



CxSuite Enterprise Edition

Installation Guide

Version 6.2.7

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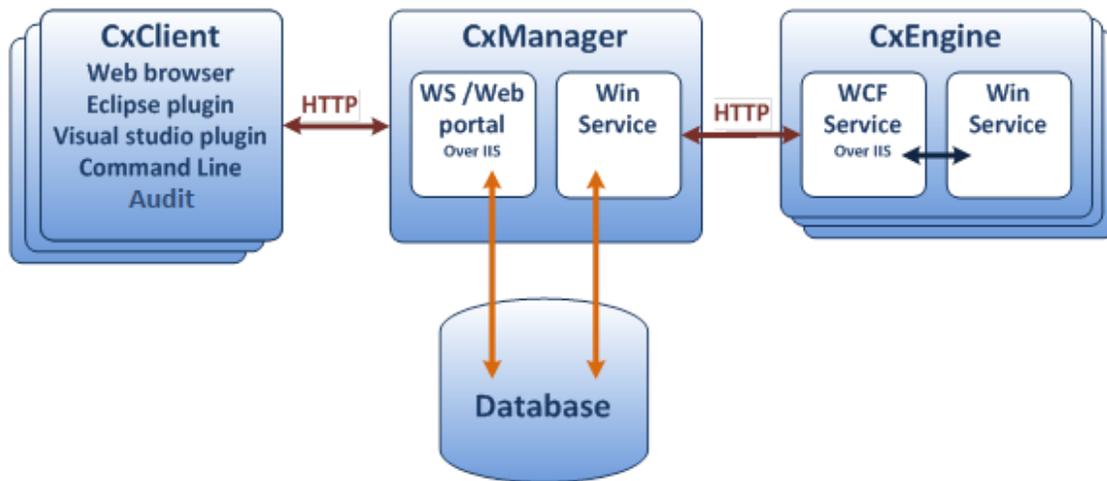
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INTRODUCTION

Thank you for using Checkmarx to perform security source code analysis testing. This document describes how to install CxSuite Enterprise Edition as a distributed system in production. Any issues, questions or comments may be addressed to support@checkmarx.com.

CxSuite Enterprise Edition is comprised of four main components:

- CxManager* - Manages the system: users & teams, scans, scan scheduling & scan configurations, system settings, etc.
- CxEngine* - Performs the scans. Interfaces CxManager.
- Database* - Stores scan results and system settings. Interfaces CxManager.
- CxWebPortal* - A web interface of CXManager that replaces CxClient
- CxAudit* - A windows client for creating and editing Checkmarx queries



The diagram above portrays the most distributed deployment of the system. If required, all the components can be deployed (one or both of them) on the same hardware.

CxSuite Enterprise Edition can work with MS SQL database. If the organization already has an MS SQL Server in place, CxManager can integrate with it. The installation also includes a VistaDB embedded installation if no MSSQL server is available.

INSTALLATION PROCESS

CxSuite Enterprise Edition installation process is as follow:

1. Comply with CxEnterprise prerequisites.
2. Install all components.

UPGRADE PROCESS

CxSuite Enterprise Edition installation process is as follow:

1. Stop CxScanManager and CxScanEngine services.
2. Stop web server.
3. Install relevant components.
4. Start CxScanManager and CxScanEngine services.
5. Start web server.

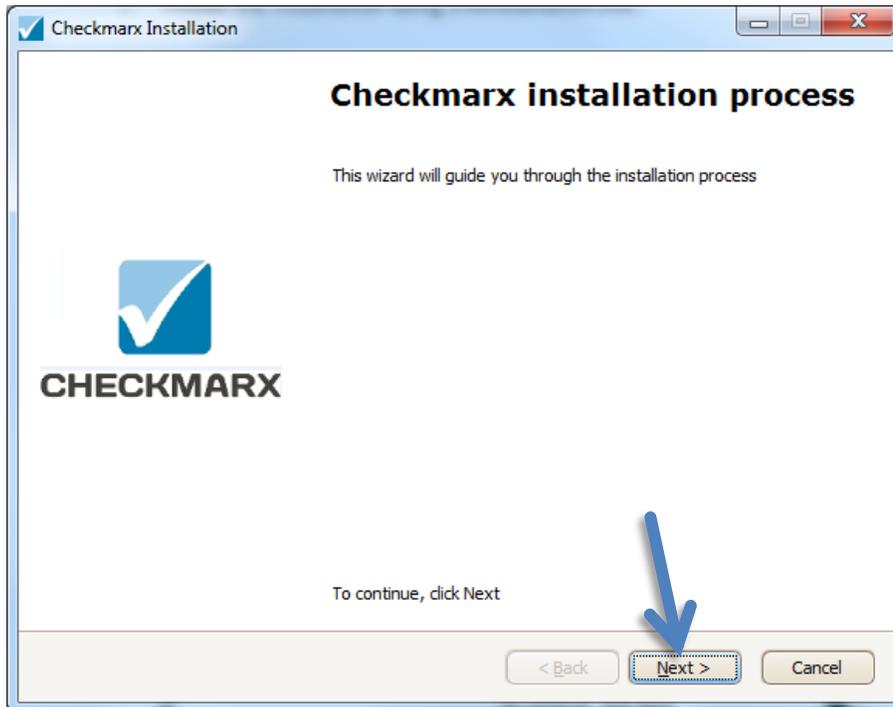
CXENTERPRISE PREREQUISITES

Prerequisites	Comments	Done
Server name	<p>The server name for the Portal machine must use only alphanumeric characters. Using non-alphanumeric characters (such as “_”) is not compatible with Microsoft Internet Explorer Security Patch MS01-055.</p> <p>To read more: http://support.microsoft.com/kb/316112</p>	<input type="checkbox"/>
Ports	<p>By default port 80 is used by the web servers (IIS or UltiDev) for internal and external communication. Verify that it is not occupied by other programs.</p> <p>In order to connect from a remote machine to the server please verify that TCP communication is enabled for port 80.</p>	<input type="checkbox"/>
Invoke Installation as administrator.	Installation must be invoked by a user who is an administrator of the machine.	<input type="checkbox"/>
Windows Installer 3.1 or later	Windows Installer must be installed.	<input type="checkbox"/>
IIS web server	<p>With IIS 6 – make sure <i>ASP.NET</i> component is installed as well.</p> <p>With IIS 7 \ 8 – make sure <i>ASP.NET</i> and <i>IIS 6 Management Compatibility</i> roles are added.</p> <p>See Appendix A : how to install IIS on Window 2008</p> <p>See Appendix B : how to install IIS on Window 7</p> <p>See Appendix C : how to install IIS on Window 2012</p>	<input type="checkbox"/>
.Net 3.5 SP1 framework	<p>should be installed after IIS</p> <p>Please install latest fix. For details please refer to http://support.microsoft.com/kb/959209.</p>	<input type="checkbox"/>
Post .Net installation IIS adjustments	<p>With IIS 6 – Open a command prompt as administrator, go to the folder “C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727” and run <i>aspnet_regiis.exe -i</i> and afterwards make sure that <i>ASP.NET 2</i> status is allowed in the Web Services Extension</p>	<input type="checkbox"/>

