creates a database to store the client's files as soon as possible. The client icon appears disabled until the client connects to the Live Backup Server.

Tip To begin replication of an *Activation pending* client, right-click the client and choose **Activate**.

See Also For more information on managing clients, see either *Help on Live Backup Servers*, or the *Live Backup Administrator's Companion* guide.

Configuring client or group properties

When you create a group or client, you can specify information about it and configure how Live Backup will protect files. You can also modify these settings in the Properties of each group and client. You can configure properties as follows:

- Edit name and comments
- Specify level of protection
- Choose which drives to protect
- Define protected file types
- Define discardable data
- Allocate storage space
- Configure data aging
- Configure default user access
- Set an expiration date
- Enable auto-creation within a group (groups only)

All of these settings are specified in the Properties page of a group or client.

See Also For details on configuring client protection properties, see either the *Help for Live Backup Servers*, or “Chapter 6: Configuring Clients” in the *Live Backup Administrator’s Companion* guide.

Configuring user privileges

Live Backup secures your organization's files using the Windows user security model. Security restrictions are imposed on both the Live Backup Server and the Live Backup Clients.

To administer Live Backup Server, the user requirements depend on the type of computer in the domain where you have installed Live Backup Server—member or domain controller. To administer Live Backup Server on a member computer, you must have local administrative rights on that computer. To administer Live Backup Server on a domain controller, you must have domain administrative rights.

In addition, the Live Backup Server Administrator may assign a Custom Group Administrator and/or Network Disaster Recovery role to specific users or groups, and assign those roles to clients or groups.

On the client, you can lock out features through privileges assigned to clients and/or individual users. When each computer is added to Live Backup as a Live Backup Client, you can assign it a default user access level. In addition, you may assign each user within the Live Backup Server domain individual access privileges. These users will have the same access on every Live Backup Client computer.

For more information on security roles on the Live Backup Server and feature lockdown on Live Backup Clients, see Chapter 9 in the *Live Backup Administrator's Companion Guide*.

CHAPTER 5

Installing Live Backup Clients

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After the Live Backup Server is installed and both clients and users are added to the server, you can install the Live Backup Client software.

This chapter describes

- Deploying Live Backup Client for Windows
- Deploying Live Backup Client for Mac

Deploying Live Backup Client for Windows

To deploy the Live Backup Client software to the computers in your company, you have the following choices:

Install clients manually Use this method if you want to install the Live Backup Client software individually at each computer. This method installs all prerequisite software as well as the Live Backup Client software.

Install clients via the web (Windows only) Use this method to deploy Live Backup to a large number of clients via an intranet or Internet Web link. It enables each end-user simple access to the Live Backup Client installation or upgrade, while you control which installation options are available. You can use this method for either manually or automatically created clients. This method installs all prerequisite software as well as the Live Backup Client software.

Command line installation Use this method to install clients via a batch file. Although you can use this method with manually created clients, it works particularly well when you are creating clients automatically.

Administrative installation Use this method to deploy Live Backup Client to the computers in your enterprise using Windows Server software management, which enables you to manage software throughout its lifecycle in the organization. This software installation management tool works in conjunction with Group Policy and Active Directory.

This section describes

- Installing Live Backup Client
- Deploying Live Backup Client (unattended installation)

Installing Live Backup Client

There are three methods for installing Live Backup Client on a single computer:

- Install Live Backup Client from a network or CD-ROM drive, which provides a full interactive installation.
- Install Live Backup Client from the corporate intranet, which sets most default options for you.
- Run a command line client installation, which enables you to configure the level of interaction.

This section describes each installation method.

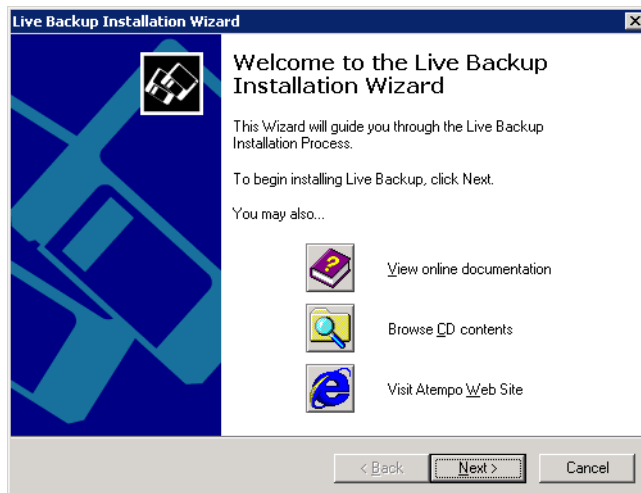
Before installing, make sure the computers where you want to install Live Backup Client meet the system requirements as described in “[Live Backup Client system requirements](#)” on page 14.

Important Live Backup must have full access to both the Live Backup cache folder and the Live Backup program folder. You can select locations for these folders during installation. Do not encrypt the folders or otherwise restrict rights, or Live Backup protection will stop.

Install Live Backup Client from a network or CD-ROM drive

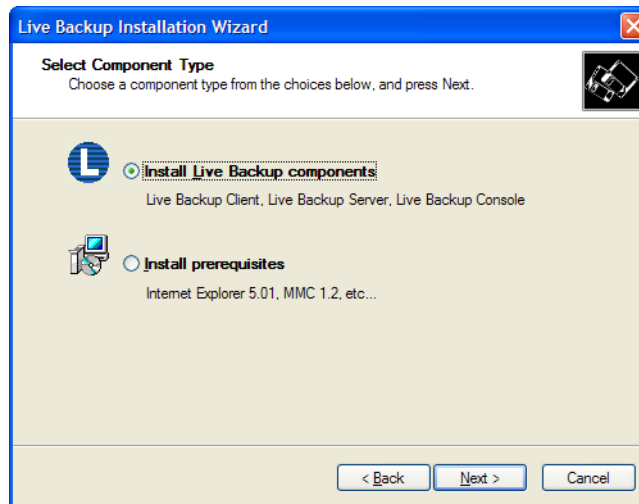
1. Click the **Start** button, and then click **Run**.
2. In the **Run** dialog box, type `N:\LBSETUP.EXE`, where *N:* is replaced with the full path to the **Live Backup** installation program. This program may be located on a CD-ROM, a network drive such as *N*, a local drive, such as *C*, or some other media.

The Welcome to the Live Backup Installation Wizard screen appears.



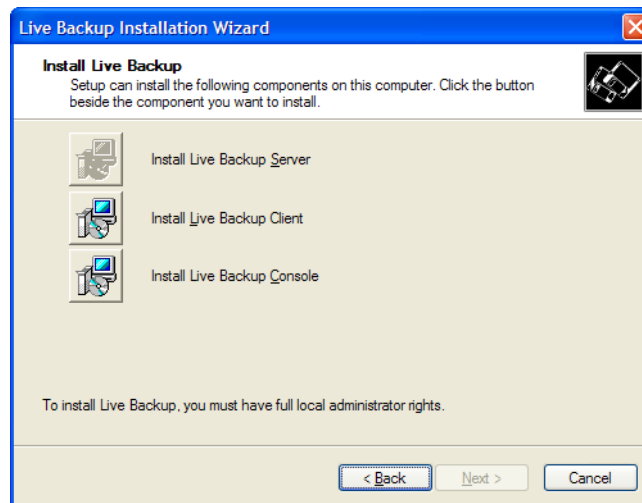
3. Click **Next**.

