

SQL Server Installation

Part 1

Table of Contents

Introduction
SQL Server Installation
New SQL Server Express 2014 Installation
SQL Service Express Upgrade from 2008
New SQL Server Standard 2016 Installation11
Upgrade from SQL Standard 2014 or SQL Standard 2008r227
Post-Installation
Services
Firewall Configuration
Inbound settings
Outbound Rules
Allow SQL Server through the Windows Firewall
Test the Firewall
Client's Upgrade to SQL Project in Salesforce
Glossary of Terms

Introduction

The conversion from MS Access to MS SQL Server Express involves two primary steps: Loading SQL Server Express Management Studio and conducting the data conversion. In this step, Part 1, we will handle some administrative tasks and load SQL Server onto the workstation running The Edge.



Getting Started

The following paragraphs describe pre-install activities and managing the upgrade.

Client's Upgrade to SQL Project in Salesforce

The Scheduling Coordinator must update the customer's SalesForce record with upgrade data and activities about the actual upgrade. Tasks include:

- Create a SQL project record
- Evaluate the current Access database (see below)
- Inform the customer of the upgrade timeline
- Data Pull:
 - o Check off Pulled
 - Pulled by
 - Pulled date
- Make a client folder (store name) on: <u>\\fred\CustomerData\SQLFiles\Clients</u> to store database for testing
- Setup Environment:
 - o Password
 - o Check off SQL Installed
 - o Environment Set By
 - o SQL Date
 - Make any notes of errors/problems you ran into

• Email Client's Version # and link on \\fred to: <u>christen@edge.software</u> and <u>julianna@edge.software</u> so the database can be tested and scheduled for Part 2.

Evaluate Database and Coordinate with Customer

The Scheduling Coordinator will contact the customer to evaluate the existing database to determine the scope of the project. This includes determining:

- 1. Database size
- 2. Whether it is multi-store
- 3. Current Edge version
- 4. Current operating system.

A target conversion date should be set with the customer.

SQL Server Installation

After the project data is collected, SalesForce will trigger a workflow item to begin installation. Follow the correct installation from one of the sections below.

New SQL Server Express 2014 Installation

- 1. The customer must be on the most recent version of The Edge. If they are not, an update must be done prior to setting up the Access to SQL conversion. It is probably best to do it now.
- 2. Make sure the customer is running the most recent versions of Windows® and .Net Framework®.
- 3. Copy the SQL files to client's desktop.
- 4. Copy the current Edge database to the desktop and transfer for testing.
- 5. Download the EdgeSQL installer file (EdgeSQLServer2014.zip). It is located in \\fred\ajsllc\CustomerData\SQLFiles.

🖳 Edge S	SQL Server Ins	_		×
This progr 2014 for u	ram will install Mic se with The Edge.	rosoft S	QL Serve	r
1				
Password	1 			
🔽 Install	64 Bit			
	or I	Cano	. 1	
		Cance	51	

- 6. Put in the SQL password from SalesForce.
- 7. Uncheck Install 64 Bit.
- 8. Select **OK**. The EdgeSQL installer will download MSSQL Server.

EdgeSqlServer	×
Downloading SQL Server this may take a few minutes.	
ОК	

9. Select **OK**. The EdgeSQL Installer will return.

🖳 Edge S	SQL Server Ins	_		\times
This program will install Microsoft SQL Server 2014 for use with The Edge.				
Password	J			
🗖 Install	64 Bit			
	ОК	Cance	el	

10. When it is complete, the MSSQL Server installer will appear.

Microsoft SQL Server 2014 Express with Tools SP2	×
Preparing: C:\a82dea1e7a6e4d84f5\1033_ENU_LP\x86\Setup\sqlsup	\WQGPAWII.DLL Cancel

11. That will close and the installer will open again.

🛃 Edge S	QL Server Ins	_		×
This progr 2014 for u	am will install Mic se with The Edge.	rosoft S	QL Serve	r
Password				
Install	64 Bit			
	ок	Canc	el	

12. Reboot the machine.

SQL Service Express Upgrade from 2008

- 1. The customer must be on the most recent version of The Edge. If they are not, an update must be done prior to step 2 of this process, setting up the access to SQL conversion. Probably best to do it now.
- 2. Make sure the customer is running the most recent versions of Windows® and .Net Framework®.
- 3. Copy the SQL files to client's desktop.
- 4. Copy the current Edge database to the desktop and transfer for testing.
- 5. Locate EdgeSQLServer2014.zip and extract and install it on the server as described in the next section. It is located on <u>\\fred\ajsllc\customerdata\SQLFiles</u>.
- 6. Start the SQL Server installer.



7. Click New installation or add features to an existing installation. A progress screen will appear.

😤 SQL Server 2008 R2 Setup			
Setup Support Rules Setup Support Rules identify corrected before Setup can	s y problems that might occur when you install S continue.	QL Server Setup support files. Failures must be	
Setup Support Rules	Rule check in progress		Re-run
		ОК	Cancel

8. You will be prompted to accept terms.

SQL Server 2008 R2 Setup	
To install SQL Server 2008	3 R2, you must accept the Microsoft Software License Terms.
License Terms Setup Support Files	MICROSOFT SOFTWARE LICENSE TERMS
	MICROSOFT SQL SERVER 2008 R2 EAPRESS WITH TOOLS MICROSOFT SQL SERVER 2008 R2 EXPRESS WITH ADVANCED SERVICES
	These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft
	supplements, Internet-based services and
	Copy Print
	✓ I accept the license terms. Send feature usage data to Microsoft. Feature usage data includes information about your hardware configuration and how you use SQL Server and its components. See the Microsoft SQL Server 2008 R2 Privacy Statement for more information.
	< Back Next > Cancel

9. Check **I accept the license terms** and click **Next**. Another progress screen will appear.

🏗 SQL Server 2008 R2 Setup			
Setup Support Files Click Install to install Setup Sup	oport files. To install or update SQI	L Server 2008 R2, these files are required.	
License Terms	The following components	are required for SQL Server Setup:	
Setup Support Files	Feature Name	Status	
	Setup Support Files		
	ExecuteCalculateScenarioW	orkflow	
		< Back	nstall Cancel

10. You will be prompted to select features.

SQL Server 2008 R2 Setup Feature Selection Select the Express with Advance	Services features to install.
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Eeatures: Description: Instance features Ø Database Engine Services Ø Database Engine Services Server features are instance-aware and have their own registry hives. They support multiple instances on a computer. Shared Features Ø Management Tools - Basic Ø Management Tools - Basic Ø Struct Clent Connectivity SDK Redistributable Features Ø Struct Seatures
	Select All Unselect All Shared feature directory: C\Program Files (x86)\Microsoft SQL Server\
	< Back Next > Cancel Help

