



IPSWITCH

Database Migration and Management Guide v14.4

Learn how to migrate a WhatsUp Gold database from Microsoft® SQL Server® 2005 Express Edition to Microsoft® SQL Server® 2005 or 2008 Enterprise, Standard, or Workgroup Editions.



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CHAPTER 1

Migrating WhatsUp Gold to a new server

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This section explains how to migrate an installation of WhatsUp Gold from one server to another.

If you are using a local Microsoft SQL Server 2005 Express Edition, Microsoft SQL Server 2005 or Microsoft SQL Server 2008 database with WhatsUp Gold, follow the instructions for *Migrating WhatsUp Gold with a local database* (on page 3).

If you are using a remote database with WhatsUp Gold, follow the instructions for *Migrating WhatsUp Gold with a remote database* (on page 12).



Note: The procedures in this guide assume that you are using WhatsUp Gold v12.3 or later. If you are using an earlier version, we strongly recommend you upgrade prior to moving WhatsUp Gold to a new server.

Migrating WhatsUp Gold with a local database

These instructions explain how to move an installation of WhatsUp Gold that is using a local database from one server to another.

Step 1: Upgrade existing server to latest version of WhatsUp Gold

To successfully migrate WhatsUp Gold from one server to another, the versions of WhatsUp Gold on both servers must match exactly. We strongly recommend upgrading to the latest version of WhatsUp Gold, which is available to active service agreement holders on the Mylpswitch customer portal. If you are not an active service agreement holder, you can renew your service agreement in the Mylpswitch customer portal.

To download the latest version of WhatsUp Gold:

- 1 Go to the *MyIpswitch.com customer portal* (<http://www.myipswitch.com/>).
- 2 If you do not have an account, click **Sign up now** and create a new account.
- or -
If you have an account, enter your email address and password to access your MyIpswitch account.
- 3 Select the **My Downloads** tab. The My Downloads page appears.
- 4 In the **Network Management** section, locate the latest version of WhatsUp Gold that is available to you. If this version is newer than the currently installed version of WhatsUp Gold, click **Download**. The file begins downloading.

After the download completes, launch the installation program to upgrade. Follow the on-screen instructions to complete the installation.



Tip: Additional installation instructions are available in the Release Notes, which are available from the first screen of the installation program.

Step 2: Back up existing databases

To move the data from the existing server to the new server, you must first back up the databases.



Caution: Any data collected from the time you back up the databases to when you restore them on the new server will be lost. We recommend executing these steps during non-peak times, when minimal downtime can be tolerated.

To back up the databases:

- 1 Back up the WhatsUp Gold database.
 - a) From the WhatsUp Gold console, select **Tools > Database Utilities > Back Up WhatsUp SQL Database**. The Save Database As dialog appears.
 - b) Enter a name for the database backup file, such as `whatsup_backup.bak`, then click **Save**.
- 2 Back up the Flow Monitor database.
 - a) From the WhatsUp Gold console, select **Tools > Database Utilities > Back Up Flow Monitor SQL Databases > Back Up Flow Monitor Current Database**. The Save Database As dialog appears.
 - b) Enter a name for the database backup file, such as `nf_backup.bak`, then click **Save**.
- 3 Back up the Flow Monitor archive database.
 - a) From the WhatsUp Gold console, select **Tools > Database Utilities > Back Up Flow Monitor SQL Databases > Back Up Flow Monitor Archive Database**. The Save Database As dialog appears.
 - b) Enter a name for the database backup file, such as `nfarchive_backup.bak`, then click **Save**.

- 4 Close the WhatsUp Gold console.



Note: These operations may take some time depending on the size of your database.



Note: Even if you do not use the WhatsUp Gold Flow Monitor plug-in, you need to back up the Flow Monitor databases.

Step 3: Disable WhatsUp Gold on existing server

Your license provides a limited number of activations, so we recommend deactivating the license on the existing server before installing on the new server.

To deactivate the license on the existing server:

- 1 From the Windows Start menu, select **Programs > Ipswitch WhatsUp Gold > Manage WhatsUp Gold License**. The WhatsUp Gold Activation utility appears.
- 2 Select **Deactivate this license on this computer**, then click **Next**. The license is deactivated.
- 3 Click **Finish** to close the WhatsUp Gold Activation utility.

Step 4: Copy installation program and database backup files to new server

Using a network share, common FTP server, USB thumb drive, or whatever method you prefer, copy the installation program and the database backup files to the new server. We recommend storing these files in a temporary directory.

Step 5: Install WhatsUp Gold on new server

Using the installation program that you copied in step four, install WhatsUp Gold. The steps to do this vary depending on whether you are installing using Microsoft SQL Server 2005 Express Edition, Microsoft SQL Server 2005 or Microsoft SQL Server 2008.

To install WhatsUp Gold using the default Microsoft SQL Server 2005 Express Edition instance:

- 1 Log in directly to Microsoft Windows using the *Administrator* account (if you do not have an account called Administrator, use an account that has full administrative privileges to the computer).



Caution: We do *not* recommend using Terminal Services or Remote Desktop to install WhatsUp Gold.

- 2 Start the installation program:
 - If you downloaded an electronic version of WhatsUp Gold, double-click on the downloaded file.

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- If you purchased a WhatsUp Gold CD-ROM, insert the CD-ROM into the appropriate drive. If it does not run automatically, click **Start**, select **Run**, then enter the CD path followed by `AutoRun.exe` (for example, `D:\AutoRun.exe`).
- 3** Read the Welcome screen.
- Click a link to view a Help resource.
- Ensure that **Hide advanced installation options** is selected.
- Click **Next**. The License Agreement dialog appears.
- 4** Read the license agreement. If you accept the terms of the license agreement, select **I accept the terms of the license agreement**.
- To print a copy of the license agreement, click **Print**. The license agreement is sent to the default printer.
 - If you do not accept the terms of the license agreement, click **Cancel** to exit the installation program.
- Click **Next** to continue. The Microsoft SQL Server 2005 Express Edition Paths dialog appears.
- 5** Select the install directories for Microsoft SQL Server 2005 Express Edition. The application and data files are installed in default directories. To change the locations, click **Browse** to find and select a different directory for the application files or the data files.



Important: Make sure that you have a large capacity drive selected for data storage. The data files for WhatsUp Gold can reach a maximum size of 22 GB.



Important: During the initial installation, databases are created for WhatsUp Gold Flow Monitor. These initial databases are limited in size, but are increased the first time the Flow Monitor collector initializes. If at least 16 GB of disk space are available when the collector initializes, the maximum size of the Flow Monitor databases is increased to 4 GB each (16 GB total including transaction logs). If less than 16 GB is available, the maximum size of the Flow Monitor databases is limited proportionately to the amount of free disk space. If your license includes WhatsUp Gold Flow Monitor, we strongly recommend that you verify that you have at least 16 GB of free disk space before installing.

Click **Next**. The SQL Account Password dialog appears.



Important: If you want to change the SQL Server user account, the account you want to use must have the same permissions as the 'sa' account.

- 6** Specify a **User Name** for the account and enter and confirm a **Password**. You also have the option to **Keep the default password**.
- Click **Next**.

- 7 Select the installation directory for the WhatsUp Gold application files.

The default path is C:\Program Files\Ipswitch\WhatsUp. We recommend that you use the default path. After you select the installation directory, click **Next**.



Tip: The Program Files directory name may vary if on a 64 bit system (for example, *Program Files (x86)*). You can install WhatsUp Gold to a different location. To select a different location, click **Change**.



Note: If the installation program detects data from a previous installation of WhatsUp Gold, the Backup Web and Report Files dialog appears. We recommend that you select **Back up the existing Web and report files**, then click **Next**.

- 8 Either select to **Keep the default Admin password**, or enter and confirm a new password.
- 9 Select the IIS web site to use for the WhatsUp Web Interface. After you have selected the IIS web site, click **Next**. The Ready to Install the Program dialog appears.
- 10 Click **Install** to install WhatsUp Gold. The setup program installs and configures WhatsUp Gold.

