

Microsoft SQL Server Installation Guide for ADSS Server

ASCERTIA LTD

JANUARY 2021

Document Version- 6.8.0.1

© Ascertia Limited. All rights reserved.

This document contains commercial-in-confidence material. It must not be disclosed to any third party without the written authority of Ascertia Limited.



CONTENTS

1	INTI	RODUCTION
	1.1	INTENDED READERSHIP
	1.2	CONVENTIONS
	1.3	TECHNICAL SUPPORT
2	DOV	WNLOADING MICROSOFT SQL SERVER
3	SQL	_ SERVER 2016
	3.1	SYSTEM REQUIREMENTS
	3.2	INSTALL ENTERPRISE EDITION
	3.3	INSTALL EXPRESS EDITION
	3.4	INSTALL SQL SERVER 2016 MANAGEMENT STUDIO
4	SQL	_ SERVER 2014
	4.1	System Requirements
	4.2	INSTALL ENTERPRISE EDITION
	4.3	INSTALL EXPRESS EDITION
5	SQL	_ SERVER 2012
	5.1	SYSTEM REQUIREMENTS
	5.2	INSTALL ENTERPRISE EDITION
	5.3	INSTALL EXPRESS EDITION
6	DAT	ABASE CONFIGURATIONS
	6.1	ENABLE TCP/IP
	6.2	CONFIGURING WINDOWS FIREWALL FOR DATABASE ACCESS
	6.3	CREATING ADSS SERVER DATABASE
	6.4	SETTING UP THE ADSS SERVER DATABASE USER ACCOUNT
7	KNC	DWLEDGE BASE ARTICLES



1 Introduction

This manual summarizes the installation, configuration, and administration of Microsoft SQL Server 2016, 2014 and 2012 Enterprise and Express Edition Installation when used with the Ascertia ADSS Server. Large organizations with complex requirements should take advantage of Enterprise Edition. It offers advanced enterprise data management, developer productivity, and business intelligence tools to meet the needs of critical applications.

Significant advancements in high-availability technologies have been made, including new advanced database mirroring functionality such as log shipping, additional backup and restore capabilities, and replication enhancements to allow organizations to build and deploy highly reliable applications.

Additionally, Enterprise Edition provides analytical and enterprise reporting capabilities to deliver business insights to all levels of your organization. Enterprise Edition delivers out-of-the-box robust scalability, high availability, and advanced business intelligence features, making it the most competitively priced and comprehensive enterprise solution available.

In summary the steps to install SQL Server are as follows:

- Install and configure MS SQL Server
- Install MS SQL Management Studio
- Configuring the Network parameters of SQL Server
- Creating a database for the ADSS Server
- Creating a database user account



This is a quick start guide only; you should read Microsoft's documentation for full details.

1.1 Intended Readership

This guide is intended for ADSS Server administrators, database administrators and corporate security analysts. The server administrator is defined as a system administrator, or network administrator, who is responsible for installing, configuring, and maintaining the ADSS Server.

ADSS administrators include:

- Customers with technical networking background and experience.
- System administrators who are familiar with the fundamentals of digital certificates and validation.
- System administrators who are responsible for installing and configuring software packages.

1.2 Conventions

The following typographical conventions are used in this guide to help locate and identify information:

- **Bold** text identifies menu names, menu options, items you can click on the screen, file names, folder names, and keyboard keys.
- Courier font identifies code and text that appears on the command line.
- Bold courier identifies commands that you are required to type in.



1.3 Technical Support

If Technical Support is required, Ascertia has a dedicated support team providing debugging assistance, integration assistance and general customer support. Ascertia Support can be accessed in the following ways:

Website	https://www.ascertia.com
Email	support@ascertia.com
Knowledge Base	https://www.ascertia.com/products/knowledge-base/adss-server/
FAQs	http://faqs.ascertia.com/display/ADSS/ADSS+Server+FAQs

In addition to the free support service describe above, Ascertia provides formal support agreements with all product sales. Please contact sales@ascertia.com for more details.

A Product Support Questionnaire should be completed to provide Ascertia Support with further information about your system environment. When requesting help it is always important to confirm:

- System Platform details
- ADSS Server version numbers and build date
- Details of the specific issue and the relevant steps taken to reproduce it
- ADSS Server Database version and patch level
- The product log files



2 Downloading Microsoft SQL Server

You can download the Microsoft SQL Server from location:

https://www.microsoft.com/en-us/sql-server/sql-server-downloads

If you don't have a licensed version of Microsoft SQL Server, you can download the free Express Edition. Use Windows Update to install the latest service packs.



The Express Edition has database size limitations that generally make it inappropriate for production deployments.



3 SQL Server 2016

3.1 System Requirements

The system should meet the following requirements prior to installation:

- .NET Framework 4.6. SQL Server 2016 setup automatically installs .NET Framework.
- Microsoft Windows Installer 4.5 or a later version (SQL Server will install this if necessary)
- Windows PowerShell 2.0
- Internet Explorer 7 or a later version is required for Microsoft Management Console (MMC), SQL Server Data Tools (SSDT), the Report Designer component of Reporting Services, and HTML Help.
- TCP/IP networking

RAM	Minimum: 512 MB Recommended: 4 GB or higher	
Hard Disk space	10 GB free space	
Recommended: 4 GB or higher		
Operating System	Windows 7 Service Pack 1 Windows 8 Windows 8.1 Windows 10 Windows Server 2008 R2 Windows Server 2008 R2 SP1 Windows Server 2012	



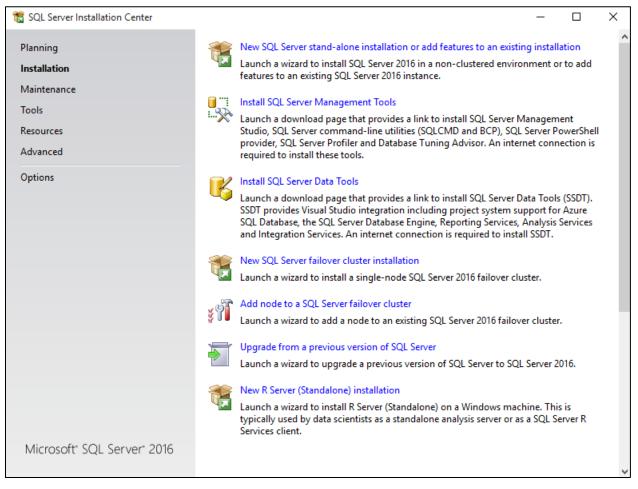
3.2 Install Enterprise Edition



These are generic instructions designed to get you up and running in a minimum of time. Consult your database experts if you wish to apply other configurations or tighten the security roles and privileges.

The following steps summaries the installation process and highlight any specific configuration items required:

- 1. Run **Setup.exe** to launch the SQL Server installer.
- 2. The SQL Server 2016 Installation Center will run. Select the first option for a "**New SQL Server** stand-alone installation". Click the **OK** button to continue.



- 3. The next step is to provide the **license key** for the software and click the **Next** button to continue.
- 4. The next step is to review and accept the license terms. Read the license terms, then click on the "I accept the license terms" check box and click the Next button to continue. Once that process is completed click on the Install button on Install Setup File.
- 5. The next step is to select which SQL Server features to install. Select the **"SQL Server feature installation**" choice and click the **Next** button.
- The Feature selection screen will appear next. Click on the check boxes to install some or all of the features you are interested in. To install SQL Server 2016 Management Studio, select "Management Tools – Basic" in the Feature Selection page. Then click the Next button.



