

Preparing an IIS Server for EmpowerID installation

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## Hardware preparation

In order to fulfill our hardware requirements and be eligible for support, please ensure your server meets the following minimum requirements:

- Processor: 64-bit, 4 cores required, more recommended based on usage scenario
- RAM: 12 GB required, more recommended based on usage scenario
- **Hard drive space:** 40 GB available (assumes separate partition for the EmpowerID installation 40 GB *available* is required if installing on OS drive [not recommended])

In my example lab I have configured a VMWare virtual machine with the following properties:

Haro	dware	Summary		
	Memory	12288 MB	Disk Provisioning	
	CPUs	4	Type:	Thick Provision Lazy Zeroed
	Video card	Video card	Provisioned Size:	60 🛨 GB 💌
	VMCI device	Restricted	Maximum Size (GB):	1757.33
0	SCSI controller 0	LSI Logic SAS		
	Hard disk 1	Virtual Disk	Virtual Device Node	
	CD/DVD drive 1	Client Device		
12	Network adapter 1	VM Network	ISCSI (0:1) Hard disk 2	
4	Floppy drive 1	Client Device	Mada	
	Hard disk 2	Virtual Disk		

This configuration meets all of our minimum requirements: A 64-bit 4 core CPU, 12 GB of RAM, and two hard drives, each using a different data store and each sized at 60 GB.

### Software preparation

Next comes the installation of the Windows Server operating system. Here are our requirements:

• **Operating System:** Windows Server 2008 R2 64-bit, Windows Server 2012 64-bit or greater. Support is not offered for Datacenter versions of Windows Server. Server Core installations are unsupported as the .NET Framework is not available in Server Core.



Once the operating system is installed, ensure that the local Administrator password has been set and the server is joined to the domain. We are now ready to proceed to the installation of IIS.

### **IIS preparation**

Once you are logged into the server, open Windows PowerShell from the Accessories menu.

Recyde Bin		
Internet Explorer (64-bit) Internet Explorer Windows Update Accessories Calculator Connect to a Projector Notepad Paint Remote Desktop Connection Windows Explorer WordPad Ease of Access System Tools Windows PowerShell Windows PowerShell Windows RowerShell Administrative Toolm Startup Back	Administrator Documents Computer Network Control Panel Devices and Printers Administrative Tools Help and Support Run	
🎝 Start 🕌 🔝 🚞		* 🕞 📳 🅼 12:54 PM

Navigate to our EmpowerID Installation and Configuration Guide / <u>Hardware and Software</u> <u>Requirements</u> page and scroll down to the *Additional Software Requirements for Servers Running Web Applications* section. Listed in this section are PowerShell cmdlets that will automatically install IIS and all of the IIS components needed to run EmpowerID. There are two sets of PowerShell cmdlets: one is for Windows Server 2008 R2 64-bit and the other is for Windows Server 2012 64-bit. The PowerShell commands are also included below:

#### Windows 2008 R2 64-bit:

#### Import-Module ServerManager

Add-WindowsFeature Web-Server,Web-ASP-NET,Web-Basic-Auth,Web-Windows-Auth,Web-Cert-Auth,Web-Url-Auth,Web-Http-Errors,Web-Net-Ext,WAS-Process-Model,RSAT-Web-Server,Web-Dyn-Compression,NET-HTTP-Activation,Web-Mgmt-Console,Web-HTTP-Redirect,NET-Framework

#### Windows 2012 64-bit:

Add-WindowsFeature Web-Server,Web-Basic-Auth,Web-Windows-Auth,Web-Cert-Auth,Web-Url-Auth,Web-Http-Errors,Web-Net-Ext,Web-Net-Ext45,WAS-Process-Model,Web-Dyn-Compression,NET-HTTP-Activation,Web-Mgmt-Console,Web-HTTP-Redirect,Web-Asp-Net45,NET-WCF-HTTP-Activation45 Copy the appropriate version of the cmdlets and paste them into the PowerShell window, then execute the cmdlet. The installation of IIS prerequisites will begin.



