



OAISYS Software Only Installation Guide

Version 7.1

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Americas Headquarters

OAISYS

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OVERVIEW

The purpose of this document is to guide a technical administrator through the process of installing an OAISYS recording solution as a software-only option on a dedicated server. The dedicated server is provided by the customer and must not have any applications installed on it that are not referenced in this document. This document is applicable to both the Talkument and Tracer recording solutions for the current production release.

These instructions assume a working knowledge of Windows and general setup procedures. Complete the installation of the software in the order presented within this document.

An electronic version of this document is available on the OAISYS web site (www.oaisys.com) under Support → Technical Support → Documentation.



MINIMUM HARDWARE REQUIREMENTS

Many factors go into selecting the best hardware platform to meet your call recording needs. Consider how many ports you plan to record and how many call recordings you would like to store online. VoIP call recording (with the exception of Mitel Secure Recording Connector and ShoreTel TAPI-WAV configurations) requires a network switch with port mirroring and VoIP recording servers require two network interface ports. One port provides connectivity to the LAN and for client access. The second port is dedicated to capturing VoIP traffic.

Digital Tap systems (Station Tap, Digital Trunk Tap, VOX, and Analog Tap) will require server chassis which have the capacity to hold **full length PCI cards**. These are full-sized cards and require the entire length in the chassis.

Port Count	CPU	Memory	Operating System**	SQL Server*	Storage
1-48	Dual core	2GB	Windows 7 or Windows Server 2008	SQL Server 2008 Express w/Advanced Services or SQL Server 2008 R2 Workgroup or higher	160GB (20GB minimum for OS partition)
49-96		2GB 4GB	Windows 7 or Windows Server 2008	SQL Server 2008 Express w/Advanced Services or SQL Server 2008 R2 Workgroup or higher	160GB (20GB minimum for OS partition)
97-200		4GB	Windows Server 2008	SQL Server 2008 R2 Workgroup or higher	250GB (60GB minimum for OS partition)
201-350	Quad core	8GB	Windows Server 2008	SQL Server 2008 R2 Workgroup or higher	500GB (60GB minimum for OS partition)

****NOTE:** Port count varies by platform

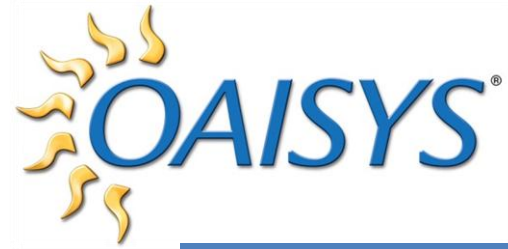
* SQL Server 2008 R2 Workgroup, Standard, and Enterprise Editions require Windows Server 2008.

SQL 2008 Express w/ Advanced Services supports both of the Operating Systems listed above.

****NOTE:** Tracer 7.0 supports 32 bit and 64 bit OS; server and client installations are supported.

****ShoreTel TAPI-WAV integration requires a ShoreTel TAPI Application Server software license and Windows Server 2008 or Windows Server 2003 OS. ShoreTel version 10.1 and lower requires the same version of the OS be installed on both the Headquarters Server and the OAISYS Recording Server.**

****NOTE:** ShoreTel only supports Windows 2008 R2 for 64-bit installs of their TAPI application server.



DOWNLOADS REQUIRED

The following prerequisites must be downloaded prior to installation. They are included on the provided installation disc and are available for download via www.oaisys.com

Support → Technical Support → Software Downloads

*****DO NOT INSTALL THESE PROGRAMS AT THIS TIME – DOWNLOAD ONLY*****

- .NET Framework 3.5 SP1
- AudioCodes (AiLogix) Driver (DP3200/ DP4800/ PT boards not supported)
- Sentinel USB Driver
- SQL Server 2008 Express w/ Advanced Services (if appropriate)
- OAISYS Recording Server Software

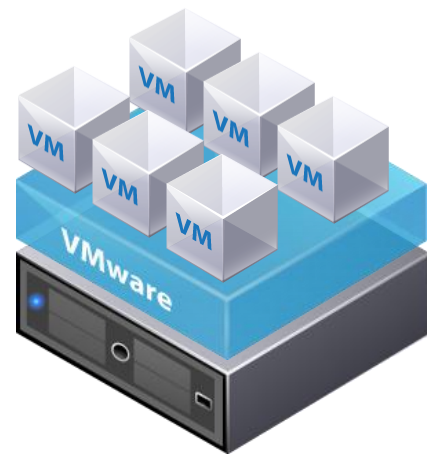
OAISYS AND VMWARE

OVERVIEW

VM support is now available with the OAISYS solutions version 7.0 and later. Virtualization combines server resources onto one host server and reduces the number and identity of individual physical servers, processors, and operating systems. The host server can be divided into multiple isolated virtual environments. These virtual environments can run the OAISYS software; Tracer, Talkument, and Tracer Screen Recording.

Benefits of virtualization include:

1. Consolidation of applications onto fewer servers
2. Expense reduction through reduced hardware, power, cooling, and administrative costs.



The illustration provides an example of a Virtual Server running several virtual machines, and demonstrates how Tracer, Tracer Screen Recording, and other VMWare-compatible third-party applications can be configured.



REQUIREMENTS

- OAISYS Version 7.0 or higher
- OAISYS uses VMWare VSphere 4 (ESX and ESXi) with network USB device or Vsphere 4.1 with USB passthrough
- Each OAISYS application (Tracer, Talkument, and Tracer Screen Recording) will require a set of reserved requirements
- Processors for the host machine must be Intel i7 or higher (or its equivalent)
- Processor and Memory Requirements per Port Capacity

100 Ports (6.3 or later) and 50 Ports (for 6.2)	200 Ports (6.3 or later) and 100 Ports (for 6.2)	350 Ports (6.3 or later) and 200 Ports (for 6.2)	Screen Recording up to 100 Ports
2.8 GHz (2 Processors)	3.0 GHz (2 Processors)	3.0 GHz (2 Processors)	3.0 GHz (2 Processors)
2 GB of Memory	2 GB of Memory	4 GB of Memory	2 GB of Memory

****All CPU and Memory values are minimum reserve requirements.**

DRIVE SPEED REQUIREMENTS

SATA drives up to 3Gbps data rate and 7200rpm spin rate

EXPECTATIONS

OAISYS can provide a virtual “image” containing the client’s licensed OS, OAISYS software, and all of the supporting modules.

NOTE: The customer must provide their own third-party software, OS and SQL licenses when using a VM template.

This image will be available as a VM template (also known as an “appliance” or “blade”).

Three template options are available:

1. Windows 7 with SQL Express
2. Windows Server with SQL Express
3. Windows Server with SQL 2008 R2



INSTALLATION STEPS

1. Install Operating System on Recording Server

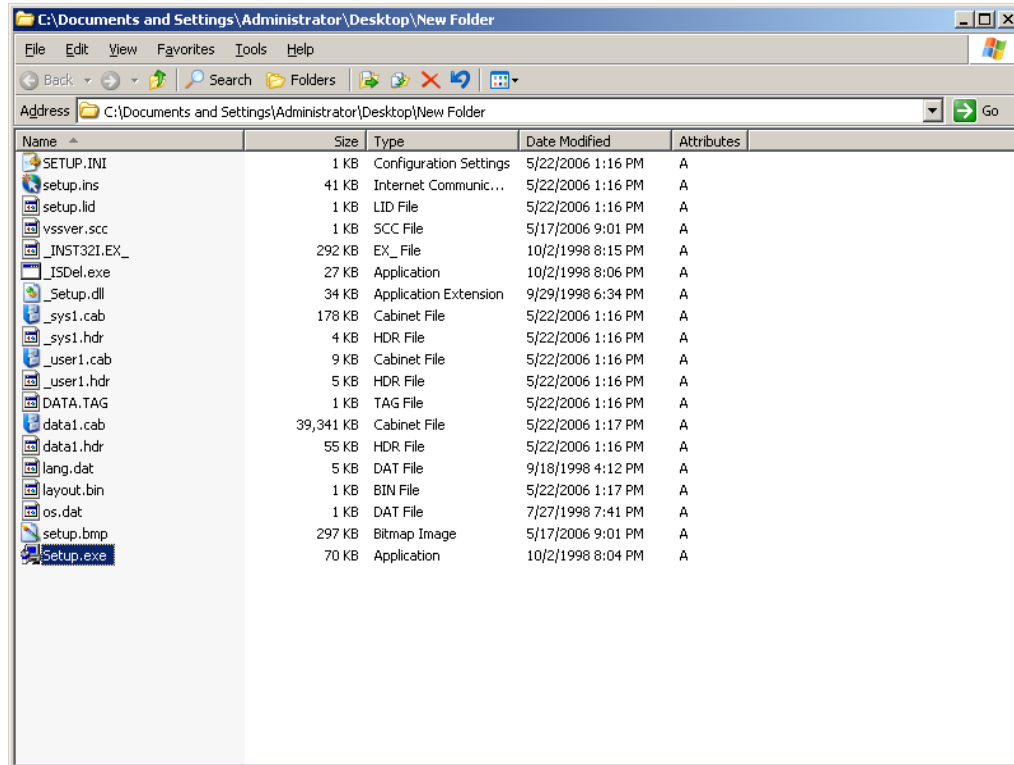
NOTE: We recommend renaming your server prior to installation of OAISYS Tracer Software.