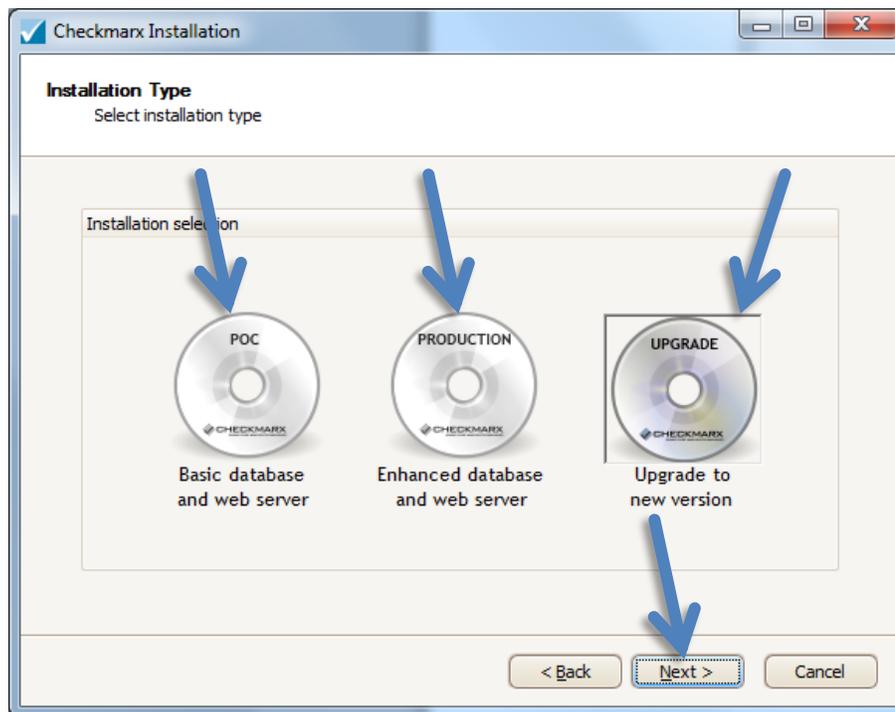
	<p>column of the IIS manager screen .</p> <p>With IIS 7 \ 8 – Open a command prompt as administrator, go to the folder “C:\Windows\Microsoft.NET\Framework\v3.0\Windows Communication Foundation” and run <i>servicemodelreg.exe -i</i>.</p>	
Database	<p>MS SQL database is recommended. It can also be replaced by embedded installation of VistaDB.</p> <p>In case of a local installation of MS SQL Express, please make sure it is in place before starting the installation of CxSuite enterprise Edition.</p> <p>Please make sure both SQL Server and SQL Browser services are running on the MS SQL Server to be connected by CxSuite Enterprise Edition.</p> <p>MS SQL uses port 1433 by default.</p>	<input type="checkbox"/>
Antivirus	<p>Stop the antivirus from scanning the Checkmarx folders:</p> <p><u>X:\CxSrc</u> <u>X:\Program Files (x86)\Checkmarx\</u> Or <u>X:\Program Files\Checkmarx\</u></p>	<input type="checkbox"/>

CXENTERPRISE INSTALLATION

1. Invoke the installation using *EntInstallation.exe*.
2. Click *next* in the informative window.



3. Select the requested installation type and click next.
POC: Proof of Concept installation type – By default will select to install substitutes for IIS and SQL server.
PRODUCTION: Production installation type. – By default will select to use IIS and SQL server.
UPGRADE: Upgrade an existing project. – Will be selected if relevant.



- Specify the components you wish to install, the installation folder, select the database type and the Web Server you wish to use. Then click *Next* to continue.

Default for Windows 32-bit - *C:\Program Files\Checkmarx*

Default for Windows 64-bit - *C:\Program Files (x86)\Checkmarx*

Two type of Database are supported: VistaDB or Microsoft SQL Server.

If you have selected Microsoft SQL Server then you will be requested to enter the MS SQL Specific database connection parameters. Enter the server name, select authentication type and provide logon credentials (if required).

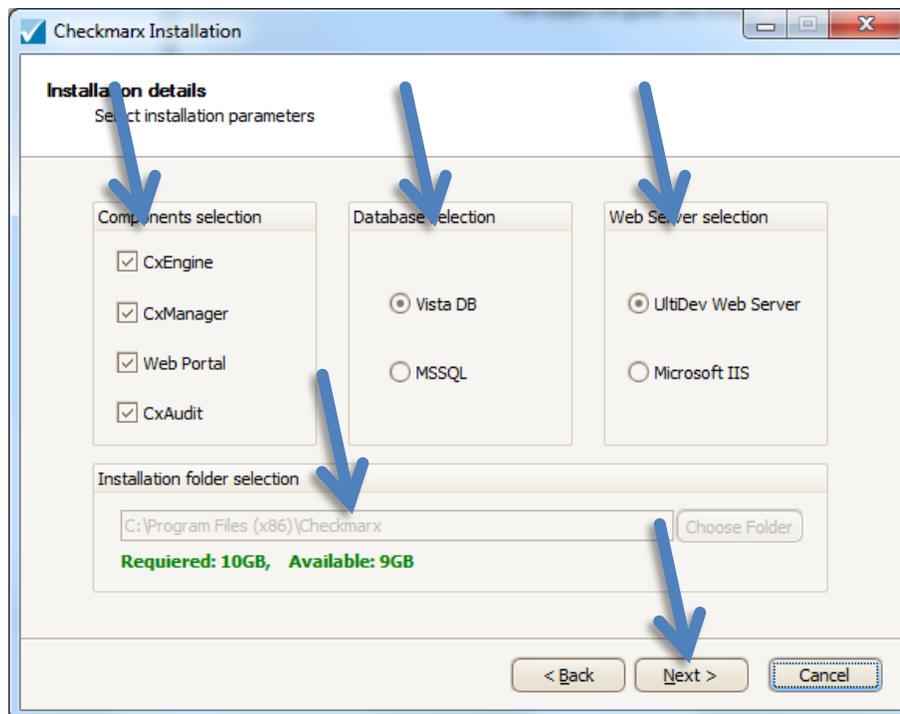
If connection to MS SQL done via Windows Authentication, the user running the installer must have DDL permissions for the duration of the installation process and NETWORK SERVICES must have DML permissions for the ongoing operation of *CxSuite Enterprise Edition*.

