



Comprehensive Video Analytics Solutions

Installation & Administration Guide

savVi 5.3 & 5.4



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1 Installing savVi

1.1 Before Installing

1.1.1 Migration from Vi-System to savVi

If you are migrating to savVi from a previous version of an Agent Vi product, you should refer to the Migration Guide available in the Partner Portal and contact the Agent Vi Customer Support team for assistance.

1.1.2 Verify Required Hardware Specifications

To calculate the server specifications, a dedicated form is available on Agent Vi's website.

Navigate to our support menu, and there you will find the "Request for Hardware and Software Specification" form. You will need to enter some general information, contact details, and technical details about the selected components for the deployment.

A HW & SW Specifications document will be automatically sent to you via email following the form submission

1.1.3 Supported Operating Systems

Verify that your deployment is compatible with the supported operating systems as listed on Agent Vi's website

1.1.4 Supported Databases

Verify that your deployment is compatible with the supported databases as listed on Agent Vi's website

1.1.5 Obtain savVi Installer

Obtain savVi installer from Agent Vi's website or from the support team.

1.1.6 .Net 3.5

.Net 3.5 must be installed prior to installing savVi

1.1.7 English locale

Windows Operating system should be installed with English US locale

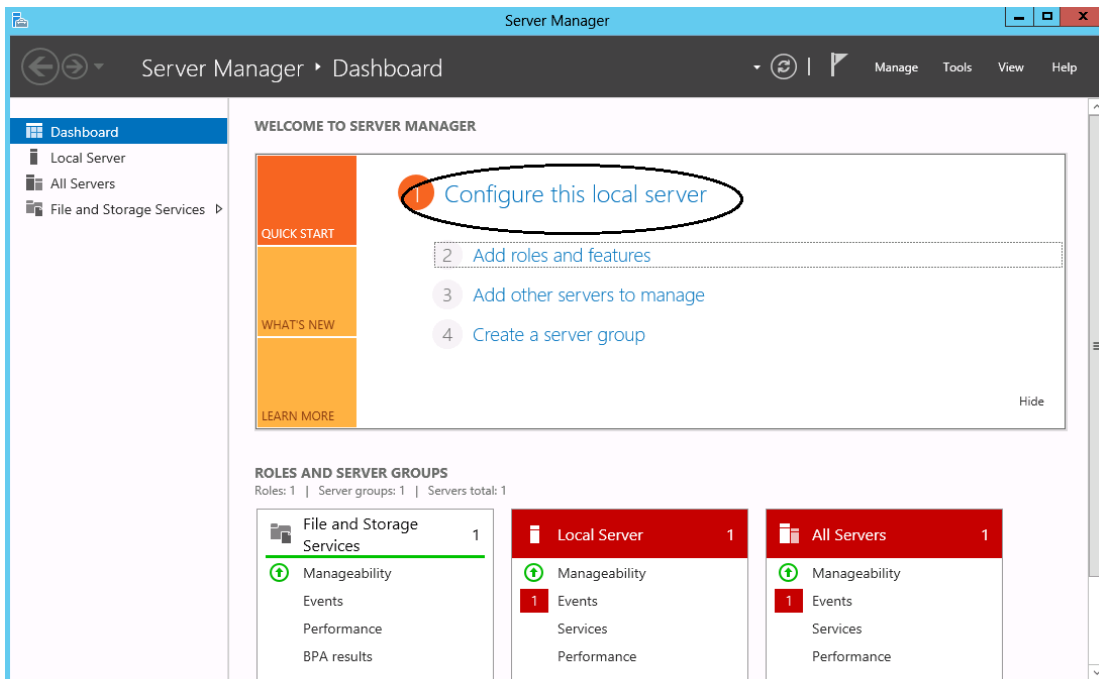
If SQL is configured separately, it should be installed using an English installer version