The Select Component Type screen appears.



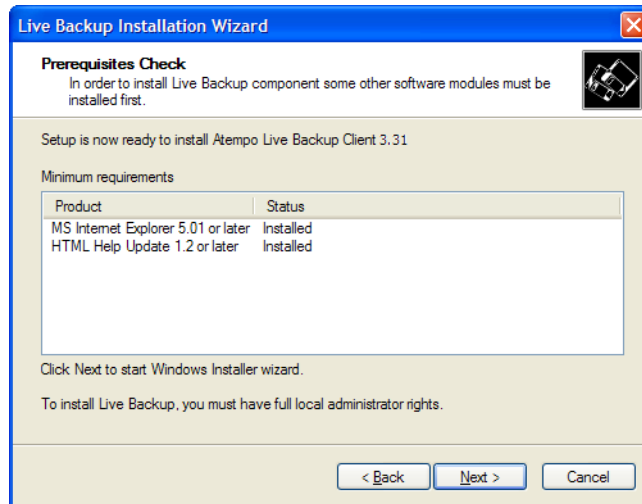
4. Select **Install Live Backup components**, and then click **Next**.

The Install Live Backup screen appears.



5. Click **Install Live Backup Client**.

The Prerequisites Check screen appears.

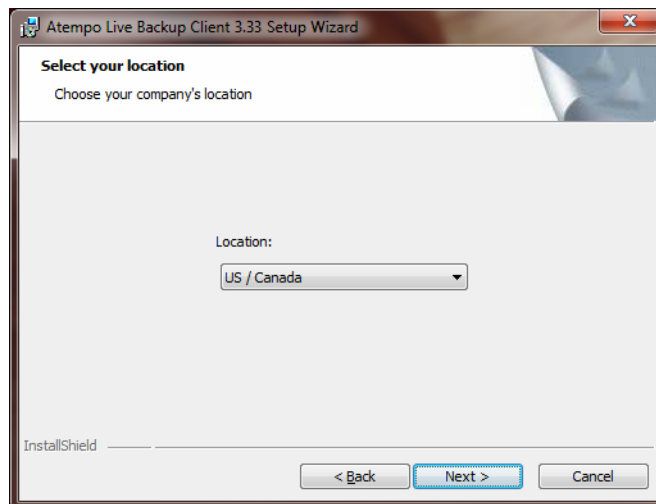


6. Make sure all prerequisites are installed, and then click **Next**.

The Live Backup Client installation begins.

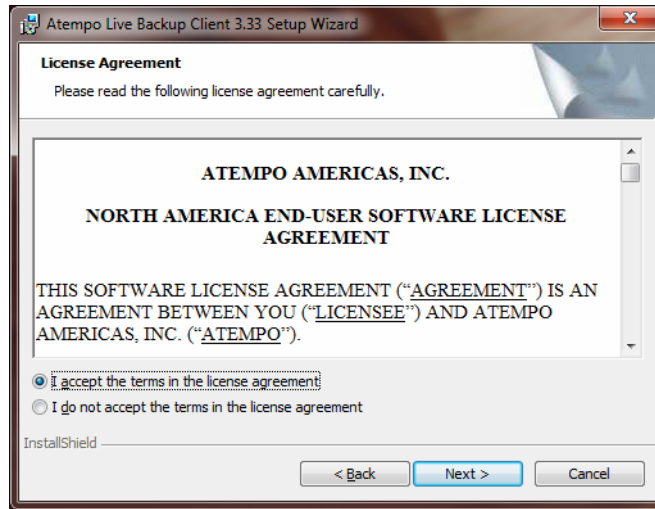
7. On the Welcome screen that appears, click **Next**.

The Select your Location page appears.



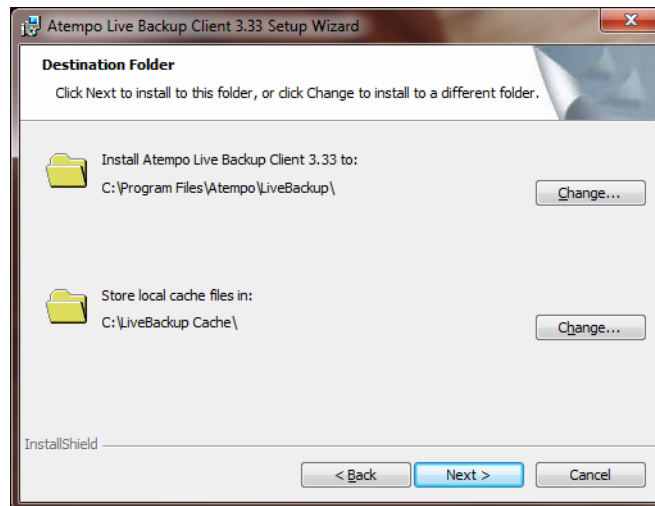
8. From the **Location** list, choose the country in which your company is located. Click **Next**.

9. Read the License agreement that appears, and then click **I accept the terms in the license agreement**.



Click **Next**.

10. On the Destination Folder page that appears, you can select the folder in which you want to install Live Backup and the folder you want to use to cache files locally.



The default installation folder is C:\PROGRAM FILES\ATEMPO\LIVE BACKUP. To install in a different location, click **Change**. In the Change Current Destination Folder dialog, select a new path, and then click **OK**.

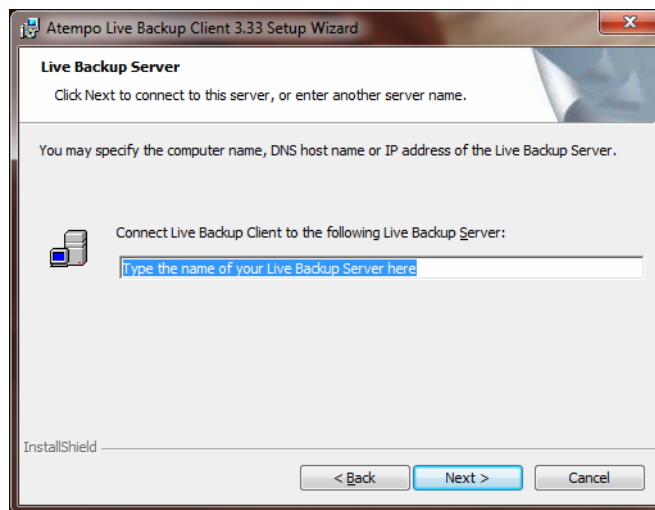
The default cache folder is X:\LIVE BACKUP CACHE, where X is the drive with most free disk space. This folder is hidden.

Backup files will be stored in this location temporarily (cached) until a connection with the server is established for copying the files. To save backups in a different location, click **Change**. In the Change Current Destination Folder dialog, select a new path, and then click **OK**.

Note Make sure that the cache folder is located on a drive protected by Live Backup. If it is not, Live Backup will not start after a disaster recovery. To learn more about protection configuration, see either the *Help on Live Backup Servers*, or “Chapter 6: Configuring Clients” in the *Live Backup Administrator’s Companion* guide.

Click **Next**.