IMPORTANT: Use **“Run as Admin”** option when running setup files (right-click on .exe to access the option)

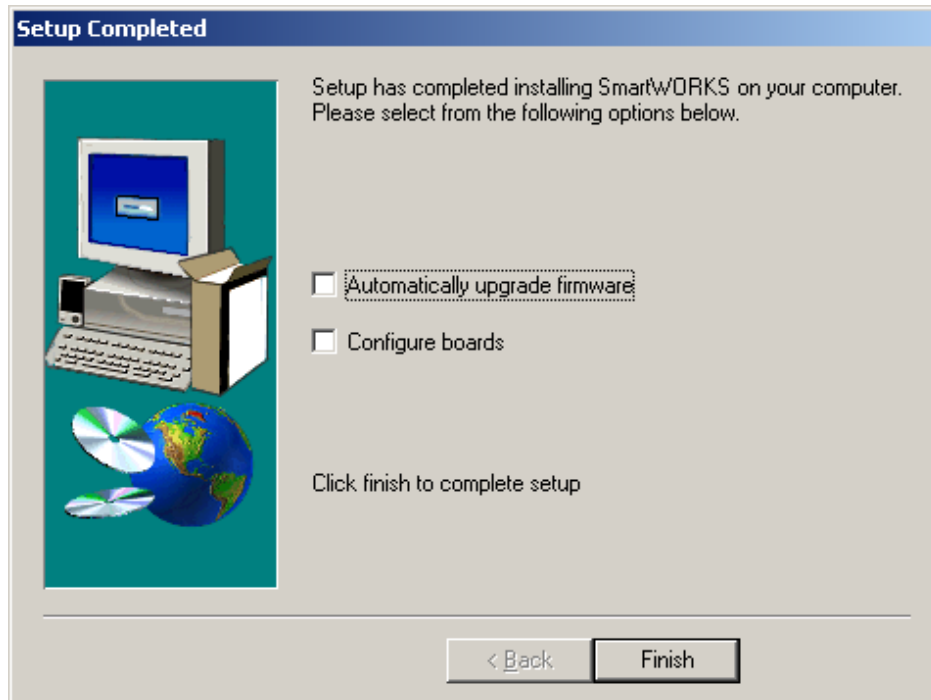
Here are some guidelines for Windows 7 and Windows 2008

- a. Disable User Account Control (Windows 2008) or Select Lowest Level (Windows 7) through the Control Panel → User Accounts/Family Safety → User Accounts
 - b. Disable Data Execution Protection (DEP)
 - i. Run Command Prompt as “Admin”
 - ii. Run the following command
“bcdedit.exe/set{current} nx AlwaysOff”
 - c. Disable Internet Protocol version 6 (IPV6)
 - i. Disable it in the properties of each network adapter
 - ii. Also add the following registry value:
 1. HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\tcpip6\Parameters\
 2. Dword=DisabledComponents
 3. Decimal Value=255
 - d. Install Powershell through Windows Update (Windows 2008)
2. Be sure to enable IIS, ASP.NET, and Active Server Pages
- a. See Microsoft documentation if needed
3. Apply OS Service Packs and Windows Updates
- a. Required reboot after updates installed
4. Install .NET Framework Service Packs (.NET 1.1, .NET 2.0 SP1, .NET 3.5 SP1)
- a. Download latest Microsoft Updates after installing .NET 3.5 SP1 when prompted
5. Acrobat Reader (if needed)
- a. <http://get.adobe.com/reader/>
6. Sentinel USB Driver (for the USB licensing dongle)

7. Audio Codes (Ai-Logix) Driver
 - a. Unzip Downloaded file to a new folder
 - b. Run Setup.exe



- c. Uncheck the following boxes after install → click **Finish**



8. Shut down Server and install Audio Boards (Optional)
 - a. Use the default setting in the Found New Hardware Wizard

9. Microsoft SQL Server (Standard or Express)

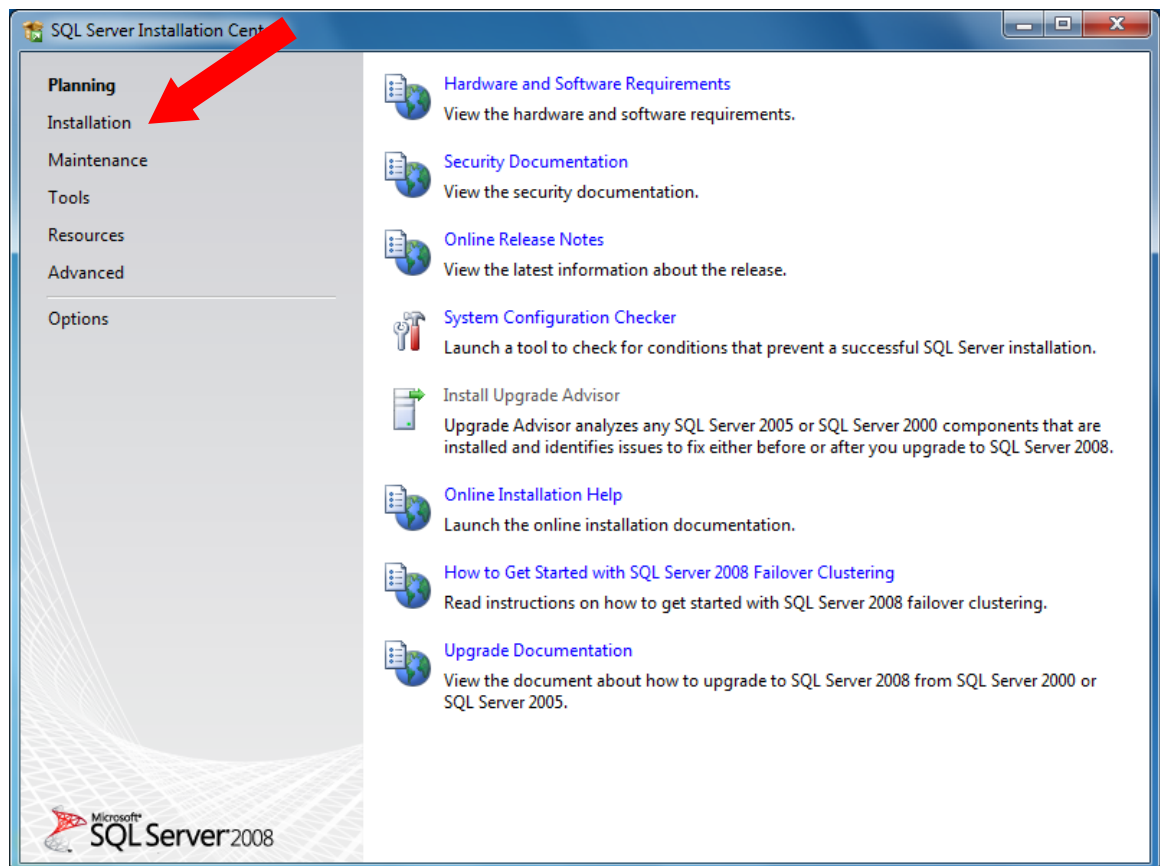
Requirements for Stand Alone SQL Server

- Windows Server 2008 R2 Standard SP2 x64
- Q9550 Core 2 Quad @ 2.83 GHz
- 8GB RAM
- 1 SATA HDD for OS
- 1 SATA HDD for DB
- Maximum calls in the database = 3 Million

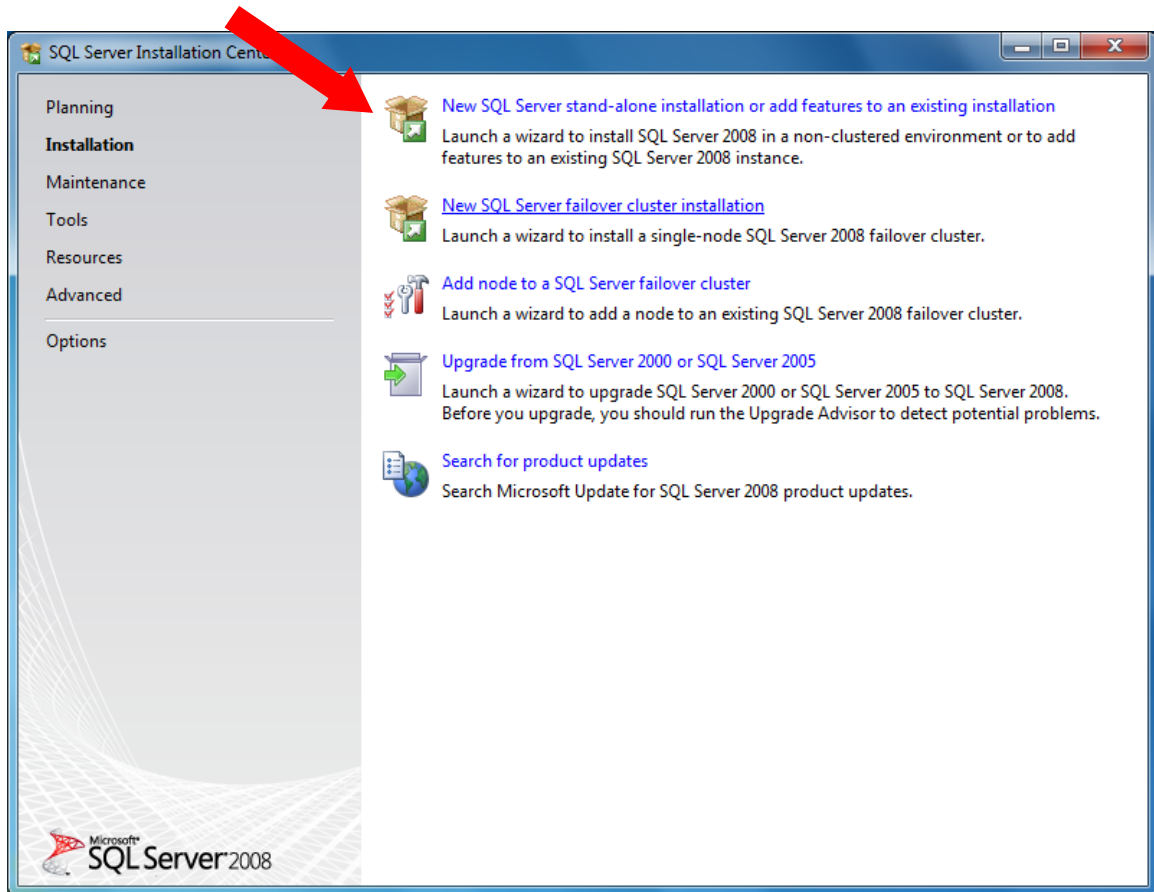
NOTE: Please use SQL Server 2008 Express Advanced Services R2. There have been issues discovered installing just SQL 2008 Server; download the 32 or 64 bit versions here: <http://www.microsoft.com/express/Database/>

a. This is the install screen.