When the installation completes, the InstallShield Wizard Complete dialog appears. To see the release notes after the installation program closes, select **View WhatsUp Gold release notes and documentation**. Click **Finish**. The setup program closes.



Note: The first time you open the WhatsUp Gold, you are prompted to run a network discovery. It is not necessary to run a discovery at this time, as all of the data collected will be overwritten by your existing database.

To install using an existing Microsoft SQL Server:

- 1 Log in directly to Microsoft Windows using the *Administrator* account (if you do not have an account called Administrator, use an account that has full administrative privileges to the computer).



Caution: We do *not* recommend using Terminal Services or Remote Desktop to install WhatsUp Gold.

- 2 Start the installation program:
 - If you downloaded an electronic version of WhatsUp Gold, double-click on the downloaded file.
 - If you purchased a WhatsUp Gold CD-ROM, insert the CD-ROM into the appropriate drive. If it does not run automatically, click **Start**, select **Run**, then enter the CD path followed by *AutoRun.exe* (for example, D:\AutoRun.exe).

3 Read the Welcome screen.

Click a link to view a Help resource.

Clear **Hide advanced installation options**. This option's selection must be cleared in order for you to use Microsoft SQL Server as the WhatsUp Gold database.

Click **Next**. The License Agreement dialog appears.

4 Read the license agreement. If you accept the terms of the license agreement, select **I accept the terms of the license agreement**.

- To print a copy of the license agreement, click **Print**. The license agreement is sent to the default printer.
- If you do not accept the terms of the license agreement, click **Cancel** to exit the installation program.

Click **Next** to continue. The Microsoft SQL Server Installation Options dialog appears.

5 Select **Use an existing installation of Microsoft SQL Server**, then click **Next**. The Database Server Login dialog appears.



Important: Make sure that the "master" database for the existing SQL Server database instance that is hosting the WhatsUp database is configured to use case-insensitive collation.



Tip: If you cannot remember your database server's hostname, click **Browse** to see a list of all database servers detected on the domain. Database servers to which you can connect but which are not configured on the same domain as the computer where you are installing WhatsUp Gold are not shown. The Browse dialog scans your entire domain, so it may take some time before showing you a list of database servers.

- a) In **Database server that you are installing to**, enter the hostname, or hostname and instance of your database server.



Note: If you are using a database instance other than the default instance, you must include the instance name using the format <Server_Name>\<Instance_Name>.

- b) In **SQL Server Authentication**, enter the correct **Login ID** and **Password**.



Important: If you want to change the SQL Server user account, the account you want to use must have the same permissions as the 'sa' account.

- c) Click **Next**. The installation program attempts to validate the credentials you entered and checks for the existence of WhatsUp Gold databases on the database server. If WhatsUp Gold databases are found on the database server, the setup program alerts you and asks if you want to continue.
- Select **Yes** to upgrade the databases and continue the installation.
 - Select **No** to select another Microsoft SQL Server. After the credentials are validated, the Enter Microsoft SQL Server 2005 Express Edition Paths dialog appears.

- This dialog lists the third-party resources that the installation program installs, including Microsoft SQL Server 2005 Express Edition client tools (required for installations of WhatsUp Gold that use Microsoft SQL Server databases) and Microsoft .NET Framework 3.5.

Click **Next**. The Choose Destination Location dialog appears.

- Select the installation directory for the WhatsUp Gold application files.

The default path is C:\Program Files\Ipswitch\WhatsUp. We recommend that you use the default path. After you select the installation directory, click **Next**.



Tip: The Program Files directory name may vary if on a 64 bit system (for example, Program Files (x86)). You can install WhatsUp Gold to a different location. To select a different location, click **Change**.



Note: If the installation program detects data from a previous installation of WhatsUp Gold, the Backup Web and Report Files dialog appears. We recommend that you select **Back up the existing Web and report files**, then click **Next**.

The Specify Web Interface Account dialog appears.

- Either select to **Keep the default Admin password**, or enter and confirm a new password. The Select IIS Website dialog appears.

Select the IIS web site to use for the WhatsUp Web Interface. After you have selected the IIS web site, click **Next**. The Specify a Windows user account and password dialog appears.

- Specify a User Name for the Windows user account and enter and confirm a Password. Click **Next**. The Ready to Install the Program dialog appears.
- Click **Install** to install WhatsUp Gold. The setup program installs and configures WhatsUp Gold.

When the installation completes, the InstallShield Wizard Complete dialog appears. To see the release notes after the installation program closes, select **View WhatsUp Gold release notes and documentation**. Click **Finish**. The setup program closes.



Note: The first time you open the WhatsUp Gold, you are prompted to run a network discovery. It is not necessary to run a discovery at this time, as all of the data collected will be overwritten by your existing database.

Step 6: Restore backed up databases over new server's default databases

After WhatsUp Gold is installed using the default database, you can restore your existing database.



Note: You can only restore the database from a local drive; you cannot restore a database from a network drive.

To restore the backed-up databases over the new server's default databases:

- 1 Restore the WhatsUp Gold database.
 - a) From the WhatsUp Gold console, select **Tools > Database Utilities > Restore WhatsUp SQL Database**. The Restore Database From dialog appears.
 - b) Locate and select the database backup file that you moved from the existing WhatsUp Gold server, then click **Open**.



Note: If a dialog appears informing you that the WhatsUp service must be stopped and restarted during a database restore, click **Yes**.

- 2 Restore the Flow Monitor database.
 - a) From the WhatsUp Gold console, select **Tools > Database Utilities > Restore Flow Monitor SQL Databases > Restore Flow Monitor Current Database**. The Restore Database From dialog appears.
 - b) Locate and select the database backup file that you moved from the existing WhatsUp Gold server, then click **Open**.



Note: If a dialog appears informing you that the Flow Monitor service must be stopped and restarted during a database restore, click **Yes**.

- 3 Restore the Flow Monitor Archive database.
 - a) From the WhatsUp Gold console, select **Tools > Database Utilities > Restore Flow Monitor SQL Databases > Restore Flow Monitor Archive Database**. The Restore Database From dialog appears.
 - b) Locate and select the database backup file that you moved from the existing WhatsUp Gold server, then click **Open**.



Note: If a dialog appears informing you that the Flow Monitor service must be stopped and restarted during a database restore, click **Yes**.

Step 7: Migrate settings and files that are not stored in database

WhatsUp Gold stores some settings in the Windows Registry which must be manually re-entered on the new server.



Caution: We do not recommend exporting registry hives on the existing server to import on the new server, as some settings are custom to the specific computer. Importing the computer-specific settings from one computer into the registry of another can result in instability.



Important: Make sure that non-default port settings are set appropriately on the computer you migrate WhatsUp Gold to.

If any of the following settings were modified on the existing server, the modifications must be repeated on the new server:

- Web Server (**Configure > Program Options > Web Server**)
- Passive Monitor Listeners (**Configure > Program Options > Passive Monitor Listeners**)
- Report Data (**Configure > Program Options > Report Data**)
- Regional (**Configure > Program Options > Regional**)
- Modem port settings (available from the Beeper and Pager actions dialogs)

In addition, any settings manually configured in the registry must also be reconfigured on the new server.

Finally, copy files you have added to the `Data` subfolder of the WhatsUp Gold install directory to the same location on the new server. These files include custom sounds, MIB files, device icons, and SSL certificates.

Step 8: Restart WhatsUp Gold services on new server

We recommend restarting the server for optimal performance. If restarting the entire server is not an option, however, you can restart the following services:



Tip: You can use the WhatsUp Services Controller dialog (Ipswitch Service Control Manager) to manage services. For more information, see *About the WhatsUp Services Controller*.



Note: Some services are optional. If the associated product is not licensed and enabled you may not be able to start and stop the service with the WhatsUp Services Controller dialog (Ipswitch Services Control Manager). Your license file determines whether or not you can access a plug-in. To update your license to purchase WhatsUp Gold Flow Monitor, VoIP plug-in, WhatsConnected, or WhatsConfigured, visit the *MyIpswitch portal* (<http://www.myipswitch.com>).