Once finished, you will be prompted to restart the server. Do not restart the server and proceed to the next step.

## **Disabling User Account Control**

Open Control Panel and navigate to User Accounts. Click on Change User Account Control settings. Move the slider to "Never notify" and click OK to disable UAC.

🤪 User Account Control Settings 📃 🗔 🗙			
Choose when to be notified about changes to your computer			
User Account Control helps prevent potentially harmful programs from making changes to your computer. Tell me more about User Account Control settings			
Always notify			
-   -	Never notify me when:		
	<ul> <li>Programs try to install software or make changes to my computer</li> </ul>		
-   -	I make changes to Windows settings		
	Not recommended. Choose this only if you need to use programs that are not certified for Windows 7 because they do are used to use on the control.		
Never potify			
	Cancel		

Once UAC has been disabled, reboot the server.

<b>P</b>			
Administrator: Windows PowerShell			
finish the installation proc	ess.		
ReWARNING: [Installation] Succ	eeded: [Web Serve	r (IIS)] Windows Authentication. You must restart this server to finish 👘 🔤	
WARNING: [Installation] Succ	WAINING: [Installation] Succeeded: [Web Server (IIS>] Basic Authentication. You must restart this server to finish the		
WARNING: [Installation] Succ	eeded: [Web Serve	r (IIS)] Request Filtering. You must restart this server to finish the	
installation process.	and a day the buller was	v (IIC)] UDI Authonization. Van must wastaut this server to fisish the	
installation process.	eeueu - Lweb Serve	r (1137) UND MUCHUFIZACIUM. IUU MUSC PESCARC CHIS SERVER CU IIMISH CHE	
WARNING: [Installation] Suco	eeded: [Web Serve	r (IIS)] IIS Client Certificate Mapping Authentication. You must restart	
WARNING: [Installation] Succ	eeded: [Web Serve	r (IIS)] HTTP Redirection. You must restart this server to finish the	
WARNING: [Installation] Succ	eeded: [Web Serve	r (IIS)] Directory Browsing. You must restart this server to finish the	
installation process.	anded: Illah Samue	n (IIC)] WITD Longing You must restart this samuer to finish the	
installation process.	eeueu - Lweb Serve	r (1137) hill bogging. Tou must restart this server to finish the	
WHRNING: LInstallation] Succ	eeded: IWeb Serve	r (118)] Static Content. You must restart this server to finish the	
Netword		(IIS)] Default Document. You must restart this server to finish the	
		(IIS)] ISAPI Filters. You must restart this server to finish the	
Command Promot		(IIS)] HTTP Errors. You must restart this server to finish the	
Command Prompt			
	Administrator	(1157) TSHFT EXtensions. You must restart this server to finish the	
		er Administration Tools] AD DS Snap-Ins and Command-Line Tools. You must	
	Documents	er Administration Tools] Server for NIS Tools. You must restart this	
		er Administration Tools] Active Directory module for Windows PowerShell.	
	Computer	tallation process.	
	Network	(1137] .HET EXtensioning, nou must restart this server to finish the	
		ork 3.5.1 Features] Non-HTTP Activation. You must restart this server to	
	Control Panel	er Administration Tools] Active Directory Administrative Center. You	
		ork 3.5.1 Features] HTTP Activation. You must restart this server to	
	Devices and Printers	(IIS)] ASP.NFT. You must restart this server to finish the installation	
	Administrative Tools		
	Help and Support	k 3.5.1. "NET Environment, C	
	Cuitele :		
	Run		
-	LOCK		
All Programs	Restart	<u>4</u>	
Search programs and files	Log off > Shut o		
		<u> </u>	
Astart II. 🔊 😁 🍊	2	2:59 PM	
		7/24/2013	

Windows will configure IIS and its components as the server reboots.



Once rebooted, log back into the server. The IIS installation is now completed.