If connection to MS SQL done via SQL Authentication, the user whose credentials are specified in the installer must have DDL permissions for the duration of the installation process and DML permissions for the ongoing operation of *Checkmarx Application Server*.

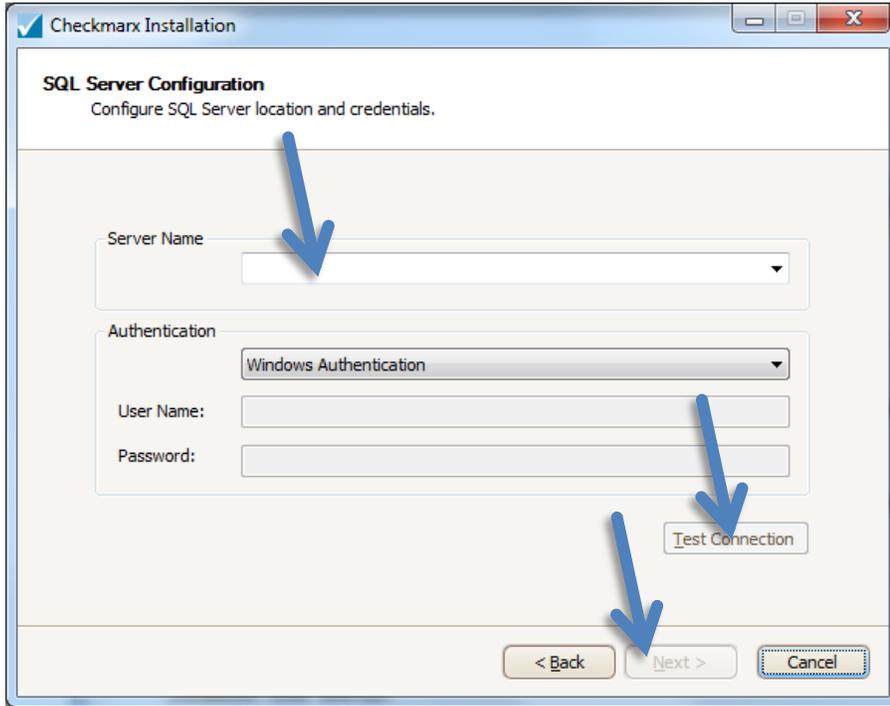
There is also an option to select between two web servers:

UltiDev Web Server – a light web server for POC

Microsoft IIS – to be used in production



5. Only if you have selected to use MSSQL then in the next page enter MSSQL the connection information. Only after a successful test the Next button will be enabled.



Checkmarx Installation
SQL Server Configuration
Configure SQL Server location and credentials.

Server Name:

Authentication:

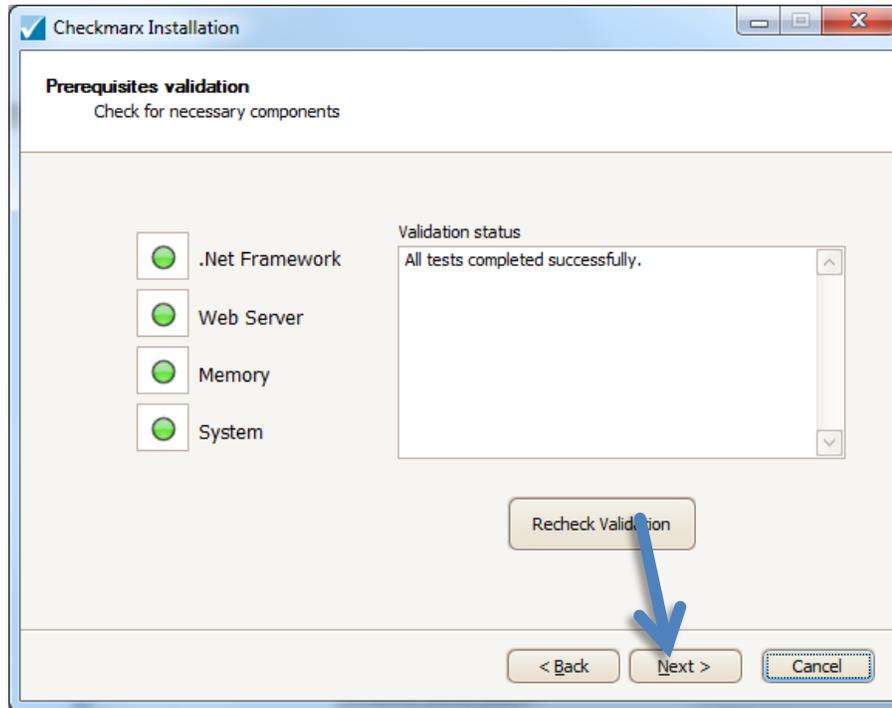
User Name:

Password:

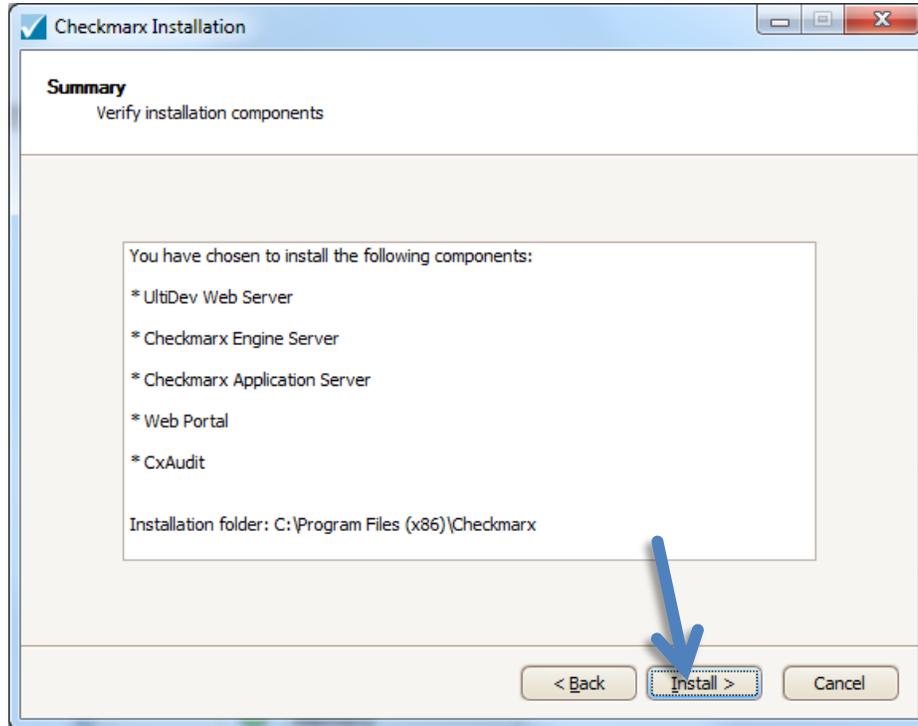
Test Connection

< Back Next > Cancel

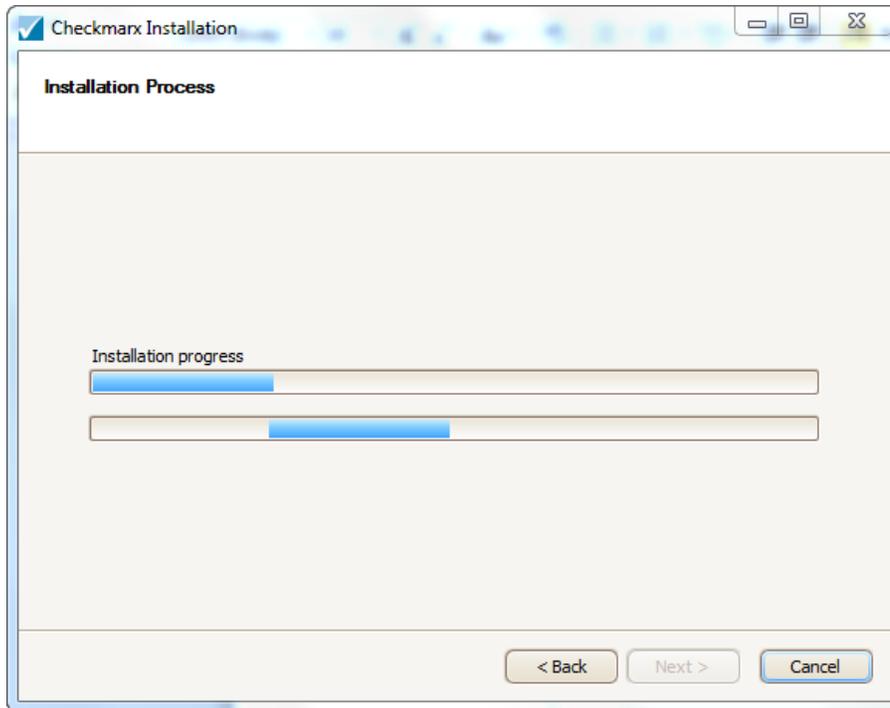
6. Check if all prerequisites are installed properly and click next.
If one of the prerequisites is not green the system will display an option to try and automatically fix the problem.



7. Verify the summary and click on the Install button.

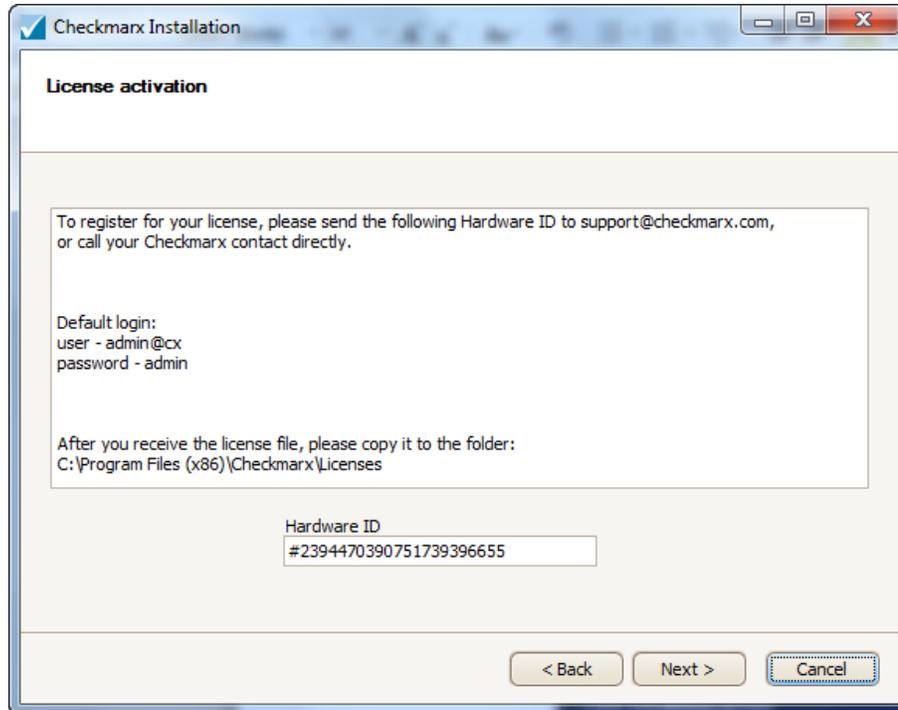


8. The installation will start.

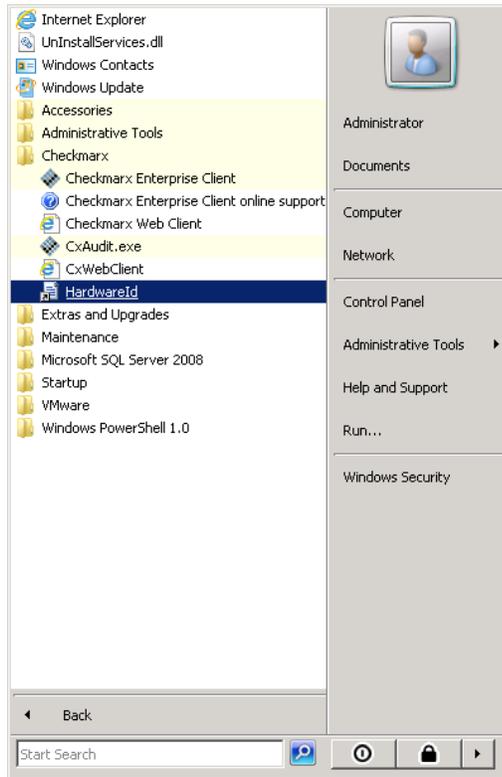


9. Wait until install finishes.

10. Follow the registration instructions to receive a license file.
Send the hardware ID to support@checkmarx.com or to your Checkmarx contact, directly.