- Polling Engine (`nm-service.exe`)
- Flow Collector (`bwcollector.net.exe`)
- Alert Center (`alertcenterservice.exe`)
- Trivial File Transfer Protocol Server (`TFTP-service.exe`)
- Whats Configured (`networkconfigservice.exe`)
- Discovery (`discoveryservice.exe`)
- Web Server (`nmwebservice.exe`)
- Failover Manager (`nmfailover.exe`)
- API (`nmapi.exe`)
- Whats Connected Data Service (`networkviewerdataservice.exe`)
- Whats Virtual Service (`whatsvirtualservice.exe`)

- Internet Information Services (IIS) if used instead of the WhatsUp Web Server. IIS is available as the World Wide Web Publishing Service in the Services applet of the Control Panel.

Migrating WhatsUp Gold with a remote Microsoft SQL Server database

These instructions explain how to move an installation of WhatsUp Gold that is using a remote Microsoft SQL Server 2005 or Microsoft SQL Server 2008 database from one server to another.

Prerequisites

You can use an existing Microsoft SQL Server 2005, Microsoft SQL Server 2008, or Microsoft SQL Server Cluster 2005, 2008, or 2008 R2 to store the data collected by WhatsUp Gold. To do this, these requirements must be met:

- Microsoft SQL Server 2005, Microsoft SQL Server 2008, or Microsoft SQL Server Cluster 2005, 2008, or 2008 R2 English must be installed on the WhatsUp Gold host computer or another computer.



Important: Make sure that the "master" database for the existing SQL Server database instance that is hosting the WhatsUp database is configured to use case-insensitive collation.



Important: WhatsUp Gold does not support non-English versions of Microsoft SQL Server 2005, Microsoft SQL Server 2008, or Microsoft SQL Server Cluster 2005, 2008, or 2008 R2.

- Microsoft SQL Server 2005, Microsoft SQL Server 2008, or Microsoft SQL Server Cluster 2005, 2008, or 2008 R2 must be configured to allow WhatsUp Gold to authenticate.
- If Microsoft SQL Server is installed on a remote computer, remote connections must be allowed. For more information, see *How to configure Microsoft SQL Server to allow remote connections* (<http://support.microsoft.com/kb/914277>).
- Use a Microsoft SQL Server user account to connect to the database.
- Microsoft SQL Server must be configured to have a user account that meets the following requirements:
 - Full administrator privileges to Microsoft SQL Server. WhatsUp Gold also supports accessing the database via an account with reduced administrative privileges. For instructions on how to make this modification, see *Using a Limited Rights Account with WhatsUp Gold* on page 27.
 - User's language is set to (United States) English. This can be set in the properties for the login used by WhatsUp Gold.

If you need assistance configuring or verifying these prerequisites, contact your database administrator or refer to the *Microsoft SQL Server documentation* (<http://support.microsoft.com/ph/2855>).

Step 1: Upgrade existing server to latest version of WhatsUp Gold

To successfully migrate WhatsUp Gold from one server to another, the versions of WhatsUp Gold on both servers must match exactly. We strongly recommend upgrading to the latest version of WhatsUp Gold, which is available to active service agreement holders on the Mylpswitch customer portal. If you are not an active service agreement holder, you can renew your service agreement in the Mylpswitch customer portal.

To download the latest version of WhatsUp Gold:

- 1 Go to the *Mylpswitch.com* customer portal (<http://www.mylpswitch.com/>).
- 2 If you do not have an account, click **Sign up now** and create a new account.

- or -

If you have an account, enter your email address and password to access your Mylpswitch account.

- 3 Select the **My Downloads** tab. The My Downloads page appears.
- 4 In the **Network Management** section, locate the latest version of WhatsUp Gold that is available to you. If this version is newer than the currently installed version of WhatsUp Gold, click **Download**. The file begins downloading.

After the download completes, launch the installation program to upgrade. Follow the on-screen instructions to complete the installation.



Tip: Additional installation instructions are available in the Release Notes, which are available from the first screen of the installation program.

Step 2: Disable WhatsUp Gold on existing server

Your license provides a limited number of activations, so we recommend deactivating the license on the existing server before installing on the new server.

To deactivate the license on the existing server:

- 1 From the Windows Start menu, select **Programs > Ipswitch WhatsUp Gold > Manage WhatsUp Gold License**. The WhatsUp Gold Activation utility appears.
- 2 Select **Deactivate this license on this computer**, then click **Next**. The license is deactivated.
- 3 Click **Finish** to close the WhatsUp Gold Activation utility.

After you deactivate the license, you can safely uninstall WhatsUp Gold.



Warning: During the uninstall, select **Remove the WhatsUp Gold application, but leave network data I have collected intact**. Selecting any other option will delete all of the data from the WhatsUp Gold database.

To uninstall Ipswitch WhatsUp Gold with Windows XP or 2003:

- 1 Select **Start > Settings > Control Panel**, then select **Add or Remove Programs**.
- 2 Select Ipswitch WhatsUp Gold.
- 3 Select **Remove**.

To uninstall Ipswitch WhatsUp Gold with Windows Vista or Server 2008:

- 1 Select **Start > Settings > Control Panel**. The Control Panel dialog appears.
- 2 Under **Programs**, select **Uninstall a Program**.
- 3 Select Ipswitch WhatsUp Gold.
- 4 Select **Remove**.

You can also run the Ipswitch WhatsUp Gold installation program, then select **Remove**.

Step 3: Install WhatsUp Gold on new server

To install WhatsUp Gold on a web server:

- 1 Log in directly to Microsoft Windows using the *Administrator* account (if you do not have an account called Administrator, use an account that has full administrative privileges to the computer).



Caution: We do *not* recommend using Terminal Services or Remote Desktop to install WhatsUp Gold.

- 2 Start the installation program:
 - If you downloaded an electronic version of WhatsUp Gold, double-click on the downloaded file.
 - If you purchased a WhatsUp Gold CD-ROM, insert the CD-ROM into the appropriate drive. If it does not run automatically, click **Start**, select **Run**, then enter the CD path followed by `AutoRun.exe` (for example, `D:\AutoRun.exe`).
- 3 Read the Welcome screen.

Click a link to view a Help resource.

Clear **Hide advanced installation options**. This option's selection must be cleared in order for you to use Microsoft SQL Server as the WhatsUp Gold database.

Click **Next**. The License Agreement dialog appears.
- 4 Read the license agreement. If you accept the terms of the license agreement, select **I accept the terms of the license agreement**.
 - To print a copy of the license agreement, click **Print**. The license agreement is sent to the default printer.
 - If you do not accept the terms of the license agreement, click **Cancel** to exit the installation program.

Click **Next** to continue. The Microsoft SQL Server Installation Options dialog appears.

- 5 Select **Use an existing installation of Microsoft SQL Server**, then click **Next**. The Database Server Login dialog appears.



Important: Make sure that the "master" database for the existing SQL Server database instance that is hosting the WhatsUp database is configured to use case-insensitive collation.



Tip: If you cannot remember your database server's hostname, click **Browse** to see a list of all database servers detected on the domain. Database servers to which you can connect but which are not configured on the same domain as the computer where you are installing WhatsUp Gold are not shown. The Browse dialog scans your entire domain, so it may take some time before showing you a list of database servers.

- a) In **Database server that you are installing to**, enter the hostname, or hostname and instance of your database server.



Note: If you are using a database instance other than the default instance, you must include the instance name using the format <Server_Name>\<Instance_Name>.

- b) In **SQL Server Authentication**, enter the correct **Login ID** and **Password**.



Important: If you want to change the SQL Server user account, the account you want to use must have the same permissions as the 'sa' account.

- c) Click **Next**. The installation program attempts to validate the credentials you entered and checks for the existence of WhatsUp Gold databases on the database server. If WhatsUp Gold databases are found on the database server, the setup program alerts you and asks if you want to continue.
 - Select **Yes** to upgrade the databases and continue the installation.
 - Select **No** to select another Microsoft SQL Server. After the credentials are validated, the Enter Microsoft SQL Server 2005 Express Edition Paths dialog appears.
- 6 This dialog lists the third-party resources that the installation program installs, including Microsoft SQL Server 2005 Express Edition client tools (required for installations of WhatsUp Gold that use Microsoft SQL Server databases) and Microsoft .NET Framework 3.5.

