# AD Recovery Manager Quick start Guide

Software version 5.0



General Information: info@cionsystems.com

Online Support: support@cionsystems.com

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### **1. Introduction**

CionSystems AD Recovery Manager empowers you to recover from inadvertent deletions or changes to your AD data in seconds, not hours. With its remote, online, granular restore capability, you can recover entire sections of the directory, selected objects and individual attributes.

### 2. Highlights

- ✓ Complex tasks are simplified (no scripting needed).
- ✓ Granular or Full Recovery of Active Directory
- Restore any object including Group Policies in AD, allowing you to recover a deleted user account with all of its group memberships, attributes and password policies without restarting system
- ✓ Granular restore, including object attributes
- ✓ Restore system and non-system attributes
- ✓ Extensible search capability (deleted item)
- ✓ Easily compare backup snapshots for changes
- ✓ Schedule snapshots for creation and deletion
- ✓ Snapshot details, Restore objects and Other audit reports

### **3. System Requirements**

# CionSystems AD Recovery Manager should be installed on the Domain Controller machine only.

CionSystems AD Recovery Manager needs:

- 8GB RAM (16GB Recommended)
- 1 TB of disk space(Based on no.of Snapshots)
- Web Browser IE 11 or higher
- Windows Server 2008 or higher
- IIS server 6 or higher.
- Microsoft .NET Framework 4.0 or higher
- SQL Server 2008 R2 or higher Full or Express Edition.

## 4. Download and Install

CionSystems AD Recovery Manager can be downloaded from the CionSystems website.

- Go to CionSystems website→Downloads→Products→Select "AD Recovery Manager" product and click on "**Read More**" option.
- Click on Download Trial Version button
- If you are a registered user, enter username and password to log in. If you are a new user, sign up and register.
- After registration of the "AD Recovery Manager" trial version, an email will be sent with the link to download ActiveDirectoryRecovery.msi.
- Open email.
- Click on the ADRecoveryManager.msi link.
- Save ADRecoveryManager.msi file to the hard drive.
- When the download is complete, go to start  $\rightarrow$  windows explorer.
- Open the file where ADRecoveryManager.msi file wassaved.
- Copy the file into Domain Controller machine.
- Double click on ADRecoveryManager.msi file.
- Setup process will start.

### **4.1 Installation Wizard**

The welcome screen will open

闄	A	DRecoveryMan	ger	_ 🗆 X
Welcome	to the ADRec	overyMange	r Setup Wiza	ard
The installer wi computer.	ll guide you through the :	steps required to insta	all ADRecoveryMange	er on your
WARNING: Th Unauthorized d or criminal pena	is computer program is p luplication or distribution alties, and will be prosec	protected by copyrigh of this program, or an uted to the maximum	t law and internationa y portion of it, may res extent possible under	l treaties. sult in severe civil the law.
		Cancel	< Back	Next >

• Click **Next** 

reregu	isites			
Please ma ActiveDin	ike sure the following items a actoryRecoveryManager insta	re satisfied before contir Illation.	nuing with	
System	Requirements :			
- V a	/indows Server 2008 R2 (or I nd Windows Installer 5.0	higher), .NET framework	4.0 (or higher), GPM	с
- s	QL Server 2008 R2 (or higher	r) or SQL Server 2008 R	2 Express (or higher	)
- C	ompatible Browser : Internet I	Explorer 11.0 (or higher)		
* You wi Databa	nous access. I be prompted to provide the o se or use the existing Databa	redentials to connect S0 se. (SQL Authentication/	QL Server for creatio Windows Authentic	n of ation).
Info nee	ded after installation :			
SQL Ser "NT AUTI propertie	ver Security Logins must have HORITY WETWORK SERVICE" s make sure that "sysadmin"	the "ASPNET" (for XP)/ (for Windows Server) a Server Role should be cl	"NT AUTHORITY'SY ccounts. For these a hecked.	STEM" and account

• Click **Next** in System Requirements and Info screen.

∦ A	DRecoveryManger	<b>– – ×</b>
License Agreement		
Please take a moment to read the lice Agree'', then ''Next''. Otherwise click '	nse agreement now. If you ac 'Cancel''.	cept the terms below, click ''l
CIONSYSTEMS, INC BETA LAST	SOFTWARE END USER UPDATED:	LICENSE AGREEMENT A
IMPORTANT: THIS IS A LEC ("CIONSYSTEMS" OR "COMP hereinafter referred to DOWNLOADING, TESTING SOFTWARE "ADMAN" herein SOFTWARE" OR "BETA SOFT SITE.	GAL AGREEMENT BETWER ANY") AND SELECT USE as "YOU" OR "YOUR AND REPORTING OF after referred to as "TH WARE" AVAILABLE VIA T	EN CIONSYSTEMS, INC. R (ENTITY OR PERSON, C OR "USER") FOR ALL BUGS FOR THE IE CIONSYSTEMS BETA HE CIONSYSTEMS WEB
◯ I Do Not Agree	<ul> <li>I Agree</li> </ul>	
	Cancel	< Back Next >

• Select I Agree and click Next

늻	ADRecoveryManger	<b>– – X</b>
Confirm Installation		
The installer is ready to install ADF	RecoveryManger on your computer.	
Click "Next" to start the installatio	n.	
	Cancel < Ba	x Next>

• Click **Next**. AD Recovery Manager will start installing.