11. Select ALL Instance Features and click Next. The Instance Configuration screen will appear.

🏫 SQL Server 2008 R2 Setup				N.	
Instance Configuration Specify the name and instance ID) for the instance of SQL Ser	ver. Instance I	D becomes part of the	e installation path.	
Setup Support Rules Feature Selection Installation Rules	 Default instance Named instance: 	EDGESQL			
Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Instance ID: Instance root directory:	EDGESQL C:\Program	iles (x86)\Microsoft S	iQL Server\	
	SQL Server directory: Installed instances:	C:\Program F	iles (x86)\Microsoft S	iQL Server\MSSQL10	_50.EDGESQL
	Instance Name Ir	nstance ID	Features	Edition	Version
	_	(< Back	Next > Can	cel Help

- 12. **Instance Configuration** should be set to **Named Instance** and enter EDGESQL in the **Named Instance** field. The other fields will populate automatically.
- 13. Click Next. The Server Configuration screen will appear.

SQL Server 2008 R2 Setup Server Configuration Specify the service accounts and	collation configuration.				
Setup Support Rules Feature Selection	Service Accounts Collation	use a separate account for each SC	QL Server sen	vice.	
Instance Configuration	Service	Account Name	Password	Startup Type	e
Disk Space Requirements	SQL Server Database Engine	NT AUTHORITY\NETWORK		Automatic	-
Server Configuration	SQL Server Browser	NT AUTHORITY\LOCAL SER		Automatic	-
Installation Configuration Rules Installation Progress Complete		Use the same acco	ount for all S	2L Server servic	es
		< Back Next >	Cance	He He	elp

- 14. Set Server Configuration Database Engine and Server Browser to NT Authority/Network.
- 15. For both services, the **Startup Type** should be set to Automatic.

NOTE!

By default, SQL Server Browser only allows Local in the initial setup; this can be changed later.

16. Click Next. The Database Engine Configuration screen will appear.

Database Engine Configuration Specify Database Engine authentication security mode, administrators and data directories.						
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Orofiguration Rules Installation Progress Complete	Account Provisioning Specify the authentic: Authentication Mode Windows authentic Mixed Mode (SQL Specify the password Enter password: Confirm password: Specify SQL Server ad Julianna-PC-Julianna	Data Directories ation mode and administrators for the Database E cation mode Server authentication and Windows authentication for the SQL Server system administrator (sa) acco ininistrators (ulianna)	ngine. n) unt SQL Server			
	Add Current User	Add Remove	Cancel			

17. Set Authentication Mode to Mixed Mode.

- 18. Enter the password; for older systems, it is either EdgeSA or EdgeSA22. Newer systems have an AJS-generated password for each customer. To generate a password, use the tool <u>http://fred/sqlpw</u> and save it in the customer record in Fred.
- 19. Click Next. The Error Reporting screen will appear.

Ҟ SQL Server 2008 R2 Setup	
Error Reporting Help Microsoft improve SQL Serv	ver features and services.
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Specify the information that you would like to automatically send to Microsoft to improve future releases of SQL Server. These settings are optional. Microsoft treats this information as confidential. Microsoft any provide updates through Microsoft treats the one off, feature usage data. These updates might be downloaded and installed on your machine automatically, depending on your Automatic Update settings. See the Microsoft SQL Server 2008 R2 Privacy Statement for more information. Read more about Microsoft Update and Automatic Update. Send Windows and SQL Server Error Reports to Microsoft or your corporate report server. This setting only applies to services that run without user interaction.
	< Back Next > Cancel Help

20. The Error Reporting settings are optional; click Next. Another progress screen will appear.

Ҟ SQL Server 2008 R2 Setup				
Installation Progress				
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Scheduling feature configuration.			
		Next >	Cancel	Help

21. The **Complete** screen will appear.

🏫 SQL Server 2008 R2 Setup		x
Complete Your SQL Server 2008 R2 install	ation completed successfully.	
Setup Support Rules Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Error Reporting Installation Configuration Rules Installation Progress Complete	Summary log file has been saved to the following location: C\Program.Files(x86)\Microsoft SQL Server\100\Setup Bootstrap\Log\20140219_104602 \Summary_Julianna-PC_20140219_104602.txt Information about the Setup operation or possible next steps: Image: Your SQL Server 2008 R2 installation completed successfully.	
	Supplemental Information: The following notes apply to this release of SQL Server only. Microsoft Update For information about how to use Microsoft Update to identify updates for SQL Server 2008 R2, see the Microsoft Update Web site at <u>http://go.microsoft.com/fw/ink/?Linkid=108409</u> . Samples	4 III >
	Close Help	

22. Click Close.

New SQL Server Standard 2016 Installation

To install MS SQL Standard for the first time:

1. Obtain a copy of SQL Standard (SQLISV.zip) from \\FRED\ajsllc\Software\SQL and copy it to a temporary directory on the machine where SQL Server is to be installed. The desktop is a good location.

🖊 📝 📙 🗢 Downloads					-		×
File Home Share View							~ 🕐
\leftrightarrow \rightarrow \checkmark \blacklozenge This PC \rightarrow Downloads				5 V	Search Downloads		P
^ Name ^	Date modified	Туре	Size				
Desktop	3/1/2017 7:41 AM	Compressed (zipp	2,383,161 KB				
United as the second se							
Documents *							
🥪 Pictures 🖈							
Music							
Videos							
a OneDrive							
This PC							
i Network							
AJSBACKUP14-F							
AMANDA-PC							
EUILDSERVER							
ESKTOP-KB1UE							
DESKTOP-M2PQ							
DESKTOP-N3V7N							
DESKTOP-QV180							
EDGESQL2-HP							
1 item						[

2. By double-clicking the file, extract SQLISV.zip. You will be prompted to select a save location.

		\sim
÷	Extract Compressed (Zipped) Folders	
	Select a Destination and Extract Files	
	Files will be extracted to this <u>f</u> older:	
	C:\Users\jason\Downloads\sqlisv Browse	
	✓ Show extracted files when complete	
	<u>E</u> xtract Cance	el

- 3. Browse a location that you will access later and select **Extract**. The directly will open.
- 4. Run setup.exe from the extracted directory by double-clicking it.