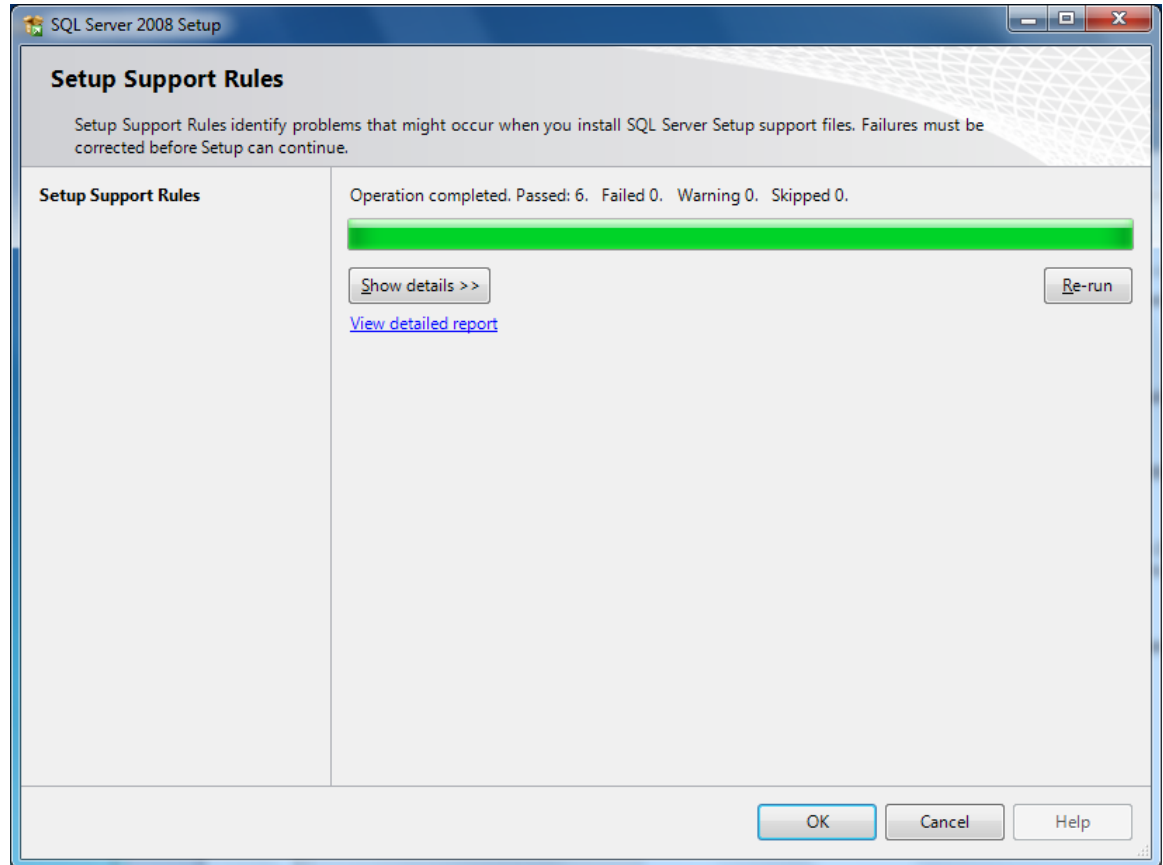
Click on the **Installation** option on the upper left side.



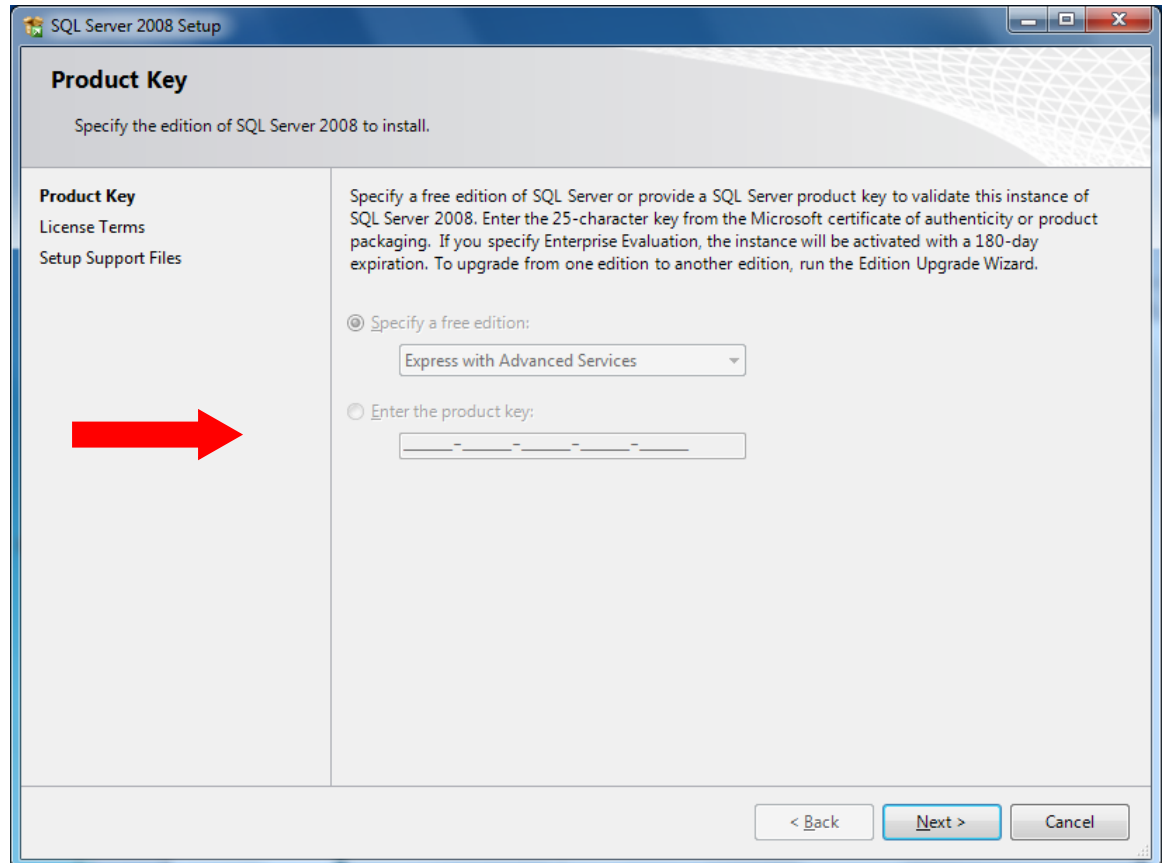
- b. From the installation screen
Click the link for New SQL Server stand-alone installation



- c. Once the setup support files are complete, verify there are no failures at the top of the page → click OK

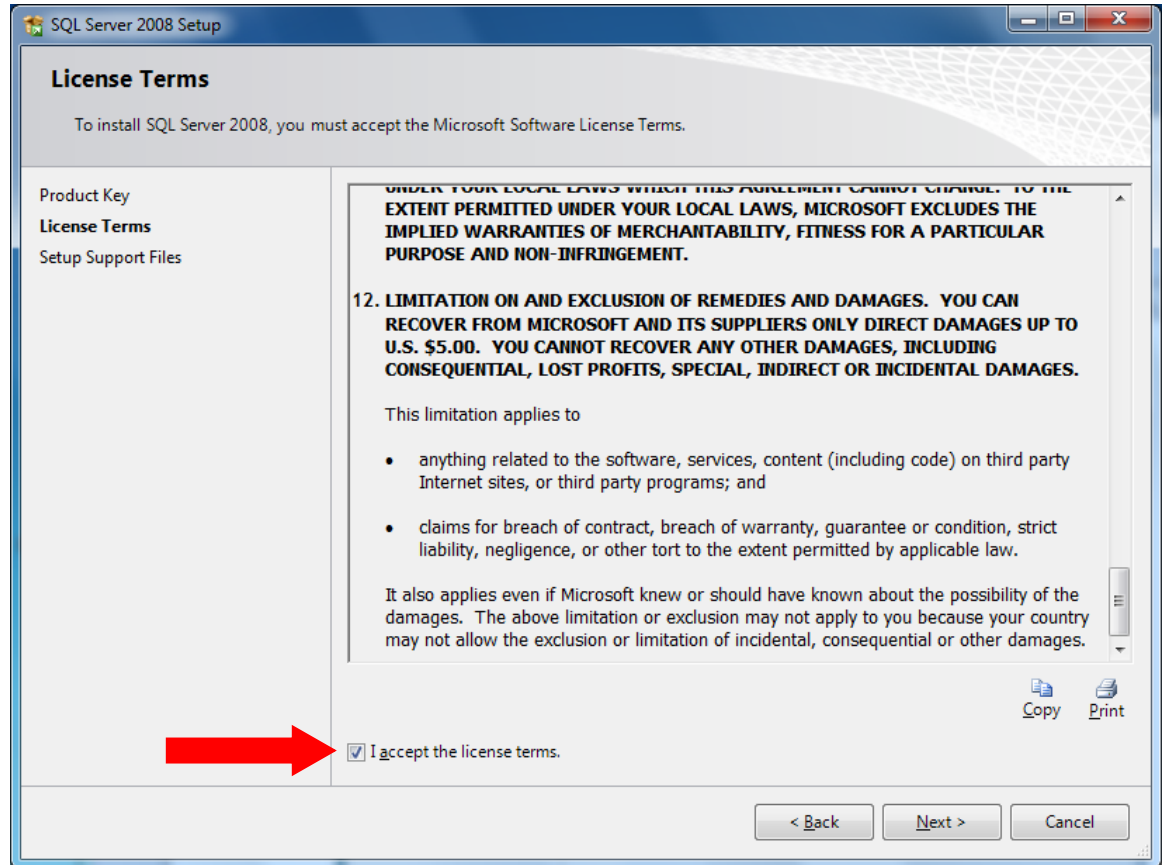


- d. If a full version of SQL is being installed, enter the product key at this screen → click Next
This is the free edition; there is no license code to install.