1	ADRecoveryManger - C X				
	Application Authentication				
	Please enter user name and password for anonymous access.				
	User Name : exe2013\james				
	Password :				
	OK Cancel				
	Note :				
	1. The above credentials are used for application to run under this user context				
	2. All Services are run under the above credential context				
	3. Same service account credentials for database communications in windows authentication				
	Cancel < Back Next >				

• Application Authentication pop up will appear, enter Username and Password, click **OK** button.

Ex: UserName:- DomainName\DomainAdminUser

Make sure the User is currently logged on User and should have domain admin privileges.



• SQL Server Configuration popup will appear, if you are installing the application for the first time then Click on "**Create New Database**". In Configuration Details, you can select SQL Authentication or Windows Authentication.

-For **SQL Authentication**, enter SQL database Server name, Select SQL Authentication, enter valid Login and Password details and click on **Test Connection**. If Test Connection displays "Connected Successfully" message, then click on **Next** button.

	SQL Server Configuration 📃 🗖 🗙					
Please make sure you have the following in place before continuing the install. - Access to SQL database, user name and password.						
O Use Existing Database						
Create New D	atabase					
Provide Configura	ation Details					
Server Name:	ADC					
Port Number:	1433 Default 1433 for TCP					
Authentication:	SQL Server Authentication					
Login:	sa					
Password:	******					
	Test Connection					
	Next Cancel					

#### Note:

- To use "**Use Existing Database**" radio button, AD Recovery Manager database should already exist in the selected SQL database server.
- If AD Recovery Manager database already exists in the selected SQL database server but you have selected "Create New Database" radio button, then the old database will be deleted and a new database will be created.

-For **Windows Authentication**, enter SQL database Server name, Select Windows Authentication, here, Login and Password will be grayed out. Click on **Test Connection**. If Test Connection displays "Connected Successfully" message, then click on **Next** button.

SQL Server Configuration - 🗖 🗙					
Please make sure you have the following in place before continuing the install. - Access to SQL database, user name and password.					
Use Existing Database					
Oreate New Database					
Provide Configuration Details					
Server Name: ADC					
Port Number: 1433 Default 1433 for TCP					
Authentication: Windows Authentication					
Login: exe2013\james					
Password:					
Test Connection					
Next Cancel					

• When the installation is complete, click **Close**.

1	😸 ADRecoveryManger 🔄 💻 🗖	
	Installation Complete	
	ADRecoveryManger has been successfully installed.	
	Click "Close" to exit.	
	Please use Windows Update to check for any critical updates to the .NET Framework.	
_		_
	Cancel < Back Close	
opyright © (	CionSystems Inc., All Rights Reserved	Page 10

# **5. Configuring CionSystems AD Recovery Manager**

- Click on **ADRecoveryManager** icon on desktop.
- The login screen will open in the default web browser. To login on to the application for the first time;

Enter "admin" in the User Name text box.

Enter "admin" in the Password text box.

AD Recovery Manager	
Sign in as Administrator   User Name:   admin   Password:   COGIN	

#### Note:

It is recommended that user name and password should be changed after the application has been launched.

CionSystems™			GionSystems
AD Recovery Manager			
	Add Domain	n Details:	Logout
	Domain Name:	exe2013.com	
	User Name:	james	
	Password:	•••••	
	Domain Controller:	exchange2013-dc	Enter Local domain
	Port Number:		controller name nere.
	SSL:		
	Validate	Save	

Enter the required domain details and configure the domain.

- Enter Domain Name
- Enter Domain User Name- This user should have the domain admin privileges otherwise, some of the functionalities may not work. The application runs under this account context.
- Enter Domain User Password.
- Enter local Domain Controller name.
- Port Number and SSL details are optional
- Click on Validate button to validate the details
- Click on **Save** button

The installation is completed.

# **Troubleshooting Installation issues**

### Windows Server 2008 R2

# **1.** Error: "This setup requires Microsoft .NET Framework version 4.0" displays during installation

If you see the following screen during installation, you need to install the .NET Framework version  $4.0\,$ 

<i>i</i> #	×
This setup requires the .NET Framework version 4.0. and run this setup again. The .NET Framework can b you like to do this now?	Please install the .NET Framework be obtained from the web. Would
Yes	No

• To install the .NET Framework version 4.0, click on below link. This will redirect to .NET Framework 4.0 download page.

http://www.microsoft.com/en-in/download/details.aspx?id=17718

Download Microsoft NET x	
← → C 🗋 www.microsoft.com/en-in/download/details.aspx?id=17718	☆ 🚨 🔳
Windows 10 is here	
And you can download it for free.*	
Get started >	
Microsoft .NET Framework 4 (Standalone Installer)	
Select Language: English	

• Download and install →.NET Framework4.0, ensure appropriate .NET versions are installed.