F Home Share	Application Tools sqlisv View Manage				-	□ × ~ ¶E
$\leftarrow \rightarrow \checkmark \uparrow $ \checkmark This	PC > Downloads > sqlisv				✓ ひ Search sqlisv	Q
A Quick access	Name	Date modified	Туре	Size		
Dealter A		3/9/2017 7:47 AM	File folder			
Desktop #	PCUSOURCE	3/9/2017 7:48 AM	File folder			
🔶 Downloads 🖈	📙 redist	3/9/2017 7:50 AM	File folder			
🌌 Documents 🖈	resources	3/9/2017 7:50 AM	File folder			
🛜 Pictures 🛛 🖈	- Tools	3/9/2017 7:50 AM	File folder			
Clean	x64	3/9/2017 7:50 AM	File folder			
Music	autorun 👘	2/9/2016 10:38 PM	Setup Information	1 KB		
Videos	🔮 Medialnfo	10/29/2016 7:09 PM	XML Document	1 KB		
	🛃 setup	10/29/2016 8:19 AM	Application	107 KB		
🐔 OneDrive	setup.ex File description: Sal Server Setup B	ootstrapper 1:34 PM	CONFIG File	1 KB		
This PC	SqlSetur Company: Microsoft Corporation	8:20 AM	Application extens	234 KB		
Network	sqmapi., File version: 2015.130.4001.0 Date created: 10/29/2016 8:19 AM Size: 106 KB	2:12 PM	Application extens	147 KB		
AJSBACKUP14-F						
AMANDA-PC						
BUILDSERVER						
DESKTOP-KB1UE						
DESKTOP-M2PQ						
DESKTOP-N3V7						
DESKTOP-P03PR						
12 items 1 item selected	106 KB					

5. When asked "Would you like to allow this program to make changes to your computer?" select **Yes** and the **SQL Server Installation Center** will open.



6. From the left pane, select **Installation**. New installation options will appear in the right pane.



7. Select **New SQL Server stand-alone installation or add features to an existing installation**. You will be prompted to enter a product key.

髕 SQL Server 2016 Setup	- 🗆 X
Product Key Specify the edition of SQL Se Product Key	rver 2016 to install. Validate this instance of SQL Server 2016 by entering the 25-character key from the Microsoft certificate
License Terms Global Rules Microsoft Update Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Feature Configuration Rules Ready to Install Installation Progress Complete	of authenticity or product packaging. You can also specify a free edition of SQL Server: Developer, Evaluation, or Express. Evaluation has the largest set of SQL Server features, as documented in SQL Server Books Online, and is activated with a 180-day expiration. Developer edition does not have an expiration, has the same set of features foound in Evaluation, but is licensed for non-production database application development only. To upgrade from one installed edition to another, run the Edition Upgrade Wizard. O Specify a free edition: Evaluation @ Enter the product key: XXXXX-XXXXX-XXXXX-XXXXXX
	< Back Next > Cancel

- 8. The product key should be pre-filled on this screen. Be sure the **Enter the product key:** option is selected.
- 9. Select Next. You will be prompted to accept the license terms.

Product Key License Terms Global Rules MICROSOFT SOFTWARE LICENSE TERMS Microsoft Update Product Updates Install Setup Files Interse license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft Feature Selection • updates, Feature Configuration Rules • supplements, Ready to Install • Internet-based services, and Installation Progress • upnort services Complete I accept the license terms. SQL Server 2016 transmits information about your installation experience, as well as other usage and performance data, to Microsoft to help improve the product. To learn more about SQL Server 2016 data processing and privacy controls, please see the <u>Privacy Statement</u> .	To install SQL Server 2016, j	you must accept the Microsoft Software License Terms.	
Installation Progress Complete I accept the license terms. SQL Server 2016 transmits information about your installation experience, as well as other usage and performance data, to Microsoft to help improve the product. To learn more about SQL Server 2016 data processing and privacy controls, please see the <u>Privacy Statement</u> .	Product Key License Terms Global Rules Microsoft Update Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Feature Configuration Rules Ready to Install	MICROSOFT SOFTWARE LICENSE TERMS MICROSOFT SQL SERVER 2016 STANDARD These license terms are an agreement between Microsoft Corporation (or based on where yo live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft • updates, • supplements, • Internet-based services, and	yu
☑ Gopy Print Copy	Complete	sunnart services	
		Copy ✓ I accept the license terms. SQL Server 2016 transmits information about your installation experience, as well as other usage and performance data, to Microsoft to help improve the product. To learn more about SQL Server 2016 dat processing and privacy controls, please see the <u>Privacy Statement</u> .	Prin a

10. Select the **I accept the license terms** option. The **Global Rules** screen will run.

📸 SQL Server 2016 Setup		-	-		×
Global Rules					
Setup Global Rules identify corrected before Setup can	problems that might occur when you install SQL Server Setup support files.	Failures must be			
Product Key	Operation completed. Passed: 9. Failed 0. Warning 0. Skipped 0.				
License Terms					
Global Rules					
Microsoft Update	Hide details <<			Re-	run
Product Updates	View detailed report				
Install Setup Files					
Install Rules	Rule	Status			
Feature Selection	Setup administrator	Passed			
Feature Rules	Setup account privileges	Passed			
Feature Configuration Rules	Restart computer	Passed			
Ready to Install	Windows Management Instrumentation (WMI) service	Passed			
Installation Progress	Consistency validation for SQL Server registry keys	Passed			
Complete	Long path names to files on SQL Server installation media	Passed			
	SQL Server Setup Product Incompatibility	Passed			
	.NET 2.0 and .NET 3.5 Service Pack 1 update for Windows 2008	Passed			
	Edition WOW64 platform	Passed			-
				_	
	< <u>B</u> ack	<u>N</u> ext >		Cance	

11. There is no action required. The Microsoft Update screen will appear.



- 12. Check the box labeled Use Microsoft Update to check for updates (recommended).
- 13. Select Next. The installer will run through a series of prerequisite tests.
- 14. The Install Setup Files screen will appear while updates are installed.