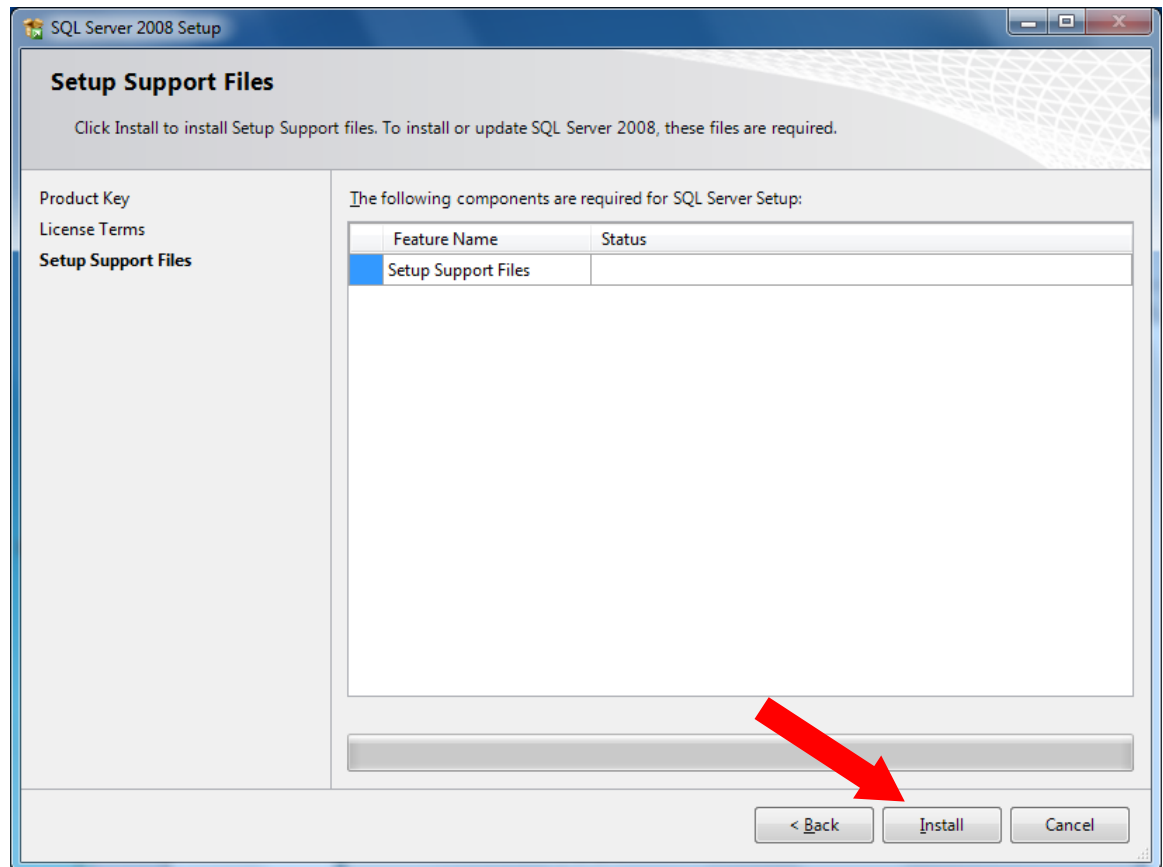


The screenshot shows the 'SQL Server 2008 Setup' window with the 'Product Key' tab selected. The window title is 'SQL Server 2008 Setup'. The main heading is 'Product Key' with the instruction 'Specify the edition of SQL Server 2008 to install.' Below this, there are three links: 'Product Key', 'License Terms', and 'Setup Support Files'. The main content area contains the following text: 'Specify a free edition of SQL Server or provide a SQL Server product key to validate this instance of SQL Server 2008. Enter the 25-character key from the Microsoft certificate of authenticity or product packaging. If you specify Enterprise Evaluation, the instance will be activated with a 180-day expiration. To upgrade from one edition to another edition, run the Edition Upgrade Wizard.' There are two radio button options: 'Specify a free edition:' (which is selected) and 'Enter the product key:'. Under 'Specify a free edition:', there is a dropdown menu showing 'Express with Advanced Services'. Under 'Enter the product key:', there is a text input field with a dashed line indicating where to enter the key. At the bottom right, there are three buttons: '< Back', 'Next >', and 'Cancel'. A red arrow points from the left towards the 'Next >' button.

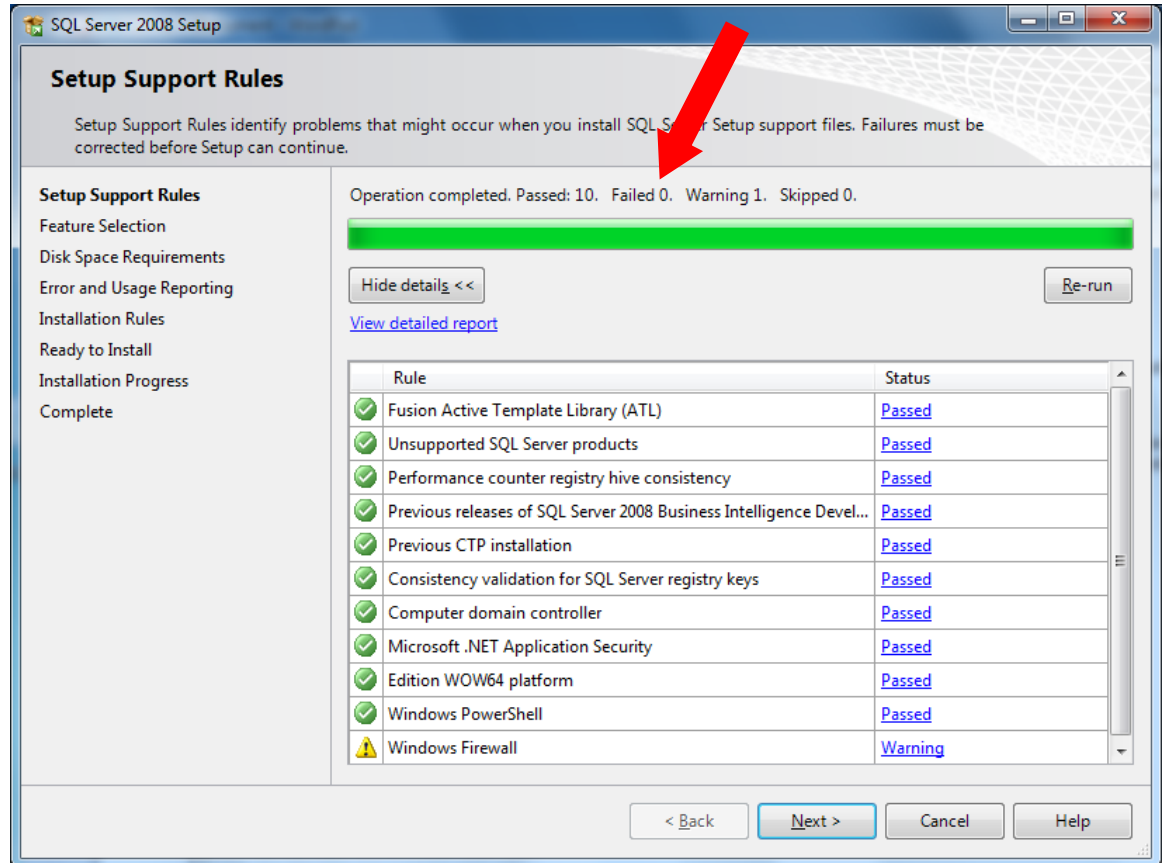
- e. Scroll to the bottom of this screen → accept the license agreement → click Next



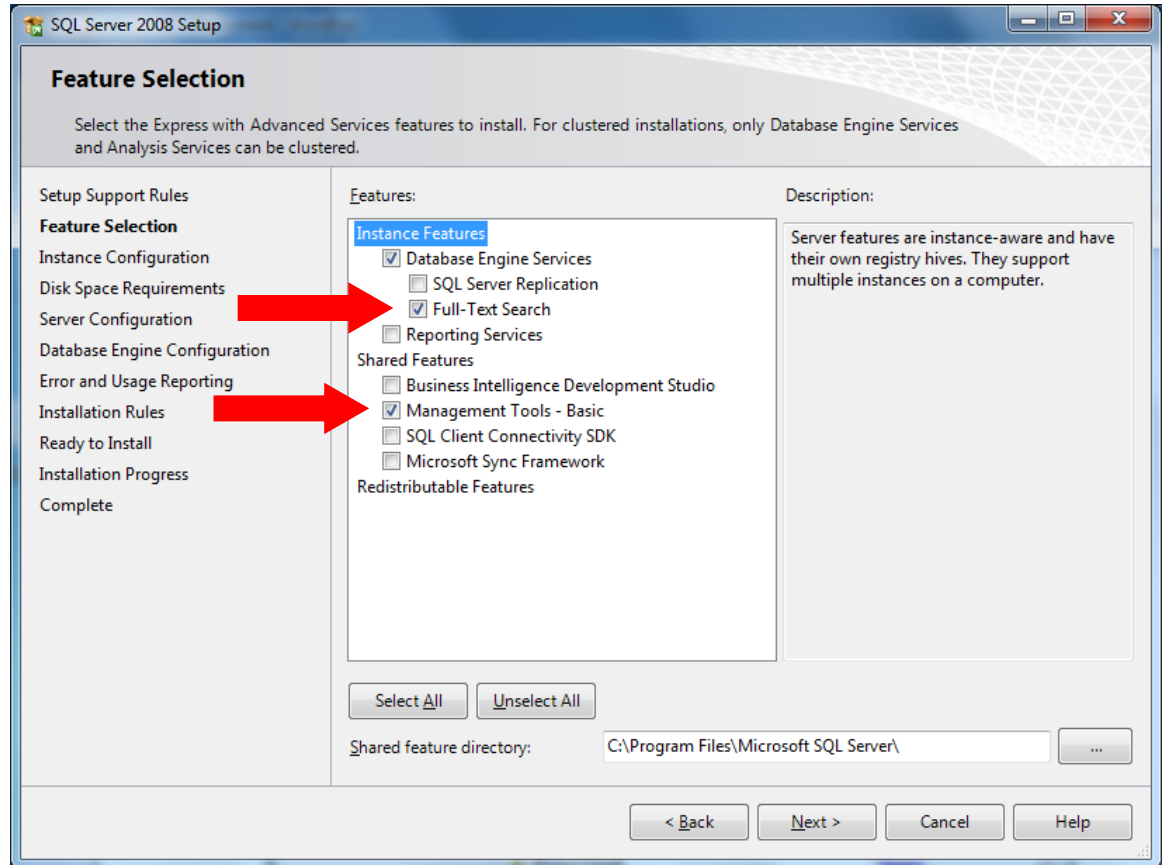
- f. Click Install at the bottom of this screen



- g. Verify there are no failures of the operations at the top of the screen → click Next