# 2. Error: "You do not have sufficient privileges to complete this installation" displays during installation

If you see the following screen during installation, you don't have the privileges to install the .msi file of the application.

×

• You have to login as an administrator or you have admin privileges to run the .msi file. Otherwise you may run the .exe file of the application as an administrator by holding down shift key and right click the mouse, choose "Run as administrator".

🕞 🛄 🖛		Application Tools					Release
File Home Share	View	Manage					
🕣 💿 👻 🕇 🚺 🕨 Rela	ease						
🔆 Favorites	Name	*		Date modified	Туре	Size	
📃 Desktop	🛃 ADRec	overyManger		5:31 PM	Windows Installer	35,593 KB	
鷆 Downloads	🐼 setup			5:30 PM	Application	419 KB	
<ul> <li>Recent places</li> <li>This PC</li> <li>Desktop</li> <li>Documents</li> <li>Downloads</li> <li>Music</li> <li>Pictures</li> <li>Videos</li> <li>Local Disk (C;)</li> <li>Network</li> </ul>		Open       Image: Second s	administrator leshoot compatibilit Start with e previous versions o shortcut ne ties	y >			

# 3. Error: "This setup requires Internet Information Server 5.1 or higher" displays during installation

If you see the following screen during installation, you need to install the Application Development and IIS6 Management Compatibility roles

17	×
This setup requires Internet Inform This setup cannot be installed on Server or a newer operating syste	nation Server 5.1 or higher and Windows XP or higher. Windows 2000. Please install Internet Information em and run this setup again.
	OK

Make sure you have installed the following roles in Server Manager.

 Go to Control Panel→click on "Turn Windows features on or off" under Programs→Select "Roles" under Server Manager→Click on "Add Roles" link button.

🖺 Server Manager			×
File Action View Help			
🗢 🔿 🙍 🔽			
Server Manager (W, ,) Roles Configuration Configuration	Roles           Image: View the health of the roles installed on your server and add or remove roles and features.		
	Roles Summary	Roles Summary Help	-
	Roles: 3 of 17 installed     Active Directory Domain Services	Add Roles	
	▲ DNS Server ⊗ Web Server (IIS)		
	Active Directory Domain Services	AD DS Help	
	Stores directory data and manages communication between users and domains, including user logon processes,	, authentication, and directory searches.	
		Go to Active Directory Domain Services	

 Add Roles wizard will be started→select "Server Roles" link button→configure the "Application Development" and "IIS6 Management Compatibility" roles as shown below:





• After installing the roles, restart the server to apply the changes.

### 4. Changing "Application pool Identity" for DefaultAppPool in IISManager

In some case, you have to change the application pool identity to the username and password you provided at install.

Process is

- Start **Run** command→type "**inetmgr**"→IIS Manager Window will be opened.
- Go to Application Pools→DefaultAppPool→right click and select "Advanced Settings→Select "Identity" under Process Model→click on ellipsis button→Select "Custom account"→click on "Set"→Provide "User name, Password and Confirm password" details→click OK→click OK

		Adv	anced Settings		? >	<Ⅰ_		
锋 Internet Information Servi	ces (IIS) Manager					-		
	Application Pools	E	General)		<b>_</b>			
	- rippication on		.NET Framework Version	v2.0				
File View Help			Enable 32-Bit Applications	False				
Connections			Managed Pipeline Mode	Integrated				stings
Connections	Annlic:		Name	DefaultAppPool				Actions
🔍 • 님 🖄 😽 👘	- тррисс		Queue Length	1000				🐉 Add Application Pool
			Start Automatically	True				Set Application Pool Defaults
🛓 🖳 📢 WIN200 ( ) ad	This page lets you v	E	CPU			th	worker	
Application Pools	processes, contain c		Limit	0				Application Pool Tasks
🗄 🐻 Sites	Filter:		Limit Action	NoAction				Start
	Name 🔿		Limit Interval (minutes)	5				Stop
	Classic NET Apr		Processor Affinity Enabled	False				Becycle
	DefaultéonPool		Processor Affinity Mask	4294967295				
	Ser datemppri oor		Process Model					Edit Application Pool
			Identity	ApplicationPoolIdentity				Basic Settings
		4	Taie nine-ouc (ininaces)	20		•		Recycling
			Load User Profile	False				Advanced Settings
			Maximum Worker Processes	1				Rename
			Ping Enabled	True				Kondino
			Ping Maximum Response Time (second	90				K Remove
			Ping Period (seconds)	30				View Applications
			Shutdown Time Limit (seconds)	90				
		L	Startun Time Limit (seconds)	90				🕖 Help
		1	dentity					Online Help
		[	identityType, username, password]Cor	figures the application pool to	o run as			
			ouit-in account, i.e. Application Pool Ide	ntity (recommended), Networ ific user identity	K Service,			
	Eastures View F	ľ	color by sconing bolicar betwice, or as a spec	and abor radinacy.				
	Teacures view							
Ready				ОК	Cancel			<b>%</b> .:

	Adv	vanced Settings		?×
Thernet Information Servi	ces (115) Manager			
🚺 🍋 🌍 🛛 🕼 🕨 WIN2008-/	A 🕨 Application Pools 👘	(General)		
		INET Framework Version	V2.U	
File View Help		Enable 32-Bit Applications	False	
Connections		Managed Pipeline Mode	Integrated	
	Seplica 🔰	Name	DefaultAppPool	
		Queue Length	1000	
Start Page	This page lets you y	Start Automatically	True	th worker
	processes, contain c			
Application Pools		Application Pool Identity		? X
	Filter:	L C Built in annumb		
	Name 🔺	E Build-In account:		
	Classic .NET App	ApplicationPoolIdentity	<b>T</b>	
				Л
	E	E Custom account:		
		1		Set
		1		
		L		
		r		
		F	ОК	Cancel
		F		
		Ping Period (seconds)	30	
		Shi Set Credentials	2 2	
		SEC Credencials		<b>_</b>
	1	Iden User name:		
	[	iden 🛛		iool to run as
		puilt- I <sup>I</sup>		stwork Service,
		Password:		
	Features View	— <b>I</b> I		
Ready		Confirm password:		Cancel
		C	K Cancel	

### 5. Error: "Server Error in '/AD Recovery Manager 'Application"

If the login fails after trying 'admin' & 'admin' (without quotes): see the solution below



	Microsoft S	QL Server Management Stu	udio	
Help				
	- 💭 - 🖏 🗖 🕨 👘	*	- 🦉	• 🔍 🕾 🛠 💿
	el.	Connect to Server	×	
	Microsoft SO	Server 2014		
	IVIICIOSOIT SQ	L JEI VEI 2014		
		and a s		
	Server type:	Database Engine	Y	
	Server name:	400	~	
	Authentication:	Windows Authentication	~	
	User name:	EXE2013\james	×	
	Password:			
		Bemember password		
	Connect	Cancel Help	Online >>	
	Contract	inter inter	a point / /	

Start the SQL server management studio and note the SQL connection string and username. You have to provide this username during the install of AD Recovery Manager (refer page 8 - Application Authentication popup window). Otherwise provide SQL privileges to the account that you have given during installation of the application.

Also, check the IIS role and ensure the Windows and Basic authentication are enabled.

To connect a remote database through windows authentication, the system must be a member of that domain and the domain user has to be added in SQL database security logins.

5			Microsoft SQL	Server Management St	udio
File Edit View Debug Tools Window Help					
🗄 📷 🕶 📨 🚰 🗐 🧊 🔔 New Query 📑 📸	📸 🖧   🔏 🔀	9-0-2-	🖳   🌌   🕨	*	
Object Explorer 🛛 🔻 🕂 🗙					
Connect 🕶 💱 🚆 🔲 🍸 😰 😹					
<ul> <li>ADC (SQL Server 12.0.5000.0 - sa)</li> <li>Databases</li> <li>Security</li> <li>Security</li> <li>Cogins</li> <li>##MS_PolicyEventProcessingLc</li> <li>##MS_PolicyTsqlExecutionLogi</li> <li>MAVERICK\adm\$</li> <li>MAVERICK\adm\$</li> <li>MAVERICK\adms</li> <li>MAVERICK\adms</li> <li>MAVERICK\adms</li> <li>MAVERICK\adms</li> <li>MAVERICK\adms</li> <li>MAVERICK\adms</li> <li>MAVERICK\adms</li> <li>MT Service\MSSQLSERVER</li> <li>NT SERVICE\SQLVerVER</li> <li>NT SERVICE\SQLVerVER</li> <li>NT SERVICE\SQLVerVER</li> <li>Sa</li> <li>Server Roles</li> <li>Cryptographic Providers</li> </ul>					
🗄 🧰 Audits					
😠 📄 Server Audit Specifications					

### 6. Error: SQL Login failed during the database configuration of application

If you get the below error during the database configuration of application, Please go through this link <u>http://blog.cionsystems.com/?p=736</u> to resolve the error.

SQL Server Configuration - 🗖 🗙
Please make sure you have the following in place before continuing the install. - Access to SQL database, user name and password.
<ul> <li>Use Existing Database</li> </ul>
Create New Database
Provide Configuration Details
Login failed for user 'EXE2013\EXCHANGE2013-DC\$'.
ОК
Test Connection
Next Cancel



After completing the process shown in the link, the user account should display under security logins as shown in above image.