11. On the Live Backup Server page that appears, specify information about the Live Backup Server. In the **Connect Live Backup to the following Live Backup Server** box, type the name, IP address, or DNS Host Name followed by the port of the computer on which Live Backup Server is installed. For example, *servername:3427*

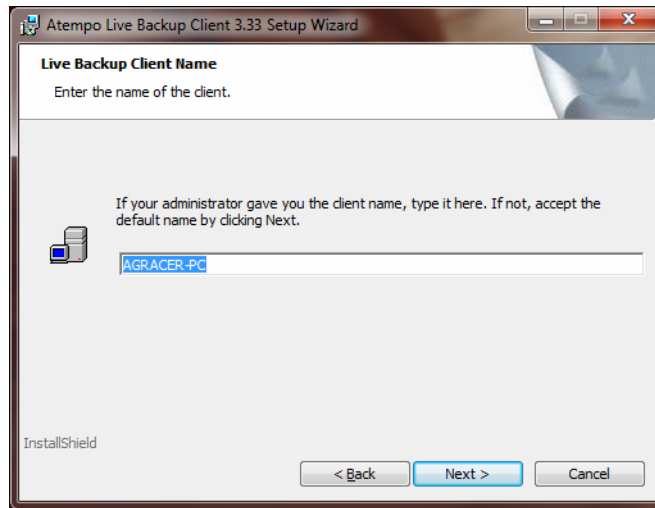


Click **Next**.

12. On the Live Backup Client Name page, specify the name given to this client on the Live Backup Console. If the Live Backup Administrator gave you a name, type it here. If not, accept the default name that appears.

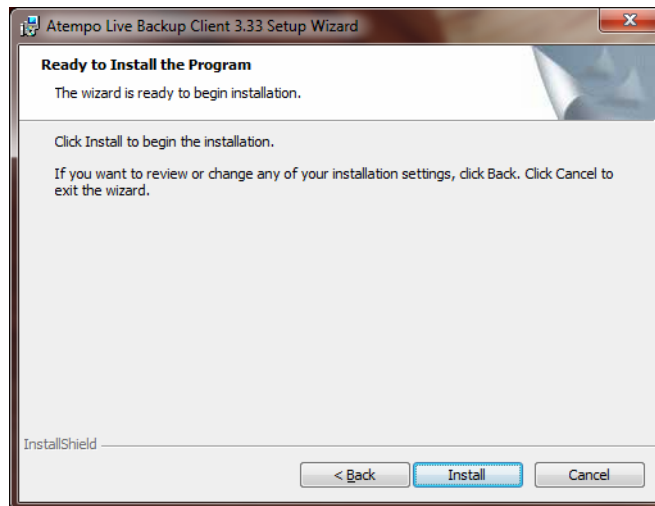
You may also specify the group in which to create the client as well as the client name. To specify the group, use the following format: *clientname@group.parentgroup*.

The default name is the same as your computer's NetBIOS name.



Click **Next**.

13. On the Ready to Install the Program screen, click **Install**.



A progress screen appears as Live Backup Client is installed onto your computer.

14. When the installation is complete, the InstallShield Wizard Completed screen appears.

Click **Finish**.

The Restart dialog box appears. You must restart your computer to begin protecting your files.

15. To restart your computer now, click **Yes**. If you want to restart later, click **No**.

Once your computer has restarted and connected to Live Backup Server, Live Backup immediately begins protecting your files from corruption and loss.

Note The client workstation may be in either the domain or the workgroup configuration. For more information on network configurations, see your Windows documentation.

Note Specifying the IP Address of the Live Backup Server rather than the NetBIOS or DNS name will help circumvent any name resolution problems. However, name resolution problems suggest that the network may be configured improperly. See your Windows documentation.

Install Live Backup Client from the corporate intranet

Once you have installed Live Backup Server, you may notify all Windows clients of the new Live Backup protection and have each user install the Live Backup Client over an intranet connection. This process enables you to specify both a name and group for each client, allows your users install Live Backup Client at their convenience, and saves you the time of visiting every client computer. It also provides remote users a quick and easy way of installing Live Backup Client.

The Web installation package is located in the LBCLIENT virtual directory within the Web site. All required setup files are located in the CLIENTWEBSETUP subfolder of the Live Backup Server application folder. For clients to access this setup, they must have access to the LBCLIENT virtual folder on the Live Backup Server.

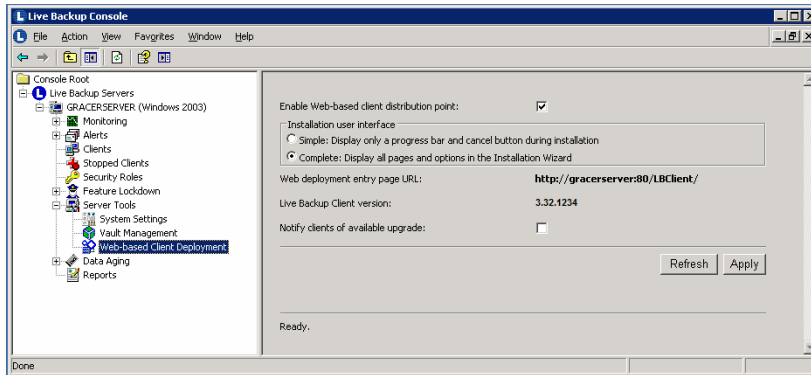
Important Web installation is available for Live Backup Windows clients, only.

This section describes how to

- Enable the Live Backup Client Web installation.
- Notify clients of the Web installation.
- Run a Live Backup Client Web installation.

Enable the Live Backup Client Web installation

1. In Live Backup Console, expand **Live Backup Servers**, and then expand *servername*.
2. Expand **Server Tools**, and then click **Web-based Client Deployment**.



3. To enable clients to access the Web setup program, select the **Enable Web-based Client distribution point** check box.
To lock out access to the Web client, make sure this check box is cleared.
4. In the **Installation user interface** group box, select whether to run the installation silently or give client users control over the installation options.
 - To install silently, displaying only a progress bar and cancel button during the installation, select the **Simple: Display only a progress bar and cancel button during installation** option button. This option uses the default settings and is recommended for most deployments.
 - To give the client users control over the installation options, select the **Complete: Display all pages and options in the Installation Wizard** option. Select this option only if your users need to modify installation paths.
5. If you have recently upgraded the Live Backup Server, and you want to notify Live Backup Clients of the available client software upgrade, select the **Notify clients of available upgrade** check box.

Once you click Apply, all installed clients with a supported version older than the Live Backup Server will either receive the Live Backup Client upgrade and begin installation automatically, or will receive a notification about the upgrade version with instructions to install. This notification will appear every time a user logs into the client computer, until the upgrade has been completed. Note that only Live Backup Super Users may modify the update settings to receive a notification rather than an automatic installation.

6. Click **Apply**.

Notify clients of the Web installation

You must notify your users of the Live Backup Client installation that is available over the corporate intranet. We suggest that you use e-mail, but you may use any means available to your organization.

If you choose e-mail, then compose an e-mail to all users of client computers you have added to Live Backup Server for protection. In this e-mail, provide a link to the Web installation of Live Backup Client. In this link, you may specify both the client name and the group name.