SQL Server 2016 Setup - × Feature Selection Select the Enterprise features to install. Global Rules Product Updates Install Setup Files Install Setup Files Instance Feature 6 a SQL Server instance is instance for mother SQL Server instance is instance from other SQL Server instance solution R Services (In-Database) Feature Selection R Service (In-Database) Full-Text and Semantic Extractions for Sea Data Quality Services PolyBase Configuration Analysis Services Shared feature directory: CiProgram Files/Microsoft SQL Server) Shared feature directory (x86): CiProgram Files (x86)\Microsoft SQL Server) Shared feature directory (x86): CiProgram Files (x86)\Microsoft SQL Server) Shared feature directory: 				
	install.			
Product Updates Install Setup Files Install Rules Installation Type Product Key License Terms Feature Selection Feature Rules Instance Configuration PolyBase Configuration Server Configuration Database Engine Configuration Analysis Services Configuration	Instance Features Database Engine Services SQL Server Replication R Services (In-Databas Full-Text and Semanti Data Quality Services PolyBase Query Service Analysis Services Reporting Services - Native Shared Features R Server (Standalone) Reporting Services - Share Reporting Services - Share Select All Unselect All	ePoint for SharePoint Proc v	The configuration and operation of each instance feature of a SQL Server instance is isolated from other SQL Server instances. S Server instances can operate side-by-side Prerequisites for selected features: Already installed: Windows PowerShell 3.0 or higher Oracle SF Java Runtime Environment V Disk Space Requirements Drive C: 7692 MB required, 7006 MB availa	ersin ×
Distributed Replay Client Consent to install Microsoft R	Shared feature directory:	C:\Program Files\Mic	rosoft SQL Server\	
			< Back Next > Car	cel

7. In the Instance Configuration page, specify MSSQLSERVER in both the "Named instance" and "Instance ID" fields, this will force SQL Server 2016 Enterprise to install as the Default instance. If you want to install as a named instance, specify a name other than MSSQLSERVER.



🃸 SQL Server 2016 Setup	Instance Configuration Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path. Iobal Rules roduct Updates stall Setup Files Istall Rules roduct Key cense Terms rature Rules Instance ID: MSSQLSERVER SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL13.MSSQLSERVER Analysis Services directory: C:\Program Files\Microsoft SQL Server\MSSQL13.MSSQLSERVER Reporting Services directory: C:\Program Files\Microsoft SQL Server\MSSQL13.MSSQLSERVER Reporting Services directory: C:\Program Files\Microsoft SQL Server\MSSQL3.MSSQLSERVER Instance ID: Instance ID: SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL13.MSSQLSERVER Reporting Services directory: C:\Program Files\Microsoft SQL Server\MSSSI3.MSSQLSERVER Installed instances: Instance ID Instance Name Instance ID SIMS, Adv_SSMS I3.0.16106.4									
-)L Serve	er. Instance ID I	becomes part	t of the in	stallation	path.			
Global Rules Product Updates Install Setup Files			MSSQLSERVER							
Specify the name and instance Global Rules Product Updates	Instance ID:		MSSQLSERVE	R						
Feature Rules										
Specify the name and instance Global Rules Product Updates Install Setup Files Install Rules Product Key License Terms Feature Selection Feature Rules Instance Configuration PolyBase Configuration Server Configuration Database Engine Configuration Database Engine Configuration Reporting Services Configuration Distributed Replay Controller Distributed Replay Client Consent to install Microsoft R	Reporting Services dire	1								
		Instar	nce ID	Features		Edition		Ver	sion	
Reporting Services Configuration	<shared compone<="" td=""><td></td><td></td><td>SSMS, Adv_</td><td>SSMS</td><td></td><td></td><td>13.0</td><td>.16106.4</td><td></td></shared>			SSMS, Adv_	SSMS			13.0	.16106.4	
Distributed Replay Client Consent to install Microsoft R Feature Configuration Rules										
					< Ba	ck	Next >		Cance	

8. The next step is **PolyBase** Configuration. Let the default option be selected and click **Next**.



🏗 SQL Server 2016 Setup		- 🗆 ×
Database Engine Config Specify Database Engine authen	uration ication security mode, administrators, data directories and Ter	mpDB settings.
Global Rules Product Updates Install Setup Files Install Rules Product Key License Terms Feature Selection Feature Rules Instance Configuration PolyBase Configuration Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Distributed Replay Controller Distributed Replay Client Consent to install Microsoft R Feature Configuration Rules Ready to Install	Server Configuration Data Directories TempDB FILESTREE Specify the authentication mode and administrators for the Authentication Mode Image: Configuration Mode Image: Co	e Database Engine.
		< Back Next > Cancel

- 9. The next step is the Server Configurations, click Next and provide details for the Database Engine. On the Authentication Mode page select "Mixed Mode Authentication". Enter and confirm a strong sa logon password (remember this well it will be needed in the future). Click on "Add Current User" to specify SQL Server administrator.
- 10. If you selected **SQL Server Analysis Services** to be included in the install, the next screen will prompt for the **Analysis Services Server Mode**. To use **regular SQL (relational) schemas** for Analysis services specify the **Tabular Mode**. To use the **Multidimensional data structures**, select **Multidimensional and Data Mining Mode**.
- 11. The next screen gives an option of whether or not to provide error reports to Microsoft or not. Make your selection and then click the **Next** button to continue.
- 12. If **Distributed Replay Services** were selected to be installed, the next screen will prompt for the Users and/or Groups who have the rights to use Distributed Replay Services. Provide these user and groups and then click the **Next** button to continue.



髋 SQL Server 2016 Setup				_		×
Distributed Replay Clie	ent					
Specify the corresponding cont	troller and data directori	ies for the Distributed Replay Client.				
Global Rules Product Updates	Specify controller ma	achine name and directory locations	5,			
Install Setup Files	Controller Name:					
Install Rules	Working Directory:	C:\Program Files (x86)\Microsoft	SQL Server\DReplay	/Client\WorkingDir		
Product Key	Result Directory:	C:\Program Files (x86)\Microsoft	SQL Server\DReplay	Client\ResultDir\		
License Terms						
Feature Selection Feature Rules						
Instance Configuration						
PolyBase Configuration Server Configuration						
Database Engine Configuration						
Analysis Services Configuration						
Reporting Services Configuration						
Distributed Replay Controller						
Distributed Replay Client						
Consent to install Microsoft R						
Feature Configuration Rules						
Ready to Install						
			< Back	Next >	Cano	cel

- 13. If you selected the option to install the Distributed Replay Client, the next screen will prompt for a Controller Name, Working Directory and Results Directory. The default names should be sufficient for this install. Click the Next button to continue.
- 14. Next step is the Consent to install Microsoft R Open, click Accept and then Next.
- 15. A final set of configuration rules are checked. Next page is **Ready to install**, click the **Install** button to start the installation and configuration process.
- 16. To complete the SQL Server Installation Wizard, click **Close**.
- 17. Now follow the section **Database Configurations**.
- 18. Optionally you can follow the section Install SQL Server 2016 Management Studio.



3.3 Install Express Edition



These are generic instructions designed to get you up and running in a minimum of time. Consult your database experts if you wish to apply other configurations or tighten the security roles and privileges.

The following steps summaries the installation process and highlight any specific configuration items required:

- 1. Run **Setup.exe** to launch the SQL Server installer.
- 2. The SQL Server 2016 Installation Center will run. Select the first option for a "**New SQL Server** stand-alone installation". Click the **OK** button to continue.

髋 SQL Server Installation Center		- 🗆 X
Planning Installation	F	New SQL Server stand-alone installation or add features to an existing installation Launch a wizard to install SQL Server 2016 in a non-clustered environment or to add features to an existing SQL Server 2016 instance.
Maintenance Tools Resources Options	•••• ••**	Install SQL Server Management Tools Launch a download page that provides a link to install SQL Server Management Studio, SQL Server command-line utilities (SQLCMD and BCP), SQL Server PowerShell provider, SQL Server Profiler and Database Tuning Advisor. An internet connection is required to install these tools.
	K	Install SQL Server Data Tools Launch a download page that provides a link to install SQL Server Data Tools (SSDT). SSDT provides Visual Studio integration including project system support for Azure SQL Database, the SQL Server Database Engine, Reporting Services, Analysis Services and Integration Services. An internet connection is required to install SSDT.
	1	Upgrade from a previous version of SQL Server Launch a wizard to upgrade a previous version of SQL Server to SQL Server 2016.
Microsoft" SQL Server" 2016		

- 3. The next step is to provide the **license key** for the software and click the **Next** button to continue.
- 4. The next step is to review and accept the license terms. Read the license terms, then click on the "I accept the license terms" check box and click the Next button to continue.
- 5. A screen the Global Setup Rules is shown, click the **Next** button to continue.
- 6. The next step is to select which SQL Server features to install. Select the "SQL Server feature installation" choice and click the Next button.
- 7. The Feature selection screen will appear next. **Click** on the check boxes to install some or all of the features you are interested in.