髋 SQL Server 2016 Setup					×
Install Setup Files					
If an update for SQL Server S	etup is found and specified to be included, t	ne update will be installed.			
Product Key License Terms					
Global Rules	Task	Status			
Microsoft Update	Scan for product updates	Completed			
Product Updates	Download Setup files	Skipped			
Install Setup Files	Extract Setup files	Skipped			
Install Rules	Install Setup files	Skipped			
Feature Selection Feature Rules Feature Configuration Rules Ready to Install Installation Progress Complete					
		< <u>B</u> ack	<u>N</u> ext >	Cance	4

15. This will run after updates are installed, and indicate any setup issues.

🃸 SQL Server 2016 Setup			82		×
Install Rules					
Setup rules identify potential can continue.	problems that might occur while running Setup. Failures must be correct	ed before Setup			
Product Key License Terms Global Rules Microsoft Update Product Updates	Operation completed. Passed: 4. Failed 0. Warning 1. Skipped 0. Hide detail <u>s</u> << <u>View detailed report</u>			<u>R</u> e-1	run
Install Rules Feature Selection Feature Rules Feature Configuration Rules Ready to Install Installation Progress	Rule Image: Second Se	Status Passed Passed Passed Passed Warning			
Complete					
	< <u>B</u> ack	<u>N</u> ext >		Cance	I

If there are "Windows Firewall" warnings, see the section entitled Firewall Configuration.

- 16. If any warnings appear, you can correct them. If you get a failure, you must stop and correct it. The most common would be in an upgrade to be missing the proper service packs.
- 17. When all the rules have passed, select Next. The Feature Selection screen will appear.



- 18. In the Feature Selection screen, select all boxes as shown above.
- 19. Select Next. The Instance Configuration screen will appear.

SQL Server 2016 Setup Instance Configuration Specify the name and instance	1 ID for the instance of SQL	Server. Instanc	e ID becomes part o	f the installation path.	-		×
Product Key License Terms Global Rules Microsoft Update Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Consent to install Microsoft R Feature Configuration Rules Ready to Install Installation Progress Complete	Default instance Named instance:	EDGESC	۱ ۱				
	SQL Server directory: Analysis Services director Reporting Services direct	C:\Progr y: C:\Progr ory: C:\Progr	C:\Program Files\Microsoft SQL Server\MSSQL13.EDGESQL C:\Program Files\Microsoft SQL Server\MSAS13.EDGESQL C:\Program Files\Microsoft SQL Server\MSRS13.EDGESQL				
	Instance Name I	nstance ID	Features	Edition	Ve	rsion	
	1			< <u>B</u> ack <u>N</u> ex	t>	Cance	2l

- 20. In the **Instance Configuration** screen, select the **Named instance** radio button, and type EDGESQL in both the **Named Instance** and **Instance ID** fields.
- 21. Select Next. The Server Configuration screen will appear.

Product Key	Service Accounts Collation				
License Terms	Conadion				
Global Rules	Microsoft recommends that you use	a separate account for each	SQL Server serv	ice.	
Microsoft Update	Service	Account Name	Password	Startup Type	e
Product Updates	SQL Server Agent	NT Service\SQLAgent\$E		Manual	~
Install Setup Files	SQL Server Database Engine	NT Service\MSSQL\$EDG		Automatic	~
Install Rules	SQL Server Analysis Services	NT Service\MSOLAP\$ED		Automatic	~
Feature Selection	SQL Server Reporting Services	NT Service\ReportServer		Automatic	~
Feature Rules	SQL Server Launchpad	NT Service\MSSQLLaun		Automatic	
Instance Configuration	SQL Full-text Filter Daemon Launc	NT Service\MSSQLFDLa	Mar	Manual	
Server Configuration	SQL Server Browser	NT AUTHORITY\LOCAL		Automatic	~
Analysis Services Configuration Reporting Services Configuration Consent to install Microsoft R Feature Configuration Rules Ready to Install Installation Progress Complete	This privilege enables instant file to information disclosure by allow <u>Click here for details</u>	initialization by avoiding zero	oing of data pag cessed.	ges. This may lead	d

- 22. In the Server Configuration screen, accept the default values. Make sure the Grant Perform Volume Maintenance Task privilege to SQL Server Database Engine Service option is NOT checked.
- 23. Select Next. The Database Engine Configuration screen will appear.

🐮 SQL Server 2016 Setup						×
Database Engine Confi Specify Database Engine authe	guration	administrators, data directories an	d TempDB settings.			
Product Key License Terms Global Rules Microsoft Update Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Analysis Services Configuration Consent to install Microsoft R Feature Configuration Rules Ready to Install Installation Progress Complete	Server Configuration Specify the authent Authentication Mo O <u>W</u> indows auther <u>M</u> ixed Mode (SC Specify the password: <u>Enter password</u> : <u>Confirm password</u> :	Data Directories TempDB FILE dication mode and administrators for the adde Atication mode QL Server authentication and Windo rd for the SQL Server system admin	STREAM or the Database Eng ws authentication) istrator (sa) account	ine. t.		
	Specify SQL Server (BUILTIN\Administr	administrators ators (Administrators) <u>A</u> dd		SQL Server add have unrestric to the Databas	ministrato ted access e Engine.	ITS S
			< <u>B</u> ack	<u>N</u> ext >	Cance	:1

- 24. In the **Database Engine Configuration** screen, from the **Server Configuration** tab, select **Mixed Mode** and in the **Enter Password** field, enter the system administrator (sa) password.
- 25. Enter the password again in the **Confirm Password** field.
- 26. In the **Specify SQL Server Administrators** section, select **Add**. The **Select Users or Groups** window will appear.
- 27. In the **Select Users or Groups** window, type Administrators and select **Check Names**. The wizard will find the matching group from the local machine.
- 28. Select OK. The Select User or Groups window will close.
- 29. From the **Database Engine Configuration** screen, select **Next**. The **Analysis Services Configuration** screen will appear.

SQL Server 2016 Setup Analysis Services Confi	guration	-		×
Specify Analysis Services server Product Key	Server Configuration			
Product Key License Terms Global Rules Microsoft Update Product Updates Install Setup Files	Server Mode: Multidimensional and Data Mining Mode Jabular Mode PowerPivot Mode Specify which users have administrative permissions for Analysis Service:	5.		
Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Consent to install Microsoft R Feature Configuration Rules Ready to Install Installation Progress Complete	BUILTIN\Administrators (Administrators)	Analysis Servia administrators unrestricted a Analysis Servia	ces s have ccess to ces.	
	Add <u>C</u> urrent User <u>A</u> dd <u>R</u> emove			
	< <u>B</u> ack	<u>N</u> ext >	Cance	el .

- 30. In the Analysis Services Configuration screen, from the Specify which users have administrative permissions for analysis services section, select Add
- 31. The Select Users or Groups window will appear.
- 32. In the **Select Users or Groups** window, type Administrators and select **Check Names**. The wizard will find the matching group from the local machine.
- 33. Select OK. The Select User or Groups window will close.
- 34. Select Next. The Reporting Services Configuration screen will appear.