Another scenario of SQL Login fails:

•		SQL Server Configuration
	Please make sure y -Access to SQL da O Use Existing D O Create New D	ou have the following in place before continuing the install. stabase, user name and password. ratabase atabase
	Provide Configura	ation Details
	Server Name:	ADC
	Port Number:	1433 Default 1433 for TCP
	Authentication:	SQL Server Authentication
	Login:	Sa A transport-level error has occurred when sending the request to the server. (provider: Shared Memory Provider, error: 0 - No process is on the
	Password:	other end of the pipe.)
		Test Connection       Next

This can happen because the firewall is blocking ports. Check the firewall and SQL to ensure the right SQL ports are open. Probably TCP/IP channel is disabled under SQL Server Configuration Manager. So go there and enable all TCP/IP options.

Below is an example

• Click on start →All programs→Microsoft SQL Server 2008 R2→Click on Configuration Tools→Click on SQL Server Configuration Manager

📅 Sql Server Configuration Manager								
File Action View Help								
Name	Order	Enabled						
Shared Memory	1	Enabled						
TCP/IP	3	Enabled						
🍯 Named Pipes	2	Enabled						
VIA 💦		Disabled						
	Name Shared Memory TCP/IP Named Pipes VIA	Name Order Shared Memory 1 TCP/IP 3 Named Pipes 2 VIA						

• Make sure all TCP/IP channels are enabled



• Make sure TCP/IP Port has 1433

Sql Server Configuration Manager	a Sql Server Conliguration Manager				
File Action View Help					
🗢 🔿 🖄 🖼 🗟					
SQL Server Configuration Manager (Local)	Name Shared Memory	Order 1	Enabled		
J. SQL Server Network Configuration (32bit)	TCP/IP	3	Enabled		
E SQL Native Client 10.0 Configuration (32bit)	🍹 Named Pipes	2	Enabled		
	AIV &	TC	/IP Properties		? ×
SQL Server Network Configuration		F	'rotocol		
🖃 🚇 SQL Native Client 10.0 Configuration		6	General		
Client Protocols			Default Port	1433	
Allases			Enabled Kase Alive	Yes	
			Keep Alive Interval	1000	
				1000	
			)efault Port		
		E	efault port on which connect	ion will be made	
			04	Coursel 1 April 1	
				Lancei Apply	1eip
	1				

 Select TCP/IP, go to properties, in properties window select IP Addresses tab.In IP1 set TCP Port as 1433 and in IPAII set TCP port as 1433, Click on OK

Q Services					_	
File Action View	Help					
	🛓 🛛 📰 🖡 🕨 🔳 🕕 🕩					
🧟 Services (Local)	🔕 Services (Local)	·				
	SOL Server (MSSOLSERVER)	Name 🔺	Description	Status	Startup Type	Lo:
		Routing and Remote Access	Offers rout		Disabled	Lo
	Stop the service	🎑 RPC Endpoint Mapper	Resolves R	Started	Automatic	Ne
	Pause the service	🎑 Secondary Logon	Enables st		Manual	Lo
	Kestart the service	🤹 Secure Socket Tunneling Protocol S	Provides s		Manual	Lo
		🎑 Security Accounts Manager	The startu	Started	Automatic	Lo
	Description: Provides storage, processing and	🍳 Server	Supports fil	Started	Automatic	Lo
	controlled access of data, and rapid transaction processing.	🎑 Shell Hardware Detection	Provides n	Started	Automatic	Lo
		🍳 Smart Card	Manages a		Manual	Lo
		🍳 Smart Card Removal Policy	Allows the		Manual	Lo
		🔍 SNMP Trap	Receives tr		Manual	Loi
		🎑 Software Protection	Enables th	Started	Automatic (D	Ne
		Special Administration Console Helper	Allows adm		Manual	Lo
		SPP Notification Service	Provides S	Started	Manual	Lo
		SQL Active Directory Helper Service	Enables int		Disabled	Lo
		SQL Server (MSSQLSERVER)	Provides st	Started	Automatic	0×
		SQL Server Agent (MSSQLSERVER)	Executes j		Manual	Lo
		SQL Server Browser	Provides S	Started	Manual	Lo
		SQL Server Reporting Services (MS	Manages,	Started	Automatic	Lo
		🔍 SQL Server VSS Writer	Provides th	Started	Automatic	Lou
		🔍 SSDP Discovery	Discovers		Disabled	Lo

• Restart SQLServer and SQL Server Browser services

To open above ports in Windows firewall, run the below command from command prompt

```
netsh advfirewall firewall add rule name = SQLPort dir = in protocol = tcp
action = allow localport = 1433 remoteip = localsubnet profile = DOMAIN
```

#### Connecting to remote database:

To connect remote database, please check the following settings:

1. Make sure **SQL Browser Service** is in running state in **SQL Server Configuration Manager** 

🐱 Sql Server Configuration Manager						
File Action View Help						
🗢 🔿 🞽 🖹 🗟 🖌 🕐 🔍 📀						
😵 SQL Server Configuration Manager (Local)	Name	State	Start Mode	Log On As	Process ID	Service Type
SQL Server Services	SQL Server (MSSQ	Running	Automatic	C. Y \administrator	1860	SQL Server
. SQL Server Network Configuration (32bit)	SQL Server Repor	Pupping	Automatic	LocalSystem	1888	Report Server
표 .字, SQL Native Client 10.0 Configuration (32bit)	n SQL Server Browser	Running	Manual	NT AUTHORITY\LOC	3292	
E SQL Server Network Configuration     E SQL Native Client 10.0 Configuration	5QL Server Agent	Stopped	Manual	LocalSystem	0	SQL Agent

2. Check is if Remote Connections are enabled on your SQL Server database.

• Connect to the server, right click the server and open the Server Properties.