- To send a link to the basic installation, using the default client name and group, use the following format: **`http://servername/lbclient`**
- To send a link to the installation and specify the client name only, use the following format: **`http://servername/lbclient?ClientName`**
- To send a link to the installation and specify that the client name be created in the root group, use the following format: **`http://servername/lbclient?ClientName@`**
- To send a link to the installation and specify the group in which you want to create the client, but still use the default client name, use the following format:
`http://servername/lbclient?@GroupName.`

In this case all clients will be created in the same group. Note that each client may still provide its own group name during the installation. This group will be created as a subgroup within the group specified by the URL. Use this option if you want to group clients automatically, but do not want to specify the full compound name for each client.

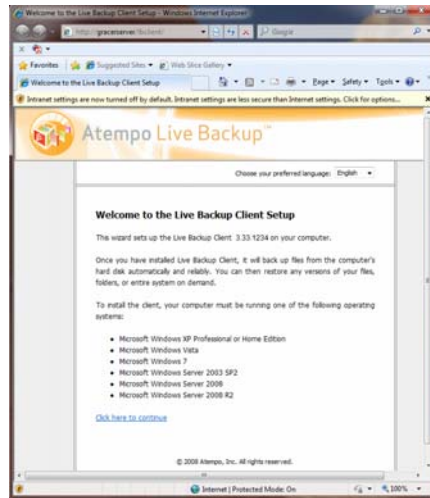
It enables client users to create a local group hierarchy within the one parent group that you define.

- To send a link to the installation and specify both the client name and the group in which it should be created, use the following format:
`http://servername/lbclient?ClientName@GroupName`

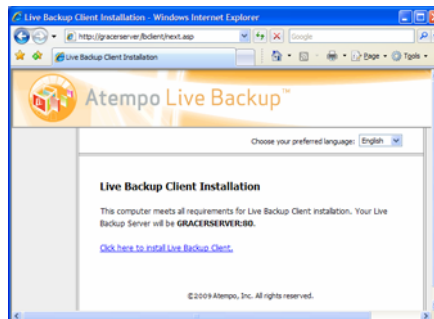
Instruct the users to click this link to launch the installation. Remember to warn them that they should exit all applications before running the installation and must restart their computers after installation.

Run a Live Backup Client Web installation

1. On the Live Backup Client computer, run Internet Explorer and go to <http://servername/lbclient>.



2. Read the Welcome page, and then click the link to continue.
The Checking Prerequisites page appears.
3. Live Backup checks your system for the prerequisite software. If it does not find any of the prerequisites, it will prompt you to install them. Follow the directions on your screen. Once all prerequisites are set up, you may begin installation.



4. Click the install link to begin installation, and then follow the directions on your screen.
A status bar indicates the progress of the Live Backup Client installation. Once it completes, you will see a message instructing you to restart the computer.
5. Click **Yes**. Once the computer restarts and connects to the Live Backup Server, Live Backup Client begins protecting the files on your computer.

Run a command line client installation

Live Backup uses the standard Windows Installer to install the Live Backup Client application. You can run this installer interactively as described in [“Install Live Backup Client from a network or CD-ROM drive” on page 61](#), or with any level of interaction, including silently, using a command line.

Important From the command line, Live Backup installs the Live Backup Client and all prerequisites except Internet Explorer. Make sure the Live Backup Client meets the software requirements before continuing. See [“Live Backup Client system requirements” on page 14](#).

To run a command line installation of Live Backup Client:

- From the installation directory, \\LIVE BACKUP\CLIENT, type

```
msiexec /i "Client.msi" /q PROPERTY=Value
```

The properties and command line switches determine the Live Backup Client installation options. For more details on the available options, see the following sections:

- “Client installation properties” on page 71
- “Installation command line switches” on page 72
- “Interface level command line switches” on page 72

Client installation properties

In the command line installation, replace the `PROPERTY=Value` parameter with the following, adding a space after each `property=value` line.

Property	Description	Value
INSTALLDIR=	The full path to the folder where Live Backup program files will be installed.	“C:\PROGRAM FILES\ATEMPO\LIVE BACKUP CLIENT” or any “valid path”
LBDATADIR=	The folder where the LIVE BACKUP CACHE folder will be created. This folder stores local backups before moving them to the server. It should have free disk space equal to at least 50 MB plus twice the size of your largest file to be protected.	“D:” or any “valid path”

REBOOT=	Determines whether Windows will restart at the end of installation. Note that if the /QN switch is used, then no user interface will appear, and so then no restart prompt will appear regardless of the setting of the REBOOT option. If you want to hide the user interface, but also display the restart message, then use /QB and leave the REBOOT property blank. This command line will display an installation progress bar and the restart message only.	To display a restart prompt at the end of installation, leave this property blank. To force Windows to restart at the end of the installation, specify REBOOT=FORCE. No restart prompt will appear. To suppress the restart prompt and not restart Windows, specify REBOOT=REALLYSUPPRESS. No restart message will appear, regardless of the /Q interface switch. You must manually instruct users to restart at the end of installation if you use this switch.
LBSERVER=	The name or IP address of the computer where Live Backup Server is installed.	Live Backup Server computer name LBServer No spaces are allowed, so quotes are not required.
LBCLIENT=	The full compound name of the Live Backup Client computer.	“ClientName@GroupName.ParentGroup”

Installation command line switches

You can replace the /i in the command line example with any of the following options. This switch determines how the product is installed.

Switch	Description
/I	Installs Live Backup Client.
/F	Reinstalls Live Backup Client.
/X	Uninstalls Live Backup Client

Interface level command line switches

To change the default installation options, you can replace the /q in the command line example with any of the following options. Remember that this switch is placed after the MSI product name in the command line. This switch determines how much of the interactive installation wizard appears, and if certain files are created as a result of the installation.

Switch	Description
/L	Creates an installation log file.
/Q	Hides all user interface elements during installation. Same as /QN
/QN	Hides all user interface elements during installation. You must specify client installation properties and values if you use this switch.
/QN+	Hides all user interface elements during installation except the Finish dialog box. You must specify client installation properties and values if you use this switch.
/QB	Hides all user interface elements during installation except the installation progress dialog box. You must specify client installation properties and values if you use this switch.
/QB+	Hides all user interface elements during installation except the Finish dialog box and the progress dialog box. You must specify client installation properties and values if you use this switch.
/QF	Displays the full interactive installation wizard.

Deploying Live Backup Client (unattended installation)

To deploy Live Backup Client over multiple workstations in your enterprise, you can

- Use an installation batch file to deploy Live Backup Client
- Use administrative installation to deploy Live Backup Client

Use an installation batch file to deploy Live Backup Client

Using the command line installation option, you can create a batch file that will install Live Backup Client on the computers throughout your enterprise. The installation will be automatic and silent, and will save you time deploying Live Backup.

The process of running a batch installation is comprised of the following steps:

1. Make the Live Backup distribution files available on a network.
2. Prepare the installation batch file.
3. Execute the batch file.

This process is described in more detail, below.

Make the Live Backup distribution files available on a network

From the Live Backup product CD-ROM, copy the contents of the \\LIVE BACKUP\CLIENT folder to a network drive. All client computers on which you want to install Live Backup Client must have at least read access to this drive.

For example, at a command prompt, type `copy e:\Live Backup\Client n:`

Prepare the installation batch file

The batch file must contain all the instructions necessary to install **Live Backup** Client on a computer. The sample batch file detailed below is intended to be run as a logon script.

To prepare the installation batch file, create a TXT file and save it with a BAT extension—for example, LBINSTALL.BAT.