1.1.8 Windows Servers 2012 - Specific Notes

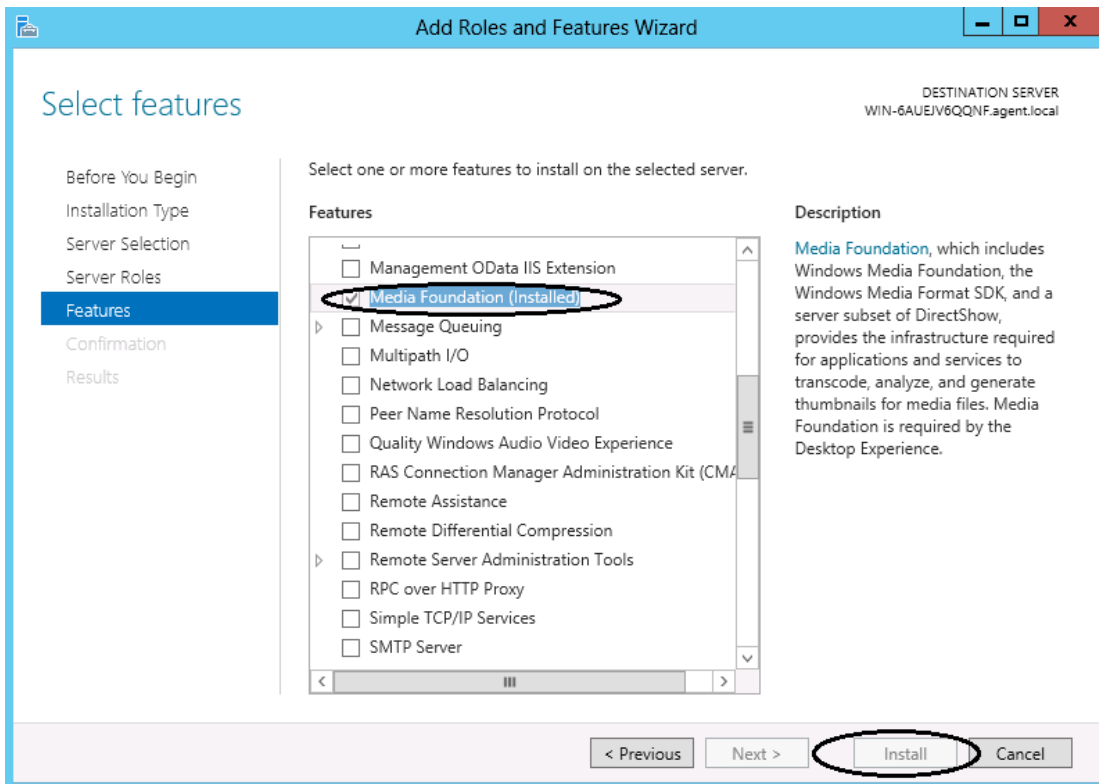
On Windows Server 2012 you need to enable Media Foundation functionality.

➤ To enable Media Foundation functionality:

■ Open **Server Manager** and choose **Add roles and features**:



- In the **Features** menu, verify that the **Media Foundation** option is selected. If it's not, select it and click the **Install** button:



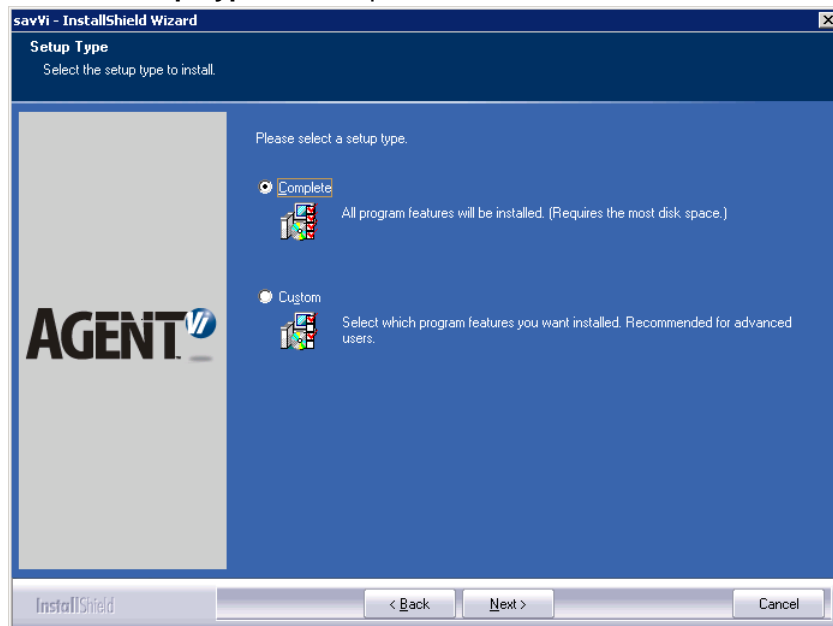
1.2 All-In-One Installation

Depending on your deployment's size and scope and on the type of PC you have, you can implement an all-in-one installation in which all system components are installed on a single PC.

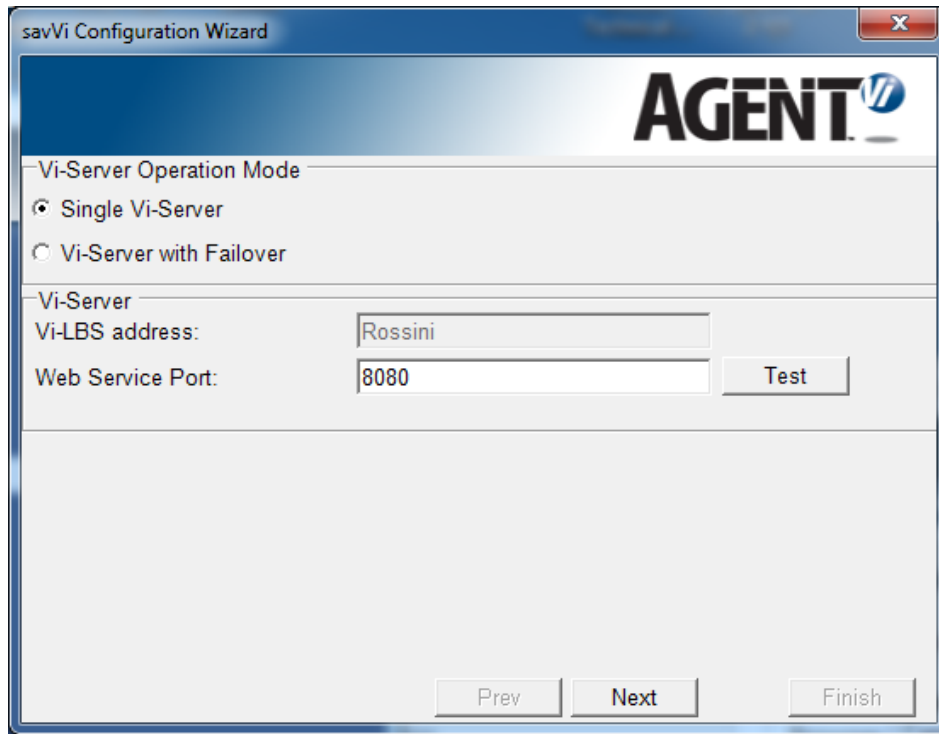
Contact [Agent Vi Support](#) to clarify if you can implement an all-in-one installation.