Kicrosoft SQL Server Mar	nagement Studio
File Edit View Debug	Tools Window Community Help
🕴 🔔 New Query 🛛 🛅 🛛 📷	3 🜇   🕞   😅 🔙 🚳   🌉 🖕
Object Explorer	- <del>7</del> X
Connect 🕶 📑 📑 👕 🗍	2 🗟 🚽 🛛
🖃 🔀 CION 🛛 PC (SQL Server	
🕀 🧰 Databases	Connect
E Security      Server Objects	Disconnect
	Register
🕀 🚞 Management	New Query
	Activity Monitor
	Start
	Stop
	Pause
	Resume
	Restart
	Policies
	Facets
	Start PowerShell
	Reports
	Refresh
	Properties

• Navigate to **Connections** and ensure that **Allow remote connections to this server** are checked.

🚪 Server Properties - CION22-	-PC _ 🗖	×
Select a page	🔄 Script 👻 📑 Help	
General Memory Processors Security Connections Database Settings Advanced Permissions	Connections Maximum number of concurrent connections (0 = unlimited):  Use query governor to prevent long-running queries  Default connection options:  cursor close on commit ansi warnings	
	<ul> <li>ansi padding</li> <li>ANSI NULLS</li> <li>arithmetic abort</li> <li>arithmetic ignore</li> </ul>	
Connection	Remote server connections	
Server: CION22-PC Connection: sa View connection properties	<ul> <li>Allow remote connections to this server</li> <li>Remote query timeout (in seconds, 0 = no timeout):</li> <li>60000 .</li> <li>Require distributed transactions for server-to-server communication</li> </ul>	

- 3. In firewall enable UDP port (By Default 1434) for SQL Browser
  - Open the Control Panel and navigate to Windows Firewall.

💣 Windows Firewall		
Goor 👉 - Control Panel - Sy	/stem and Security 👻 Windows Firewall	<ul> <li>Search Control Panel</li> </ul>
Control Panel Home	Help protect your computer with Windows Firew	vall
Allow a program or feature through Windows Firewall	Windows Firewall can help prevent hackers or malicious Internet or a network.	software from gaining access to your computer through the
Change notification settings	How does a firewall help protect my computer?	
Turp Windows Firewall on or off	What are network locations?	
Restore defaults	🔮 Domain networks	Connected 🔺
💱 Advanced settings	Networks at a workplace that are attached to a domain	n
Troubleshoot my network	Windows Firewall state:	On
	Incoming connections:	Block all connections to programs that are not on the list of allowed programs
	Active domain networks:	🜆 oxygen.local
	Notification state:	Do not notify me when Windows Firewall blocks a new program
	Home or work (private) networks	Not Connected 💌
	Vublic networks	Not Connected 💌

• Click on Advanced Settings on the left hand side and you should see the Windows Firewall with Advanced Security. Select **the Inbound Rules** on the left hand side and click on **New Rule**... on the right hand side.

💣 New Inbound Rule Wizard		×
Rule Type		
Select the type of firewall rule to c	create.	
Steps:		
🥚 Rule Type	What type of rule would you like to create?	
Protocol and Ports		
<ul> <li>Action</li> </ul>	C Program	
Profile	Rule that controls connections for a program.	
Name	Port	
	Hule that controls connections for a TCP or UDP port.	
	O Predefined:	
	Active Directory Domain Services	
	Rule that controls connections for a Windows experience.	
	O Custom	
	Lustom rule.	
	Learn more about rule types	
	< Back Next > Cancel	

• This opens the New Inbound Rule Wizard, under the **Rule Type** choose **Port** and click the **Next** button

🛷 New Inbound Rule Wizard	×
Protocol and Ports	
Specify the protocols and ports to	which this rule applies.
Steps:	
Rule Type	Does this rule apply to TCP or UDP?
Protocol and Ports	О ТСР
<ul> <li>Action</li> </ul>	© UDP
Profile	
<ul> <li>Name</li> </ul>	Does this rule apply to all local ports or specific local ports?
	O All local ports
	• Specific local ports: 1434
	Example: 80, 443, 5000-5010
	Learn more about protocol and ports
	< Back Next > Cancel

- Select the **UDP** protocol and in the Specific local ports enter port number **1434**.
- To proceed with the settings SQL Browser services, click the **Next** button