Click **Next**. The Choose Destination Location dialog appears.

- 7 Select the installation directory for the WhatsUp Gold application files.

The default path is C:\Program Files\Ipswitch\WhatsUp. We recommend that you use the default path. After you select the installation directory, click **Next**.



Tip: The Program Files directory name may vary if on a 64 bit system (for example, Program Files (x86)). You can install WhatsUp Gold to a different location. To select a different location, click **Change**.



Note: If the installation program detects data from a previous installation of WhatsUp Gold, the Backup Web and Report Files dialog appears. We recommend that you select **Back up the existing Web and report files**, then click **Next**.

The Specify Web Interface Account dialog appears.

- 8** Either select to **Keep the default Admin password**, or enter and confirm a new password. The Select IIS Website dialog appears.
Select the IIS web site to use for the WhatsUp Web Interface. After you have selected the IIS web site, click **Next**. The Specify a Windows user account and password dialog appears.
- 9** Specify a User Name for the Windows user account and enter and confirm a Password. Click **Next**. The Ready to Install the Program dialog appears.
- 10** Click **Install** to install WhatsUp Gold. The setup program installs and configures WhatsUp Gold.
- 11** When the installation completes, the InstallShield Wizard Complete dialog appears. To see the release notes after the installation program closes, select **View WhatsUp Gold release notes and documentation**. Click **Finish**. The setup program closes.



Note: The first time you open the WhatsUp Gold console, you are prompted to run a network discovery. It is not necessary to run a discovery at this time, as all of the data collected will be overwritten by your existing database.

Step 4: Migrate settings and files that are not stored in database

WhatsUp Gold stores some settings in the Windows Registry which must be manually re-entered on the new server.



Caution: We do not recommend exporting registry hives on the existing server to import on the new server, as some settings are custom to the specific computer. Importing the computer-specific settings from one computer into the registry of another can result in instability.



Important: Make sure that non-default port settings are set appropriately on the computer you migrate WhatsUp Gold to.

If any of the following settings were modified on the existing server, the modifications must be repeated on the new server:

- Web Server (**Configure > Program Options > Web Server**)
- Passive Monitor Listeners (**Configure > Program Options > Passive Monitor Listeners**)
- Report Data (**Configure > Program Options > Report Data**)
- Regional (**Configure > Program Options > Regional**)
- Modem port settings (available from the Beeper and Pager actions dialogs)

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In addition, any settings manually configured in the registry must also be reconfigured on the new server.

Finally, copy files you have added to the `Data` subfolder of the WhatsUp Gold install directory to the same location on the new server. These files include custom sounds, MIB files, device icons, and SSL certificates.

CHAPTER 2

Migrating the WhatsUp Gold Microsoft SQL Server 2005 Express Edition database to Microsoft SQL Server

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This section explains how to migrate the WhatsUp Gold database from an instance of Microsoft SQL Server 2005 Express Edition installed on the same computer as WhatsUp Gold to a local or remote instance of Microsoft SQL Server 2005 or Microsoft SQL Server 2008.

These instructions assume you are using the latest version of WhatsUp Gold. To migrate a database from a previous version of WhatsUp Gold, you can:

- Upgrade to WhatsUp Gold v12.3 or later and follow these instructions.



Note: WhatsUp Gold v12.3 or later introduces automatic database upgrades. It is no longer necessary to manually execute SQL scripts to upgrade a non-standard database.

- Consult the user guide for the previous version of WhatsUp Gold for instructions specific to that version.

Step 1: Verify Microsoft SQL Server meets requirements

You can use an existing Microsoft SQL Server 2005, Microsoft SQL Server 2008, or Microsoft SQL Server Cluster 2005, 2008, or 2008 R2 to store the data collected by WhatsUp Gold. To do this, these requirements must be met:

- Microsoft SQL Server 2005, Microsoft SQL Server 2008, or Microsoft SQL Server Cluster 2005, 2008, or 2008 R2 English must be installed on the WhatsUp Gold host computer or another computer.



Important: Make sure that the "master" database for the existing SQL Server database instance that is hosting the WhatsUp database is configured to use case-insensitive collation.



Important: WhatsUp Gold does not support non-English versions of Microsoft SQL Server 2005, Microsoft SQL Server 2008, or Microsoft SQL Server Cluster 2005, 2008, or 2008 R2.

- Microsoft SQL Server 2005, Microsoft SQL Server 2008, or Microsoft SQL Server Cluster 2005, 2008, or 2008 R2 must be configured to allow WhatsUp Gold to authenticate.
- If Microsoft SQL Server is installed on a remote computer, remote connections must be allowed. For more information, see *How to configure Microsoft SQL Server to allow remote connections* (<http://support.microsoft.com/kb/914277>).
- Use a Microsoft SQL Server user account to connect to the database.
- Microsoft SQL Server must be configured to have a user account that meets the following requirements:
 - Full administrator privileges to Microsoft SQL Server. WhatsUp Gold also supports accessing the database via an account with reduced administrative privileges. For instructions on how to make this modification, see *Using a Limited Rights Account with WhatsUp Gold* on page 27.
 - User's language is set to (United States) English. This can be set in the properties for the login used by WhatsUp Gold.

If you need assistance configuring or verifying these prerequisites, contact your database administrator or refer to the *Microsoft SQL Server documentation* (<http://support.microsoft.com/ph/2855>).



Note: WhatsUp Gold no longer supports Microsoft SQL Server 2000.

Step 2: Back up the database

Execute this procedure on the computer where WhatsUp Gold is installed.

- 1 From the WhatsUp Gold console, back up the WhatsUp and Flow Monitor databases.



Note: When you back up a database, you are prompted for a file name for the backup file and a folder to save it in.

- To back up the WhatsUp database, select **Tools > Database Utilities > Back Up WhatsUp SQL Database**.
 - To back up the Flow Monitor database, select **Tools > Database Utilities > Back Up Flow Monitor SQL Databases > Back Up Flow Monitor Current Database**.
 - To back up the NFArchive database, select **Tools > Database Utilities > Back Up Flow Monitor SQL Databases > Back Up Flow Monitor Archive Database**.
- 2 Close or shut down all programs and services that interact with WhatsUp Gold.
 - Close the WhatsUp Gold console.



Tip: You can use the WhatsUp Services Controller dialog (Ipswitch Service Control Manager) to manage services. For more information, see About the WhatsUp Services Controller.



Note: Some services are optional. If the associated product is not licensed and enabled you may not be able to start and stop the service with the WhatsUp Services Controller dialog (Ipswitch Services Control Manager). Your license file determines whether or not you can access a plug-in. To update your license to purchase WhatsUp Gold Flow Monitor, VoIP plug-in, WhatsConnected, or WhatsConfigured, visit the *MyIpswitch portal* (<http://www.myipswitch.com>).

- Polling Engine (`nm-service.exe`)
- Flow Collector (`bw-collector-net.exe`)
- Alert Center (`alert-center-service.exe`)
- Trivial File Transfer Protocol Server (`TFTP-service.exe`)
- Whats Configured (`network-config-service.exe`)
- Discovery (`discovery-service.exe`)
- Web Server (`nm-web-service.exe`)
- Failover Manager (`nm-failover.exe`)
- API (`nm-api.exe`)
- Whats Connected Data Service (`network-viewer-data-service.exe`)
- Whats Virtual Service (`what-virtual-service.exe`)

- Internet Information Services (IIS) if used instead of the WhatsUp Web Server. IIS is available as the World Wide Web Publishing Service in the Services applet of the Control Panel.
 - Close the Ipswitch Task Tray application and the WhatsUp Gold Desktop Actions task tray application. For each, right-click the icon and select **Close**.
- 3 If the Microsoft SQL Server 2005 or Microsoft SQL Server 2008 server to which you are migrating the database is installed on another computer, copy the .bak files created during the backup process to the remote computer. These files are located in the locations you specified during step 1.