🃸 SQL Server 2016 Setup			- 0	×
Feature Selection Select the Express features to in	stall.			
License Terms Global Rules Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration PolyBase Configuration Server Configuration Database Engine Configuration Reporting Services Configuration Consent to install Microsoft R Feature Configuration Rules Installation Progress Complete	Features: Instance Features Database Engine Services SQL Server Replication R Services (In-Databas Full-Text and Semanti PolyBase Query Service Reporting Services - Native Shared Features Client Tools Connectivity Client Tools Backwards C Client Tools Backwards C Client Tools Backwards C Client Tools SDK Documentation Compon SQL Client Connectivity S Client Connectivity S Select All Unselect All Instance root directory: Shared feature directory (x86):	e, e for Extractions for Sea ce for External Data ve ompatibility ents DK > C:\Program Files\Mic C:\Program Files\Mic		itahle *
			< Back Next > Car	icel

8. In the Instance Configuration page, specify **MSSQLSERVER** in both the "**Named instance**" and "**Instance ID**" fields, this will force SQL Server 2016 Express Edition to install as the Default instance. If you want to install as a named instance, specify a name other than MSSQLSERVER.



🃸 SQL Server 2016 Setup							_		Х
Instance Configuration Specify the name and instance		SQL Serve	er. Instance II	D becomes part	of the installa	tion path.			
License Terms Global Rules Product Updates			MSSQLSERVER						
Install Setup Files Install Rules Feature Selection Feature Rules			MSSQLSERVER						
Feature Rules Instance Configuration PolyBase Configuration Server Configuration Database Engine Configuration	SQL Server directory: Reporting Services directory: Installed instances:		C:\Program Files\Microsoft SQL Server\MSSQL13.MSSQLSERVE C:\Program Files\Microsoft SQL Server\MSRS13.MSSQLSERVER						
Reporting Services Configuration Consent to install Microsoft R Feature Configuration Rules Installation Progress Complete	Instance Name	Instar	nce ID	Features	Edi	tion	Vers	ion	
					< Back	Next >		Cancel	

- 9. The next step is **PolyBase** Configuration. Let the default option be selected and click **Next**.
- 10. The next step is the Server Configurations, click **Next** and provide details for the Database Engine. On the **Authentication Mode** page select "**Windows authentication mode**" and click **Next**.



🃸 SQL Server 2016 Setup						_		×
Database Engine Config Specify Database Engine authent		administrators, dat	a directori	es and TempDB	settings.			
License Terms Global Rules Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration PolyBase Configuration Server Configuration Database Engine Configuration Reporting Services Configuration Consent to install Microsoft R Feature Configuration Rules Installation Progress Complete	Server Configuration Specify the authenti Authentication Mod Windows authen Mixed Mode (SQ Specify the password Enter password: Confirm password: Specify SQL Server a	ication mode and a le tication mode L Server authentica d for the SQL Serve dministrators	administrat	ors for the Data	abase Engine. htication) a) account. –		ted acces	s
				< Bac	ck	Next >	Cance	el

- 11. The next screen gives an option of whether or not to provide error reports to Microsoft or not. Make your selection and then click the **Next** button to continue.
- 12. Next step is the Consent to install Microsoft R Open, click Accept and then Next.
- 13. A final set of configuration rules are checked. Next page is **installation Progress**. Once the installation is completed the next page will be **Complete**.
- 14. To complete the SQL Server Installation Wizard, click **Close**.
- 15. Now follow the section **Database Configurations**.
- 16. Optionally you can follow the section Install SQL Server 2016 Management Studio.



3.4 Install SQL Server 2016 Management Studio

The following steps summaries the installation process and highlight any specific configuration items required:

- 1. Run **Setup.exe** to launch the SQL Server installer.
- 2. The SQL Server 2016 Installation Center will run. Select the second option **"Install SQL Server Management Tool"**. Click the **OK** button to continue.

📸 SQL Server Installation Center			×
Planning	-	New SQL Server stand-alone installation or add features to an existing installation	î
Installation		Launch a wizard to install SQL Server 2016 in a non-clustered environment or to add features to an existing SQL Server 2016 instance.	
Maintenance			
Tools		Install SQL Server Management Tools	
Resources	X.	Launch a download page that provides a link to install SQL Server Management Studio, SQL Server command-line utilities (SQLCMD and BCP), SQL Server PowerShell	
Advanced		provider, SQL Server Profiler and Database Tuning Advisor. An internet connection is required to install these tools.	
Options		Install SQL Server Data Tools	
		Launch a download page that provides a link to install SQL Server Data Tools (SSDT). SSDT provides Visual Studio integration including project system support for Azure SQL Database, the SQL Server Database Engine, Reporting Services, Analysis Services and Integration Services. An internet connection is required to install SSDT.	
	-	New SQL Server failover cluster installation	
		Launch a wizard to install a single-node SQL Server 2016 failover cluster.	
	.07	Add node to a SQL Server failover cluster	
	ş 1 🛛	Launch a wizard to add a node to an existing SQL Server 2016 failover cluster.	
	5	Upgrade from a previous version of SQL Server	
		Launch a wizard to upgrade a previous version of SQL Server to SQL Server 2016.	
	1	New R Server (Standalone) installation	
	N	Launch a wizard to install R Server (Standalone) on a Windows machine. This is typically used by data scientists as a standalone analysis server or as a SQL Server R Services client.	
Microsoft" SQL Server" 2016			

3. Installer wizard will brought you to a web page to download the latest release of SQL Server Management Studio. Click on the link to download the latest release, and save the file to a location you can remember



Download SQL Server Management Studio (SSMS)

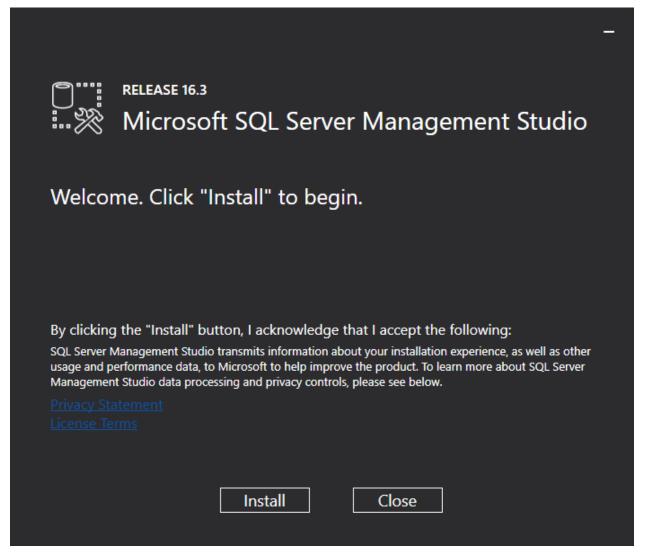
Updated: August 15, 2016

SQL Server Management Studio (SSMS) is an integrated environment for accessing, configuring, managing, administering, and developing all components of SQL Server. SSMS combines a broad group of graphical tools with a number of rich script editors to provide developers and administrators of all skill levels access to SQL Server. This release features improved compatibility with previous versions of SQL Server, a stand-alone web installer, and toast notifications within SSMS when new releases become available.

Download SQL Server Management Studio (SSMS)

Download SQL Server Management Studio 16.3 release

4. Once downloaded, run the SSMS installer from your browser, or directly by double clicking it in Windows Explorer. The first screen that appear is shown below:





5. Click the "Install" button to begin. A progress screen will appear similar to the following:

		-
	RELEASE 16.3 Microsoft SQL Server Management Studio	
Package P	rogress	
Microsoft	Report Viewer for SQL Server 2016	
Overall Pro	ogress	
	Cancel	

6. Let it progress through until completion, then you will see a screen indicating successful setup, click close. SSMS is now installed.



4 SQL Server 2014

4.1 System Requirements

The system should meet the following requirements prior to installation:

- .NET Framework 3.5 SP1
- Microsoft Windows Installer 4.5 or a later version (SQL Server will install this if necessary)
- Windows PowerShell 2.0
- Internet Explorer 7 or a later version is required for Microsoft Management Console (MMC), SQL Server Data Tools (SSDT), the Report Designer component of Reporting Services, and HTML Help.
- TCP/IP networking

RAM	Minimum: 1 GB Recommended: 4 GB or higher
Hard Disk space	10 GB free space
Processor (x64)	AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support Minimum: 1.4 GHz Recommended: 2.0 GHz or higher
Operating System	Windows 7 Windows 7 Service Pack 1 Windows 8 Windows 8.1 Windows Server 2008 R2 Windows Server 2008 R2 SP1 Windows Server 2012 Windows Server 2012 R2



4.2 Install Enterprise Edition



These are generic instructions designed to get you up and running in a minimum of time. Consult your database experts if you wish to apply other configurations or tighten the security roles and privileges.