💣 New Inbound Rule Wizard	×
Action	
Specify the action to be taken wh	en a connection matches the conditions specified in the rule.
Steps:	
Bule Type	What action should be taken when a connection matches the specified conditions?
Protocol and Ports	G. Allow the connection
<ul> <li>Action</li> </ul>	This includes connections that are protected with IPsec as well as those are not.
Profile	C Allow the connection if it is ecoure
<ul> <li>Name</li> </ul>	<ul> <li>Allow the connection if it is secure         This includes only connections that have been authenticated by using IPsec. Connections         will be secured using the settings in IPsec properties and rules in the Connection Security         Rule node.     </li> <li>Customize</li> <li>Block the connection</li> </ul>
	Learn more about actions          < Back       Next >       Cancel

• In the Action dialog choose **Allow the connection** and click the **Next** button

New Inbound Rule Wizar Profile	d X
Specify the profiles for which thi	is rule applies.
Steps: Rule Type Protocol and Ports	When does this rule apply?
Action	🗹 Domain
<ul> <li>Profile</li> </ul>	Applies when a computer is connected to its corporate domain.
<ul> <li>Name</li> </ul>	<ul> <li>Private         Applies when a computer is connected to a private network location.</li> <li>Public         Applies when a computer is connected to a public network location.</li> </ul>
	Learn more about profiles < Back Next > Cancel

• In the Profile dialog choose all three profiles and click the **Next** button

💣 New Inbound Rule Wizard	×
Name	
Specify the name and description	of this rule.
Steps:	
Rule Type	
Protocol and Ports	
Action	
Profile	Name:
Name	SQL Browser
	Description (optional):
	Parts I Finite Conset 1
	< Back Finish Cancel

• Give the rule a name as "SQL Browser" and click the **Finish** button.

**Note:** To connect a remote database through windows authentication, the system must be a member of that domain and the domain user has to be added in SQL database security logins.

5	Microsoft SQL Server Management Studio
File Edit View Debug Tools Window He	p 
Object Explorer	
Connect - 📑 🛃 = 🍸 👩 🍒	
ADC (SQL Server 12.0.5000.0 - sa)      Databases      Security      Logins      MAVERICK\adm\$      MAVERICK\adm\$      MAVERICK\adms      MAVERICK\ameen      NT AUTHORITY\SYSTEM      NT Service\MSSQLSERVER      NT SERVICE\SQLSERVERAGENT      NT SERVICE\SQLSERVERAGENT      NT SERVICE\SQLSERVERAGENT      Sa      EXE2013\james	
😠 🧰 Server Roles	
III Creater Crantals	
🕀 🚞 Server Audit Specifications	

# Windows Server 2012

### 1. Error: "Installation Incomplete" displays during installation

If you see the following screen during installation, you need to install the **Application Development** and **IIS6 Management Compatibility** roles.

<b>设</b>		_ <b>_</b> X
Installation Incomple	te	
The installer was interrupted before the installer to try again.		could be installed. You need to restart
Click "Close" to exit.		
	Cancel	K Back Close

Make sure you have installed the following roles in Server Manager.



- Click "Server Manager" on task bar to open, if not available on task bar then click the **Start** button to open the start screen. In start screen you can see the Server Manager
- In Server Manager window, click Manager tab and select "Add Roles and Features"

)		Server Manager		
🕞 🕘 🔹 Server Manager 🔸 Dashboard 🛛 🔹 🕫 🖌				Manage Tools View Help
				Add Roles and Features
Dashboard WELCOME TO SERVER MANAGER		Remove Roles and Features		
Local Server	cal sever		Add Servers	
All Servers				Senior Manager Departies
AD DS		Configure this local server	Configure this local server	
A DNS	QUICK START			
📲 File and Storage Services 👂		2 Add roles and features		
🖪 Hyper-V		3 Add other servers to manage		
IIS WHAT'S NEW	s man other servers to manage			
	4 Create a server group	4 Create a server group		
		5 Connect this server to cloud services		
	LEARN MORE			Hide

	Ad	d Roles and Features	Wizard	_ <b>D</b> X	
Select destination	on server			DESTINATION SERVER hyd.cionus.local	
Before You Begin	Select a server or a	Select a server or a virtual hard disk on which to install roles and features.			
Installation Type	<ul> <li>Select a server</li> </ul>	Select a server from the server pool			
Server Selection	<ul> <li>Select a virtual</li> </ul>	hard disk			
Server Roles	Server Pool				
Features	Filter				
	Name	IP Address	Operating System		
	() (Linusinocar	200 200 	Microsoft Windows Server 2012 S	itandard	
	1 Computer(s) fou This page shows s	nd ervers that are running Wi	ndows Server 2012, and that have bee	en added by using the	
	collection is still in	complete are not shown.	evious Next > Inst	tall Cancel	

- Click Server Selection, click Next
- In Server Roles, install the "Application Development" and "IIS6 Management Compatibility" roles as shown below:

B	Add Roles and Features Wizard	_ <b>D</b> X
Select server roles Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Add Roles and Features Wizard Select one or more roles to install on the selected server. Roles   Web Server (IIS) (Installed)  Web Server (Installed)  B Common HTTP Features (Installed)  B Mealth and Diagnostics (Installed)  B Merformance (Installed)  B Security (Installed)  B Security (Installed)  C Application Development  C .NET Extensibility 3.5  C .NET Extensibility 3.5  C .ASP.NET 3.5  C .ASP.NET 4.5  C	Description      Application Development provides     infrastructure for developing and     hosting Web applications. Use these     features to create Web content or     extend the functionality of IIS. These     technologies typically provide a way     to perform dynamic operations that     result in the creation of HTML     output, which IIS then sends to fulfill     client requests.
	<ul> <li>✓ ASP.NET 4.5</li> <li>CGI</li> <li>✓ ISAPI Extensions</li> <li>✓ ISAPI Filters</li> <li>Server Side Includes</li> <li>WebSocket Protocol</li> </ul>	v

2	Add Roles and Features Wizard	_ <b>D</b> X
ES Select server roles Before You Begin Installation Type Server Selection Server Roles Features Confirmation Results	Add Roles and Features Wizard Select one or more roles to install on the selected server. Roles          ISAPI Extensions         ISAPI Extensions         ISAPI Filters         Server Side Includes         WebSocket Protocol         FTP Server         IIS Hostable Web Core         IIS Management Tools (Installed)         IIS 6 Management Compatibility         IIS 6 Management Console         IIS 6 Management Scripts and Tools (Installed)         IIS Management Scripts and Tools (Installed)	DESTINATION SERVER hyd.cionus.local
	Windows Deployment Services Windows Server Update Services	

- Click Next
- In **Features**, make sure **.NET Framework 3.5 & 4.5** features are installed, if they were not installed configure them as shown below to install.

Ē.	Add Roles and Features Wizard	_ <b>_</b> X
Select features	Select one or more features to install on the selected server	DESTINATION SERVER hyd.cionus.local
Before You Begin Installation Type	Features	Description
Server Selection Server Roles Confirmation Results	▲       NET Framework 3.5 Features         ●       .NET Framework 3.5 (includes .NET 2.0 and 3.0)         □       HTTP Activation         □       Non-HTTP Activation         ■       ✓.NET Framework 4.5 Features (Installed)         ●       .NET Framework 4.5 (Installed)         ✓       .NET Framework 4.5 (Installed)         ●       Background Intelligent Transfer Service (BITS)         □       BitLocker Drive Encryption         □       BitLocker Network Unlock         □       Data Center Bridging         □       Enhanced Storage         □       Failover Clustering         ✓       Group Policy Management (Installed)	.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.

- Click **Install** button
- After installation completed, click **Close** button
- Restart the server to apply the changes
- Now try to install the application.

### Windows Server 2016

### 1. Error: "Installation Incomplete" displays during installation

If you see the following screen during installation, you need to install the Application Development and IIS6 Management Compatibility roles



Make sure you have installed the following roles in Server Manager.



- Click "Server Manager" on task bar to open, if not available on task bar then click the **Start** button to open the start screen. In start screen you can see the Server Manager
- In Server Manager window, click Manager tab and select "Add Roles and Features"

📥 Server Manager		<b>—</b> – – ×
Cor · · · Dashb	oard	- ②   🚩 Manage Tools View Help
		Add Roles and Features
	WELCOME TO SEE	RVER MANAGER
		Add Servers
		Create Server Group
All Servers		1 Configure Server Manager Properties
I AD DS		
🛱 DNS	QUICK START	
■ File and Storage Services		2 Add roles and features
🕼 IIS		3 Add other servers to manage
	WHAT'S NEW	4 Create a server group
		5 Connect this server to cloud servic
	LEARN MORE	Hide

📥 Add Roles and Features Wizard		-		×
Select destinatior	n server	DESTINA WIN2016	ATION SERV i-DC.cloud.	VER org
Before You Begin Installation Type Server Selection	Select a server or a virtual hard disk on which to install roles and features.  Select a server from the server pool Select a virtual hard disk			
Server Roles Features Confirmation Results	Server Pool Filter: Name IP Address Operating System Venues org Microsoft Windows Server 201	6 Standard		
	1 Computer(s) found This page shows servers that are running Windows Server 2012 or a newer rele and that have been added by using the Add Servers command in Server Manay newly-added servers from which data collection is still incomplete are not show < Previous Next >	ase of Wind ger. Offline s vn.	ows Serve servers an Cance	er, id

• Click Server Selection, click Next

 In Server Roles, install the "Application Development" and "IIS6 Management Compatibility" roles as shown below:



Click Next

• In **Features**, make sure **.NET Framework 3.5 & 4.6** features are installed, if they were not installed configure them as shown below to install.



- Click **Install** button
- After installation completed, click Close button
- Restart the server to apply the changes
- Now try to install the application.

### **Contact Notes:**

For technical support or feature requests, please contact us at <u>Support@CionSystems.com</u> or 425.605.5325

For sales or other business inquiries, we can be reached at <u>Sales@CionSystems.com</u> or 425.605.5325

If you'd like to view a complete list of our Active Directory Management solutions, please visit us online at <u>www.CionSystems.com</u>

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