Step 3: Migrate the database to Microsoft SQL Server 2005 or Microsoft SQL Server 2008

Execute this procedure on the computer where Microsoft SQL Server 2005 or Microsoft SQL Server 2008 is installed.

- 1 Open a command prompt on the computer where Microsoft SQL Server 2005 or Microsoft SQL Server 2008 is installed.
- 2 Create three databases on Microsoft SQL Server 2005 or Microsoft SQL Server 2008. These are the databases into which you will restore the backups from Microsoft SQL Server 2005 Express Edition. To create the databases, execute the following case-sensitive commands:



Note: In the following commands, substitute <SQL server name> with the host name of Microsoft SQL Server 2005 or Microsoft SQL Server 2008. If Microsoft SQL Server uses a named instance (rather than the default instance), enter SQL_server_name\Instance_name for <SQL server name>.



Note: The <user name> and <password> values should be replaced with the username and password for your SQL Administrator account.

- To create the WhatsUp database:

```
sqlcmd -S "<SQL server name>" -U <user name> -P <password> -Q  
"CREATE DATABASE WhatsUp"
```

- To create the Flow Monitor database:

```
sqlcmd -S "<SQL server name>" -U <user name> -P <password> -Q  
"CREATE DATABASE NetFlow"
```

- To create the NFArchive database:

```
sqlcmd -S "<SQL server name>" -U <user name> -P <password> -Q  
"CREATE DATABASE NFArchive"
```



Note: Database names must exactly match the database names from Microsoft SQL Server 2005 Express Edition: *WhatsUp*, *NetFlow*, and *NFArchive*.



Note: If Microsoft SQL Server 2005 or Microsoft SQL Server 2008 is configured with non-default collation standards, you must set collation for each database to SQL_Latin1_General_CP1_CI_AS.

- For each of the three databases, import the backup file into the new database. Use this case-sensitive command:



Note: The entire command should be entered on a single line in the command prompt.

```
sqlcmd -S "<SQL server name>" -U <user name> -P <password>
-Q "RESTORE DATABASE <database name>
FROM DISK='<location of .bak file>' WITH REPLACE,
MOVE '<database name>'
TO '<location of data file for SQL database>',
MOVE '<database log>'
TO '<location of log file for SQL database>'"
```



Note: The value of <database name> for the WhatsUp database is usually WhatsUp. However, if you are migrating a database created by WhatsUp Gold v12.0.2 or earlier, use WhatsUp_bak. For <database log>, always use WhatsUp_log.



Note: If you do not know the location of the data and log files for the databases, you can use SQL Server Management Studio to find this information. In SQL Server Management Studio, right-click the database, select **Properties**, then select the **Files** page. You can identify which file is the data file by the value in the **File Type** column. The locations for the data and log files are under the **Path** column.

For example:



Note: These examples assume that you are restoring to the default instance on a Microsoft SQL Server 2005 or Microsoft SQL Server 2008 with a host name of SQLServer, and that the paths to data and log files follow Microsoft defaults.

- To import the WhatsUp database, enter the following command **on a single line** in the command prompt:

```
sqlcmd -S "SQLServer" -U <user name> -P <password>
-Q "RESTORE DATABASE WhatsUp
FROM DISK='D:\database.bak' WITH REPLACE,
MOVE 'WhatsUp_bak'
TO 'C:\Program Files\Microsoft SQL Server\
MSSQL.1\MSSQL\Data\WhatsUp.mdf',
MOVE 'WhatsUp_log'
TO 'C:\Program Files\Microsoft SQL Server\'
```

```
MSSQL.1\MSSQL\Data\WhatsUp_log.ldf' "
```



Note: If you are migrating a database created by WhatsUp Gold v12.3 or later, replace `WhatsUp_dat` with `WhatsUp` in the example above .

- To import the Flow Monitor database, enter the following command **on a single line** in the command prompt:

```
sqlcmd -S "SQLServer" -U <user name> -P <password>
-Q "RESTORE DATABASE NetFlow
FROM DISK='D:\NetflowCurrentDatabase.bak' WITH REPLACE,
MOVE 'NetFlow'
TO 'C:\Program Files\Microsoft SQL Server\
MSSQL.1\MSSQL\Data\NetFlow.mdf' ,
MOVE 'NetFlow_log'
TO 'C:\Program Files\Microsoft SQL Server\
MSSQL.1\MSSQL\Data\NetFlow_log.ldf' "
```

- To import the NFArchive database, enter the following command **on a single line** in the command prompt:

```
sqlcmd -S "SQLServer" -U <user name> -P <password>
-Q "RESTORE DATABASE NFArchive
FROM DISK='D:\NetflowArchiveDatabase.bak' WITH REPLACE,
MOVE 'NFArchive'
TO 'C:\Program Files\Microsoft SQL Server\
MSSQL.1\MSSQL\Data\NFArchive.mdf' ,
MOVE 'NFArchive_log'
TO 'C:\Program Files\Microsoft SQL Server\
MSSQL.1\MSSQL\Data\NFArchive_log.ldf' "
```



Important: You must import all three databases.

After you receive the response that the database was successfully restored for each of the three databases, close the command prompt.

Step 4: Update the database connections

Execute this procedure on the computer where WhatsUp Gold is installed.

- 1 Verify that the username and password for WhatsUp Gold has been configured for use when connecting to the database.
 - a) From the Windows Start menu:
 - For Server 2008 R2, select **Control Panel > Administrative Tools > Data Sources**, then select the **System DSN** tab.
- OR -
 - For Windows 7, select **Control Panel > System and Security > Administrative Tools > Data Sources** and select the **System DSN** tab.
- OR -
 - For 64-bit OSs start the Command Prompt (click **Start > Run**), enter `c:\Windows\SysWOW64\odbcad32.exe`, then select the **System DSN** tab in the ODBC Data Source Administrator dialog.
 - b) Select the `WhatsUp` DSN and click **Configure**. The Configuration wizard appears.
 - c) Verify that the fields in the first dialog are correct for your SQL Server authentication preferences, then click **Next**.
 - d) On the second dialog, verify that the **With SQL Server authentication using login ID and password entered by the user** option is selected. In the **Login** field, enter the SQL username. In the **Password** field, enter the SQL user's password. Click **Next**.
 - e) On the third dialog, verify that **Change the default database to** is selected and that the `WhatsUp` database appears in the drop-down menu. Click **Next**.
 - f) Continue to click **Next** until you come to the final dialog, then click **Finish**. The ODBC Microsoft SQL Server Setup dialog opens. You can click **Test Data Source** to test the configuration or click **OK**.
 - g) Repeat steps b-f for the `NetFlow` DSN.
- 2 Verify that WhatsUp Gold and its plug-ins have to use the updated username and password for the database.
 - a) Open the WhatsUp Gold Database Configuration Utility from the Start menu at **Start > Programs > Ipswitch WhatsUp Gold > Utilities > Database Configuration Utility**.
 - b) Select **Use SQL Server Authentication**.
 - c) Verify that the **Username** and **Password** that you entered in the DSN are correct, then click **Connect**. The utility verifies the connection information. If the information is correct, the Update Registry dialog appears.
 - d) Verify that **Restart the WhatsUp service after the update** is *not* selected.
 - e) Click **Save**. The utility updates the database connection settings and restarts effected services. The Finished dialog appears.
 - f) Click **Finish**. The Database Configuration Utility closes.

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- 3 Remove the Microsoft SQL Server 2005 Express Edition service dependencies from the Ipswitch Service Control Manager.
 - a) Open the Windows command prompt. Select **Start > Run**, then enter `cmd.exe`.
 - b) Enter the following commands:
 - `sc config "Ipswitch Service Control Manager" depend= "RPCSS"`



Note: There is a space after `depend=` and before `"RPCSS"` and `" "`. This space is required!

These commands remove the dependency on Microsoft SQL Server 2005 Express Edition from the Ipswitch Service Control Manager.

- 4 Start the Ipswitch Service Control Manager.



Tip: You can use the WhatsUp Services Controller dialog (Ipswitch Service Control Manager) to manage services. For more information, see *About the WhatsUp Services Controller*.