➤ To install all components:

1. After obtaining the installer file from Agent Vi, save it on your desktop and then run it; the InstallShield Wizard guides you through an intuitive setup process. Click **Next** until the **Setup Type** screen opens.



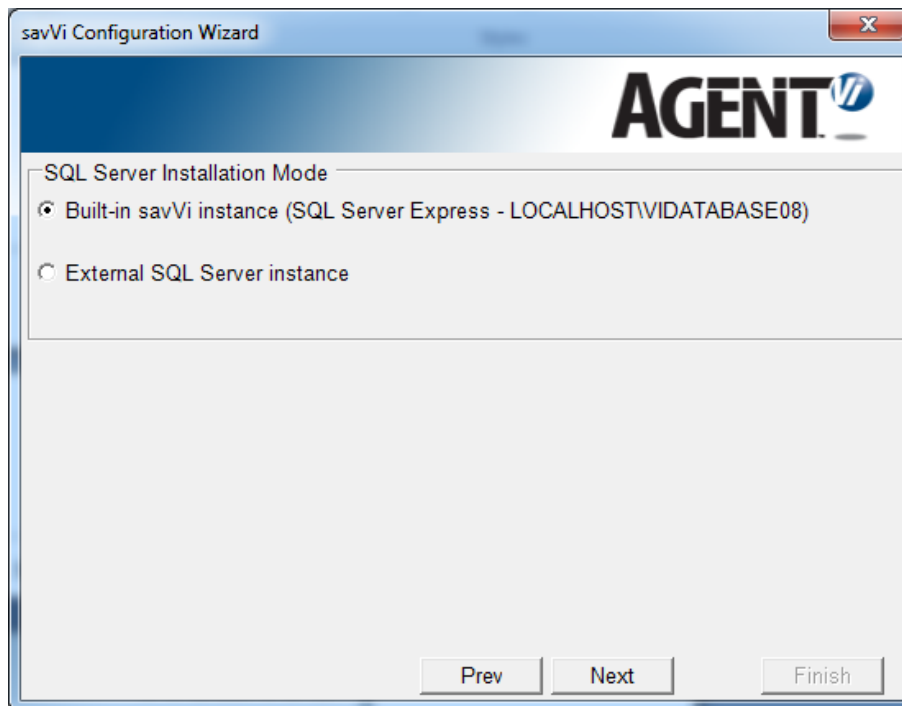
2. Leave the **Complete** option selected. Continue with the next installation steps until the **Vi-Server Settings** screen opens:



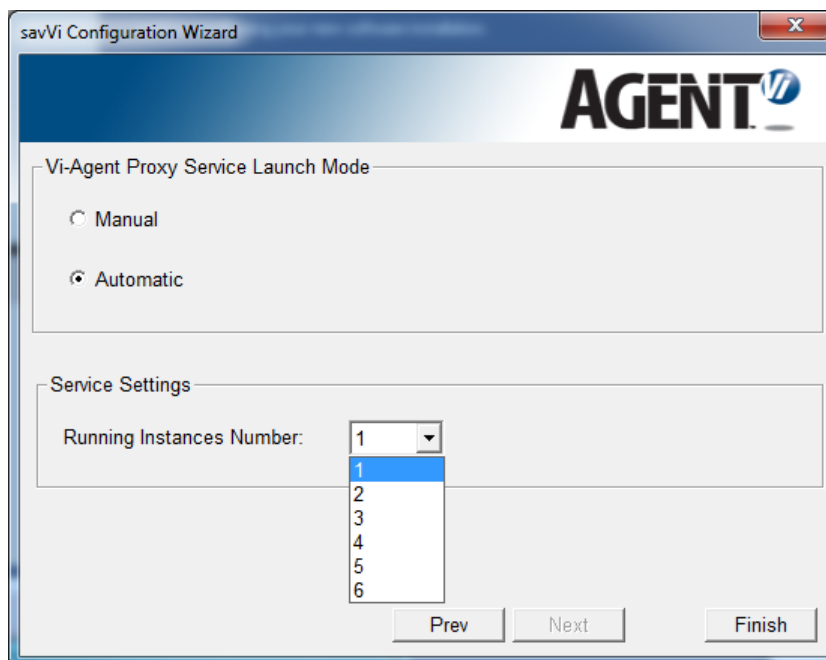
3. Configure Vi-Server Settings using the table below as reference.