SQL Server 2016 Setup	-	-	Ц	^
Reporting Services Co Specify the Reporting Services	onfiguration			
Product Key License Terms Global Rules Microsoft Update Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configura Consent to install Microsoft R Feature Configuration Rules Ready to Install Installation Progress Complete	Reporting Services Native Mode Install and configures. Installs and configures the report server in native mode. The report server is operal setup completes. Install gnly. Installs the report server files. After installation, use Reporting Services Configuration to configure the report server for native mode. Reporting Services SharePoint Integrated Mode Install only. Installs the report server files. After installation use SharePoint Central Administration complete the configuration. Verify the SQL Server Reporting Services service is static create at least one SQL Server Reporting Services service application. For more inforced click Help.	tional on Ma ition to inted a ormat	anager	
	< <u>B</u> ack <u>N</u> ext >		Cancel	

35. In the **Reporting Services Configuration** screen, select the **Install Only** radio button.

36. Select Next. The Consent to install Microsoft R Open screen will appear.

髕 SQL Server 2016 Setup		<u> </u>		×
Consent to install Mic	rosoft R Open			
Download and install necessar	y pre-requisite.			
Product Key License Terms Global Rules Microsoft Update Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Consent to install Microsoft R Feature Configuration Rules Ready to Install Installation Progress Complete	Microsoft R Open is an enhanced distribution of R made available by Microsoft u Public License v2. R is © the R Foundation for Statistical Computing. For more information on R-rel visit http://r-project.org. By clicking "Accept" you are choosing to download Microsoft R Open and install agreeing to accept patches and updates to this software according to your SQL S	Inder the GNU lated product l it on your ma ierver update	J General s and sen achine, ar preferenc	rices, nd es.
	Accept			
	< <u>B</u> ack	<u>V</u> ext >	Cance	4

- 37. In the **Consent to install Microsoft R Open** screen, select **Accept**.
- 38. Select Next. The Ready to Install screen will appear.

Keady to Install Verify the SQL Server 2016 features to be installed. Product Key License Terms Global Rules Microsoft Updates Install Setup Files Install Rules Feature Selection Feature Selection Feature Selection Server Configuration Server Configuration Analysis Services Configuration Analysis Services Configuration Ready to Install Microsoft Visual Studio 2010 Redistributables Microsoft Visual Studio 2010 Shell Database Engine Configuration Ready to Install Installation Progress Complete Configuration file path: C: (Program Files/Microsoft SQL Server A) 30(Setup Bootstrap)Log\20170309_081946/ConfigurationFile.ini	📸 SQL Server 2016 Setup	-		×
Product Key Ready to install SQL Server 2016: License Terms Global Rules Microsoft Update - Edition: Standard Product Updates - Action: Install (Product Update) Product Updates - Microsoft Update Install Setup Files - Already installed: Install Rules - Microsoft Visual Studio 2010 Redistributables Feature Selection - Microsoft Visual Studio 2010 Redistributables Server Configuration - Microsoft Visual Studio 2010 Redistributables Server Configuration - Microsoft Visual Studio 2010 Shell Database Engine Configuration - Services (In-Database) Analysis Services Configuration - Services (In-Database) Consent to install Microsoft R - Data Quality Services Feature Configuration Rules - Analysis Services Ready to Install - Instance Name: EDGESQL Complete - Instance Configuration Instance configuration file path: - Instance Sources Configuration file path: - Citert Tools Connectiv	Verify the SQL Server 2016 feat	ures to be installed.		
	Product Key License Terms Global Rules Microsoft Update Product Updates Install Setup Files Install Rules Feature Rules Instance Configuration Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Consent to install Microsoft R Feature Configuration Rules Ready to Install Installation Progress Complete	Ready to install SQL Server 2016: Summary Edition: Standard Action: Install (Product Update) Prerequisites Already installed: Windows PowerShell 3.0 or higher Microsoft NET Framework 4.6 To be installed from media: Microsoft Visual Studio 2010 Redistributables Microsoft Visual Studio 2010 Redistributables Microsoft MPI v7 General Configuration Features Database Engine Services SQL Server Replication R Services (In-Database) Full-Text and Semantic Extractions for Search Data Quality Services Analysis Services Reporting Services - Native Client Tools Connectivity Client Tools Backwards Compatibility Instance Configuration Instance Configuration Instance Name: EDGESQL	tionFile.ini	

39. In the **Ready to Install** screen, select **Install** and wait while the actual installation takes place. A progress bar will appear.

🃸 SQL Server 2016 Setup		_		×
Installation Progress				
Product Key License Terms Global Rules Microsoft Update Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Consent to install Microsoft R Feature Configuration Rules Ready to Install Installation Progress Complete	Generating ordered dependency feature list.			
	Ne	ext >	Cance	

40. When the progress bar is complete, select **Close**. A confirmation screen will appear and you are done.

髋 SQL Server 2016 Setup		- 0	Х
Complete Your SQL Server 2016 installat	ion completed successfully with product updates.		
Product Key License Terms	Information about the Setup operation or possible r	next steps:	•
Global Rules	Feature	Status	
Microsoft Update	Client Tools Connectivity	Succeeded	
Product Undates	Client Tools Backwards Compatibility	Succeeded	
Install Sature Files	Database Engine Services	Succeeded	
install betup Flies	Data Quality Services	Succeeded	
Install Rules	Puil- lext and Semantic Extractions for Search	Succeeded	
Feature Selection	SOL Server Replication	Succeeded	
Feature Rules	Reporting Services - Native	Succeeded	
Instance Configuration	Analysis Services	Succeeded	~
Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Consent to install Microsoft R Feature Configuration Rules Ready to Install Installation Progress Complete	Details: Product Update: Product Update has successfully applied KB 3 3182545>. These updates have set the patch level of th	3182545 <u><http: ?id="</u" support.microsoft.com=""> he Setup operation to 13.1.4001.0.</http:></u>	
	Summary log file has been saved to the following lo <u>C:\Program Files\Microsoft SQL Server\130\Setup B</u> P03PR6J 20170309 081946.txt	cation: iootstrap\Log\20170309_081946\Summary_DESKT	<u> 10P-</u>
		Clos	e

Upgrade from SQL Standard 2014 or SQL Standard 2008r2

NOTE!

For upgrades from SQL Server 2008, the 2008 R2 Service Pack 3 must be installed first. If you need to install it, be sure to install the right (32- or 64-bit) version.