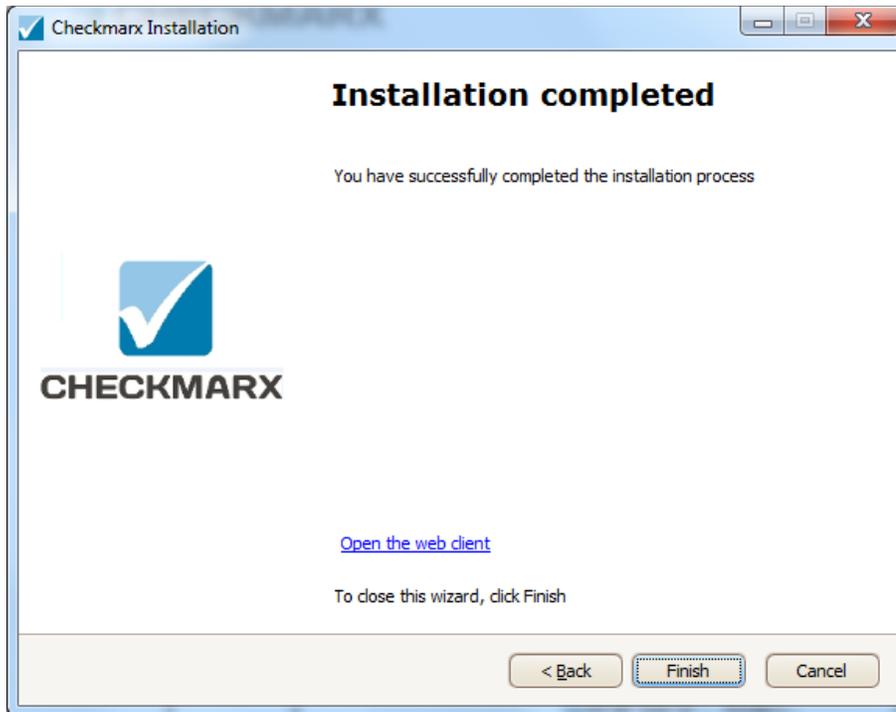
- a. Also the hardware ID can be found at *Start → All Programs → Checkmarx → Hardware ID*.



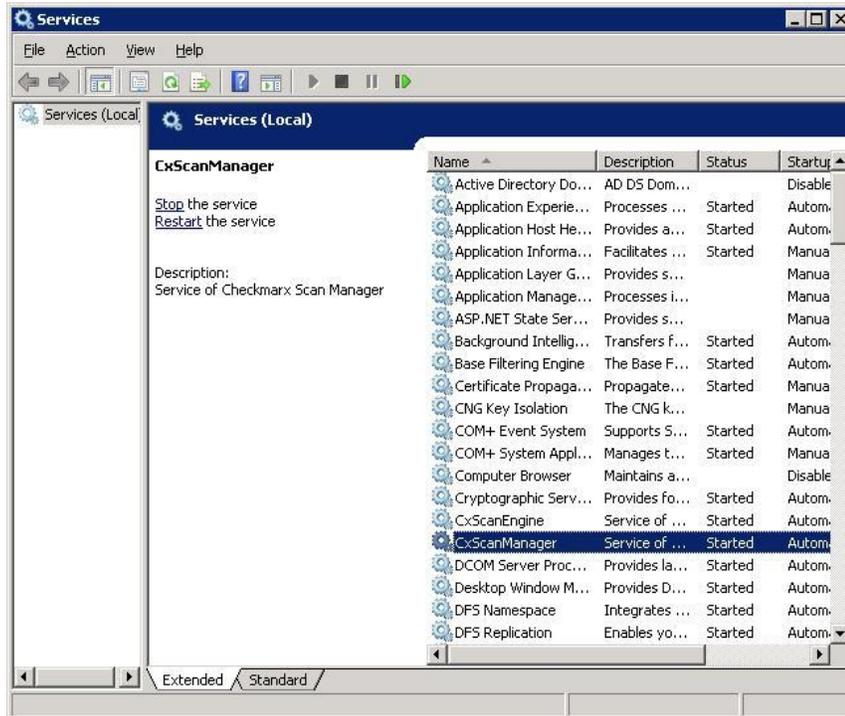
- b. Once receiving the license file, copy it to the licenses folder.
Default for Windows 32-bit - *C:\Program Files\Checkmarx\Licenses*
Default for Windows 64-bit - *C:\Program Files (x86)\Checkmarx\Licenses*

11. Click next.

12. In the last page you can find a link to the web client page. Click finish.



13. Start services *CxScanEngine* and *CxScanManager* in Windows service management console.



14. You can now connect to the WebPortal Url: <http://localhost/CxWebclient/> or the windows client with default credentials: UserName : **admin@cx** / password: **admin**. Password can be changed in the web admin interface



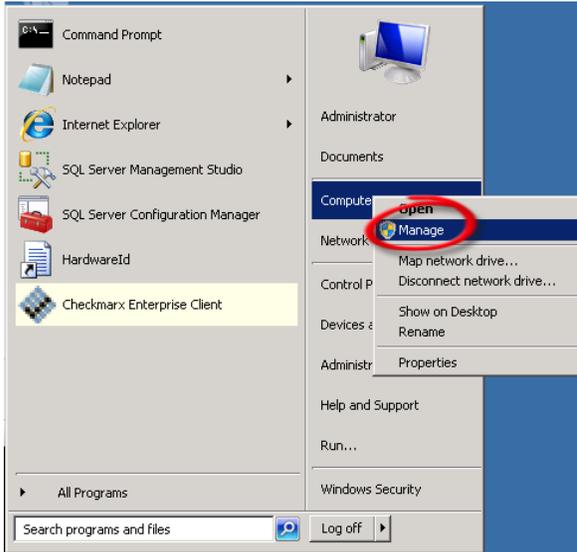
The screenshot shows a 'Sign In' form with the following elements:

- Title: Sign In
- User Name:
- Password:
- Stay signed in:
- Login:
- Options:
- Forgot Password | [Create Account](#)