Setting	Description
Vi-Server Operation Mode	Leave the default option: Single Vi-Server
Web Service Port	Some savVi components communicate using the Web Service standard over port 8080 . If your server machine is already using port 8080 for other services, change this default value. Note: You can use the Test button to verify if the specific port is available

4. Click **Next**; the **SQL Server Configuration** screen opens.



5. Select the **Built-in savVi instance** option (default) to take advantage of **Microsoft SQL Server Express** bundled with savVi. A new named instance called **VIDATABASE08** is installed on the local machine.
6. Click **Next**, the **Vi-Agent Proxy (VAP)** configuration screen is shown:



Optionally apply these settings:

- Set the Service mode to **Manual** if your deployment does not require a VAP component.
- Specify the required number of VAP services. Each VAP instance can handle up to 8 cameras. It is recommended to consult the support team regarding the optimal number of VAP instances.

7. Click **Finish**.

Note

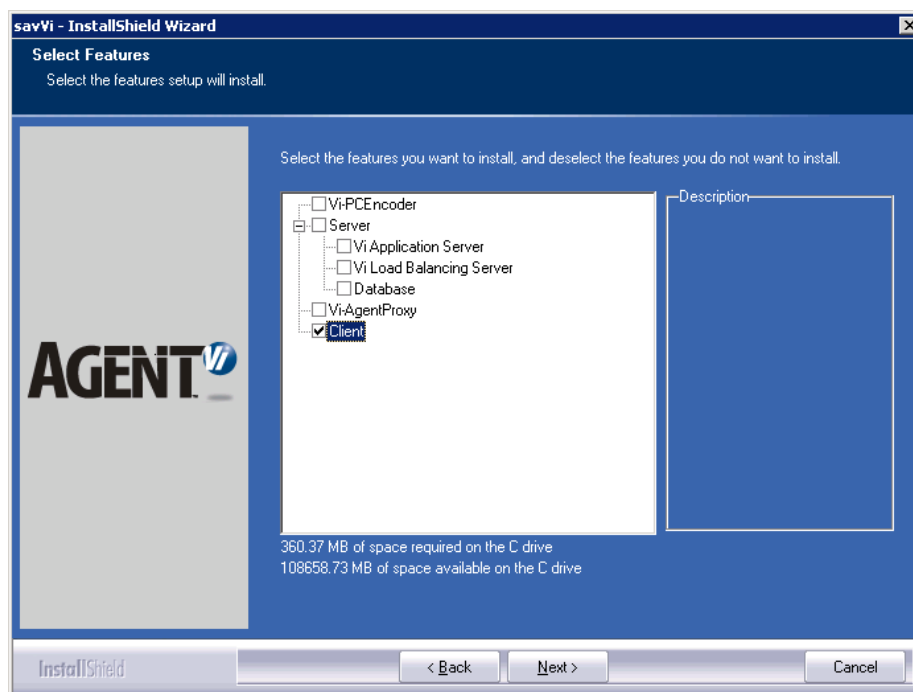
During savVi installation process you may be notified that .NET Framework 4.5, WinPcap and Microsoft SQL Express 2008 require installation. Confirm these notifications and allow the installations of these components, which may take several minutes. Depending on your specific configuration, you may be notified that a PC restart is required following installation. After restarting your PC, the savVi installation process is automatically resumed.

1.3 Installing Client Applications on a Separate PC

When installing savVi, users can opt to distribute different savVi components on different PCs, based on equipment considerations. This section shows how to install savVi client applications on a separate PC.

➤ To install client applications on a separate PC:

1. Run the installer file supplied by Agent Vi on the PC; the InstallShield Wizard guides you through the setup process. Follow it until the **Setup Type** screen opens (see **Error! Reference source not found.**).
2. Select the **Custom** option and proceed (click **Next**) until the **Select Features** screen opens.
3. Leave **Client** selected and clear other components to exclude from the installation:



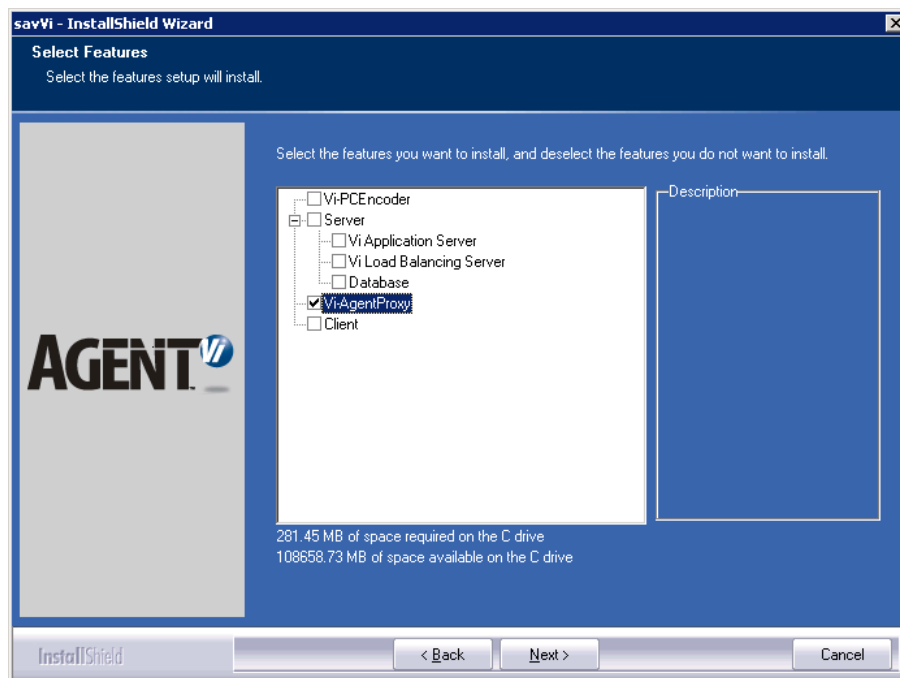
4. In the **Network Settings** screen specify savVi server address. If you are deploying server redundancy, also specify the address of the secondary savVi server.
5. Click **Next** until **Finish**.