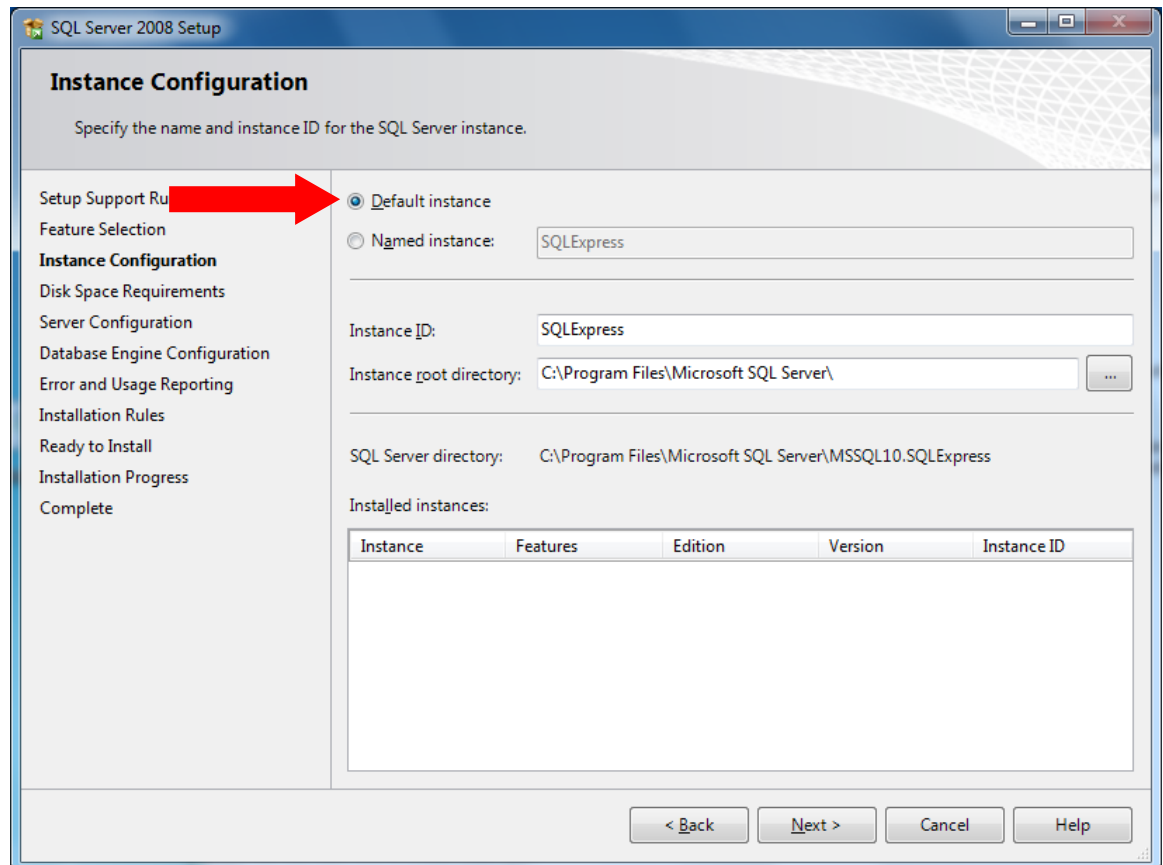
- h. Click the Full-Text Search option and the Management Tools option →
click Next



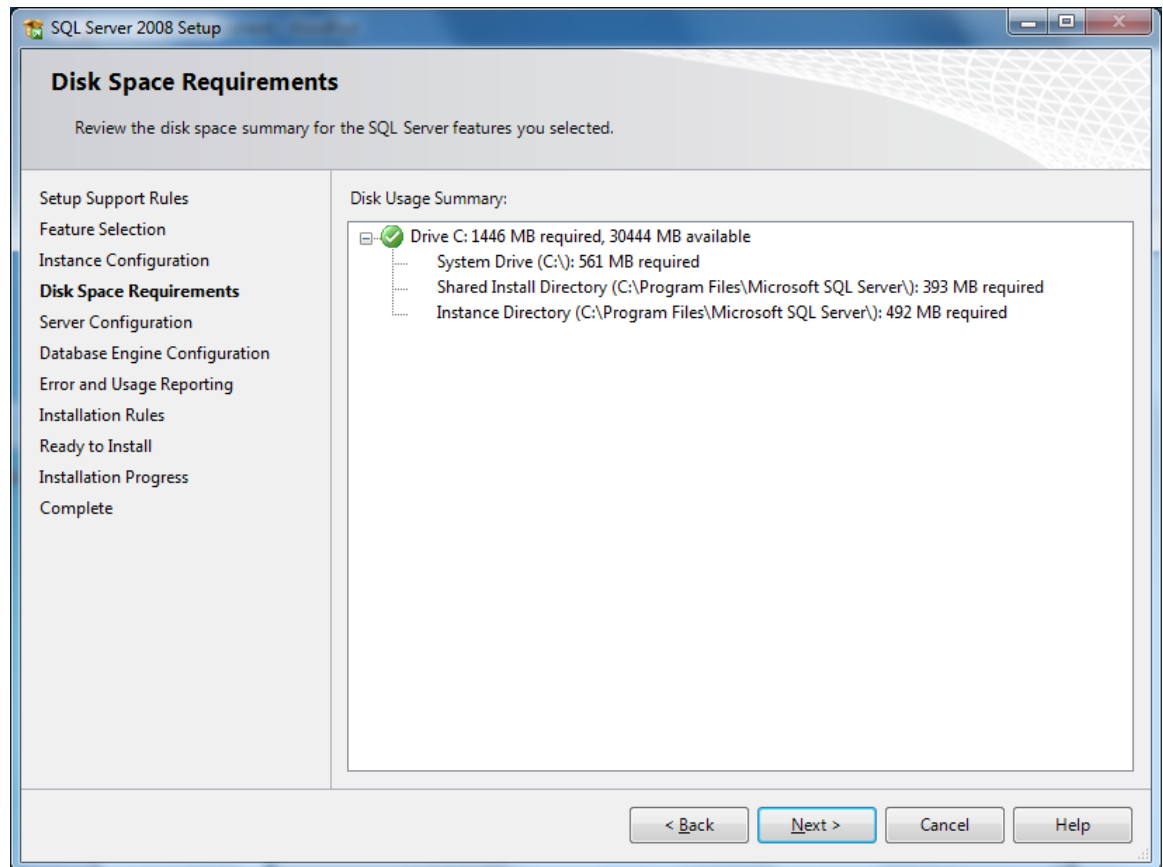
- i. Select the Default Instance or Named Instance(verify a name is provided if Named Instance is selected)

NOTE: Named instances are supported in SQL 2008 and later versions.