To upgrade from SQL Standard 2014 or 2008r2 to SQL Standard 2016:

1. Obtain a copy of SQL Standard (SQLISV.zip) from \\FRED\ajsllc\Software\SQL and copy it to a temporary directory on the machine where SQL Server is to be installed. The desktop is a good location.

🖊 🛃 📙 🖛 Download	s					-	
File Home Share	View						~ 🕐
← → × ↑ 🕹 > Thi	s PC > Downloads				ٽ ~	Search Downloads	Q
A Quick accord	Name	Date modified	Туре	Size			
Desktop	📓 sqlisv	3/1/2017 7:41 AM	Compressed (zipp	2,383,161 KB			
Downloads *							
Ø Documents *							
🛜 Pictures 🛛 🖈							
👌 Music							
Videos							
🐔 OneDrive							
This PC							
i Network							
AJSBACKUP14-F							
AMANDA-PC							
BUILDSERVER							
DESKTOP-KB1UE							
DESKTOP-M2PQ							
DESKTOP-N3V7							
DESKTOP-QV180							
EDGESQL2-HP							
1 item							

2. By double-clicking the file, extract SQLISV.zip. You will be prompted to select a save location.

		×
4	Extract Compressed (Zipped) Folders	
	Select a Destination and Extract Files Files will be extracted to this <u>f</u> older:	
	C:\Users\jason\Downloads\sqlisv Browse	
	☑ Show extracted files when complete	
	<u>E</u> xtract Cance	:1

- 3. Browse a location that you will access later and select **Extract**. The directory will open.
- 4. Run setup.exe from the extracted directory by double-clicking it.

$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Application Tools sqlisv View Manage V I IA PC > Downloads > sqlisv				→ ひ Search sqlisv	× ロ ~ ﴿
^	Name	Date modified	Туре	Size		
Cuick access	1033_ENU_LP	3/9/2017 7:47 AM	File folder			
Desktop 🖈	PCUSOURCE	3/9/2017 7:48 AM	File folder			
👆 Downloads 🖈	redist	3/9/2017 7:50 AM	File folder			
🌌 Documents 🖈	resources	3/9/2017 7:50 AM	File folder			
🛜 Pictures 🛛 🖈	Tools	3/9/2017 7:50 AM	File folder			
Clean	x64	3/9/2017 7:50 AM	File folder			
h Music	autorun	2/9/2016 10:38 PM	Setup Information	1 KB		
Videos	🕋 Medialnfo	10/29/2016 7:09 PM	XML Document	1 KB		
Mideos	🛃 setup	10/29/2016 8:19 AM	Application	107 KB		
🐔 OneDrive	setup.ex File description: Sal Server Setup F	ootstrapper 1:34 PM	CONFIG File	1 KB		
This PC	SqlSetup Company: Microsoft Corporation	8:20 AM	Application extens	234 KB		
Network	sqmapi. File version: 2015.130.4001.0 Date created: 10/29/2016 8:19 AM Size: 106 KB	12:12 PM	Application extens	147 KB		
AJSBACKUP14-P						
AMANDA-PC						
BUILDSERVER						
DESKTOP-KB1UE						
DESKTOP-M2PQ						
DESKTOP-N3V7						
DESKTOP-P03PR						
12 items 1 item selected	106 KB					

5. When asked "Would you like to allow this program to make changes to your computer?" select **Yes** and the **SQL Server Installation Center** will open.

🐮 SQL Server Installation Center	8	– 🗆 X
Planning Installation	Ð	Hardware and Software Requirements View the hardware and software requirements.
Maintenance Tools	Ð	Security Documentation View the security documentation.
Resources Advanced		Online Release Notes View the latest information about the release.
Options	7	System Configuration Checker Launch a tool to check for conditions that prevent a successful SQL Server installation.
		Download Upgrade Advisor Upgrade Advisor analyzes SQL Server components that are installed and identifies issues to fix either before or after you upgrade to SQL Server 2016.
		Online Installation Help Launch the online installation documentation.
	4	How to Get Started with SQL Server 2016 Failover Clustering Read instructions on how to get started with SQL Server 2016 failover clustering.
	4	Get Started with the installation of Power Pivot for SharePoint Read how to install, configure, and verify an installation of Power Pivot for SharePoint.
	4	Get Started with the Installation of Reporting Services SharePoint Mode Read how to install, configure, and verify an installation of Reporting Services in SharePoint mode.
Microsoft" SQL Server" 2016		Upgrade Documentation View the document about how to ungrade to SOL Server 2016 from a previous version

6. From the left pane, select **Installation**. Installation options will appear in the right pane.



7. Select **Upgrade from a previous version of SQL Server**. You will be prompted to enter a product key.

🃸 SQL Server 2016 Setup	- 🗆 X
SQL Server 2016 Setup Product Key Specify the edition of SQL Serve Product Key License Terms Global Rules Microsoft Update Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Feature Configuration Rules Pachate Line R	 – □ × Para 2016 to install. Validate this instance of SQL Server 2016 by entering the 25-character key from the Microsoft certificate of authenticity or product packaging. You can also specify a free edition of SQL Server: Developer, Evaluation, or Express. Evaluation has the largest set of SQL Server features, as documented in SQL Server Books Online, and is activated with a 180-day expiration. Developer edition does not have an expiration, has the same set of features found in Evaluation, but is licensed for non-production database application development only. To upgrade from one installed edition to another, run the Edition Upgrade Wizard. Specify a free edition: Evaluation Evaluation
Ready to Install Installation Progress Complete	< <u>B</u> ack. <u>N</u> ext > Cancel

- 8. The product key should be pre-filled on this screen. Be sure the **Enter the product key:** option is selected.
- 9. Select **Next**. You will be prompted to accept the license terms.