1.4 Installing VAP on a Separate PC

When installing savVi, users can opt to distribute different savVi components on different PCs, based on deployment considerations. This section describes how to install VAP on a separate PC. It is recommended to consult the support team regarding the optimal installation and the required number of PCs to install VAP services on.

➤ To install VAP on a separate PC:

1. Run the supplied installer file; the InstallShield Wizard guides you through the setup process. Follow it until the **Setup Type** screen opens (see **Error! Reference source not found.**).
2. Select the **Custom** option and proceed (click **Next**) until the **Select Features** screen opens.
3. Leave **Vi-AgentProxy** selected and uncheck other components to exclude from the installation.

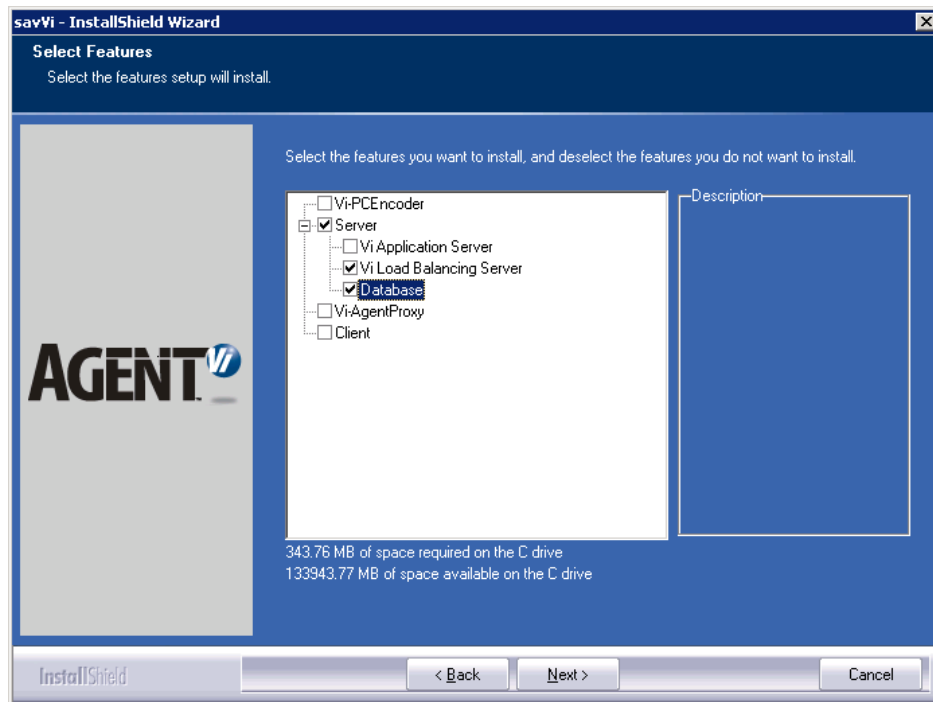


4. In the **Network Settings** screen specify the savVi server address. If you are deploying server redundancy, also specify the address of the secondary savVi server. Click **Next** until the **Vi-Agent Proxy Configuration** screen opens and specify the number of **Vi-Agent Proxy** services to be installed on this PC.
6. Click **Finish**.