# Microsoft .NET Framework 4.5.2 preparation

Open the <u>Microsoft .NET Framework 4.5.2 download page</u>, click Download and execute the installer.

NOTE: You may want to disable *Internet Explorer Enhanced Security Configuration* temporarily while performing this step, or download the file on a different computer and then transfer it to the server. To disable Internet Explorer Enhanced Security Configuration, open Server Manager and scroll down to the Security Information section, then click Configure IE ESC. Choose Off for Administrators and click OK.

E. Server Manager			
File Action View	Help		
Server Manager Roles Diagnosti Configura Storage	Internet Explorer Enhanced Security Configuration (IE ESC) reduces the exposure of your server to potential attacks from Web-based content. Internet Explorer Enhanced Security Configuration is enabled by default for Administrators and Users groups. Administrators:	Form top management tasks, and add or remove server	
	OK Cancel		

Once the installation of Microsoft .NET 4.5.2 is completed, your server is now ready for EmpowerID installation. Repeat the steps above if you need additional IIS servers for load balancing or server role separation. For example, if you are running 2 EmpowerID front-end (web) and 2 EmpowerID back-end (application) IIS servers, repeat the steps above for all 4 of the IIS servers.

## EmpowerID Server Installer download

Now that the server has met the hardware and software requirements, we need to download the EmpowerID software in preparation of the installation session.

empowerID identity management
Thank you for choosing EmpowerID!
Please use the links below to download the latest version of EmpowerID and other products.
System Preparation
Helps verify your application servers meet the Hardware and Software Requirements of EmpowerID.
EmpowerID System Preparation Tool Verify hardware and software requirements
EmpowerID Server
The following items are required for a new EmpowerID installation.
• EmpowerID Server Installer Required binaries for each EmpowerID IIS server
EmpowerID Database SQL database for new EmpowerID installations

Please navigate to our <u>EmpowerID download page</u>, enter your name and license key, agree to the terms & conditions and then click on the EmpowerID Server Installer link. Download this file onto any of the IIS servers that will be running EmpowerID.

# (Optional) SQL Management Tools preparation

This next step is optional and only needs to be followed if you wish to manage the EmpowerID SQL Server from the EmpowerID IIS Server.

Locate the SQL Server installation media and run SETUP.EXE to begin installation. Click the Installation section on the left hand side, then click on "New installation or add features to an existing installation."



Enter your SQL Server license key and accept the license terms. Click Install. Choose SQL Server Feature Installation and click Next. On the Feature Selection screen, check "Management Tools – Complete"

SQL Server 2008 R2 Setup Feature Selection Select the Enterprise features to	install.	
Setup Support Rules Setup Role Feature Selection Installation Rules Disk Space Requirements Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	Features:         Instance Features         Database Engine Services         SQL Server Replication         Full-Text Search         Analysis Services         Reporting Services         Shared Features         Business Intelligence Development Studio         Client Tools Connectivity         Integration Services         Client Tools SDK         SQL Server Books Online         Management Tools - Basic         Management Tools - Basic         Microsoft Sync Framework         Redistributable Features         Select All         Unselect All	Description: Adds the following components to the basic management tools installation: Management Studio support for Reporting Services, Analysis Services, and Integration Services technologies, SQL Server Profiler, Database Tuning Advisor, and SQL Server Utility management.
	Shared feature directory: C: \Program Files \Microsoft SQL Server \ Shared feature directory (x86): C: \Program Files (x86) \Microsoft SQL Se	erver\

Once installation is finished, close the setup program and install hotfixes or patches from Windows Update as needed. You can now remotely manage the EmpowerID SQL Server from the EmpowerID IIS Server.

### Conclusion

Please feel free to contact us by e-mail at <a href="mailto:support@empowerid.com">support@empowerid.com</a> or by phone at (877) 996-4276 (Option 2) if you have any questions or concerns regarding this guide. Thank you for reading!