In any text editor, type the batch file as follows. Note that there should be no carriage returns within the MSIEEXEC command.

```
REM *****Live Backup Client Install*****
REM ***** Please set LBSETUPDIR for fresh installation of client
only

set LBSETUPDIR=C:\Program Files\Atempo\LiveBackup

REM ***** SETUP *****
REM ***** The three lines below (MSIEEXEC command line) must be
typed as a single line entry with no line breaks.

MSIEEXEC /i "\\ServerName\Live Backup\Client\Client.msi" /q
INSTALLDIR="%LBSETUPDIR%" LBDATADIR="C:"
LBSERVER=CorporateServerName REBOOT=FORCE

REM *****End of MSIEEXEC command line.
:EXIT
set LBSETUPDIR=

REM*****End of File*****
```

Note After this batch file is run, the computer will be restarted automatically to complete the Live Backup Client installation. If you do not want the computer to restart automatically, then remove `REBOOT=FORCE` from `MSIEXEC` command line. If you want to generate installation log then add `/lv+ "<LOGFILE_PATH>\Client_Install.log"` at the end of `MSIEXEC` command line.

Execute the batch file

There are many ways to execute the batch file on many computers. You may send it as an e-mail attachment with instructions on how to run it, or you may run it as part of a logon script. To execute the batch file during logon, you must modify each user's domain account.

To run the batch file at logon:

1. Logon to the Primary Domain Controller.
2. Copy the batch file you created, `LBInstal.bat`, to the following folder:
`C:\\WINNT\\SYSTEM32\\REPL\\IMPORTS\\SCRIPTS`
3. Run Windows Active Directory Users and Computers.
4. Expand the **Users** node, and then go to the **Properties** for a user account.
5. Click the **Profile** button.
6. Type the name of the batch file into the **Logon Script Name** box.
7. Close the User Properties box.
8. Repeat steps 3 through 6 for each user on whose computer you want to install Live Backup Client.

The next time the user logs on to the network, the batch file will run automatically. The batch file is set up to run only this one time, so the installation will be performed only once.

Use administrative installation to deploy Live Backup Client

To deploy Live Backup Client to the computers in your enterprise, you can use Windows Server software management, which enables you to manage software throughout its lifecycle in the organization. This software installation management tool works in conjunction with Group Policy and Active Directory. For more information, see the *Active Directory Group Policy Help*, or go to <http://www.microsoft.com/windowsserver2003/technologies/directory/activedirectory/default.msp>.

To run an administrative installation:

1. Install Live Backup Client to a network share using the following command line:

```
"<path to Live Backup Client install>\setup.exe" /a
```

or

```
msiexec /a "<path to Live Backup Client install>\Client.msi"
```

Make sure that the <path to Live Backup Client install> is a full local or network path to the directory that contains Live Backup Client. This path should be accessible over the network with the rights of users or computers on which you want to install Live Backup.

2. Follow the instructions on your screen, and make sure to specify the name of the Live Backup Server. You may use either the DNS name or the IP address.
3. Use the Active Directory Group Policy snap-in to configure the deployment of Live Backup Client. For information on how to deploy a package using group policy, refer to <http://support.microsoft.com/kb/816102>. Before configuring the policy, consider the following:
 - For a large deployment, it is recommended that you select the assign to computers mode. In this case, after Live Backup Client is installed automatically, you must restart Windows on the Live Backup Client computer to enable protection.
 - Since Live Backup Client has no file associations, you should not choose the assign to users mode because with no associations, nothing will happen.
 - While assigning the package to a group policy, make sure to use the fully qualified domain name of the server in the UNC path of the shared installer package. Do not use the IP address of the server in the UNC path.

Deploying Live Backup Client for Mac

You can deploy the Live Backup Client for Mac to your client computers over the Web, and then run a standard installation program to set it up.

Important Before deploying Live Backup Clients for Mac, you should configure protection settings that will give you the best performance during initial replication, while protecting the most important folders and files on your Macs. For deployment tips, see the *Live Backup Deployment Guide*.

The remainder of this section describes how to

- Deploy the Live Backup Client for Mac software
- Install the Live Backup Client for Mac software manually
- Perform a silent install of Live Backup Client for Mac

Deploy the Live Backup Client for Mac software

1. Point Safari (or other Web browser) to
HTTP://LBSERVERNAME/MACCLIENT/LBMACSETUP.ZIP
The Mac Downloads window appears and shows progress of the download.
2. When the download completes, a message appears: “Live Backup for Mac.pkg” contains an application. Are you sure you want to continue downloading?” Click **Continue**.
3. If another message appears, “This package contains a program that determines if the software can be installed. Are you sure you want to continue?” then click **Continue**.
4. If the Mac client security allows it, the installation begins now. If the security settings prevent it, users will have to run the installation manually. See below.
5. After installation completes, the user may go to the Downloads folder and trash the Live Backup for Mac.pkg file.

Install the Live Backup Client for Mac software manually

If the client installation does not start automatically after Web deployment, or you decide to deliver the installation package to the client via any other means, you can run the installation manually.

1. Run Live Backup for Mac.pkg.
2. Read the Welcome screen that appears, and then click **Continue**.
3. Read the License agreement that appears, and then click **Continue**. In the confirmation message that appears, click the **Agree** button.
4. On the Live Backup Server and Client Names page that appears, specify connection information about the Live Backup Server. In the **Live Backup Server** box, type the name or the IP address of the computer on which Live Backup Server is installed . The default port is 8080.

If you are not sure of the required server information, check with your Live Backup Administrator.

In the **Client Name** box, type the name given to this client on the Live Backup Console. If the Live Backup Administrator gave you a name, type it here. If not, accept the default name that appears. The default name is the same as your computer's name.

Click **Continue**.

5. On the Select a Destination page that appears, select the volume on which you want to install Live Backup. Click **Continue**.
6. On the Installation Type page, click **Upgrade**.
7. If an Authenticate dialog box appears, type your **Password**, and then click **OK**.
8. You will then see a confirmation message that warns you that you will have to restart the computer at the end of the installation. If it is all right to restart the computer, and you want to continue the installation, click **Continue Installation**. Otherwise, click **Cancel**: you can restart the installation later.

The Live Backup installation program copies the Live Backup program files to the selected volume.

9. Click **Restart**. Once your computer has restarted and connected to the Live Backup Server, Live Backup immediately begins the mirroring process, protecting your files from corruption and loss.

Perform a silent install of Live Backup Client for Mac

You can perform a silent installation of Live Backup Client for Mac from the command line. The silent installation requires two files:

- **AutoConfig.txt:** specifies the name of the Live Backup Server, ports, and Group name.
- **AutoInstallScript:** A shell script that runs the installation and restarts the computer.

These files are located in the AutoInstall folder of the LiveBackup for Mac.pkg. Administrative rights on the client computer are required to complete the following procedure.