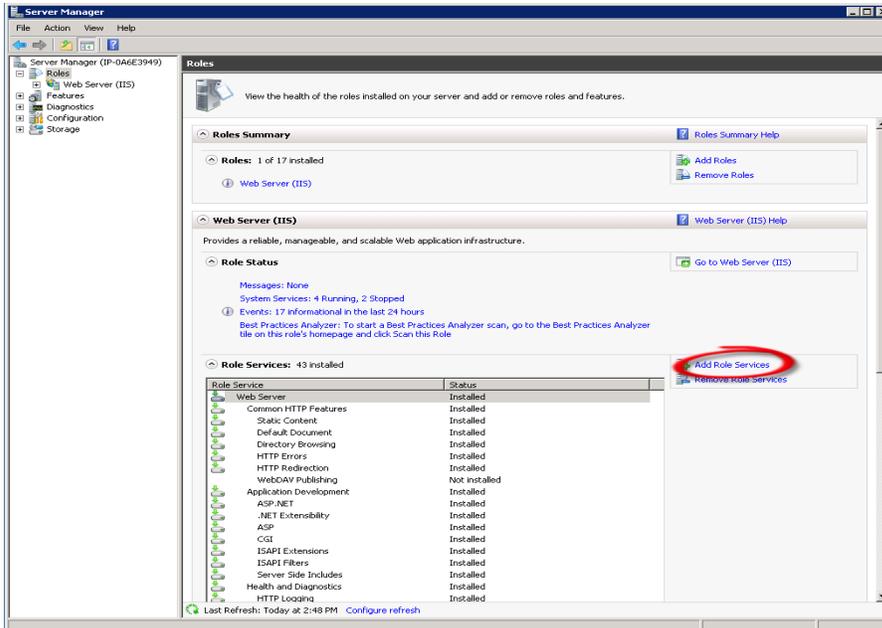
APPENDIX A

IIS 7.0 requirements in Windows 2008 Server

1. Go to server Manager Roles



2. Edit IIS Roles



Remove Role Services

Select Role Services

Role Services

- Confirmation
- Progress
- Results

To remove one or more installed role services for Web Server (IIS), clear their check boxes:

Role services:

- IIS Client Certificate Mapping Authentication
- URL Authorization
- Request Filtering
- IP and Domain Restrictions
- Performance
 - Static Content Compression
 - Dynamic Content Compression
- Management Tools
 - IIS Management Console
 - IIS Management Scripts and Tools
 - Management Service
- IIS 6 Management Compatibility
 - IIS 6 Metabase Compatibility
 - IIS 6 WMI Compatibility
 - IIS 6 Scripting Tools
 - IIS 6 Management Console
- FTP Server (Not Installed)
 - FTP Service (Not Installed)
 - FTP Extensibility (Not Installed)
- IIS Hostable Web Core (Not Installed)

Description: [Web Server](#) provides support for HTML Web sites and optional support for ASP.NET, ASP, and Web server extensions. You can use the Web Server to host an internal or external Web site or to provide an environment for developers to create Web-based applications.

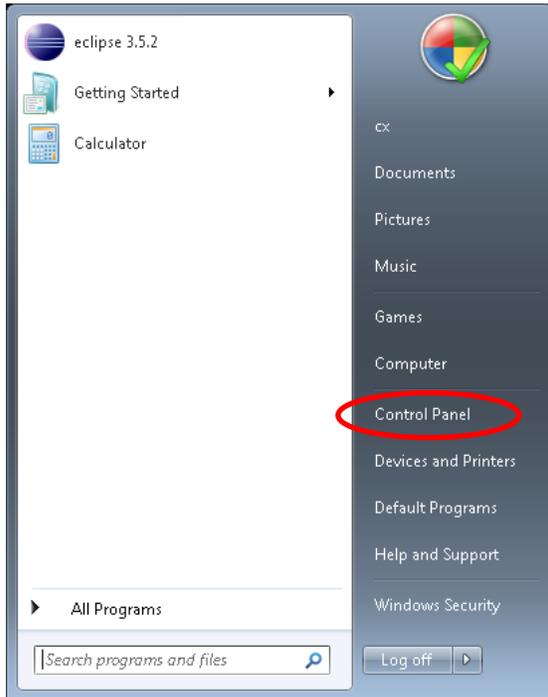
[More about role services](#)