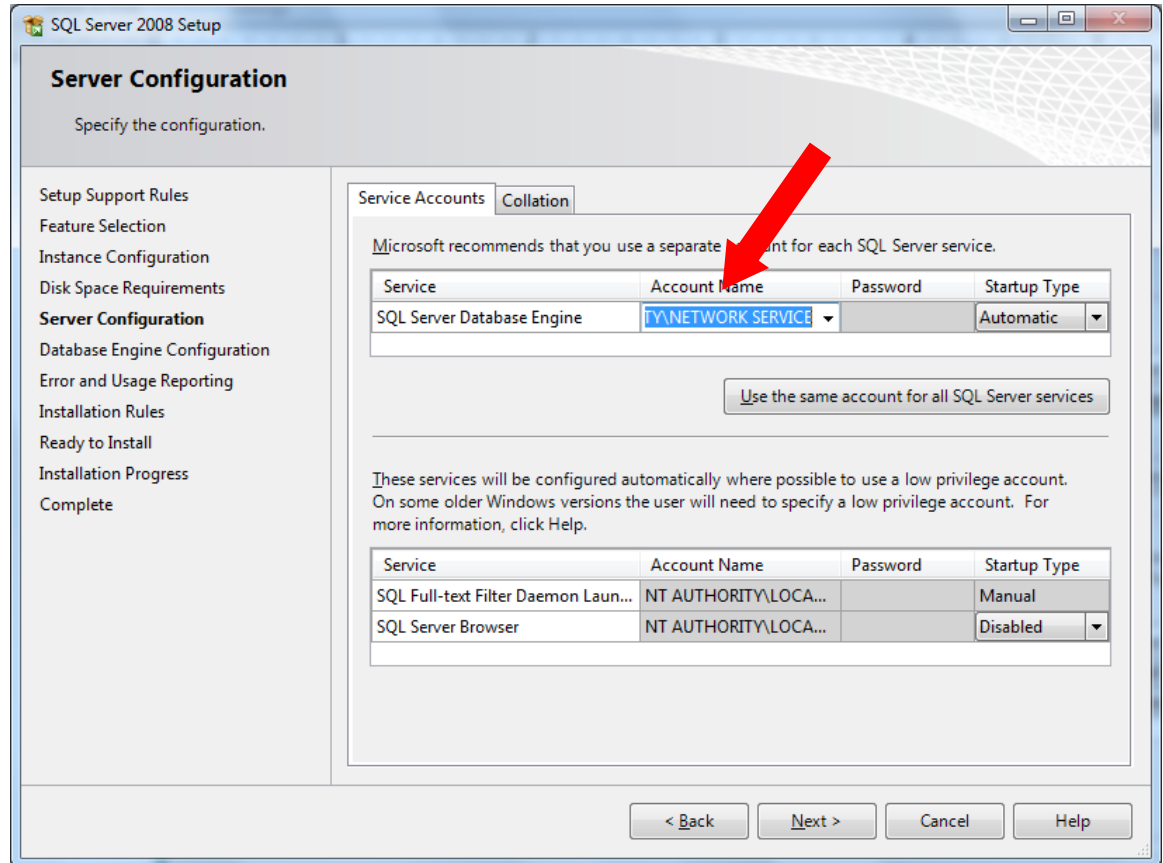
Click Next



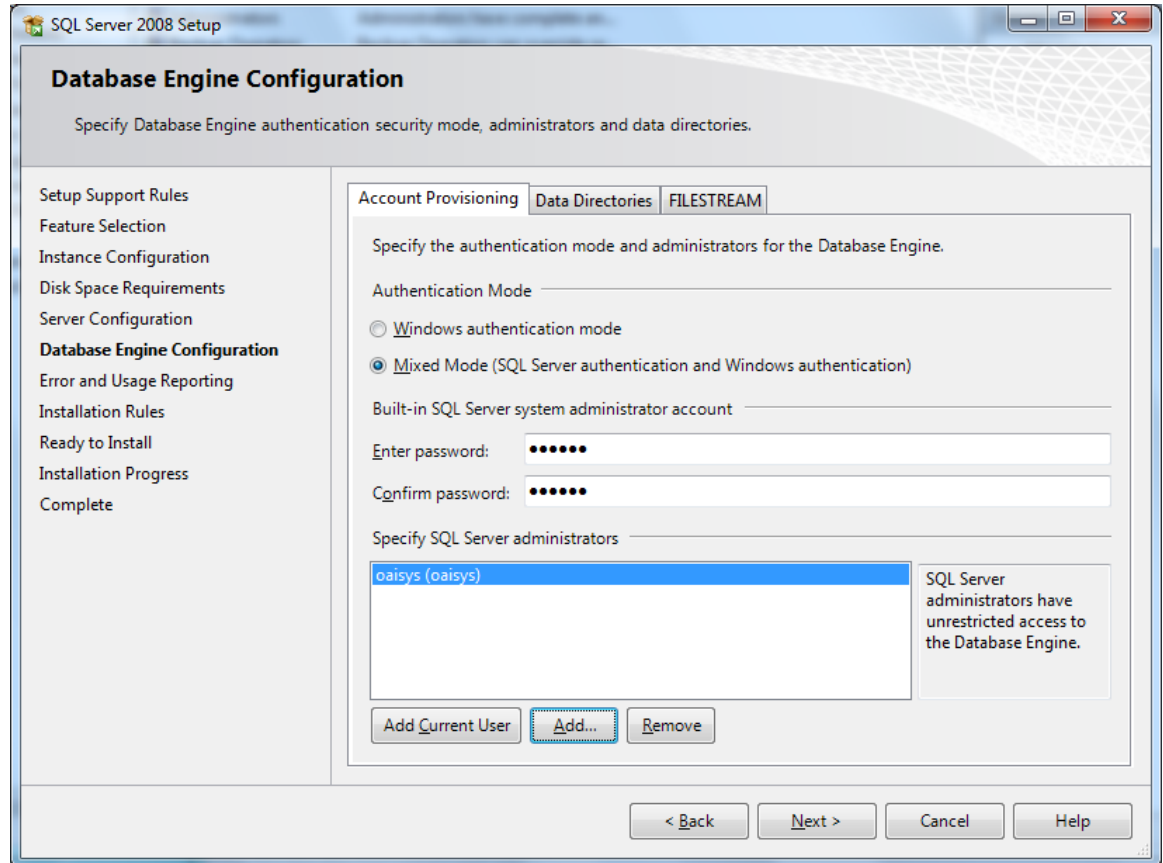
j. No modifications on this screen → click Next



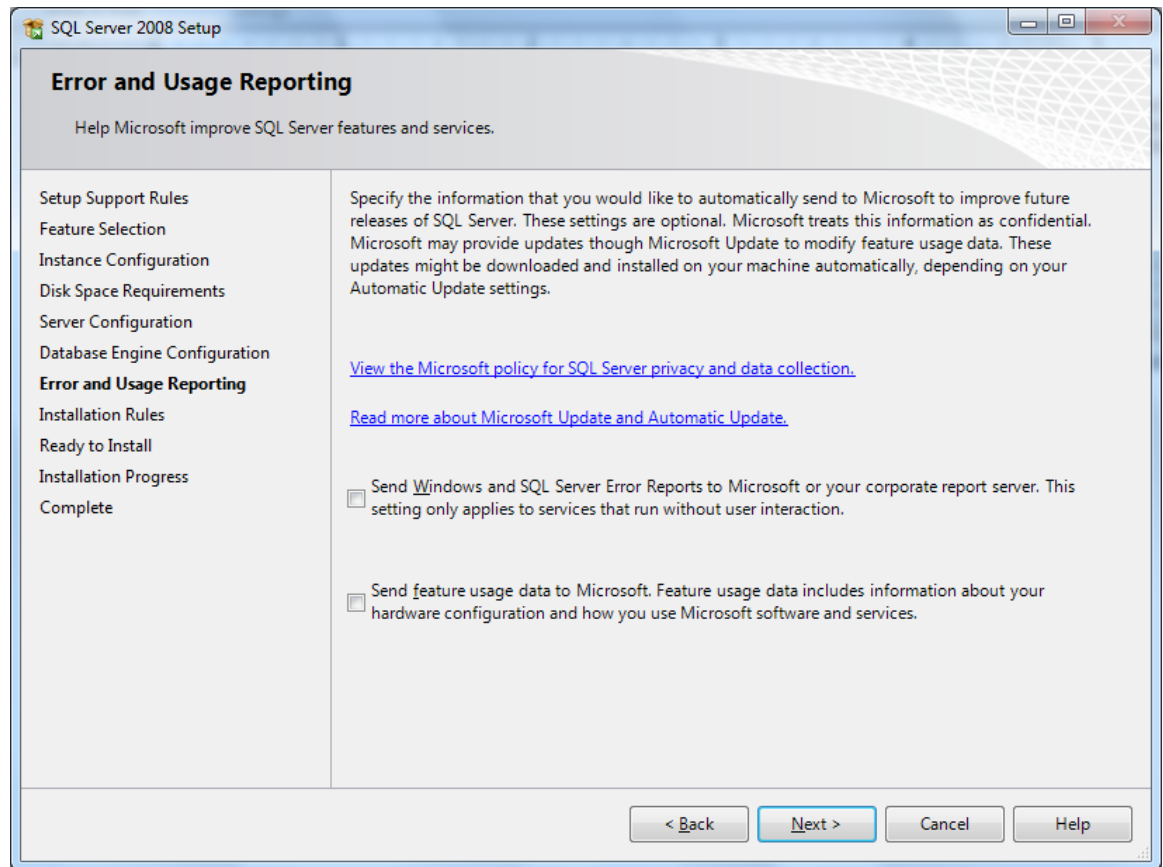
- k. If appropriate for your configuration, change the SQL Database Engine to the Network Service account.



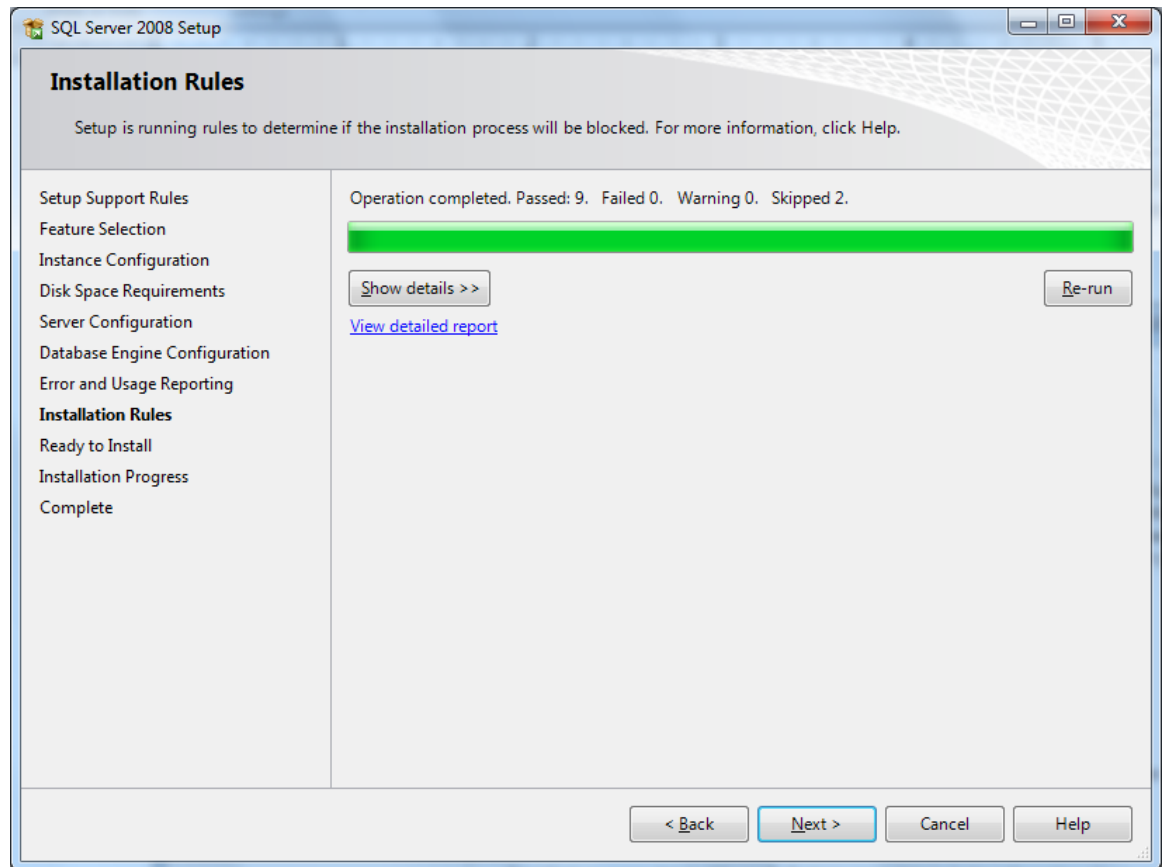
- I. Choose Mixed Mode → enter “a password.
Keep the password as you will need it when creating database logins.