The following steps summaries the installation process and highlight any specific configuration items required:

- 1. Run **Setup.exe** to launch the SQL Server installer.
- 2. The SQL Server 2014 Installation Center will run. Select the first option for a "New SQL Server stand-alone installation". Click the OK button to continue.

🍀 SQL Server Installation Center	
Planning Installation <u>Maintenance</u> Tools	New SQL Server stand-alone installation or add features to an existing installation Launch a wizard to install SQL Server 2014 in a non-dustered environment or to add features to an existing SQL Server 2014 instance.
Resources Advanced	New SQL Server failover duster installation Launch a wizard to install a single-node SQL Server 2014 failover duster.
Options	Add node to a SQL Server failover cluster Launch a wizard to add a node to an existing SQL Server 2014 failover cluster.
	Upgrade from SQL Server 2005, SQL Server 2008, SQL Server 2008 R2 or SQL Server 2012 Launch a wizard to upgrade SQL Server 2005, SQL Server 2008, SQL Server 2008 R2 or SQL Server 2012 to SQL Server 2014.
Microsoft SQL Server 2014	

- 3. The next step is to provide the **license key** for the software and click the **Next** button to continue.
- 4. The next step is to review and accept the license terms. Read the license terms, then click on the "I accept the license terms" check box and click the Next button to continue. Once that process is completed click on the Install button on Install Setup File.
- 5. A screen showing the Setup Support Rules is shown, click the **Next** button to continue.
- 6. The next step is to select which SQL Server features to install. Select the "SQL Server feature installation" choice and click the Next button.
- The Feature selection screen will appear next. Click on the check boxes to install some or all of the features you are interested in. To install SQL Server 2014 Management Studio, select "Management Tools – Basic" in the Feature Selection page. Then click the Next button.



🚼 SQL Server 2014 Setup

Feature Selection

Select the Evaluation features to install.

Product Key	Features:	Feature description:
License Terms	Instance Features	The configuration and operation of each instance
Global Rules	✓ Database Engine Services	feature of a SQL Server instance is isolated from other
Product Updates	SQL Server Replication	SQL Server instances. SQL Server instances can operate side-by-side on the same computer.
Install Setup Files	▼ Full-Text and Semantic Extractions for Searc	
Install Rules	Data Quality Services Analysis Services	
Setup Role	Reporting Services - Native	Prerequisites for selected features:
Feature Selection	Shared Features	Already installed:
Feature Rules	Reporting Services - SharePoint	Windows PowerShell 2.0
	Reporting Services Add-in for SharePoint Produc	Microsoft .NET Framework 3.5
Instance Configuration	Data Quality Client	Microsoft Visual Studio 2010 Redistributables
Server Configuration	Client Tools Connectivity Integration Services	Microsoft Visual Studio 2010 Shell
Database Engine Configuration	 Integration Services Client Tools Backwards Compatibility 	Disk Space Requirements
Analysis Services Configuration	Client Tools SDK	Drive C: 6028 MB required, 19501 MB available
Reporting Services Configuration	Management Tools - Basic	
Distributed Replay Controller	Management Tools - Complete	1
Distributed Replay Client		
Feature Configuration Rules		
Ready to Install	Select All Unselect All	
Installation Progress	Instance root directory: C:\Program Files\Microso	oft SQL Server\
Complete		
	Shared feature directory: C:\Program Files\Microso	ift SQL Server\
	Shared feature directory (x86): C:\Program Files (x86)\M	ficrosoft SQL Server\
		< Back Next > Cancel Help

8. In the Instance Configuration page, specify **MSSQLSERVER** in both the "**Named instance**" and "**Instance ID**" fields, this will force SQL Server 2014 Enterprise to install as the Default instance. If you want to install as a named instance, specify a name other than MSSQLSERVER.



🍀 SQL Server 2014 Setup

Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

Product Key	O Default instance				
icense Terms	O Named instance:	MSSQLSERVER			
Global Rules		Junear			
Product Updates					
install Setup Files	Instance ID:	MSSQLSERVER			
install Rules		2			
Setup Role					
Feature Selection	SQL Server directory:	· -	· · · ·	ISSQL12.MSSQLSERVER	
Feature Rules	Analysis Services direct	tory: C:\Program Files\	Microsoft SQL Server\M	ISAS12.MSSQLSERVER	
Instance Configuration	Reporting Services dire	ctory: C:\Program Files	Microsoft SQL Server\M	ISRS12.MSSQLSERVER	
Server Configuration	Installed instances:				
Database Engine Configuration		1			
Analysis Services Configuration	Instance Name	Instance ID	Features	Edition	Version
Reporting Services Configuration					
Distributed Replay Controller					
Distributed Replay Client					
Feature Configuration Rules					
Ready to Install					
installation Progress					
Complete					
			< Back	Next > Cance	el Help

9. The next step is the Server Configurations, click **Next** and provide details for the Database Engine. On the **Authentication Mode** page select "**Mixed Mode Authentication**". Enter and confirm a strong "**sa**" logon password (remember this well it will be needed in the future). **Click** on "**Add Current User**" to specify SQL Server administrator.



- 🗆 🗵

體 SQL Server 2014 Setup

Server Configuration

Specify the service accounts and collation configuration.

oduct Key	Service Accounts Collation				
ense Terms	Microsoft recommends that you use a	separate account for each SOL	Server service		
obal Rules	File osofe recommendas chat you use a	separate account for each SQL	Server service.		
oduct Updates	Service	Account Name	Password	Startup Type	
stall Setup Files	SQL Server Agent	NT Service\SQLSERVERAG		Manual	-
tall Rules	SQL Server Database Engine	NT Service MSSQLSERVER		Automatic	-
tup Role	SQL Server Analysis Services	NT Service MSSQLServerO		Automatic	-
ature Selection	SQL Server Reporting Services	NT Service\ReportServer		Automatic	-
ature Rules	SQL Server Integration Services 12.0	NT Service WsDtsServer 120		Automatic	•
stance Configuration	SQL Server Distributed Replay Client	NT Service\SQL Server Dis		Manual	-
rver Configuration	SOL Server Distributed Replay Contro	NT Service\SQL Server Dis		Manual	-
tabase Engine Configuration	SQL Full-text Filter Daemon Launcher	NT Service WSSQLFDLaun		Manual	
alysis Services Configuration	SOL Server Browser	NT AUTHORITY/LOCAL SE		Automatic	
porting Services Configuration	SQL Server browser	INT AUTHORITYLOCAL SE		Automatic	
stributed Replay Controller					
stributed Replay Client					
ature Configuration Rules					
ady to Install					
tallation Progress					
mplete					

- 10. If you selected **SQL Server Analysis Services** to be included in the install, the next screen will prompt for the **Analysis Services Server Mode**. To use **regular SQL (relational) schemas** for Analysis services specify the **Tabular Mode**. To use the **Multidimensional data structures**, select **Multidimensional and Data Mining Mode**.
- 11. The next screen gives an option of whether or not to provide error reports to Microsoft or not. Make your selection and then click the **Next** button to continue.
- 12. If **Distributed Replay Services** were selected to be installed, the next screen will prompt for the Users and/or Groups who have the rights to use Distributed Replay Services. Provide these user and groups and then click the **Next** button to continue



🍀 SQL Server 2014 Setup		×
Distributed Replay Co	ntroller	
Specify Distributed Replay Cont	roller service access permissions.	
Product Key License Terms	Specify which users have permissions for the Distributed Replay Controller service.	-
Global Rules	permission will have unlimited access to the Distributed Replay	
Product Updates Install Setup Files	Controller service.	
Install Rules		
Setup Role		
Feature Selection		
Feature Rules Instance Configuration		
Server Configuration		
Database Engine Configuration		
Analysis Services Configuration		
Reporting Services Configuration Distributed Replay Controller		
Distributed Replay Client		
Feature Configuration Rules		
Ready to Install		
Installation Progress Complete		
Complete		
	Add Current User Add Remove	
	< Back Next > Cancel Help	

13. If you selected the option to install the **Distributed Replay Client**, the next screen will prompt for a **Controller Name**, **Working Directory** and **Results Directory**. The default names should be sufficient for this install. Click the **Next** button to continue.