Note: Some services are optional. If the associated product is not licensed and enabled you may not be able to start and stop the service with the WhatsUp Services Controller dialog (Ipswitch Services Control Manager). Your license file determines whether or not you can access a plug-in. To update your license to purchase WhatsUp Gold Flow Monitor, VoIP plug-in, WhatsConnected, or WhatsConfigured, visit the *MyIpswitch portal* (<http://www.myipswitch.com>).



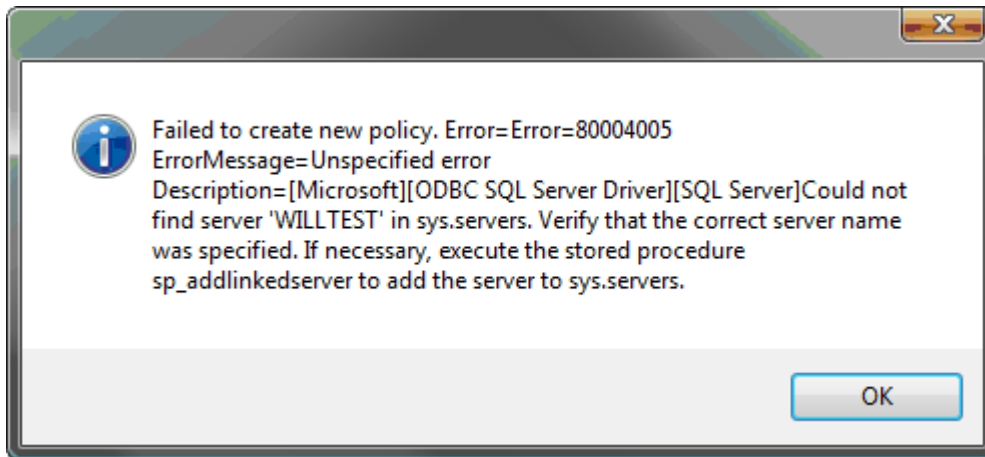
Tip: You can use the WhatsUp Services Controller dialog (Ipswitch Service Control Manager) to manage services. For more information, see *About the WhatsUp Services Controller*.

- If you are using Microsoft Internet Information Services (IIS) as your web server, start the IIS service.
- Start the Desktop Actions Application and the Task Tray Application. Select each application on the Start menu at **Start > Programs > Ipswitch WhatsUp Gold > Utilities**.

After completing these steps, WhatsUp Gold resumes polling and writes all new data to the Microsoft SQL Server 2005 or Microsoft SQL Server 2008 database.

Troubleshooting migration issues

Error: "Could not find '<SQL server name>' in sys.servers."



If you encounter this error after migrating to Microsoft SQL Server 2005 or Microsoft SQL Server 2008, the host name of the Microsoft SQL Server may have been changed after Microsoft SQL Server was installed. This causes a disconnect between the actual host name of the server and what Microsoft SQL Server 2005 or Microsoft SQL Server 2008 believes the host name to be.

There are two ways to correct this:

- Change the host name of the Microsoft SQL Server 2005 or Microsoft SQL Server 2008 back to what the host name was when Microsoft SQL Server was installed.
- Update the sys.servers table to reflect the correct information.

1 Execute these commands in the command prompt:

- `sqlcmd -E -S <SQL server name> -d master -Q "EXEC sp_dropserver '<old host name>'"`
- `sqlcmd -E -S <SQL server name> -d master -Q "EXEC sp_addserver '<new host name>', 'local'"`

2 Restart Microsoft SQL Server 2005 or Microsoft SQL Server 2008.

Using a Limited Rights Account with WhatsUp Gold

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Limited Rights: Overview

The following procedures instruct you on how to create or modify an SQL login for use by WhatsUp Gold depending on your database configuration. Please note the following:

- This content assumes you have already installed WhatsUp Gold and have already begun collecting network data. If you have not yet installed the software, do so before proceeding.
- These instructions are valid for all editions of SQL Server and for all currently-supported versions of SQL Server (2005, 2008, and 2008 R2).
- The commands to create the SQL login, assign rights and database permissions should be run as a user who is a member of the sysadmin fixed server role.
- These commands can be executed using the SQLCMD utility, delivered with the WhatsUp Gold install or can be run by a database administrator with the necessary permissions. See *Executing SQL statements against the WhatsUp Gold database* <http://whatsupgold.force.com/kb/articles/FAQ/How-To-Executing-SQL-statements-against-the-WhatsUp-Gold-database-1307717774087> for information on executing SQL statements using SQLCMD.

We recommend naming the SQL login WhatsUpGold_User to provide an easily distinguishable name for the login, but you are free to assign whatever label you would prefer to the login.

Additionally, we recommend granting the CREATE ANY DATABASE and VIEW SERVER STATE server permissions to the SQL login. This allows the application to create additional databases should a future version of WhatsUp Gold require them for data storage. And, it allows the application to monitor the performance of general SQL statistics for use in diagnostic troubleshooting.

Limited Rights: Default SQL Express

Limited Rights: Default SQL Express - Windows authentication with local administrator account

Use the following procedure to create a dedicated SQL login if your WhatsUp Gold solution utilizes a WhatsUp Gold-installed WHATSUP SQL Express instance. A new SQL login must be provisioned in the SQL instance and must be assigned ownership of the application databases.

If WhatsUp Gold is configured to use Windows Authentication to connect to the database, the connection must be modified to use SQL Authentication.

To create a dedicated SQL login for use by WhatsUp Gold:

- 1 Launch the SQLCMD utility.
- 2 Ensure you are connected to the `master` database.
- 3 Create a SQL login by entering the following command:

```
CREATE LOGIN [WhatsUpGold_User] WITH PASSWORD = N'P@ssw0rd',  
DEFAULT_DATABASE = [WhatsUp]
```

- 4 Assign the new login to the `dbo` user in each of the applications' databases by entering the following command:

```
ALTER AUTHORIZATION ON DATABASE::[WhatsUp] TO [WhatsUpGold_User]  
ALTER AUTHORIZATION ON DATABASE::[NetFlow] TO [WhatsUpGold_User]  
ALTER AUTHORIZATION ON DATABASE::[NFArchive] TO [WhatsUpGold_User]
```

- 5 Grant the new login the ability to create new application database by entering the following command:

```
GRANT CREATE ANY DATABASE TO [WhatsUpGold_User]
```

- 6 Grant the new login the ability to monitor general server performance by entering the following command:

```
GRANT VIEW SERVER STATE TO [WhatsUpGold_User]
```

- 7 Stop the Ipswitch Network Management Windows services, main WhatsUp Gold application, and task tray applications.
- 8 Stop IIS.
- 9 Modify the WhatsUp and Netflow system DSN to use SQL Authentication.
- 10 Verify that you can successfully test the database connection using the new SQL login in both DSNs.
- 11 From the WhatsUp Gold program group's Utilities folder in the Start Menu, run the Database Configuration Utility.
- 12 Enter the username and password for the new SQL login and click **Connect**.
- 13 Restart the Ipswitch Network Management services.
- 14 Restart IIS.



Important: After completing the migration to a limited permissions model, you must create new backups for each of the application databases. This step is required for data recovery purposes. See the application documentation for information on backing up application databases using the main WhatsUp Gold application. Database backups made prior to the migration may no longer be directly restored through the main WhatsUp Gold application.

Limited Rights: Default SQL Express - SQL authentication with sa login

Use the following procedure to create a dedicated SQL login if your WhatsUp Gold solution utilizes a WhatsUp Gold-installed WHATSUP SQL Express instance. A new SQL login must be provisioned in the SQL instance and must be assigned ownership of the application databases.