< Previous Next > Remove Cancel

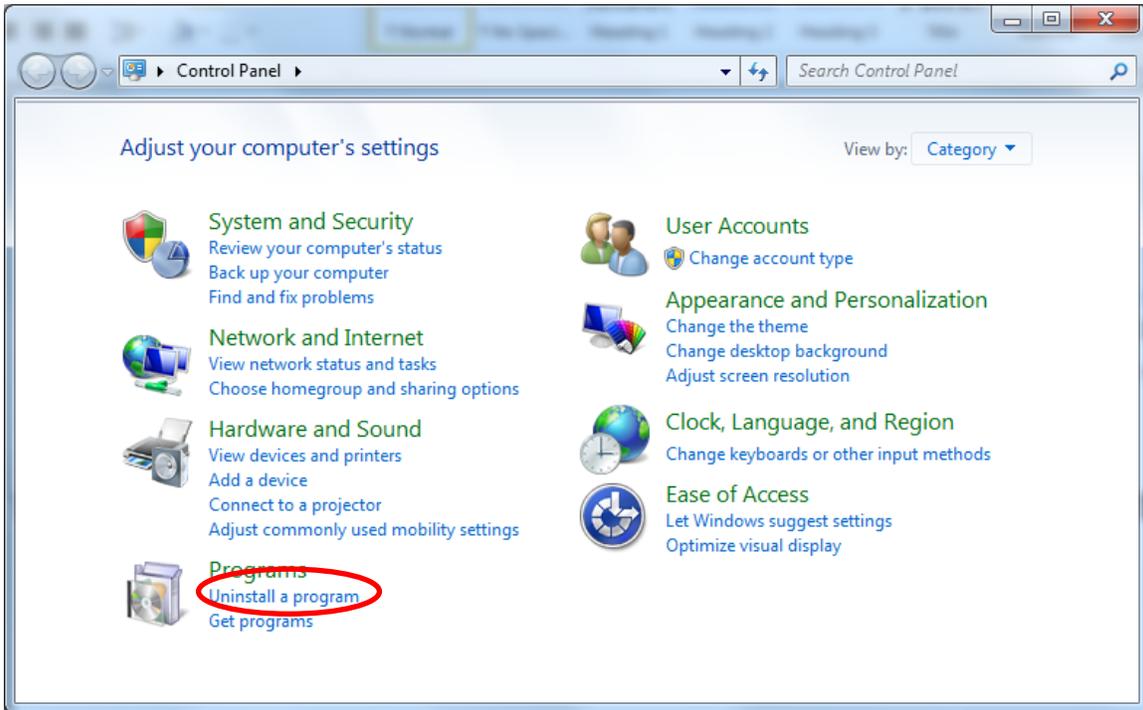
APPENDIX B

IIS 7.0 requirements in Windows 7

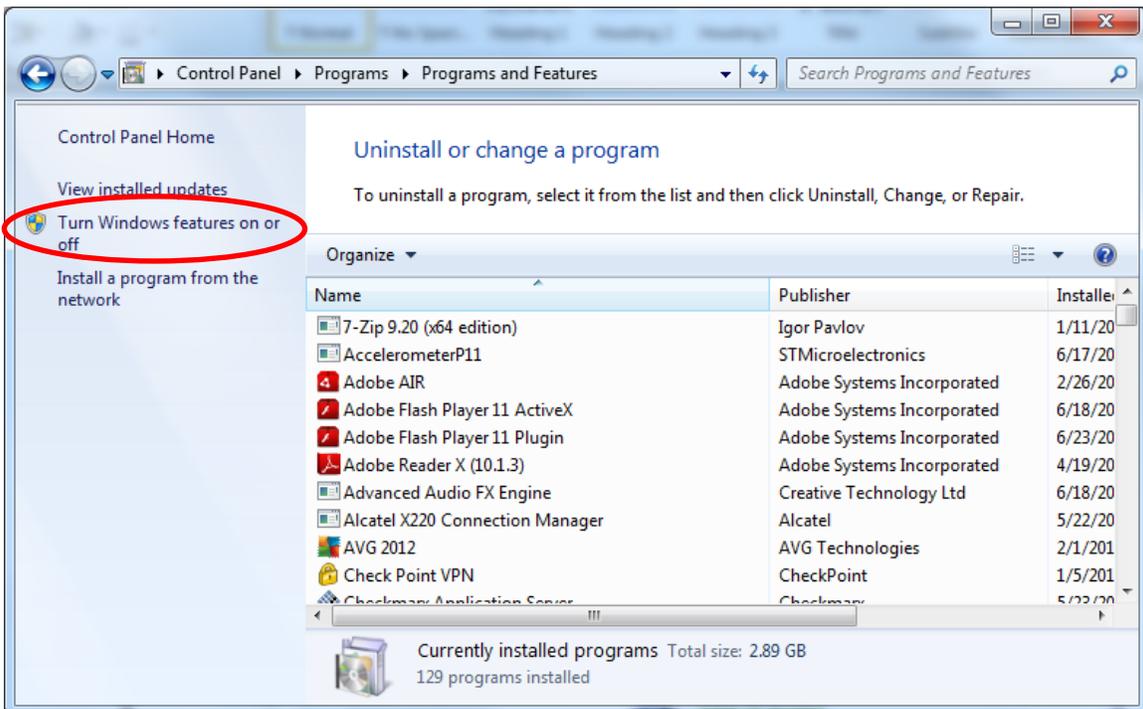
1. Open the Control Panel



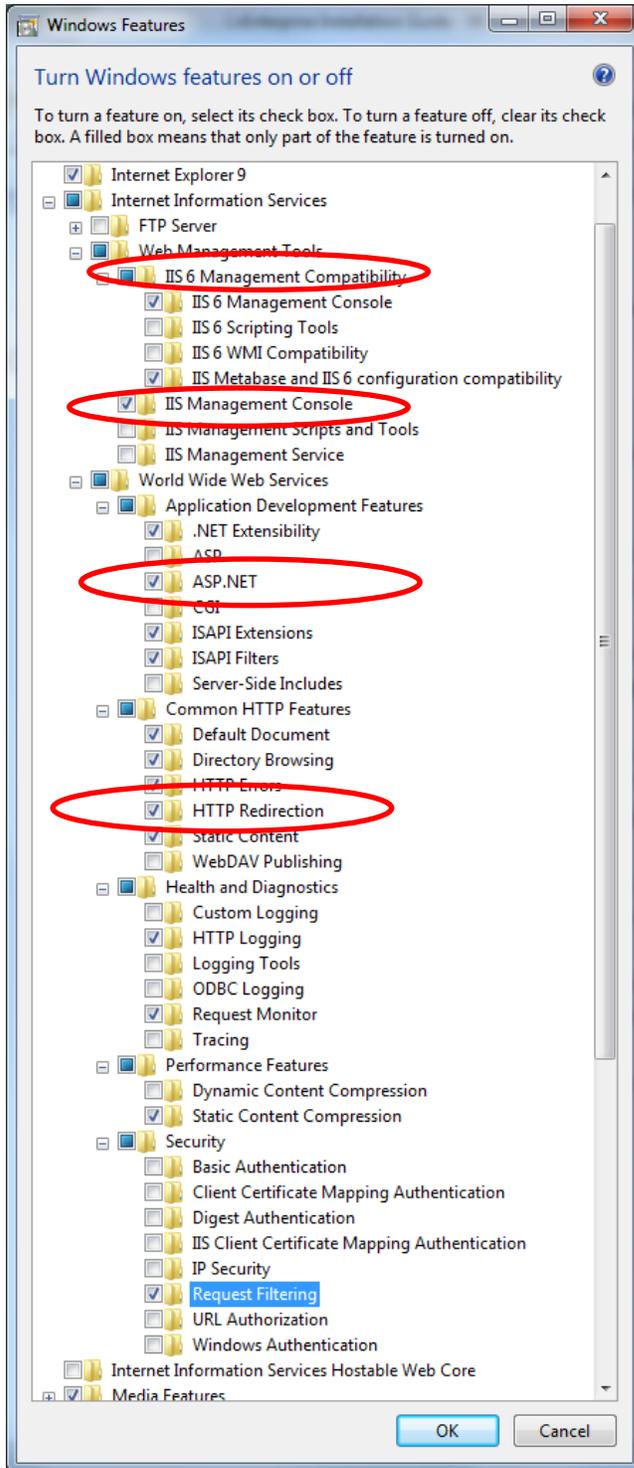
2. Click on Uninstall a program



3. Click on Turn Windows features on or off



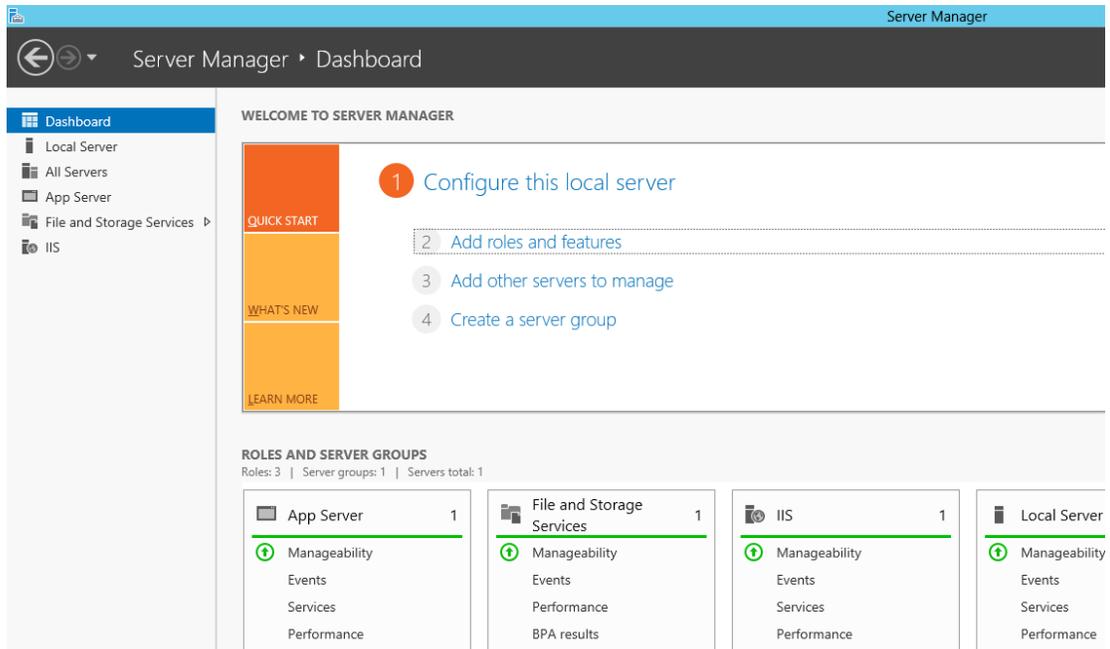
4. Add ASP.NET and IIS 6 Management Compatibility roles.