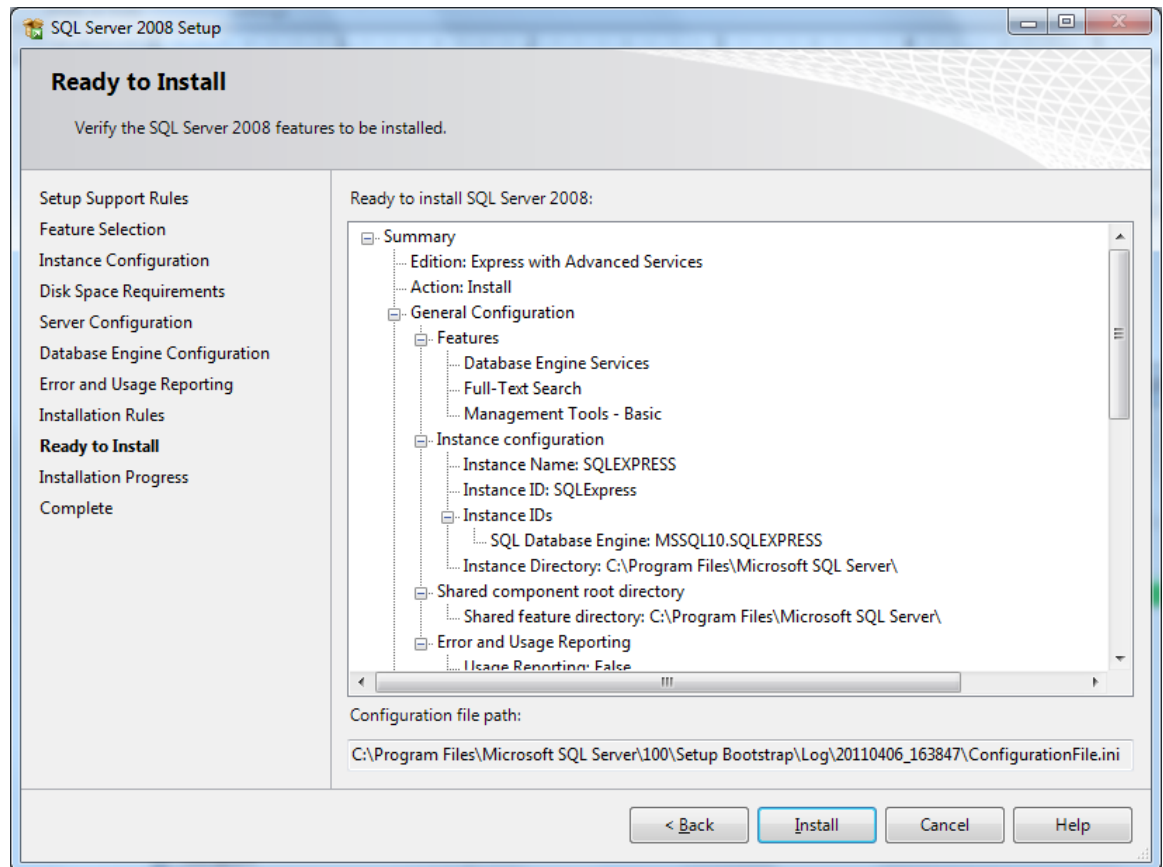
m. Leave both boxes empty → click Next



- n. Verify there are no failed operations → click Next

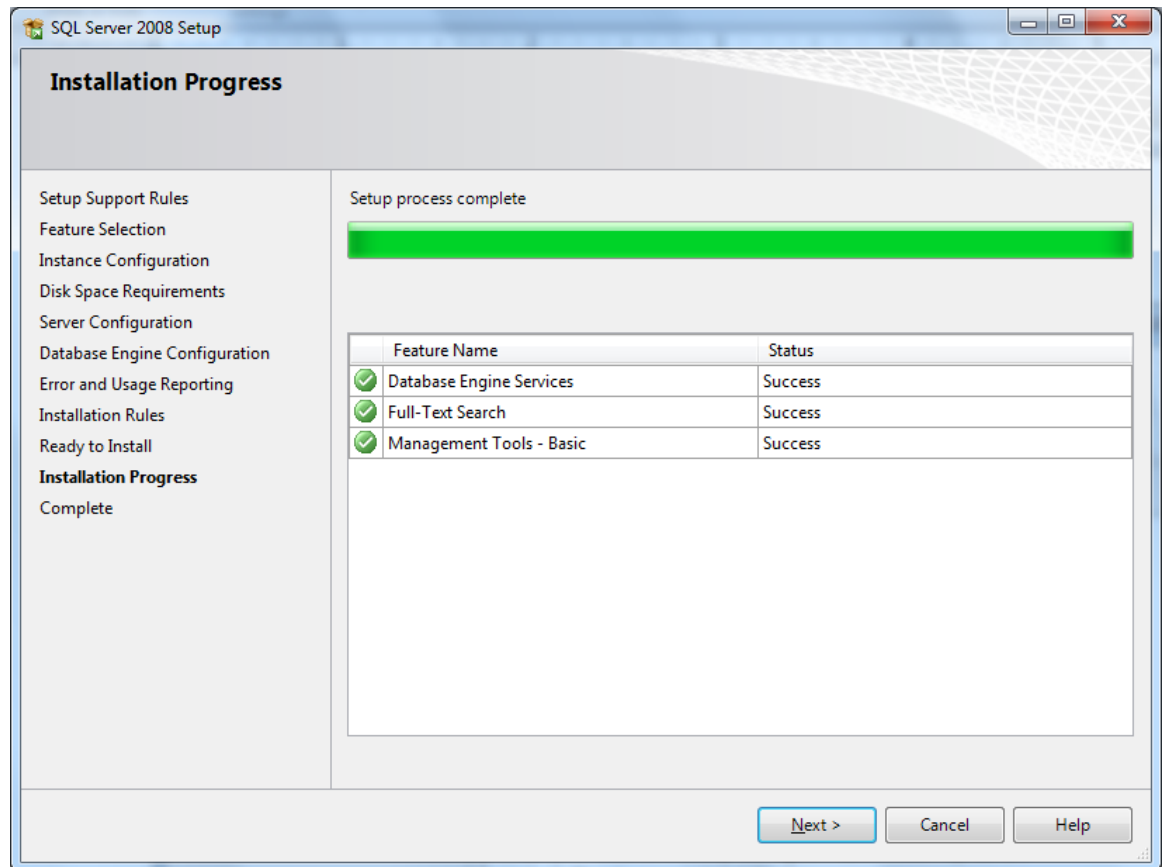


- o. Click Install

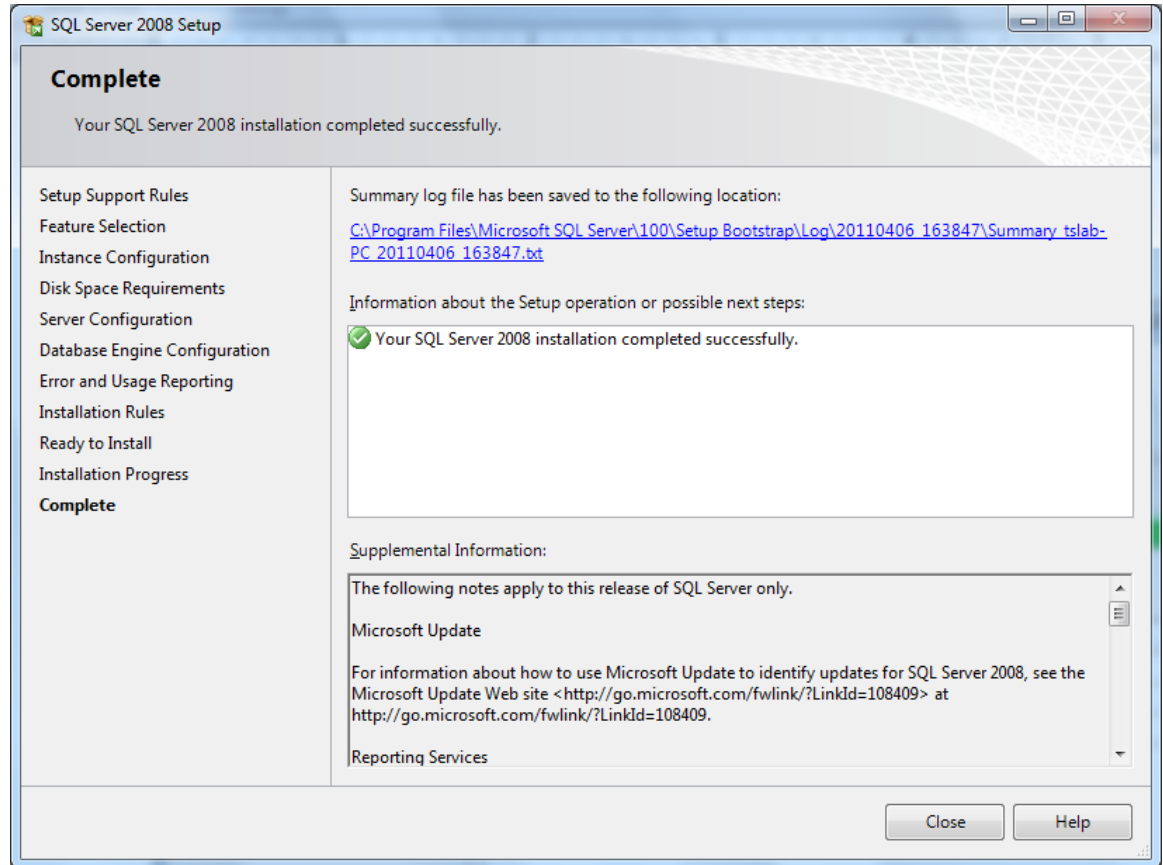


NOTE: Depending on your hardware capabilities, the SQL installation may take up to 30 minutes or more.

p. Click Next



- q. The installation of SQL 2008 should be complete, and the following screen should display.

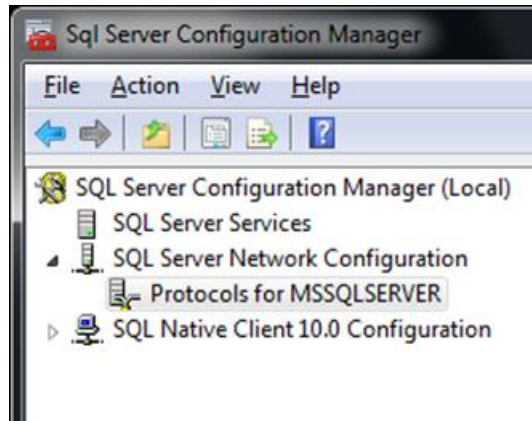


NOTE: If any updates need to be applied to the SQL server installation, do so now.

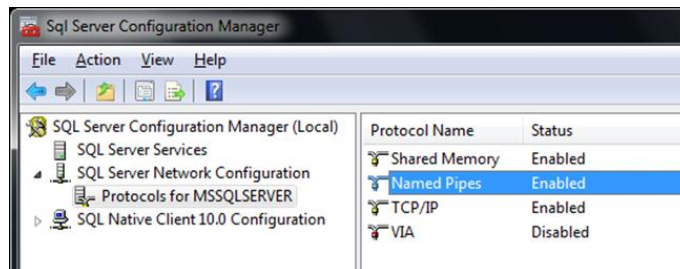
10. Launch the SQL configuration manager to set the SQL protocols.