To create a dedicated SQL login for use by WhatsUp Gold:

- 1 Launch the SQLCMD utility.
- 2 Ensure you are connected to the `master` database.
- 3 Create a SQL login by entering the following command:

```
CREATE LOGIN [WhatsUpGold_User] WITH PASSWORD = N'P@ssw0rd',  
DEFAULT_DATABASE = [WhatsUp]
```

- 4 Assign the new login to the `dbo` user in each of the applications' databases by entering the following command:

```
ALTER AUTHORIZATION ON DATABASE::[WhatsUp] TO [WhatsUpGold_User]  
ALTER AUTHORIZATION ON DATABASE::[NetFlow] TO [WhatsUpGold_User]  
ALTER AUTHORIZATION ON DATABASE::[NFArchive] TO [WhatsUpGold_User]
```

- 5 Grant the new login the ability to create new application database by entering the following command:

```
GRANT CREATE ANY DATABASE TO [WhatsUpGold_User]
```

- 6 Grant the new login the ability to monitor general server performance by entering the following command:

```
GRANT VIEW SERVER STATE TO [WhatsUpGold_User]
```

- 7 Stop the Ipswitch Network Management Windows services, main WhatsUp Gold application, and task tray applications.
- 8 Stop IIS.
- 9 From the WhatsUp Gold program group's Utilities folder in the Start Menu, run the Database Configuration Utility.
- 10 Enter the username and password for the new SQL login and click **Connect**.
- 11 Restart IIS.



Important: After completing the migration to a limited permissions model, you must create new backups for each of the application databases. This step is required for data recovery purposes. See the application documentation for information on backing up application databases using the main WhatsUp Gold application. Database backups made prior to the migration may no longer be directly restored through the main WhatsUp Gold application.

Limited Rights: Local SQL Server

Limited Rights: Local SQL Server - Windows authentication with local administrator account

Use the following procedure to create a dedicated SQL login if your WhatsUp Gold solution utilizes a customer-installed instance of SQL on the same computer as WhatsUp Gold. A new SQL login must be provisioned in the SQL instance and must be assigned ownership of the application databases.

If WhatsUp Gold is configured to use Windows Authentication to connect to the database, the connection must be modified to use SQL Authentication.

To create a dedicated SQL login for use by WhatsUp Gold:

- 1 Stop the Ipswitch Network Management Windows services, main WhatsUp Gold application, and task tray applications.
- 2 Stop IIS.
- 3 Enable mixed mode authentication in the SQL server instance.

- 4 Restart the SQL server processes.



Note: Steps 3 and 4 may require you to refer to the Microsoft SQL Server documentation.

- 5 Launch the SQLCMD utility.
- 6 Ensure you are connected to the `master` database.
- 7 Create a SQL login by entering the following command:

```
CREATE LOGIN [WhatsUpGold_User] WITH PASSWORD = N'P@ssw0rd',  
DEFAULT_DATABASE = [WhatsUp]
```

- 8 Assign the new login to the `dbo` user in each of the applications' databases by entering the following command:

```
ALTER AUTHORIZATION ON DATABASE::[WhatsUp] TO [WhatsUpGold_User]  
ALTER AUTHORIZATION ON DATABASE::[NetFlow] TO [WhatsUpGold_User]  
ALTER AUTHORIZATION ON DATABASE::[NFArchive] TO [WhatsUpGold_User]
```

- 9 Grant the new login the ability to create new application database by entering the following command:

```
GRANT CREATE ANY DATABASE TO [WhatsUpGold_User]
```

- 10 Grant the new login the ability to monitor general server performance by entering the following command:

```
GRANT VIEW SERVER STATE TO [WhatsUpGold_User]
```

- 11 Modify the WhatsUp and Netflow system DSN to use SQL Authentication.
- 12 Verify that you can successfully test the database connection using the new SQL login in both DSNs.
- 13 From the WhatsUp Gold program group's Utilities folder in the Start Menu, run the Database Configuration Utility.
- 14 Enter the username and password for the new SQL login and click **Connect**.
- 15 Restart the Ipswitch Network Management services.
- 16 Restart IIS.



Important: After completing the migration to a limited permissions model, we highly recommend you create new backups for each of the application databases. Database backups created prior to this event can no longer be restored using the main WhatsUp Gold application and after restoration, the SQL login used by WhatsUp Gold must be re-assigned to the `dbo` user in the databases. Database backups made after this event can be restored using the main WhatsUp Gold application and will not require modifications to the `dbo` user.

Limited Rights: Local SQL Server - SQL authentication with existing sysadmin account

If your WhatsUp Gold solution utilizes SQL authentication with an existing sysadmin account, a new SQL login does not need to be provisioned for WhatsUp Gold. The application can continue using the existing login, however, the login must be removed from the `sysadmin` fixed server role and then granted the appropriate rights to the application databases. Use the following procedure to grant appropriate application database rights to the SQL login.



Important: This procedure must not be completed using the login used by WhatsUp Gold.

To grant appropriate application database rights to the SQL login:

- 1 Stop the Ipswitch Network Management Windows services, main WhatsUp Gold application, and task tray applications.
- 2 Stop IIS.
- 3 Launch the SQLCMD utility.
- 4 While connected to the `master` database, remove the WhatsUp Gold SQL login from the `sysadmin` fixed server role by entering the following command. Replace `sqlloginname` with the name of the SQL login used by WhatsUp Gold:

```
EXECUTE [sys].[sp_dropserverolemember] @loginname = N'sqlloginname',  
@rolename = N'sysadmin'
```

- 5 Verify that the SQL login is not currently mapped to any users in each of the application databases by entering the following command. This command must be executed on each of the application databases:

```
EXECUTE [WhatsUp].[sys].[sp_helpuser] @name_in_db = NULL  
EXECUTE [Netflow].[sys].[sp_helpuser] @name_in_db = NULL  
EXECUTE [NFArchive].[sys].[sp_helpuser] @name_in_db = NULL
```



Important: If the stored procedure indicates that the SQL login is currently mapped to the `dbo` `UserName` in the database, proceed directly to Step 7.

- 6 If the login is mapped to a database user other than the `dbo` user, remove the database user for the SQL login by entering the following command. Replace `DBUserName` with the name of the database user to which the SQL login is associated:

```
DROP USER [DBUserName]
```



Important: This command must be repeated in any application database in which a database user existed for the login (if that database user is not `dbo`).

- 7 While connected to the `master` database, assign the new login to the `dbo` user in each of the application's databases by entering the following command:

```
ALTER AUTHORIZATION ON DATABASE::[WhatsUp] TO [WhatsUpGold_User]
ALTER AUTHORIZATION ON DATABASE::[NetFlow] TO [WhatsUpGold_User]
ALTER AUTHORIZATION ON DATABASE::[NFArchive] TO [WhatsUpGold_User]
```

- 8 While connected to the `master` database, grant the new login the ability to create new application database by entering the following command:

```
GRANT CREATE ANY DATABASE TO [WhatsUpGold_User]
```

- 9 While connected to the `master` database, grant the new login the ability to monitor general server performance by entering the following command:

```
GRANT VIEW SERVER STATE TO [WhatsUpGold_User]
```

- 10 From the WhatsUp Gold program group's Utilities folder in the Start Menu, run the Database Configuration Utility.
- 11 Enter the username and password for the new SQL login and click **Connect**.
- 12 Restart IIS.



Important: After completing the migration to a limited permissions model, we highly recommend you create new backups for each of the application databases. Database backups created prior to this event can no longer be restored using the main WhatsUp Gold application and after restoration, the SQL login used by WhatsUp Gold must be re-assigned to the `dbo` user in the databases. Database backups made after this event can be restored using the main WhatsUp Gold application and will not require modifications to the `dbo` user.

Limited Rights: Local SQL Server - SQL authentication with sa login

Use the following procedure to create a dedicated SQL login if your WhatsUp Gold solution utilizes SQL authentication with an existing `sa` account. A new SQL login must be provisioned in the SQL instance and must be assigned ownership of the application databases.