🐮 SQL Server 2016 Setup	_		×
License Terms To install SQL Server 2016, y Product Key License Terms Global Rules Microsoft Update	ou must accept the Microsoft Software License Terms. MICROSOFT SOFTWARE LICENSE TERMS MICROSOFT SQL SERVER 2016 STANDARD These license terms are an appropriate between Microsoft Correction (or based on wh		^
Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Feature Configuration Rules Ready to Install Installation Progress	 Inese license terms are an agreement between Microsoft Corporation (or based on wr live, one of its affiliates) and you. Please read them. They apply to the software named which includes the media on which you received it, if any. The terms also apply to any Microsoft updates, supplements, Internet-based services, and 	above,	Ý
Complete	 I accept the license terms. QL Server 2016 transmits information about your installation experience, as well as other usage performance data, to Microsoft to help improve the product. To learn more about SQL Server 20 processing and privacy controls, please see the <u>Privacy Statement</u>. 	e and	Arint
	< <u>B</u> ack <u>N</u> ext >	Cance	I

10. Check the **I accept the license terms** option. The Microsoft Update screen will appear.

髋 SQL Server 2016 Setup	-		×
Microsoft Update			
Use Microsoft Update to check	for important updates		
Product Key License Terms Global Rules Microsoft Update Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Feature Configuration Rules Ready to Install Installation Progress Complete	Microsoft Update offers security and other important updates for Windows and other Mic software, including SQL Server 2016. Updates are delivered using Automatic Updates, or y the Microsoft Update website. Use Microsoft Update to check for updates (recommended) <u>Microsoft Update FAQ</u> <u>Microsoft Update Privacy Statement</u>	rosoft ou can v	isit
	< Back Next >	Cance	1

- 11. Check the box labeled Use Microsoft Update to check for updates (recommended).
- 12. Select Next. The Global Rules screen will show completed.

🐮 SQL Server 2016 Setup			×
Global Rules			
Setup Global Rules identify p corrected before Setup can c	roblems that might occur when you install SQL Server Setup support files. Failures must be ontinue.		
Product Key License Terms Global Rules Microsoft Update Product Updates	Operation completed. Passed: 9. Failed 0. Warning 0. Skipped 0. Hide details << <u>View detailed report</u>	Re-	run
Install Rules Feature Selection Feature Rules Feature Configuration Rules Ready to Install Installation Progress Complete	Rule Status Setup administrator Passed Setup account privileges Passed Restart computer Passed Windows Management Instrumentation (WMI) service Passed Consistency validation for SQL Server registry keys Passed Long path names to files on SQL Server installation media Passed SQL Server Setup Product Incompatibility Passed Intervention NET 2.0 and .NET 3.5 Service Pack 1 update for Windows 2008 Passed		
	Edition WOW64 platform Passed	Cance	

- 13. There is no action required. The Microsoft Update screen will appear.
- 14. Select Next. The Install Setup Files screen will appear.

髋 SQL Server 2016 Setup			8 <u>-</u>		\times
Install Setup Files	etup is found and specified to be included, t	he update will be installed.			
Product Key License Terms					
Global Rules	Task	Status			_
Microsoft Update	Scan for product updates	Completed			_
Product Updates	Download Setup files	Skipped			_
Install Setup Files	Extract Setup files	Skipped			_
Feature Selection Feature Rules Feature Configuration Rules Ready to Install Installation Progress Complete					
		< <u>B</u> ack	<u>N</u> ext >	Cance	4

15. When the **Install Setup Files** screen is complete, select **Next**. The **Select Features** screen will appear.

Product Key License Terms Global Rules Microsoft Update Product Updates Install Setup Files	erver reatures to be upgraded in this release. ures: ired Features listributable Features	Description:	
Product Key <u>F</u> eat License Terms Sha Global Rules Red Microsoft Update Product Updates Install Setup Files	ures: ired Features distributable Features	Description:	
License Terms Sha Global Rules Red Microsoft Update Product Updates Install Setup Files	ared Features distributable Features		
Global Rules Red Microsoft Update Product Updates	listributable Features		1
Microsoft Update Product Updates Install Setup Files			
Product Updates			
Install Setup Files			
instan setap mes			
Upgrade Rules			
Select Features		Prerequisites for selected	features
Feature Rules			
Ready to Upgrade		To be installed from me	dia:
Upgrade Progress		Microsoft Visual Stud	lio 2010
Complete			
		Disk Space Requirements	
		Drive C: 74 MB required, MB available	106806

16. From the Select Features select Next. The Ready to Upgrade screen will appear.

🐻 Upgrade to SQL Server 2016	- 0	×
Ready to Upgrade		
Verify the SQL Server 2016	features to be upgraded.	
Product Key License Terms Global Rules Microsoft Update Product Updates Install Setup Files Upgrade Rules Select Features Feature Rules Ready to Upgrade Upgrade Progress Complete	Ready to upgrade SQL Server 2016:	~
	< Back	

17. From the **Ready to Upgrade** screen, select **Upgrade**. The upgrade will take place and a confirmation screen will appear.

Upgrade to SQL Server 20	016		· · ·		×
Complete					
Your SQL Server 2016 u	upgrade completed successfully with product upd	ates.			
Product Key	Information about the Setup operation	or possible next steps:			
License Terms	Feature	Status			
	SQL Browser	Succeeded			
Microsoft Update	SQL Writer	Succeeded			
Product Updates	Setup Support Files	Succeeded			
nstall Setup Files					
Upgrade Rules					
Select Features					
Feature Rules					
Ready to Upgrade	Details:				
Upgrade Progress					
Complete					
	Product Update: Product Update has successfully ap <u>31825455</u> . These updates have set the p	pplied KB 3182545 <u><http: support.mi<="" u=""> atch level of the Setup operation to 13.1.4001</http:></u>	<u>crosoft.com/</u> .0.	<u>/?id=</u>	
	I Summary log file has been saved to the	following location:			
	C:\Program Files\Microsoft SQL Server\ P03PR6J_20170309_145544.bt	130\Setup Bootstrap\Log\20170309_14	5544\Summa	ry DESKT	OP-
				Clos	e

Post-Installation

After the software is installed, we should make sure the workstations can connect to the server. We will also make sure the firewall is properly configured.