🍀 SQL Server 2014 Setup

Distributed Replay Client

Specify the corresponding controller and data directories for the Distributed Replay Client.

Product Key License Terms		achine name and dire	ctory locations.					
Global Rules	Controller Name:	LocalController						
Product Updates	Working Directory:	C: Program Files (x8	6) (Microsoft SQL	Server \DRepla	ayClient\Workin	ngDir \		1
Install Setup Files								-
Install Rules	Result Directory:	C:\Program Files (x8	6) MICLOSOTT SQL	Server prepa	ayclientikesult	Dir\		
Setup Role								
Feature Selection								
Feature Rules								
Instance Configuration								
Server Configuration								
Database Engine Configuration								
Analysis Services Configuration								
Reporting Services Configuration								
Distributed Replay Controller								
Distributed Replay Client								
Feature Configuration Rules								
Ready to Install								
Installation Progress								
Complete								
			<	< Back	Next >	Cancel	Help	
								-//

- 14. A final set of configuration rules are checked. Next page is **Ready to install**, click the **Install** button to start the installation and configuration process.
- 15. To complete the SQL Server Installation Wizard, click **Close**.
- 16. Now follow the section **Database Configurations**.



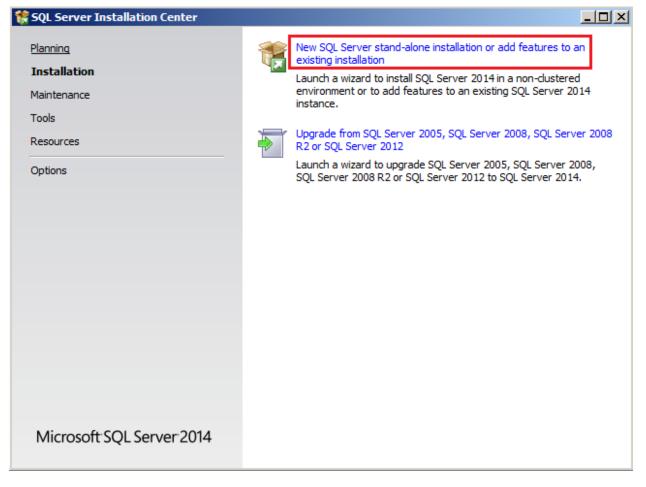
4.3 Install Express Edition



These are generic instructions designed to get you up and running in a minimum of time. Consult your database experts if you wish to apply other configurations or tighten the security roles and privileges.

The following steps summaries the installation process and highlight any specific configuration items required:

- 1. Run SQLEXPRADV_x64_ENU-2012.EXE to launch the SQL Server 2014 Express installer.
- 2. At the SQL Server Installation Centre click on **Planning** from the left side and choose "**System Configuration Checker**" to make sure you are ready to install SQL 2014 Express.
- 3. When the System Configuration Checker has validated that you are ready to install SQL 2014 Express, return to the SQL Server Installation Centre and click on the word "Installation" on the left menu.
- 4. Select the option "New SQL Server stand-alone installation or add features to an existing installation".



- 5. A setup support check will run. Make sure there are no errors or warnings, press Next.
- 6. The "SQL Server 2014" Setup will now appear, select "Perform a new installation of SQL Server 2014" and click Next.
- 7. The next step is to review and accept the license terms. Read the license terms, then click on the "I accept the license terms" check box and click the **Next** button to continue.



 The Feature selection screen will appear next. Click on the check boxes to install some or all of the features you are interested in. To install SQL Server 2014 Management Studio, select "Management Tools – Basic" in the Feature Selection page. Click on Select All and then click Next button.

🍀 SQL Server 2014 Setup		
Feature Selection Select the Evaluation features to	install.	
Global Rules Product Updates Install Setup Files Install Rules Installation Type Product Key License Terms Setup Role Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Distributed Replay Controller Distributed Replay Coltroller Distributed Replay Client Feature Configuration Rules Ready to Install Installation Progress Complete	Features: Reporting Services - Native Shared Features Reporting Services Add-in for SharePoint Produc Data Quality Client Client Tools Connectivity Integration Services Client Tools Backwards Compatibility Client Tools Backwards Compatibility Client Tools SDK Documentation Components Management Tools - Complete Distributed Replay Controller Distributed Replay Controller SQL Client Connectivity SDK Master Data Services Redistributable Features Select All Unselect All Instance root directory: C: Program Files Microsof Shared feature directory (x86); C: Program Files (x86) With 	ft SQL Server\
		< Back Next > Cancel Help

 In the Instance Configuration page, specify SQLEXPRESS in both the "Named instance" and "Instance ID" fields, this will force SQL Server 2014 Express to install as the Default instance. If you want to install as a named instance, specify a name other than SQLEXPRESS.



🍀 SQL Server 2014 Setup					
Instance Configuration Specify the name and instance ID		erver. Instance ID beco	nes part of the installa	tion path.	
License Terms Global Rules Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Reporting Services Configuration Feature Configuration Rules Installation Progress Complete	Default instance Named instance: Instance ID: SQL Server directory: Reporting Services dire Installed instances: Instance Name	SQLEXPRESS SQLEXPRESS C:\Program Files ctory: C:\Program Files	\Microsoft SQL Server\ Microsoft SQL Server\ Features		Version
			< Back	Next > Canc	el Help

 The next step is the Server Configurations, click Next and provide details for the Database Engine. Make sure that SQL Server Database Engine's Account Name is set to "NT Service\MSSQL\$SQLEXPRESS" and SQL Server Browser's Startup Type to Automatic, then click Next.



SQL Server 2014 Setup Server Configuration				
Specify the service accounts and	collation configuration.			
License Terms Global Rules Product Updates Install Setup Files Install Rules	Service Accounts Collation Microsoft recommends that you use a Service SQL Server Database Engine	separate account for each SQL Account Name NT Service\MSSQL\$SQLES	Server service.	Startup Type
Feature Selection Feature Rules Instance Configuration	SQL Server Reporting Services SQL Full-text Filter Daemon Launcher	NT Service \ReportServer\$ NT Service \MSSQLFDLaun		Automatic 💌 Manual
Server Configuration Database Engine Configuration Reporting Services Configuration Feature Configuration Rules Installation Progress Complete				
	<u> </u>	< Back	Next >	Cancel Help

11. The next step is to provide details for the Database Engine. On the **Authentication Mode** page select **"Mixed Mode Authentication".** Enter and confirm a strong **"sa"** logon password (remember this well it will be needed in the future). Click **Next**.



🎲 SQL Server 2014 Setup	
Database Engine Confi Specify Database Engine authent	guration cation security mode, administrators and data directories.
License Terms Global Rules Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Reporting Services Configuration Feature Configuration Rules Installation Progress Complete	Server Configuration Data Directories User Instances FILESTREAM Specify the authentication mode and administrators for the Database Engine. Authentication Mode © Windows authentication mode © Mixed Mode (SQL Server authentication and Windows authentication) Specify the password for the SQL Server system administrator (sa) account. Enter password: ●●●●●● Specify SQL Server administrators Specify SQL Server administrators SQL Server administrators have unrestricted access to the Database Engine. Add Current User Add
	< Back Next > Cancel Help

- 12. The next screen gives an option of whether or not to provide error reports to Microsoft or not. Make your selection and then click the **Next** button to continue.
- 13. When the installer completes, click **Close**.
- 14. Now follow the section **Database Configurations**.



5 SQL Server 2012

5.1 System Requirements

The system should meet the following requirements prior to installation:

- .NET Framework 3.5 SP1
- Microsoft Windows Installer 4.5 or a later version (SQL Server will install this if necessary)
- Windows PowerShell 2.0
- Internet Explorer 7 or a later version is required for Microsoft Management Console (MMC), SQL Server Data Tools (SSDT), the Report Designer component of Reporting Services, and HTML Help.
- TCP/IP networking

RAM	Minimum: 512 MB Recommended: 2 GB or higher
Hard Disk space	10 GB free space
Processor (x64)	AMD Opteron, AMD Athlon 64, Intel Xeon with Intel EM64T support, Intel Pentium IV with EM64T support Minimum: 1.4 GHz Recommended: 2.0 GHz or higher
Operating System	Windows Server 2008 R2 Windows Server 2008 SP2 Windows Vista SP2 Windows Server 2012 Windows 7 Windows 8.1 Windows Server 2012 R2



5.2 Install Enterprise Edition



These are generic instructions designed to get you up and running in a minimum of time. Consult your database experts if you wish to apply other configurations or tighten the security roles and privileges.