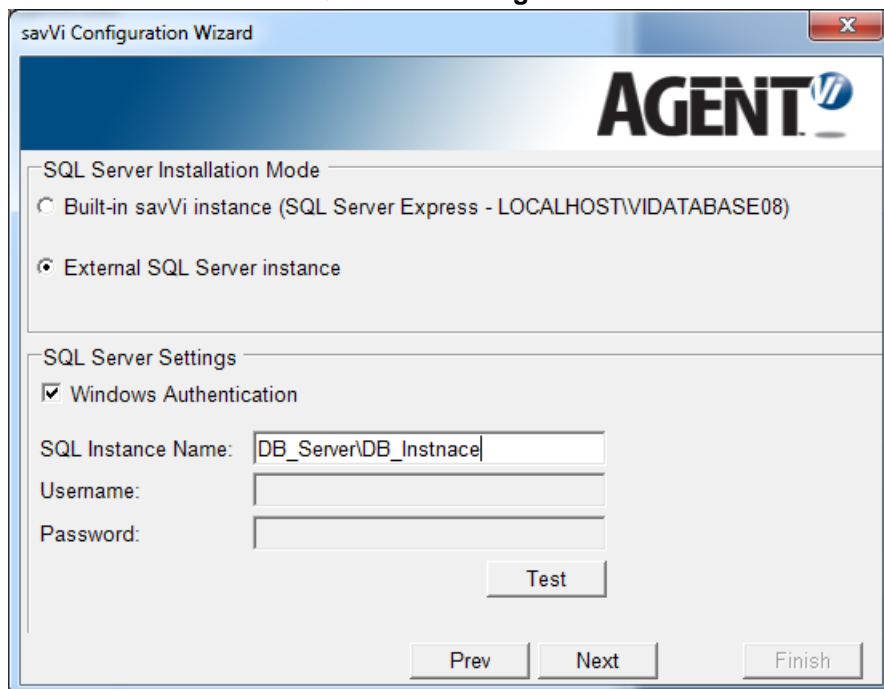
1.5 Installing the Database on a Different Machine to the LBS & AS (External Instance)

➤ To install the database on a different machine to the LBS & AS:

1. Run the installer file on the LBS; the InstallShield Wizard guides you through an intuitive setup process (click **Next**) until the **Setup Type** screen opens.
2. Select the **Custom** option and click **Next**; the **Select Features** screen opens.



3. Exclude all irrelevant components and sub-components, as shown in the figure above. Note that the Database component should be always selected together with the LBS.
4. Click **Next** until the **SQL Server Configuration** screen:



5. Select the **External SQL Server instance** option for the savVi database to be installed on an existing external SQL instance that is deployed in your network. In this configuration you must also define:

- **SQL Instance Name** using the standard format of DB_Server\DB_Instance or DB_Server only in case of an SQL Server default instance.
 - If **Windows Authentication** is not used to access the database, clear this option and define the appropriate **User** and **Password** to access the database.
6. Click **Next**; the installer validates whether the **SQL Server Configuration** settings that you defined are valid. If not, you're notified. Note: You can proactively test the SQL server connectivity by clicking the **Test** button.

Note

If the **Windows Authentication** option was selected, the **VILBS** and **VIAS** services settings should be modified since savVi services are installed using the **Local System** account, i.e., the service works with a default user who might not have sufficient privileges to work with the chosen SQL Server instance.

To modify the services settings:

- Open **Log On** tab in the service's **Properties**.
- Set the field **This account** with the domain user who has sufficient privileges for the SQL Server instance, specified in step 4 above.

1.6 Upgrading savVi to a newer version

1.6.1 License Requirements

savVi version number consists of 4 number series (a.b.c.d). Examples: 5.3.1.217, 5.4.0.117.

Legend:

- a – Major
- b – Minor
- c – Service Pack
- d – build number

To upgrade savVi, SUP (Software Upgrade Plan) license may be required.

There are two possible scenarios:

a. An installed savVi is upgraded to a newer major or minor version – in this case SUP must be in effect to allow this upgrade.

Examples:

- (1) Minor upgrade from 5.3.0.217 to 5.4.0.117
- (2) Major upgrade from 5.5.0.20 to 6.0.0.13

b. An installed savVi is upgraded to a newer service pack or build of the same major/minor version – in this case SUP is not required to be in effect.

Examples:

- (3) Service pack upgrade from 5.4.0.117 to 5.4.1.10
- (4) Build upgrade from 5.4.0.117 to 5.4.0.175

1.6.2 Upgrade Procedure

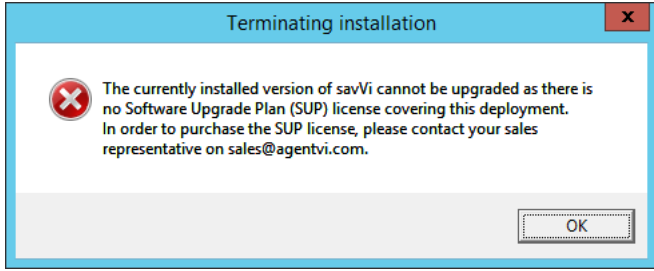
When upgrading a multiple server savVi deployment, LBS server/s should be upgraded first.

If the system is configured with a redundancy solution, the Primary LBS server should be upgraded first. The database is automatically upgraded.

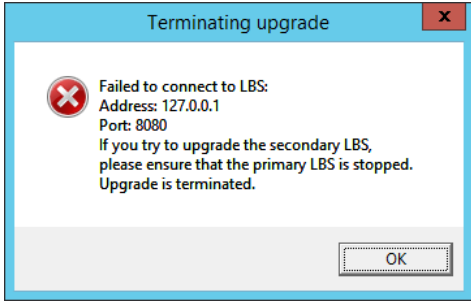
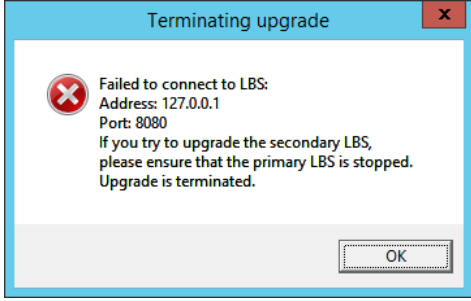
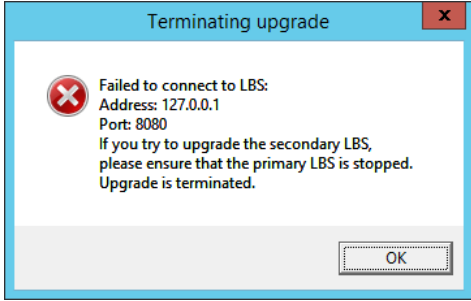
When upgrading the Secondary LBS server, the Primary LBS must be stopped.