1. From within the LiveBackup for Mac.pkg file, open AUTOINSTALL/AUTOCONFIG.TXT in a text editor.
2. [Required] Edit the `SERVER_IP=` line as follows:
Type the IP address of the Live Backup Server to which you want the client to connect. Make sure no spaces or special characters are added before or after the IP address.
3. [Optional] Edit the `GROUP_NAME=` line as follows:
Type the name of the group in which you want to place the Live Backup Client account on the server. Do not use any special characters.
If you do not edit the group name, the default group will be used.
4. [Optional] Edit the `CLIENT_NAME=` line as follows:
Type the name you want to give to the client account. Do not use any special characters.
If you do not specify a client name, then the client will be created using the host name of the computer in the group you specify.
5. You can now install the client by running the AutoInstallScript:
 - From a Terminal window, go to the **LiveBackup for Mac.pkg** directory.
 - Type: **sh AutoInstallScript**, and then press **Return**.Live Backup Client for Mac will be installed in the default location, and will use the connection parameters you specified in the AutoConfig.txt file.

Note Live Backup Client communicates with the Live Backup Server over port 8080. If you want to change this communication port, see “Allow the Mac client to connect to the Live Backup Server over a non-standard port” on page 96.

CHAPTER 6



6

Uninstalling Live Backup

This chapter describes how to remove Live Backup from your enterprise completely. It describes how to

- Uninstall Live Backup Client
- Uninstall Live Backup Server

Note that to completely remove Live Backup Server, you must uninstall it before uninstalling Microsoft SQL Server.

Uninstall Live Backup Client

To uninstall Live Backup Client from Windows

1. On the Live Backup Client computer, close all open programs.
 2. Click **Start**, point to **Settings**, and then click **Control Panel**.
 3. Double-click the **Add/Remove Programs** icon.
 4. In the Add or Remove Programs page, select **Atempo Live Backup Client 3.33**, and then click **Remove**.
 5. Read the removal confirmation dialog and click **Yes**.
- Atempo Live Backup Client is removed from your computer.

To uninstall Live Backup Client from Mac

1. In Finder, go to
/LIBRARY/APPLICATION SUPPORT/ATEMPO/LIVEBACKUP/TOOLS/LBMACCLEANUP.SH.
2. Run LBMACCLEANUP.SH.
3. Restart the computer.

Uninstall Live Backup Server

Warning If you uninstall Live Backup Server, clients will no longer be protected, and all backup files will be lost. Before you uninstall, consider backing up the data on the Live Backup Server.

Note To completely remove Live Backup Server, you must uninstall it before uninstalling Microsoft SQL Server.

1. On the Live Backup Server computer, close all open programs.
2. Click **Start**, point to **Settings**, and then click **Control Panel**.
3. Double-click the **Add/Remove Programs** icon.
4. In the Add or Remove Programs page, select **Atempo Live Backup Server 3.33**, and then click **Remove**.
5. Read the removal confirmation dialog and click **Yes**.
6. During the removal process, a second warning message appears informing you that all database and protected data will be removed as well. To continue uninstall, click **Yes**.

Atempo Live Backup Server is removed from your computer.
7. Press the **F5** key to refresh the Add or Remove Programs page. Verify that Live Backup Server is no longer in the Currently installed programs list.

Tip You may also uninstall Live Backup Client or Server by running the Setup program from the Live Backup CD-ROM. When Program Maintenance appears, select Modify. On the next screen, select components, and choose **This feature will not be available**.

CHAPTER 7



7

Upgrading Live Backup

You can update older versions of Live Backup to the most current version by running a simple installation procedure, and then deploying an upgrade to your client computers. After the Live Backup Server has been upgraded, you can configure it to send upgrade notifications to the Live Backup Clients.

You may upgrade Live Backup Server or Console 3.30 or later to version 3.33 with no data loss.

You may upgrade Live Backup Client 3.00 or later to Live Backup 3.33. Live Backup Server supports Live Backup Clients 3.20 and later.

In this chapter, you will learn about

- Upgrading Live Backup
- Upgrading Microsoft SQL Server
- Deploying the Live Backup Client upgrade (Windows)
- Notifying Mac clients of an upgrade

Upgrading Live Backup Server

Use the following procedure to upgrade Live Backup Server. The upgrade procedure updates all server application software including the Live Backup for Mac - Windows Service, during which time the Live Backup Console is unavailable. After it completes, the upgrade process will continue with updating the client databases, during which time you can resume using Live Backup Console. You can monitor this database upgrade process both in the details pane of the Clients node as well as server status: See “[View client or group information](#)” and “[Upgrade messages](#)” in the *Live Backup Administrator’s Companion Guide*.

You must upgrade Live Backup Server before upgrading Live Backup Clients.

Note Although you should close open applications before proceeding with the upgrade, there is no need to stop any services before upgrading Live Backup.

1. Insert the Live Backup 3.33 Disc 1 into the CD-ROM drive of the Live Backup Server computer.
Live Backup Setup begins.
2. Click **Next**.
3. In the Install Live Backup screen, click **Install Live Backup Server**.
4. In the Prerequisites Check screen, make sure all prerequisites are installed, and then click **Next**.

Live Backup Setup detects the presence of a previous version of Live Backup Server and begins the upgrade process.

5. Follow the instructions on your screen to complete the Live Backup Server upgrade.
6. In the Client Upgrade page of the Setup Wizard, you can choose whether to notify existing Live Backup Clients of the upgrade.

To send a notification to clients that will enable them to launch the upgrade locally, select the **Send upgrade notification to all clients immediately following Live Backup Server upgrade** option. If you choose this option, then an upgrade notification will appear on the Live Backup Client computer each time the user logs into the computer, until the upgrade is complete.

To notify and upgrade the clients manually, select the **Do not send client upgrade notifications** option. If you select this option, then you must update each client manually or update them using Web-based client deployment. See [“Install Live Backup Client from the corporate intranet” on page 67](#).

Once the Live Backup Server upgrade is complete, you can deploy the upgrade to your Live Backup Clients.

Important If you are upgrading from any version of Live Backup Server or Console other than 3.30. or later, you must either uninstall the previous version, and then perform a fresh installation of Live Backup 3.33, or upgrade sequentially to the 3.33 version. Note that if you choose to uninstall Live Backup Server, all protected data will be lost.

Important Live Backup 3.33 Server supports the following versions of Live Backup Client: 3.20, 3.21, 3.30, 3.31, 3.32, and 3.33. If you have an earlier version of the Live Backup Client software installed, then the Live Backup Server will not support that client, and the client computer's files will *lose protection*. If Setup detects this condition during upgrade, it will display a warning message.

To save a list (text file) of all outdated client names, groups, and version numbers, click the **Save the list of outdated clients** button, and then select a name and location for the list.

You can either continue the upgrade with the knowledge that some Live Backup Clients will lose protection until you upgrade them, or you can cancel the Live Backup Server upgrade, and then upgrade the Live Backup Clients first.


Upgrading Microsoft SQL Server

Live Backup Server 3.33 and later supports Microsoft SQL Server 2008 in addition to Microsoft SQL Server 2000 and 2005. If you have been using an older version of Microsoft SQL Server with Live Backup, and you want to upgrade to Microsoft SQL Server 2008, there are special procedures you need to follow. These procedures will ensure that the upgrade completes successfully, while retaining full Live Backup Server functionality.

Live Backup Server supports SQL Server 2008 on Windows Server 2008 operating systems only; however, SQL Server 2000 cannot be run on Windows Server 2008. Therefore, if you want to upgrade SQL Server 2000 to 2008, you will need to upgrade SQL Server 2000 to 2005, then upgrade Windows Server 2003 to 2008, and then finally upgrade SQL Server 2005 to 2008. For both SQL upgrades, follow the steps below.