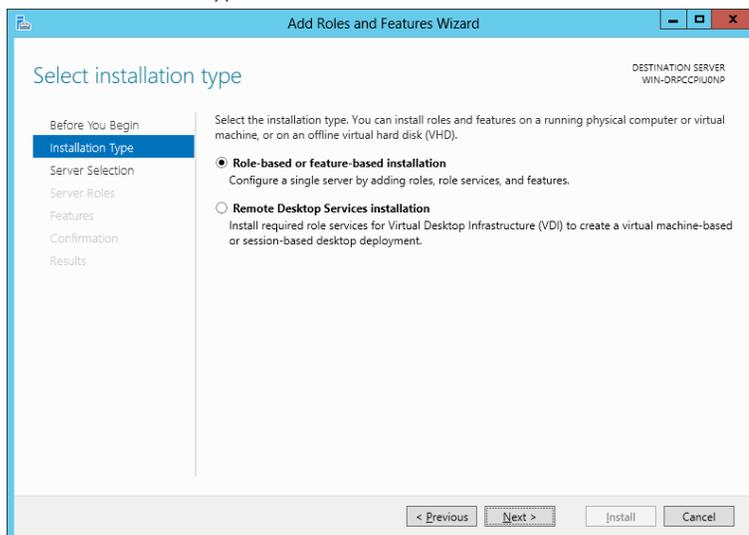
APPENDIX C

IIS 8.0 requirements in Windows 2012 Server

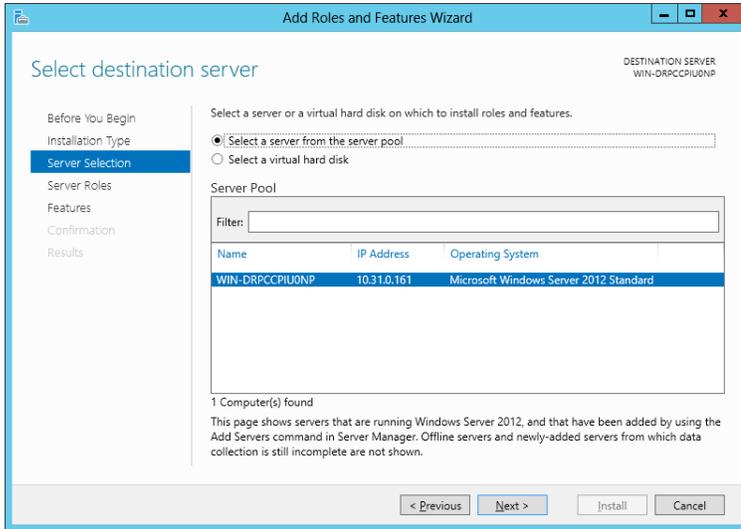
1. Go to Server Manager



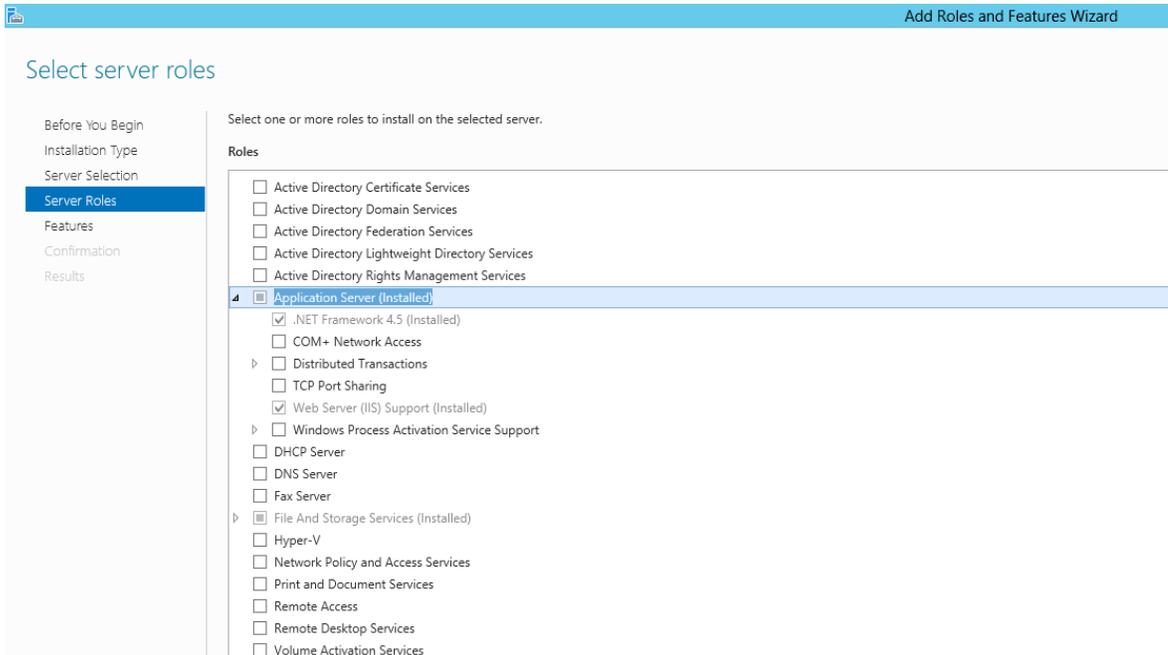
2. Click on Add roles and features.
3. Select installation type – Role-based



4. Select the checkmarx server



5. Add The Application server with the IIS support



6. In the IIS section add *ASP.NET* and *IIS 6 Management Compatibility* roles.