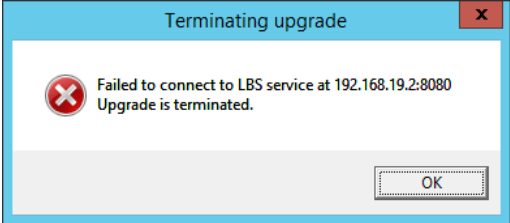
The following tables explain various possible configurations for performing an upgrade, together with expected results.

1.6.3 Installed savVi has no active SUP License

Case#	Upgraded Component	Primary LBS State	Secondary LBS State	Expected Result
1	Primary LBS + DB	Up	Up / Down	<p>An error message due to missing "Software Upgrade Plan (SUP)":</p> 
2	Secondary LBS	Up	Up / Down	
3	ViAS / VAP / Client / PC Encoder	Up	Up / Down	

1.6.4 Installed savVi has an active SUP License

Case#	Upgraded Component	Primary LBS	Secondary LBS	Expected Result
		State	State	
1	Primary LBS + DB	Up	Up / Down	Upgrade successfully completed
2	Primary LBS + DB	Down	Up / Down	<p>An error message – “Failed to connect to LBS: address, port” (of Primary)</p> 
3	Secondary LBS	Down	Up	Upgrade successfully completed
4	Secondary LBS	Up / Down	Down	<p>An error message – “Failed to connect to LBS: address, port” (of Secondary)</p> 
5	Secondary LBS	Up	Up	<p>An error message – “Failed to connect to LBS: address, port” (of Secondary)</p>  <p>Note: The Primary LBS must be stopped to allow the upgrade</p>
6	ViAS / VAP / Client / PC Encoder	Up	Up / Down	Upgrade completed successfully

Case#	Upgraded Component	Primary LBS State	Secondary LBS State	Expected Result
7	ViAS / VAP / Client / PC Encoder	Down	Up / Down	<p>An error message – “Failed to connect to LBS: address, port” (of Primary)</p> 

2 Activating Agent Vi Software

To learn about activating Agent Vi Software and other licensing operations such as extending an evaluation license, changing a license after activation, and more, please refer to the “**Licensing Guide**” which can be found under “**Technical Documentation**” in the Partner Portal of Agent Vi’s website.

3 VMS Integration Guidelines

See Agent Vi’s integration guides for the VMSs with which savVi is integrated. General integration guidelines are:

- Install the VMS SDK on all PCs running the VAP component. You often also need to install the SDK on the PC(s) used for savVi client applications (savVi-Manager and savVi-Analyst).
- It is strongly recommended to synchronize all PCs running savVi’s components with the VMS server and VMS recorders to ensure that savVi generated-information (e.g., metadata) will be synchronized with VMS generated information (such as events and recordings). If time synchronization is not applicable, the minimal requirement is that savVi server will be able to read the current time from the VMS server and align its stored metadata accordingly. To allow this, NTP should be enabled on the VMS PC. To verify, perform the following operations on the VMS server:

- Start the **Registry Editor** (run **regedit** from Windows command line)
- Look for the following key:

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\TimeProviders\NtpServer\Enabled

- Verify that the key value is **1**. If you need to modify the key value, restart **Windows Time** service from your Services panel.

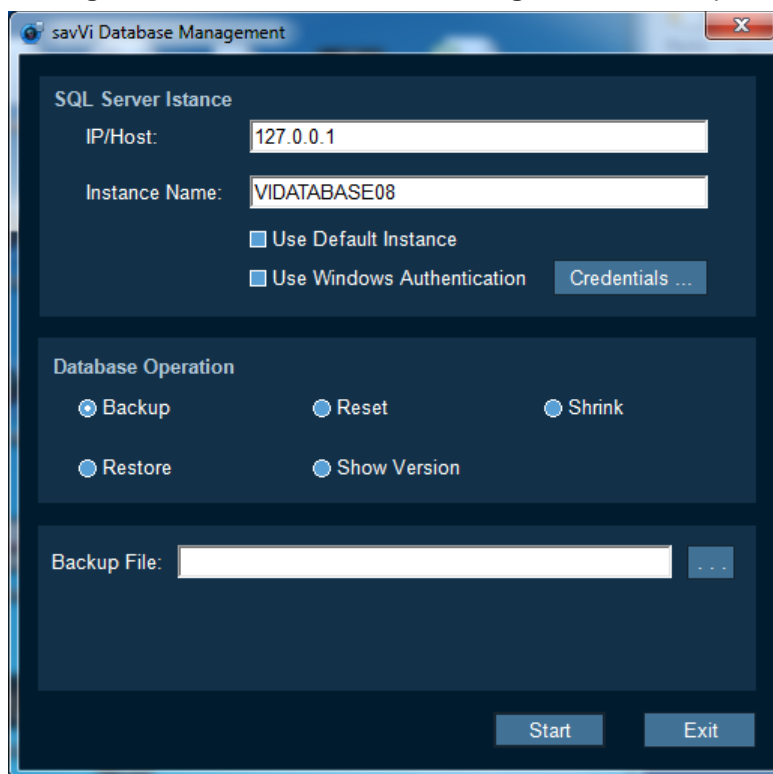
4 savVi Database Management

Use the **savVi Database Management** tool to manage the savVi database. The tool enables you to:

- Back up the database
- Restore the database
- Reset the database
- Shrink the database
- Obtain the database version

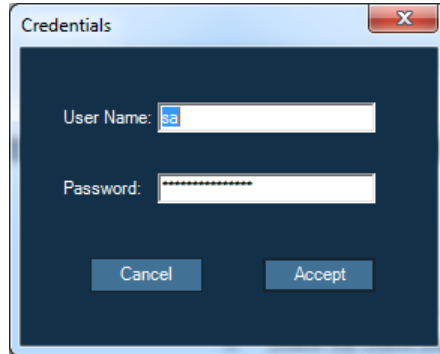
4.1 Getting Started

- To open savVi Database Management:
1. Click **Start > All Programs > Agent Vi > Administrator Tools > savVi Database Management**; the **savVi Database Management** screen opens:




2. In the field **IP/Host**, specify the host of the database if it's on another machine, or leave it at the default.
3. In the field **Instance Name**, specify the instance name of the SQL Server in the case of a named instance, or leave the field blank in the case of a default instance.
4. Select the **Use Windows Authentication** option for Windows Authentication to be used for the database instance (that you defined above) rather than specific user access.

5. To specify specific user access, click **Credentials**; the **Credentials** screen opens.




4.2 Backing up the Database

- To back up the database:
1. In the **savVi Database Management** screen make sure that the **Backup** option is selected. Click the button  adjacent to the field **Backup File** and navigate to the destination folder. Note that you do not have to specify the backup file name since the system designates a default file name.
 2. Click **Start**; the backup operation starts; a progress bar shows its progress.
 3. When the operation is completed, click **Exit** or perform another operation.

4.3 Restoring the Database

Before restoring the database *back up* the previous one. The restore operation *restores a backed-up database*.

- To restore the database:
1. In the **savVi Database Management** screen, select the **Restore** option.
 2. Click the button  adjacent to the field **Restore File** and navigate to the database file to be restored. The extension of the restore file is **zip**. The filename must include the full path.
 3. Click **Start**; the restore operation starts; a progress bar displays its progress.
 4. When the operation is completed, click **Exit** or perform another operation.

Note

The restore operation *overwrites the current database with the restored database*.

4.4 Resetting the Database

When using savVi in a pilot trial, it's sometimes necessary to delete all data stored in the database tables and to restart. You can do this by resetting the database.

- To reset the database:
1. In the **savVi Database Management** screen, select the **Reset** option.
 2. Click **Start**; the reset operation starts; a progress bar displays its progress.
 3. When the operation is completed, click **Exit** or perform another operation.

Note

The reset operation *deletes all tables in the database with the exception of the login table*. The reset operation *reinitializes the database*.

4.5 Shrink the Database

While data stored in the database can periodically be purged or deleted by the administrator, Microsoft SQL features its own mechanism for freeing and minimizing database storage. To accelerate this, you can perform a shrink operation.

- To shrink the database:
 1. In the **savVi Database Management** screen, select the **Shrink** option.
 2. Click **Start**; the shrink operation starts; a progress bar displays its progress.
 3. When the operation is completed, click **Exit** or perform another operation.

4.6 Obtaining the Database Version

- To obtain the database version:
 1. In the **savVi Database Management** screen, select the **Show Version** option.
 2. Click **Start**; the **Database Version** field in the **savVi Database Management** screen displays the version of the current database.

Appendix A Required Firewall Settings

When a firewall is used (including Microsoft Windows Firewall), the following ports must be opened and enabled in the communications path:

TCP Port #	Description
8080	Some savVi components maintain communication using the Web Service standard over port 8080 . If either your server or client machine is already using port 8080 for other services, you can change this default value during the installation process.
15000	Enables communication between the Load Balancing Server (VILBS_Service) and the application server (VIAS_Service)
15029	Enables communication workstations and Vi-Agent using HTTP
15030	Enables communication between Vi-Server and Vi-Agent using AMP
15031	Enables video streaming between Vi-Gateway and Vi-Agent
15036	Enables communication between the GUI applications (via Vi-Gateway) and Vi-Server
15072	Enables communication between two LBS machines. Valid only when redundancy is used.
15050-15060 16050-16060	Enable communication between VAP instances and Vi-Server

For your convenience it's possible to open a range of ports between 15000 and 15060 for the system to use. Note that if you are distributing your installation on multiple PCs, you need to open these ports on each PC.



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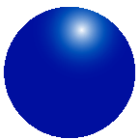
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