While you perform the upgrade procedure, the Live Backup Server will be inoperable; however, once the upgrade is complete, full functionality is restored.

1. On the Live Backup Server, run Live Backup Console.
2. Expand the **Live Backup Servers** node.
3. Right-click *servername*, and then click **Prepare for SQL Server upgrade**.
4. In the confirmation message that appears, click **Yes**.
5. When the preparation process completes, another message appears indicating that it is safe to begin the SQL Server upgrade. Click **OK**.

All Live Backup Server functionality is suspended while the upgrade proceeds, and the Live Backup Server icon in the console appears as follows: .

6. Upgrade SQL Server according to Microsoft's instructions.
7. Once the SQL Server installation begins, create a subdirectory **BPACLIENT** under `C:\PROGRAM FILES\MICROSOFT SQL SERVER\90\SETUP BOOTSTRAP\BPA\BIN`.

Copy **BPACLIENT.DLL** from

`C:\PROGRAM FILES\MICROSOFT SQL SERVER\90\SETUP BOOTSTRAP\BPA\BIN`

to the new **BPACLIENT** folder you created. Allow SQL Server installation to complete.

8. Live Backup Server automatically detects when the SQL Server upgrade is complete, and then completes its own maintenance. When Live Backup Server has finished, functionality resumes.
9. Execute the following script: `"C:\PROGRAM FILES (X86)\ATEMPO\LIVEBACKUP SERVER\FORWIN64\POSTSQL2008UPGRADE.VBS"`.
10. Refresh the Live Backup Console: press **F5**.

Note If you choose not to upgrade SQL Server after you have already selected the Prepare for SQL Server upgrade option, then right-click *servername*, and then click **Undo preparation for SQL Server upgrade**.

Deploying the Live Backup Client upgrade

After upgrading Live Backup Server, you can deploy the Live Backup Client upgrade to the client computers throughout your organization over the corporate intranet. You can control when the update is broadcast as well as what installation options will appear for your client users.

This section describes the steps required to deploy the Live Backup Client upgrade, including

1. Deploy the upgrade to the client computers.
2. Receive and install the Live Backup Client update.
3. Monitor client updates.

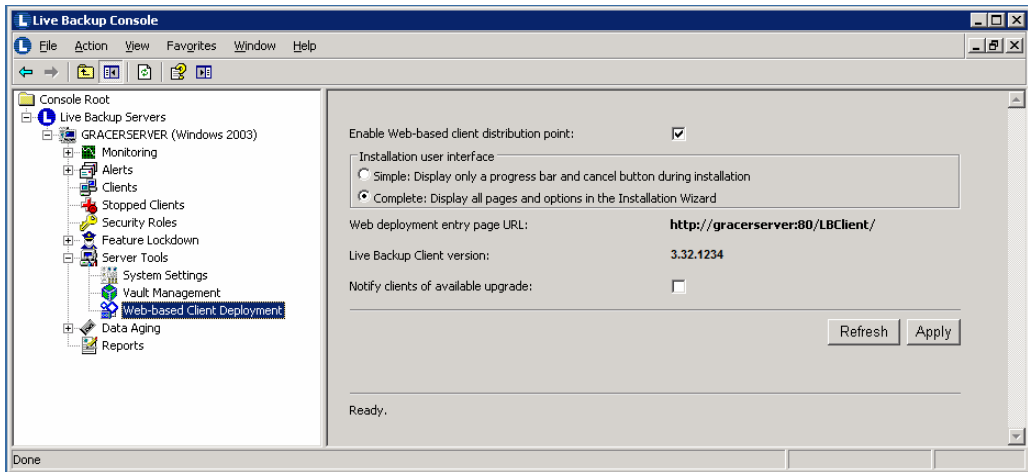
Deploy the upgrade to the client computers

You can broadcast a notification of the client upgrade over the corporate intranet.

To deploy the upgrade:

1. In the Live Backup Console, expand **Live Backup Servers**, and then expand *servername*.

- Expand **Server Tools**, and then click **Web-based Client Deployment**.



- Make sure the **Enable Web-based client distribution point** check box is selected.
- In the **Installation user interface** group box, select whether to install the upgrade silently or give client users control over the installation options.
 - To install the upgrade silently, displaying only a progress bar and cancel button during the installation, select the **Simple: Display only a progress bar and cancel button during installation** option button. This option uses the default settings and is recommended for most deployments.
 - To give the client users control over the installation options, select the **Complete: Display all pages and options in the Installation Wizard** option. Select this option only if your users need to modify installation paths.
- Select the **Notify clients of available upgrade** check box.
- Click **Apply**.

All installed clients with a supported version older than the Live Backup Server will either receive the Live Backup Client upgrade and begin installation automatically, or will receive a notification about the upgrade version with instructions to install. This notification will appear every time a user logs into the client computer, until the upgrade has been completed. Note that only Live Backup Super Users may modify

the update settings to receive a notification rather than an automatic installation.

Note Super Users, via the Update tab in Live Backup Control Center, have the option to update Live Backup Client automatically whenever an update is available, or to be notified when new updates are available. This option is not available to Users or Power Users.

Receive and install the Live Backup Client update

When the Live Backup Client update is available, an update notification is sent to the Live Backup Client computer, and by default installs immediately upon receipt.

If either the user logged into the client computer or the Live Backup Client itself has Super User privileges, then this default may be changed to display an update notification message before launching installation. This configuration then applies to all users of this particular Live Backup Client computer.

From this notification, the user can accept the update immediately or wait until a more convenient time using the following options:

- **Browse:** Opens the update Web page, from which the update installation may begin. For details on running the Web installation, see [“Run a Live Backup Client Web installation” on page 70](#).
- **Add to Favorites:** Places a shortcut to the Live Backup Client Web update in the Favorites folder of Internet Explorer. The user can then select this link from his/her Favorites list to launch the update at any time.
- **Cancel:** Closes the update notification with no changes.

Note The update notification will appear on the Live Backup Client computer daily, until the update is complete.

Note While the Live Backup Client is updating, it will be stopped.

Monitor client updates

After deploying a Live Backup Client update or upgrade, you should monitor its progress.

1. In the Live Backup Console, expand **Live Backup Servers**, and then expand *servername*.
2. Click **Clients**.
3. In the details pane, check the **Version** column.

Clients that have been updated will contain the new version number.

Notifying Mac clients of an upgrade

When you upgrade Live Backup Server, the Live Backup for Mac client package is updated as well. The Live Backup for Mac clients will receive a notification of this update automatically.

Periodically, Atempo may also provide maintenance updates to the Live Backup Client for Mac software. After you download these updates, you can notify your clients of their availability automatically.

1. For a full upgrade, skip to step 2.

If you have downloaded an update to the Live Backup for Mac Client software, copy this update to the following folder on the Live Backup Server:

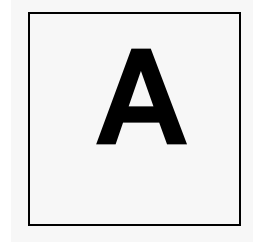
MACUPDATE\LBMACXXXX.ZIP (where the x's are replaced with the version number that is noted in the file name itself).

2. When the upgrade is available, Live Backup delivers an upgrade notification to the client: “An update for Live Backup Client for Mac is available. Would you like to install it now?”