The following steps summaries the installation process and highlight any specific configuration items required:

- 1. Run **Setup.exe** to launch the SQL Server installer.
- The SQL Server 2012 Installation Center will run. Select the first option for a "New SQL Server stand-alone installation or add features to an existing installation". Click the OK button to continue.

🚼 SQL Server Installation Center		
Planning Installation Maintenance	F	New SQL Server stand-alone installation or add features to an existing installation Launch a wizard to install SQL Server 2012 in a non-clustered environment or to add features to an existing SQL Server 2012 instance.
Tools Resources Advanced	ŧ	New SQL Server failover cluster installation Launch a wizard to install a single-node SQL Server 2012 failover cluster.
Options	ş îÎ	Add node to a SQL Server failover cluster Launch a wizard to add a node to an existing SQL Server 2012 failover cluster.
SQL Server 2012	1	Upgrade from SQL Server 2005, SQL Server 2008 or SQL Server 2008 R2 Launch a wizard to upgrade SQL Server 2005, SQL Server 2008 or SQL Server 2008 R2 to SQL Server 2012.

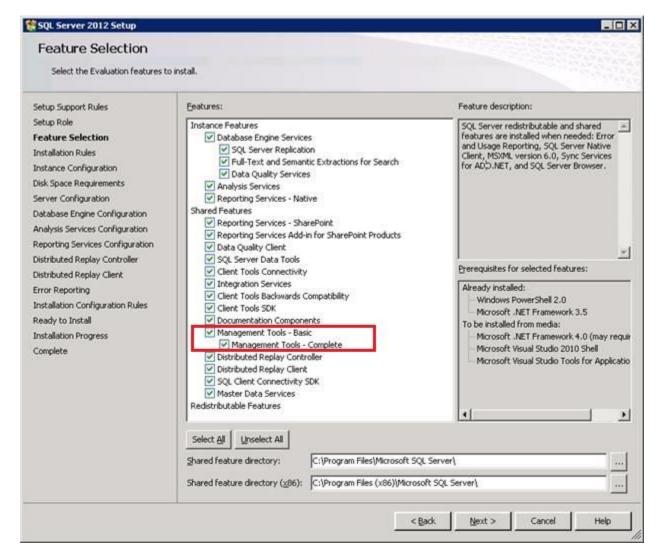
- 3. The next step is to provide the **license key** for the software and click the **Next** button to continue.
- 4. The next step is to review and accept the license terms. Read the license terms, then click on the "I accept the license terms" check box and click the Next button to continue. Once that process is completed click on the Install button on Install Setup File.
- 5. A screen showing the Setup Support Rules is shown, click the Next button to continue.
- 6. The next step is to select which SQL Server features to install. Select the "SQL Server feature installation" choice and click the Next button.



tion option to individually select which feature components to install, or click a feature role to
 SQL Server Feature Installation Install SQL Server Database Engine Services, Analysis Services, Reporting Services, Integration Services, and other features. SQL Server BowerPrivat for SharePoint Install PowerPrivat for SharePoint on a new or existing SharePoint 2010 server to support PowerPrivat data access in the farm. Optionally, add the SQL Server relational database engine to use as the new farm's database server. Add SQL Server Database Betational Engine Services to this installation. All Features With Defaults Install all features using default values for the service accounts.

 The Feature selection screen will appear next. Click on the check boxes to install some or all of the features you are interested in. To install SQL Server 2012 Management Studio, select "Management Tools – Basic" in the Feature Selection page. Then click the Next button.





8. In the Instance Configuration page, specify **MSSQLSERVER** in both the "**Named instance**" and "**Instance ID**" fields, this will force SQL Server 2014 Enterprise to install as the Default instance. If you want to install as a named instance, specify a name other than MSSQLSERVER.



SQL Server 2012 Setup					
Instance Configuration	on				
Specify the name and instance	ID for the instance of SQL Server.	Instance ID bec	omes part of the insta	allation path.	
Setup Support Rules Setup Role Feature Selection	C Default instance (* Named instance:	5QL2012			
Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Distributed Replay Controller Distributed Replay Client Error Reporting	Instance ID: Instance goot directory:	SQL2012 C:\Program File	si/Microsoft SQL Serve	er{	
	SQL Server directory: Analysis Services directory: Reporting Services directory: Instaljed instances:	C:\Program File	siMicrosoft SQL Servi siMicrosoft SQL Servi siMicrosoft SQL Servi		
Installation Configuration Rules Ready to Install Installation Progress Complete	Instance Name Inst	tance ID	Features	Edition	Version

9. The next step is the Server Configurations, click **Next** and provide details for the Database Engine. On the **Authentication Mode** page select "**Mixed Mode Authentication**". Enter and confirm a strong "**sa**" logon password (remember this well it will be needed in the future). **Click** on "**Add Current User**" to specify SQL Server administrator.



SQL Server 2012 Setup					
Database Engine Confi Specify Database Engine authenti		dministrators and data directories.			
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Database Engine Configuration Analysis Services Configuration Distributed Replay Controller Distributed Replay Controller Distributed Replay Client Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Server Configuration Data Directories FILESTREAM Specify the authentication mode and administrators for the Database Engine. Authentication Mode C Windows authentication mode (* Mixed Mode (SQL Server authentication and Windows authentication) Specify the password for the SQL Server system administrator (sa) account. Enter password: ••••••• Cgrifirm password: Specify SQL Server administrators				
	Add <u>C</u> urrent User	r Add <u>Remove</u>		SQL Server administrators have unrestricted access to the Database Engine.	
			< Back Next	t > Cancel Help	

10. If you selected SQL Server Analysis Services to be included in the install, the next screen will prompt for the Analysis Services Server Mode. To use regular SQL (relational) schemas for Analysis services specify the Tabular Mode. To use the Multidimensional data structures, select Multidimensional and Data Mining Mode.



SQL Server 2012 Setup		
Analysis Services Conf Specify Analysis Services server in	figuration nodes, administrators, and data directories.	
ietup Support Rules ietup Role reature Selection Installation Rules Instance Configuration	Server Configuration Data Directories Server Mode: C Multidimensional and Data Mining Mode C Iabular Mode Specify which users have administrative permissions for Analysis	Services.
Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Distributed Replay Controller Distributed Replay Client Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete		Analysis Services administrators have unrestricted access to Analysis Services.
	Add <u>Gurrent User</u> <u>Add</u> <u>Remove</u>	Next > Cancel Help

- 11. The next screen gives an option of whether or not to provide error reports to Microsoft or not. Make your selection and then click the **Next** button to continue.
- 12. If **Distributed Replay Services** were selected to be installed, the next screen will prompt for the Users and/or Groups who have the rights to use Distributed Replay Services. Provide these user and groups and then click the **Next** button to continue



SQL Server 2012 Setup				
Distributed Replay Co Specify Distributed Replay Control		missions.		
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Analysis Services Configuration Distributed Replay Controller Distributed Replay Client Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Specify which users	s have permissions for the D	stributed Replay Controller ser	Vice. Users that have been granted permission will have unlimited access to the Distributed Replay Controller service.
	Add <u>C</u> urrent User	Add Remove	< gack b	jext > Cancel Help

13. If you selected the option to install the **Distributed Replay Client**, the next screen will prompt for a **Controller Name**, **Working Directory** and **Results Directory**. The default names should be sufficient for this install. Click the **Next** button to continue.



🚼 SQL Server 2012 Setup			_ 🗆 🗙
Distributed Replay Cli Specify the corresponding control		for the Distributed Replay Client.	
Setup Support Rules Setup Role Feature Selection Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Analysis Services Configuration Reporting Services Configuration Distributed Replay Controller Distributed Replay Client Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Specify controller ma Controller Name: Working Directory: Result Directory:	achine name and directory locations.	
		< Back Mext > Cancel	Help

- 14. A final set of configuration rules are checked. Next page is **Ready to install**, click the **Install** button to start the installation and configuration process.
- 15. To complete the SQL Server Installation Wizard, click **Close**.
- 16. Now follow the section **Database Configurations**.



5.3 Install Express Edition

Û

These are generic instructions designed to get you up and running in a minimum of time. Consult your database experts if you wish to apply other configurations or tighten the security roles and privileges.