Start → All Programs → Microsoft SQL 2008 R2 → Configuration tools → SQL server configuration manager

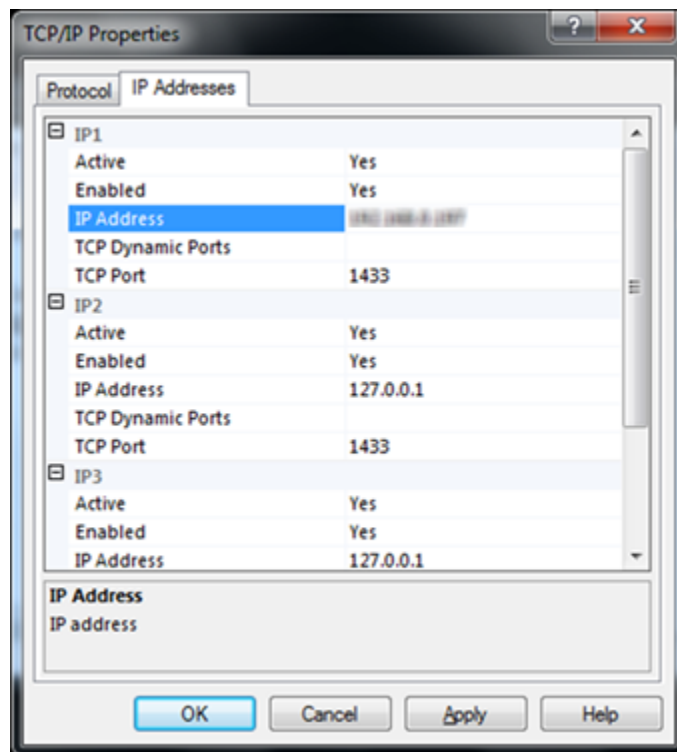
- a. Expand SQL server network configuration and select Protocols for your appropriate instance. If using the default instance, it will be shown as MSSQLSERVER. If multiple instances are installed, each is configured independently.



- b. Set both Named Pipes and TCP/IP to Enabled
- c. Double-click on TCP/IP and go to the IP Address Tab



- d. On the IP Address tab, verify IP1 Active and Enabled are set to Yes
- e. Set the IP Address listed for IP1 to the actual IP address of the Tracer Server
- f. Verify IP2 Active and Enabled are set to Yes
- g. Set the IP Address to the loopback address (127.0.0.1)
- h. Optionally, you can change the settings for using static or dynamic ports here.

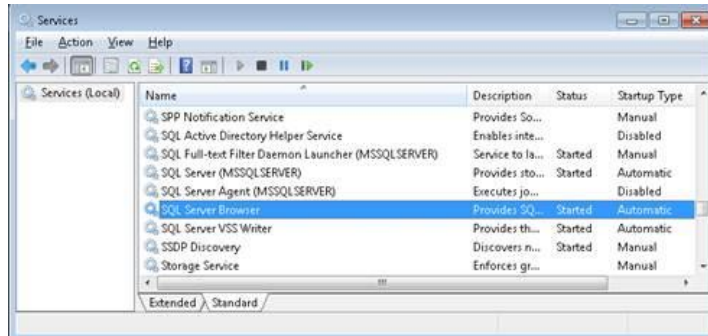


NOTE: If installing SQL behind a firewall, please see the instructions located here:

<http://msdn.microsoft.com/en-us/library/ms181087.aspx>

See the section titled *Using a Firewall*

- i. Set the SQL Browser windows service to Automatic start up, and start the service

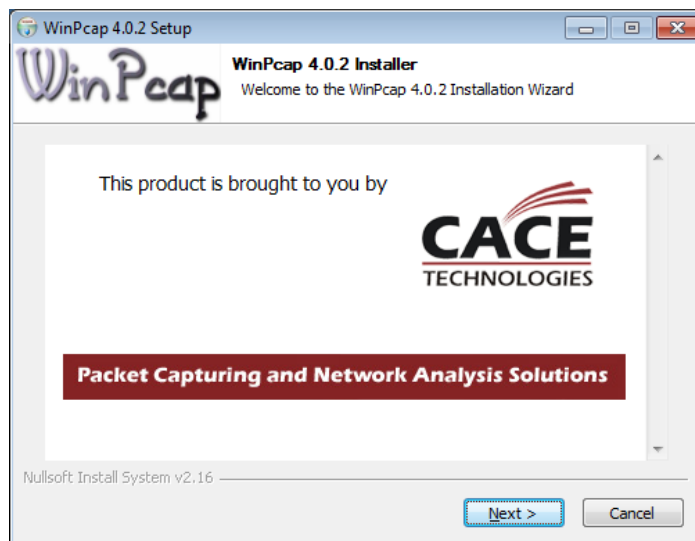


11. Install OAISYS Recording Server Main Setup

- a. Select the Setup button to begin



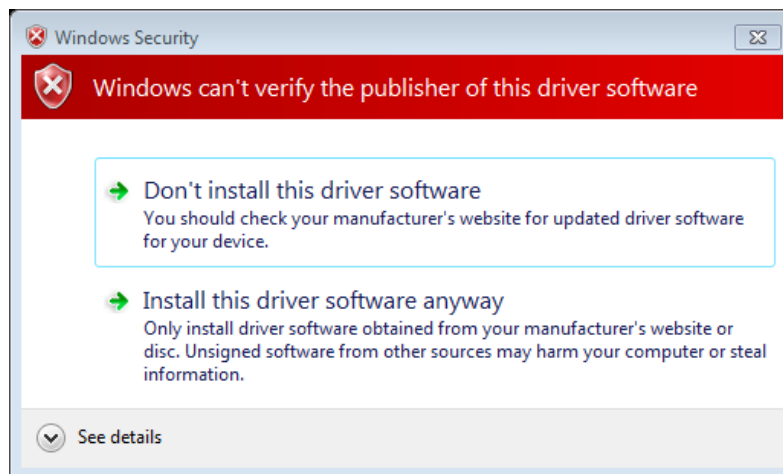
- b. If this is a first time install, you will be prompted to install WinPCap – this is a requirement



- c. If WinPCap is already installed, you may see the following dialog
- d. After installing WinPCap, you are presented with the Installation Wizard for the OAISYS server
 - i. The default options are fine, you may select **Next** all the way to the end

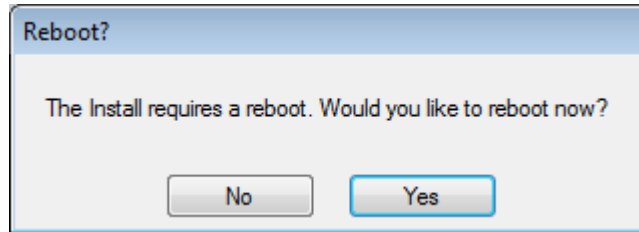


- e. Toward the end of the installation, the following dialogue will appear when installing the drivers for the OAISYS Triton board; this is a requirement with or without the board



- f. The Setup Wizard will come to an end and you'll select **Finish**

- g. You will be prompted to reboot. Reboot is required to complete the installation.



12. Create Database Users

- a. Click on Start → Programs → OAISYS → Create New Database Logins

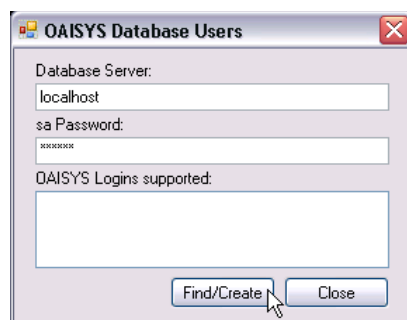
NOTE: This applies to creating users on the OAISYS Server. If configuring a stand-alone SQL Server, this option is not available as Tracer is not installed there.

- b. Fill in the blanks

Database Server is the hostname of the server housing your OAISYS databases.

- i. If using the default SQL instance, you need only specify the hostname.
- ii. If using SQL named instances, you specify hostname and instance name in this format:
"hostname/instancename"
- iii. If your OAISYS Server is also your primary call data server, then we recommend you use "localhost". This will be the most typical setup. The SA Password is the one you set while installing SQL Server.

Click on **Find/Create**

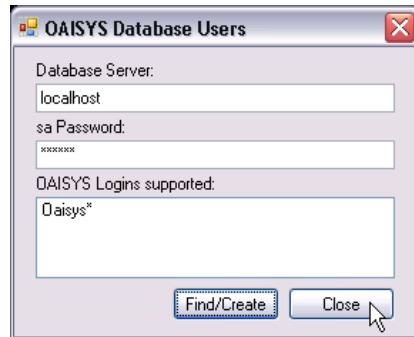


NOTE: Logins will need to be created on each OAISYS Server. If you are using a stand-alone SQL server to host your OAISYS



databases, then logins will need to be created there also.

- c. Once the “OAISYS” user is created → click **Close**



NOTE: OAISYS is not responsible for troubleshooting hardware issues, network performance or behavior.

13. Installation & Configuration Guide

This document will guide you through the remaining steps of installation:

http://www.oaisys.com/downloads/OAISYS_Installation_Configuration_Guide_2011.pdf



ADDITIONAL INFORMATION

OAISYS provides access to a wide variety of technical documentation, including user guides, API development guides, and platform documentation for your convenience.

View this information at: <http://www.oaisys.com/documentation.aspx>

RELATED DOCUMENTATION

Current Release

[Installation Guides](#)

[User Guides](#)

[SIP Implementation](#)

[Screen Recording](#)

[Additional Technical Information](#)

Previous Releases

[User Guides](#)

Communication Platform Specific Documentation

[Avaya](#)

[Mitel](#)

[ShoreTel](#)

[Toshiba](#)

TRAINING OPTIONS

For access to complimentary OAISYS training tools, including instructor-led web-based training and pre-recorded training videos, please visit:

<http://www.oaisys.com/training.aspx>

TROUBLESHOOTING

For additional troubleshooting information, please review our “Installation Troubleshooting Guide,” which can be downloaded here:

http://www.oaisys.com/downloads/troubleshooting_guide.pdf