To create a dedicated SQL login for use by WhatsUp Gold:

- 1 Launch the SQLCMD utility.
- 2 Ensure you are connected to the `master` database.
- 3 Create a SQL login by entering the following command:

```
CREATE LOGIN [WhatsUpGold_User] WITH PASSWORD = N'P@ssw0rd',
DEFAULT_DATABASE = [WhatsUp]
```

- 4 Assign the new login to the `dbo` user in each of the applications' databases by entering the following command:

```
ALTER AUTHORIZATION ON DATABASE::[WhatsUp] TO [WhatsUpGold_User]
ALTER AUTHORIZATION ON DATABASE::[NetFlow] TO [WhatsUpGold_User]
```

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```
ALTER AUTHORIZATION ON DATABASE::[NFArchive] TO [WhatsUpGold_User]
```

- 5 Grant the new login the ability to create new application database by entering the following command:

```
GRANT CREATE ANY DATABASE TO [WhatsUpGold_User]
```

- 6 Grant the new login the ability to monitor general server performance by entering the following command:

```
GRANT VIEW SERVER STATE TO [WhatsUpGold_User]
```

- 7 Stop the Ipswitch Network Management Windows services, main WhatsUp Gold application, and task tray applications.
- 8 Stop IIS.
- 9 From the WhatsUp Gold program group's Utilities folder in the Start Menu, run the Database Configuration Utility.
- 10 Enter the username and password for the new SQL login and click **Connect**.
- 11 Restart IIS.



Important: After completing the migration to a limited permissions model, we highly recommend you create new backups for each of the application databases. Database backups created prior to this event can no longer be restored using the main WhatsUp Gold application and after restoration, the SQL login used by WhatsUp Gold must be re-assigned to the dbo user in the databases. Database backups made after this event can be restored using the main WhatsUp Gold application and will not require modifications to the dbo user.

Limited Rights: Remote SQL Server

Limited Rights: Remote SQL Server - SQL authentication with existing sysadmin account



Important: If the connection is using Windows Authentication, the connection should be temporarily modified to use SQL Authentication with an existing sysadmin account before beginning this process.

If your WhatsUp Gold solution utilizes SQL authentication with an existing sysadmin account, a new SQL login does not need to be provisioned for WhatsUp Gold. The application can continue using the existing login, however, the login must be removed from the sysadmin fixed server role and then granted the appropriate rights to the application databases. Use the following procedure to grant appropriate application database rights to the SQL login.



Important: This procedure must not be completed using the login used by WhatsUp Gold.

To grant appropriate application database rights to the SQL login:

- 1 Stop the Ipswitch Network Management Windows services, main WhatsUp Gold application, and task tray applications.
- 2 Stop IIS.
- 3 Launch the SQLCMD utility.
- 4 While connected to the `master` database, remove the WhatsUp Gold SQL login from the `sysadmin` fixed server role by entering the following command. Replace `sqlloginname` with the name of the SQL login used by WhatsUp Gold:

```
EXECUTE [sys].[sp_dropserverolemember] @loginame = N'sqlloginname',  
@rolename = N'sysadmin'
```

- 5 Verify that the SQL login is not currently mapped to any users in each of the application databases by entering the following command. This command must be executed on each of the application databases:

```
EXECUTE [WhatsUp].[sys].[sp_helpuser] @name_in_db = NULL  
EXECUTE [Netflow].[sys].[sp_helpuser] @name_in_db = NULL  
EXECUTE [NFArchive].[sys].[sp_helpuser] @name_in_db = NULL
```



Important: If the stored procedure indicates that the SQL login is currently mapped to the `dbo` `UserName` in the database, proceed directly to Step 7.

- 6 If the login is mapped to a database user other than the `dbo` user, remove the database user for the SQL login by entering the following command. Replace `DBUserName` with the name of the database user to which the SQL login is associated:

```
DROP USER [DBUserName]
```



Important: This command will need to be repeated in any application database in which a database user existed for the login (if that database user is not `dbo`).

- 7 While connected to the `master` database, assign the new login to the `dbo` user in each of the application's databases by entering the following command.

```
ALTER AUTHORIZATION ON DATABASE::[WhatsUp] TO [WhatsUpGold_User]  
ALTER AUTHORIZATION ON DATABASE::[NetFlow] TO [WhatsUpGold_User]  
ALTER AUTHORIZATION ON DATABASE::[NFArchive] TO [WhatsUpGold_User]
```

- 8 While connected to the `master` database, grant the new login the ability to create new application database by entering the following command:

```
GRANT CREATE ANY DATABASE TO [sqlloginname]
```

- 9 While connected to the `master` database, grant the new login the ability to monitor general server performance by entering the following command:

```
GRANT VIEW SERVER STATE TO [WhatsUpGold_User]
```

- 10 From the WhatsUp Gold program group's Utilities folder in the Start Menu, run the Database Configuration Utility.
- 11 Enter the username and password for the new SQL login and click **Connect**.
- 12 Restart IIS.



Important: After completing the migration to a limited permissions model, we highly recommend you create new backups for each of the application databases. Database backups created prior to this event can no longer be restored using the main WhatsUp Gold application and after restoration, the SQL login used by WhatsUp Gold must be re-assigned to the `dbo` user in the databases. Database backups made after this event can be restored using the main WhatsUp Gold application and will not require modifications to the `dbo` user.

Limited Rights: Remote SQL Server - SQL authentication with `sa` login

Use the following procedure to create a dedicated SQL login if your WhatsUp Gold solution utilizes SQL authentication with an existing `sa` account. A new SQL login must be provisioned in the SQL instance and must be assigned ownership of the application databases.

To create a dedicated SQL login for use by WhatsUp Gold:

- 1 Launch the SQLCMD utility.
- 2 Ensure you are connected to the `master` database.
- 3 Create a SQL login by entering the following command:

```
CREATE LOGIN [WhatsUpGold_User] WITH PASSWORD = N'P@ssw0rd',  
DEFAULT_DATABASE = [WhatsUp]
```

- 4 Assign the new login to the `dbo` user in each of the applications' databases by entering the following command:

```
ALTER AUTHORIZATION ON DATABASE::[WhatsUp] TO [WhatsUpGold_User]  
ALTER AUTHORIZATION ON DATABASE::[NetFlow] TO [WhatsUpGold_User]  
ALTER AUTHORIZATION ON DATABASE::[NFArchive] TO [WhatsUpGold_User]
```

- 5 Grant the new login the ability to create new application database by entering the following command:

```
GRANT CREATE ANY DATABASE TO [WhatsUpGold_User]
```

- 6 Grant the new login the ability to monitor general server performance by entering the following command:

```
GRANT VIEW SERVER STATE TO [WhatsUpGold_User]
```

- 7 Stop the Ipswitch Network Management Windows services, main WhatsUp Gold application, and task tray applications.
- 8 Stop IIS.
- 9 From the WhatsUp Gold program group's Utilities folder in the Start Menu, run the Database Configuration Utility.
- 10 Enter the username and password for the new SQL login and click **Connect**.
- 11 Restart IIS.



Important: After completing the migration to a limited permissions model, we highly recommend you create new backups for each of the application databases. Database backups created prior to this event can no longer be restored using the main WhatsUp Gold application and after restoration, the SQL login used by WhatsUp Gold must be re-assigned to the dbo user in the databases. Database backups made after this event can be restored using the main WhatsUp Gold application and will not require modifications to the dbo user.

Limited Rights: Denying access to other databases

Optionally, once the databases have been properly provisioned, you may set the `DENY VIEW ANY DATABASE` permission for the SQL login. This will prevent the login from seeing databases to which he/she has not been specifically granted access. It is important to note that even if the `VIEW ANY DATABASE` permission has not been revoked, a login cannot access a database without being mapped to a user within the database unless that login has administrator rights to the instance. Consequently, removing the `VIEW ANY DATABASE` permission only hides databases to which the login had no permissions anyway.

The login will still have access to the `master` and `tempdb` databases on any securable visible to the public database role. Access to `tempdb` should not be removed as this is required for many of our SQL procedures. Many security-conscious database administrators often remove access from certain views, functions, and stored procedures for public database role from the `master` database, however it is recommended that access to the `xp_instance_regread` extended stored procedure remains accessible as this enables helpful features within the database backup and database upgrade processes. Removing access simply disables these features and will not cause an application failure.

For more information

For more information on migrating from Microsoft SQL Server 2005 Express Edition to Microsoft SQL Server 2005, or for help with troubleshooting migration problems, visit the *WhatsUp Gold support site* (<http://www.whatsupgold.com/support/index.asp>) or the *WhatsUp Gold community site* (<http://ipswitch.hivelive.com/pages/home>).

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