The following steps summaries the installation process and highlight any specific configuration items required:

- 1. Run **SQLEXPRADV_x64_ENU-2012.EXE** to launch the SQL Server 2012 Express installer.
- 2. At the SQL Server Installation Centre click on **Planning** from the left side and choose "**System Configuration Checker**" to make sure you are ready to install SQL 2012 Express.

💱 SQL Server 2012 Setup		
Planning	B	Hardware and Software Requirements View the hardware and software requirements.
Maintenance		Security Documentation
Tools		View the security documentation.
Resources		Online Release Notes
Options		View the latest information about the release.
	-	How to Get SQL Server Data Tools
		SQL Server Data Tools provides an integrated environment for database developers to carry out all their database design work for any SQL Server platform.
	1	System Configuration Checker
	Ţ.	Launch a tool to check for conditions that prevent a successful SQL Server installation.
	-	Install Upgrade Advisor
		Upgrade Advisor analyzes any SQL Server 2008 R2, SQL Server 2008 or SQL Server 2005 components that are installed and identifies issues to fix either before or after you upgrade to SQL Server 2012.
	:-]	Online Installation Help
		Launch the online installation documentation.
Mirmode:	1	How to Get Started with SQL Server 2012 Failover Clustering
SQL Server 2012		Read instructions on how to get started with SQL Server 2012 failover clustering.

- 3. When the System Configuration Checker has validated that you are ready to install SQL 2012 Express, return to the SQL Server Installation Centre and click on the word "Installation" on the left menu.
- 4. Select the option "New SQL Server stand-alone installation or add features to an existing installation". A setup support check will run. Make sure there are no errors or warnings, press Next.
- 5. The "SQL Server 2012" Setup will now appear, select "Perform a new installation of SQL Server 2012" and click Next.
- 6. The next step is to review and accept the license terms. Read the license terms, then click on the "I accept the license terms" check box and click the **Next** button to continue.



 The Feature selection screen will appear next. Click on the check boxes to install some or all of the features you are interested in. To install SQL Server 2012 Management Studio, select "Management Tools – Basic" in the Feature Selection page. Click on Select All and then click Next button.

🚼 SQL Server 2012/Setup			
Feature Selection Select the Express features to in:	stall.		
License Terms Global Rules Product Updates Install Setup Files Install Rules Feature Selection Feature Rules Instance Configuration Server Configuration Database Engine Configuration Reporting Services Configuration Feature Configuration Rules Installation Progress Complete	Features: Instance Features SQL Server Replication Full-Text and Semanti Reporting Services - Native Shared Features Client Tools Connectivity Client Tools Backwards Co Client Tools SDK Documentation Compone Management Tools - Basi SQL Client Connectivity S SQL Client Connectivity S Select All Unselect All Instance root directory: Shared feature directory (x86):	c Extractions for Sea e pompatibility ents c Complete DK C:\Program Files\Mic	
		< Back	Next > Cancel Help

8. In the Instance Configuration page, specify **SQLEXPRESS** in both the "**Named instance**" and "**Instance ID**" fields, this will force SQL Server 2012 Express to install as the Default instance. If you want to install as a named instance, specify a name other than SQLEXPRESS.



🂱 SQL Server 2012 Setup								_	
Instance Configuration Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.									
Setup Support Rules Installation Type	Default instance SQLExpress								
License Terms Feature Selection									
Installation Rules Instance Configuration Disk Space Requirements Server Configuration Database Engine Configuration Reporting Services Configuration Error Reporting Installation Configuration Rules	Instance ID:		SQLEXPRESS						
	Instance root directory:		C:\Program Files\Microsoft SQL Server\						
	SQL Server directory: Reporting Services dire Installed instances:	ectory:	C:\Program Fi C:\Program Fi						
Installation Progress	Instance Name	Instan	ce ID	Features		Edition		Version	
Complete	MSSQLSERVER	MSSQL	.11.MSSQLS	SQLEngine,S	SQLEn	Express		11.0.2218.0	
	<shared compone<="" td=""><td></td><td></td><td>SSMS</td><td></td><td></td><td></td><td>11.0.2218.0</td><td>_</td></shared>			SSMS				11.0.2218.0	_
	<shared compone<="" td=""><td></td><td></td><td>LocalDB</td><td></td><td></td><td></td><td>11.0.2100.60</td><td></td></shared>			LocalDB				11.0.2100.60	
				< Back	Next	t >	Cancel	Help	

 The next step is the Server Configurations, click Next and provide details for the Database Engine. Make sure that SQL Server Database Engine's Account Name is set to "NT Service\MSSQL\$SQLEXPRESS" and SQL Server Browser's Startup Type to Automatic, then click Next.



SQL Server 2012 Setup					_ [
Server Configuration					
Specify the service accounts and	l collation configuration.				
Setup Support Rules Installation Type	Service Accounts Collation	a separate account for each	SOL Server serv	ice.	
License Terms Feature Selection	Service	Account Name	Password	Startup Typ	e
Installation Rules	SQL Server Database Engine	NT Service\MSSQL\$SQL		Automatic	~
Instance Configuration	SQL Server Reporting Services	NI Service\ReportServer	1	Automatic	~
Disk Space Requirements	SQL Full-text Filter Daemon Launc	NT Service\MSSQLFDLa		Manual	
Server Configuration	SQL Server Browser	NT AUTHORITY\LOCAL		Automatic	~
Reporting Services Configuration Error Reporting Installation Configuration Rules Installation Progress Complete					
		< Back Next	> Can	cel He	elp

- 10. The next step is to provide details for the Database Engine, select "Mixed Mode Authentication". Enter and confirm a strong "sa" logon password (remember this well it will be needed in the future). Click Next.
- 11. The next screen gives an option of whether or not to provide error reports to Microsoft or not. Make your selection and then click the **Next** button to continue.
- 12. When the installer completes, click **Close**.
- 13. Now follow the section **Database Configurations**.



6 Database Configurations

6.1 Enable TCP/IP

Once SQL Server is installed these Network options need to be enabled:

- 1. Go to Start Menu > Programs > Microsoft SQL Server > SQL Server Configuration Manager
- 2. Expand SQL Server Network Configuration and select Protocols.
 - a. Enable TCP/IP. If you need Named Pipes, then you can enable them here as well.

TCP/IP Properties	<u>? ×</u>
Protocol IP Addresses	
General	
Enabled	Yes
Keep Alive	30000
Listen All	Yes
No Delay	No
Enabled Enable or disable TCP/IP protocol for t	bis server instance
OK Cancel	Apply Help

b. Ensure that TCP ports are set to 1433 for IP1, IP2 and IP All.



Active	Yes
Enabled	No
IP Address	1881118811111981
TCP Dynamic Ports	0
TCP Port	1433
IP2	
Active	Yes
Enabled	No
IP Address	127.0.0.1
TCP Dynamic Ports	0
TCP Port	1433
IPAII	
TCP Dynamic Ports	4825
TCP Port	1433
TCP Port TCP port	

3. Close the SQL Server Configuration Manager.



Ensure you type **1433** into the **TCP Port** and not TCP Dynamic Port Fields.



If you are installing SQL Server and ADSS Server on the same system, it is highly recommended to only enable IP address 127.0.0.1 for better security and use **127.0.0.1** or the **"localhost"** URL in your ADSS Server database configuration.



6.2 Configuring Windows Firewall for Database Access

If you have software firewall installed on your server, you will need to add exceptions for the SQL Server. The principal steps to allow access are:

- 1. Configure the Database Engine to use a specific TCP/IP port. The default instance of the Database Engine uses port 1433, but that can be changed.
- 2. Configure the firewall to allow access to that port for authorized users or computers.



Opening ports in your firewall can leave your server exposed to malicious attacks. Make sure that you understand firewall systems before you open ports. For more information, see <u>Security Considerations for a SQL Server Installation</u>.