To test the connection:

After installation is complete, go to Start ► All Programs ► Microsoft SQL Server 2008 R2 ► Configuration Tools ► SQL Server Configuration Manager. The SQL Configuration Manager will open.

a	Sql Server Configuration Manager	- 0 ×
File Action View Help		
💠 🍁 🔛 🔛		
(S) SCL Server Configuration Manager (Local) SCL Serve Service: J. SCL Server Service: J. SCL Server Network Configuration (22b) J. SCL Network Client 100 Configuration (22) SCL Native Client 100 Configuration (22)	Rems iii SOL Sarver Methods Configuratio ⊉ SOL Native Client 10.0 Configura	

2. Click SQL Server Services. The SQL Server Browser and instance will appear.

Name	State	Start Mode	Log On As	Process ID	Service Type
SQL Server Browser	Running	Automatic	NT AUTHORITY\LO	924	SQL Browser
SQL Server (EDGE	Running	Automatic	NT AUTHORITY\NE	4944	SQL Server
🕲 SQL Server Agent	Stopped	Other (Boot, Syste	NT AUTHORITY\NE	0	SQL Agent

3. Double click on SQL Server Browser. The SQL Server Browser Properties screen will appear.

SQL Server Browser Properties ? ×
Log On Service Advanced
Log on as:
Built-in account:
Local Service
C This account:
Account Name: Browse
Password:
Confirm password:
Service status: Running
Start Stop Pause Restart
OK Cancel Apply Help

4. Make sure Log On As is set to Network Service.

SQL Server Browser Properties ? ×
Log On Service Advanced
Log on as:
Built-in account:
Network Service
C This account:
Account Name: Browse
Password:
Confirm password:
Service status: Running
Start Stop Pause Restart
OK Cancel Apply Help

5. Go to the **Service** tab.

General	
Binary Path	"c:\Program Files (x86)\Microsoft 9
Error Control	1
Exit Code	0
Host Name	AJSLLC-11-0040
Name	SQL Server Browser
Process ID	924
SQL Service Type	SQL Browser
Start Mode	Automatic 👻
State	Running
Start Mode	rice.

- 6. From the **Start Mode** drop-down menu, select Automatic and click **OK**. You'll be prompted to restart the service.
- 7. From the **SQL Server Configuration** screen, double-click SQL Server (EDGESQL). The **SQL** Server (EDGESQL Properties) screen will appear.

SQL Server (EDGESQL) Properties ? ×
Log On Service FILESTREAM Advanced
Log on as:
Built-in account:
Network Service
C This account:
Account Name: Browse
Password:
Confirm password:
Service status: Running
Start Stop Pause Restart
OK Cancel Apply Help

- 8. Make sure the Log on as is set to Built-in account and is also set to network service.
- 9. Go to the **Service** tab, and from the **Start Mode** drop-down menu, select Automatic and click **OK**. You'll be prompted to restart the service.
- 10. Select OK.
- 11. From the **SQL Server Configuration Manager** left navigation pane, click on **SQL server network configuration** and drill down to **Protocols for EDGE SQL**.

Protocol Name	Status
🗿 Shared Memory	Enabled
🖗 Named Pipes	Disabled
TCP/IP	Disabled
VIA VIA	Disabled

- 12. Make sure **TCP/IP** and **Named Pipes** is enabled. Exit out of the Configuration Manager and the settings will be saved.
- 13. Go to Start ► All programs ► Microsoft SQL Server 2008 R2 and click on SQL server Management studio. The SQL Server Management Studio will appear with the Connect to Server window will open.

	Connect to Server	×
SQL	Server 2008 R2	
Server type:	Database Engine	~
Server name:	AJSLLC-11-0040\EDGESQL	~
Authentication:	Windows Authentication	~
User name:	T3\Sheila	×
Password:		
	Remember password	
Conn	ect Cancel Help (Options >>

- 14. From the Server Type drop-down menu, select Database Engine.
- 15. From the **Server name** drop-down menu, select your server name and SQL instance. If it is not there, type it in and the wizard should find it.
- 16. From the **Authentication** drop-down menu, select SQL Server Authentication, which will require a user name and password.
- 17. Enter the password; for older systems, it is either EdgeSA or EdgeSA22. Newer systems have an AJS-generated password for each customer as described earlier. To generate a password, use the tool http://fred/sqlpw and save it in the customer record in Fred.
- 18. Check the **Remember password** option.
- 19. Select Connect. The database will connect and you'll see the green arrow indicating it is running.
- 20. You can close out the SQL Server Management Studio.

Once SQL is configured, we can proceed with firewall configuration.

Services

Two services must be running:

- SQL Server Browser
- SQL Server Broadcast

To start these, go to **System Settings** ► **Services** and find this service. Start it. To make sure it always starts, go to properties and set **Start Up Type** to Automatic.

Firewall Configuration

Inbound settings

Open up the Control Panel in Windows and go to the Windows Firewall:

- 1. Click on Advanced settings.
- 2. Click on Inbound Rules.
- 3. Click on New Rule.
- 4. Click on **PORT** and click **Next**.
- 5. Select **UDP**.
- 6. In the **Specific local ports** field, enter 1434 and click **Next**.
- 7. Click on **Allow the connection**.
- 8. Click Next.
- 9. Click Next.
- 10. Enter Name of Inbound SQL.
- 11. Click Finish.

Outbound Rules

- 1. From the Windows Firewall Advanced Security screen, click on Outbound Rules.
- 2. Click on New Rule.
- 3. Click on **PORT** and click **Next**.
- 4. Select UDP.
- 5. In the **Specific local ports** field, enter 1434 and click **Next**.
- 6. Click on **Allow the connection**.
- 7. Click Next.
- 8. Click Next.
- 9. Enter Name of Outbound SQL.
- 10. Click Finish.

Allow SQL Server through the Windows Firewall

- 1. Open the Control Panel and go to Windows Firewall.
- 2. Click Allow a program or feature through Windows Firewall.
- 3. Click Allow Another Program.
- 4. Click **Browse** under the **Path** field.
- 5. Search for sqlservr under:
 - a. SQL Express: C:\Program Files (x86)\Microsoft SQL Server\MSSQL10_50.EDGESQL\MSSQL\Binn\SQLServer

- b. SQL Standard: C:\Program Files\Microsoft SQL Server\MSSQL13.EDGESQL\MSSQL\Binn.)
- 6. Highlight the record and click **Open**.
- 7. Click Add.
- 8. Make sure both Home/Work and Public are checked off.
- 9. Click OK.

Test the Firewall

Restart the computer and connect to a workstation and test the SQL configuration in The Edge.

Glossary of Terms

SQL Server Agent	The service that executes jobs, monitors, SQL Server, and allows automation of admin tasks.
SQL Server	The database engine.
SQL Server Browser	Provides SQL Server connection information to client PCs. Default logon account is NT/Authority/Local service and cannot be changed during SQL Server setup.
*NT Authority	The computer system that is acting as a security agent for Windows and is a non-user windows security account that is used for performing OS level tasks.
Enabling TCP/IP	The protocol that SQL Server uses to communicate across the network.
SQL Server Management Studio	Used to configure/managing/administering all components within the SQL Server.
Mixed Mode	Allows users to connect to an instance of SQL Server using either Windows Authentication or SQL Server Authentication.
SQL Server Authentication	A method for logging into SQL Server that uses your SQL Server username and password.