To launch the upgrade immediately, click **Yes**. Otherwise, click **Remind me Later**. The client will continue to receive upgrade notifications until it is installed.

A P P E N D I X A

Special configuration considerations



This section describes the following topics that might apply to your company's networks and requirements:

- Novell NetWare requirements
- Changing ports used for server/client communication

Novell NetWare requirements

Live Backup is not designed to work directly within a Novell NetWare environment; however, if you have Novell NetWare 4.11 or greater, you can still configure your network to use Live Backup.

Each Live Backup user needs user privileges to perform a file recovery, system rollback, etc. These privileges are granted either to members of a specific Live Backup group—Power Users, Super Users, or Users, and/or to each individual Live Backup Client computer. When privileges are applied by user, these privileges are based on the Windows domain security model. When configuring Live Backup with Novell NetWare, it is simplest to configure privileges on a per-computer rather than per-user basis.

For details and the latest information on configuring Live Backup to work within your Novell NetWare environment, see the Knowledge Base at <http://www.atempo.com/support/kb>.

Changing ports used for server/client communication

Since Live Backup Server communicates with its clients using the HTTP protocol with standard port assignments, it requires no special configuration for communicating through a firewall. If your company is already setup to use the Internet, you should have no difficulties using Live Backup.

You may, however, change the port assignments if you so choose. The process of changing ports differs for Windows and Mac Live Backup Clients.

Allow the Live Backup Client for Windows to connect over a non-standard port

Although the default HTTP port for Live Backup for Windows Clients is 80, you may change it on the Live Backup Server before installing Live Backup Clients.

Note, however, that changing the port for Live Backup for Windows Clients data communication will also change the port used to deliver the Live Backup for Mac Clients software updates. To accommodate this change, additional configuration is necessary. See [“Configure a port for delivery of Live Backup for Mac Client software updates” on page 96](#).

Under Windows Server 2003 and IIS 6:

If Live Backup Server is the only Web application on the server, you can change the port for the Default Web site under Web Site Properties in the IIS Manager. If you change the port of the Default Web site, all communication will happen through the new port.

Under Windows Server 2008 and IIS 7:

If Live Backup Server is the only Web application on the server, you can change the port for the Default Web site by editing the Bindings in IIS Manager: Select the Default Web site, and then in the Action pane, click Edit Bindings. In the Site Bindings dialog box, modify the HTTP port. If you change the port of the Default Web site, all communication will happen through the new port.

Live Backup Client for Windows installation

If you change the port of the Default Web site, then when you install the Live Backup Clients, you must also specify the new port number. For example, if the new port number you chose was 777, you would specify the following in the Server screen of the Live Backup Client installation:

```
lbserver:777  
lbserver.company.com:777  
123.123.123.123:777
```

Note If you create and configure new Web directories, they will not be deleted if you uninstall Live Backup. You must remove them manually. If you uninstall Live Backup while IIS is running, then IIS will prevent you from removing any files that it is currently using. At the end of the uninstall, you will need to restart your computer to remove those files. You will then need to reconfigure IIS, to prevent errors about missing directories.

Allow the Mac client to connect to the Live Backup Server over a non-standard port

You can configure Live Backup Server to communicate with the Live Backup for Mac Client over a non standard port. To do so, you must configure two separate ports: one for software installation and updates and another for data backup and recovery.

Configure a port for delivery of Live Backup for Mac Client software updates

The port that you configure for the delivery of the Live Backup for Mac Client software is the same port that is used for Live Backup for Windows Client data communication. Therefore, before you modify this port, make sure that your Windows clients are also configured properly. For more information on how to configure the port in IIS and how to configure the Live Backup for Windows Clients, see [“Allow the Live Backup Client for Windows to connect over a non-standard port”](#) on page 95.

After you modify the port in IIS, you must also modify a configuration file that is included with the Live Backup for Mac Client package.

1. On the Live Backup Server, navigate to the following file:
C:\PROGRAM FILES\ATEMPO\LIVEBACKUP SERVER\MACCLIENT\LBMACSETUP.ZIP
2. From the ZIP file, extract AUTOINSTALL\AUTOCONFIG.TXT and open it in a text editor.

This file contains the following lines:

```
SERVER_IP=
WinFE_Port=8080
IIS_Port=80
GROUP_NAME=
CLIENT_NAME=
```

3. Edit the `IIS_Port=` line with the port number configured in IIS.
4. Save the file.
5. Add the modified version of `AUTOCONFIG.TXT` back to the archive file `LBMACSETUP.ZIP`.
6. Repeat this procedure with the following file:

```
C:\PROGRAM FILES\ATEMPO\LIVEBACKUP SERVER\MACUPDATE\LBMAC\WIN.ZIP
```

Both new installations and updates to the Live Backup for Mac Client software will be delivered over this new port.

Configure a port for data communication between the Live Backup Server and the Live Backup for Mac Client

By default, Live Backup Server communicates with the Live Backup for Mac Client over port 8080 for backup and recovery. You may change this default port by modifying a registry setting on the Live Backup Server and a configuration file included with the Live Backup for Mac Client package.

To configure a nonstandard port on Live Backup Server:

1. Live Backup Server communication with the Mac Client is managed by the WinFE service. To configure a port, you must first stop this service:
 - On the Live Backup Server, run **Services.msc**.
 - In the Local Services list, right-click **WinFE**, point to **All Tasks**, and then click **Stop**.
2. Now you must edit a key to the Windows Registry:
 - Run Regedit.
 - Navigate to the following key:
 - 32-bit Windows**
HKEY_LOCAL_MACHINE\SOFTWARE\Atempo\LiveBackup Server\
 - 64-bit Windows**

```
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Atempo\LiveBackup  
Server\
```

- Right-click the registry key, **WinFEPort**, point to **Modify**, and then replace the **Value** “8080” with the port number that you want to assign.
 - Close Regedit.
3. Restart the WinFE service, and then close Services.msc.
You can now modify the configuration file.

To modify the port configuration file:

1. On the Live Backup Server, navigate to the following file:
C:\PROGRAM FILES\ATEMPO\LIVEBACKUP SERVER\MACCLIENT\LBMACSETUP.ZIP
2. From the ZIP file, extract AUTOINSTALL\AUTOCONFIG.TXT and open it in a text editor.
This file contains the following lines:

```
SERVER_IP=  
WinFE_Port=8080  
IIS_Port=80  
GROUP_NAME=  
CLIENT_NAME=
```

3. Edit the `WinFE_Port=` line with the port number configured in the registry.
4. Save the file.
5. Add the modified version of AUTOCONFIG.TXT back to the archive file LBMACSETUP.ZIP.
6. Repeat this procedure with the following file:

```
C:\PROGRAM FILES\ATEMPO\LIVEBACKUP SERVER\MACUPDATE\LBMACNNN.ZIP
```

Both new installations and updates to the Live Backup for Mac Client software will use this port for data backup and recovery.

7. If you are modifying this port assignment after installation, you must modify the AUTOCONGFIG.TXT file on each Live Backup for Mac Client computer at the following location:

```
/LIBRARY/APPLICATION SUPPORT/ATEMPO/LIVEBACKUP/
```

After editing and saving AUTOCONFIG.TXT, restart the Mac computer to reset the port configuration.

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