The following procedures configure the Windows Firewall by using the Windows Firewall with Advanced Security Microsoft Management Console (MMC) snap-in. The Windows Firewall with Advanced Security only configures the current profile. For more information about the Windows Firewall with Advanced Security, see <u>Configure the Windows Firewall to Allow SQL Server Access</u>

To open a port in the Windows firewall for TCP access:

- 1. On the **Start** menu, click **Run**, type **WF.msc**, and then click **OK**.
- 2. In the **Windows Firewall with Advanced Security**, in the left pane, right-click **Inbound Rules**, and then click **New Rule** in the action pane.
- 3. In the Rule Type dialog box, select Port, and then click Next.
- 4. In the **Protocol and Ports** dialog box, select **TCP**. Select **Specific local ports**, and then type the port number of the instance of the Database Engine, such as **1433** for the default instance. Click **Next**.
- 5. In the Action dialog box, select Allow the connection, and then click Next.
- 6. In the **Profile** dialog box, select any profiles that describe the computer connection environment when you want to connect to the Database Engine, and then click **Next**.
- 7. In the **Name** dialog box, type a name and description for this rule, and then click **Finish**.

To open access to SQL Server when using dynamic ports:

- 1. On the Start menu, click Run, type WF.msc, and then click OK.
- 2. In the **Windows Firewall with Advanced Security**, in the left pane, right-click **Inbound Rules**, and then click **New Rule** in the action pane.
- 3. In the **Rule Type** dialog box, select **Program**, and then click **Next**.
- 4. In the Program dialog box, select This program path. Click Browse, and navigate to the instance of SQL Server that you want to access through the firewall, and then click Open. By default, SQL Server is at:
 - SQL Server 2014
 C:\Program Files\Microsoft SQL
 Server\MSSQL12.MSSQLSERVER\MSSQL\Binn\Sqlservr.exe
 - SQL Server 2012
 C:\Program Files\Microsoft SQL
 Server\MSSQL11.MSSQLSERVER\MSSQL\Binn\Sqlservr.exe



- SQL Server 2008
 C:\Program Files\Microsoft SQL
 Server\MSSQL10.MSSQLSERVER\MSSQL\Binn\Sqlservr.exe
- SQL Server 2005
 C:\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Binn\Sqlservr.exe
- 5. Click Next.
- 6. In the Action dialog box, select Allow the connection, and then click Next.
- 7. In the **Profile** dialog box, select any profiles that describe the computer connection environment when you want to connect to the Database Engine, and then click **Next**.
- 8. In the **Name** dialog box, type a name and description for this rule, and then click **Finish**.

6.3 Creating ADSS Server Database

To create a database for the ADSS Server follow these steps.

- 1. Click Start-> Programs -> Microsoft SQL server -> SQL Server Management Studio
- 2. In server name type the name of the machine
- 3. In Authentication Choose **SQL Server Authentication**.
- 4. In user name type the username you have created or "sa" if you wish and the relevant password.
- 5. Now click **Connect**.

Connect to Server		×
Microsoft SC	QL Server 2014	
Server type:	Database Engine	•
Server name:	1227 1228 2148	-
Authentication:	SQL Server Authentication	-
Login:	promatication.	-
Password:	*****	
	Remember password	
Connect	Cancel Help Options	>>

6. In the left panel where the machine name or the Database server name is shown, expand this and click on **Databases** and right click to **create new Database**. A new Database window will appear. In the database name textbox type **ADSS (or another name of your choice)** and in the owner Box click on the [...] button to select other than default user for this database.



📕 New Database						
Select a page	🔄 Script 👻 📑 He	lp				
General Options Filegroups	Database name:		ADSS <default></default>			
	Owner:					
	Use full-text ind	lexing				
	Database files:					
	Logical Name	File Type	Filegroup	Initial Size (MB)	Autogrowth / Maxsize	
	ADSSServer	ROWS	PRIMARY	3	By 1 MB, Unlimited	
	ADSSServer	LOG	Not Applicable	1	By 10 percent, Unlimited	
Connection						
Server:						
Connection:						
View connection properties						
Progress						
Ready	•					- F
neauy					1	
				Add	Remov	e
					ОК Са	ncel

7. Click **Ok** to create new database, you have created a database called **ADSS** for ADSS Server to use.



6.4 Setting up the ADSS Server Database User account

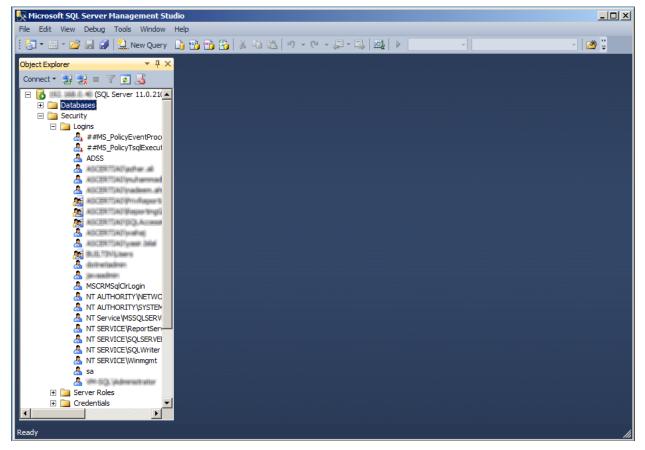
This section describes how to create a user account. An account is required to be able to connect ADSS Server to the database and it is not good practice to use the **"sa"** account.

When creating a user account name ensure that it obeys the following restrictions:

- 1. Do not use names longer than 30 characters
- 2. Do not use spaces, hyphens or periods
- 3. Do not start the name with a number

To create the account in SQL Express, follow these steps:

- 1. Run Start/Programs/Microsoft SQLServer/ SQL Server Management Studio
- 2. In the server name textbox type the Name/IP of machine and in the Authentication tab choose **SQL Server Authentication**, type the user name and password accordingly and click on **Connect**.



- 3. In the left panel where the machine name or Database Server name is shown expand it, click on **Security** and then right click to create new user.
- 4. A new User window will appear. In Login Name type ADSSDBO or the database user name you wish to use and choose the SQL Server Authentication option and allocate a strong password and also remember to select English as the default language (THIS IS VERY IMPORTANT the system will not work if another database language option is selected).



🚪 Login - New			
Select a page	🔄 Script 🝷 🛐 Help		
General Server Roles User Mapping	Login name:	ADSSDBO	Search
Securables	O Windows authentication		
🚰 Status	SQL Server authentication		
	Password:	•••••	
	Confirm password:	•••••	
	Specify old password		
	Old password:		
	Enforce password policy	4	
	Enforce password expira	ation	
	User must change pass	word at next logini	
	O Mapped to certificate		
	O Mapped to asymmetric key		
	Map to Credential		Add
Connection	Mapped Credentials	Credential Provider	
Server:			
Connection:			
View connection properties			
Progress			Remove
Ready	Default database:	ADSSServer	
-4 b-	Default language:	English	
	·	ОК	Cancel

- 5. In Default Database enter **ADSS** or another name of your choice.
- 6. Click on Server Roles and give the user a role as a **sysadmin** for ease.



Login Properties - ADSSDBC		_ 🗆 ×
Select a page	🕵 Script 🝷 🛐 Help	
General Server Roles User Mapping	Server role is used to grant server-wide security privileges to a user.	
Securables Status	Server roles: bulkadmin dbcreator diskadmin processadmin v public securityadmin setupadmin v sysadmin	
Connection		
Server: Connection: <u>View connection properties</u> Progress		
Ready		
	OK Ca	ancel

7. Click on User Mapping and then Click **ADSS** and **Tempdb** and then click **Ok** to create user.



Login Properties - ADSSDB0							
Select a page	Script ·	🛛 📑 Help					
😭 General							
Server Roles	Users mapped to this login:						
Securables	Мар	Database	User	Default Schema			
Status		ADSS	ADSSDBO				
		ALL ALL AND ALL ALL ALL ALL ALL ALL ALL ALL ALL AL					
		10715 Access (12715)					
		107151-1001 SLAP. (0191					
		STORE CONTRACTOR					
		100					
		100120					
		tempdb	ADSSDBO		_		
Connection Server: Connection: View connection properties Progress Ready Ready	Database	dladmin enydatareader enydatawriter wner ecurityadmin					
				ОК	Cancel		

8. You have now created a user for the ADSS Server database.



7 Knowledge base Articles

Ascertia has maintained a set of online FAQs for customer ease. You can follow these link for more details:

- <u>http://faqs.ascertia.com/display/ADSS/Database+Formation</u>
- <u>http://faqs.ascertia.com/display/ADSS/Database+Formation#DatabaseFormation-ConfiguringSQLServertousecorrectauto-incrementforidentitycolumns</u>
- <u>http://faqs.ascertia.com/display/ADSS/Useful+ADSS+Server+Database+SQL+Commands</u>

*** End of document ***