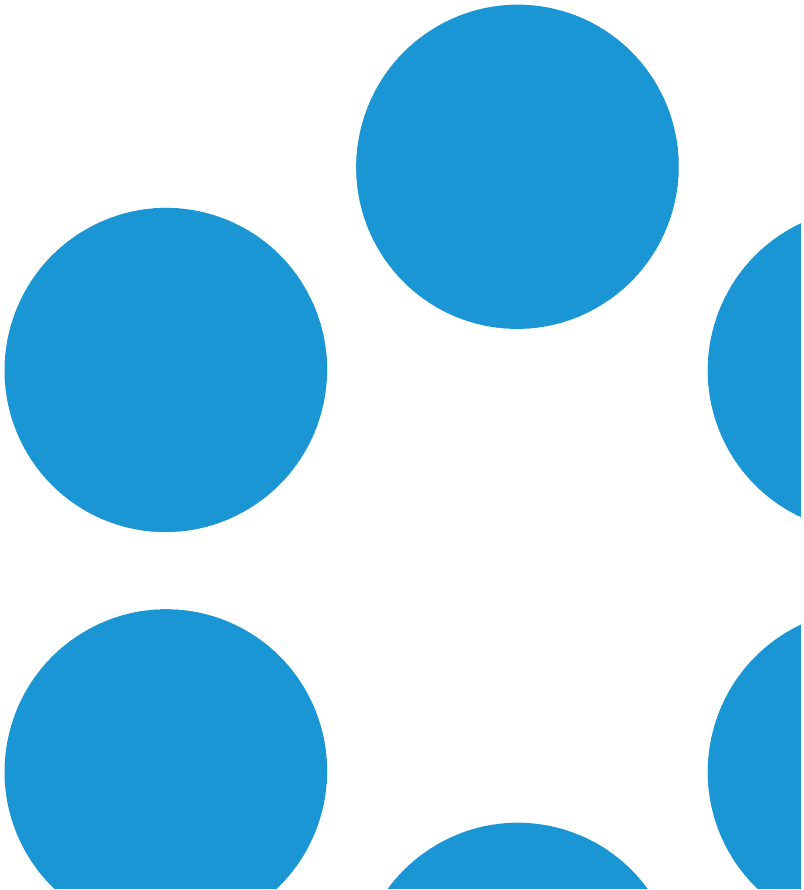
vFire 9.10

Prerequisites Guide

Version 1.0



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Version Details

This guide supports the version of the product listed, and supports all subsequent versions until the document is replaced by a new edition. The table below contains version details for the guide.

Version Number	Date	Details
1.0	31 January 2018	These prerequisites outline the requirements for vFire 9.10. The following prerequisites have changed from the previous version of the software: • Windows Server 2016 is now supported • Hardware requirements have been clarified. (These have not changed since 9.9.)

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About this Guide

This guide describes the software and hardware requirements for the current version of vFire, vFire Self Service and the vFire apps.

> This version of the guide contains instruction for the latest version of the vFire software. If you are running an earlier version of vFire please refer to **alemba.help**.

Intended Audience

This guide is written for system administrators responsible for installing vFire, vFire Self Service, and the vFire apps.

Standards and Conventions

The following standards and conventions are used throughout the guide:

	Prerequisites, including security rights and access you may need prior to completing the task. Prerequisites are also highlighted in a shaded box.
	Information related to the current topic that may be of particular interest/significance. Notes are also highlighted in a shaded box.
	Warnings. These are also highlighted in a shaded box.
Field name	Fields are highlighted in bold text.

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Introduction

This document describes the requirements for the current version of vFire Core, Nano, vFire Officer & Portal, and the vFire app software, and should be read prior to installation to ensure that your hardware, server and client requirements are met.

Minimum recommended specifications are given for each requirement. In some instances, such as Hardware CPU and memory, you can use a higher spec than the minimum recommended in order to increase your system's performance.

If you have any further questions regarding prerequisites, please contact the Alemba Service Desk.

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Web Server Requirements

This section details the hardware and operating system requirements for running the Web Server component of vFire Core (that is, the main application). Multiple web servers can be configured under a load-balancer; contact Alemba Support for consultation on the best configuration for individual requirements.

We recommend that you install the database on a separate dedicated server.

Hardware Requirements

vFire Core requires a 64-bit Windows server. The web server hardware requirements for vFire Core are listed below.

Hardware	Minimum Requirement (per system)	Recommended Requirement (per system)
CPU	2 CPU Cores	4 CPU Cores
Memory	1 GB RAM	4 GB
HD	1 GB of available space	2 GB of available space

If your site has a large volume of data, you should consider using hardware with a higher specification.

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Operating System Requirements

Below are the minimum requirements for the operating system.

Operating System	IIS Version	Hardware	Additional Requirements
Windows Server 2008 R2 (64-bit)	IIS 7.5	64-bit	.NET 4.5.2; MMC 3.0 or above; PowerShell 5
Windows Server 2012	IIS 8.0		
Windows Server 2012 R2	IIS 8.5		
Windows Server 2016	IIS 10.0		

Upgrading Windows Server 2008 to Windows Server 2012 or 2016 is not a supported Server upgrade path. We recommend that you always create a new machine for a change in the operating system of a server rather than upgrading.

Running vFire on Virtualized Servers

Virtual machines are supported when the guest operating system is supported by vFire Core and the virtual machine vendor. As a minimum, you should have 2 CPUs and 16GB of RAM on your virtual machine. Ensure that the CPUs are not over committed.

Your virtual directory must be configured correctly to ensure smooth upgrade of .NET to 4.5.2. See the **Installation and Upgrade Guide** for more details.

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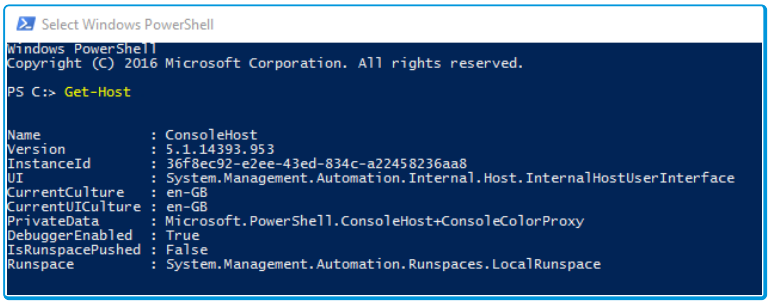
PowerShell Requirements

You must be running PowerShell 5.0 or above on the web server.

If PowerShell is already installed on your server, you can identify which version you are running by starting a PowerShell session (key **PowerShell** into your search bar and select the app), and then typing **Get-Host** at the command prompt. The version number will be displayed along with the rest of the app information.



To upgrade to, or install version 5, you will need to install the Windows Management Framework (WMF) 5.0 or higher. You can identify and download the package you require for your OS platform here - **https://msdn.microsoft.com/en-us/powershell/wmf/5.0/requirements**.

Additional Requirements

The web server must include Internet Explorer 11 or above.

> Although this version of Internet Explorer is not supported by Microsoft for Windows Server 2012, it can be downloaded and installed with only limited impairments to functionality.

Install all language packs associated with the non-English characters used by Analysts at sites that use Unicode databases. This enables the indexing service on the web server to perform indexing correctly.

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Web Server FAQs

What are the web server prerequisites for setting up production and test environments for vFire Core?

You should install the production environment on its own web server or virtual machine and install the test environment on other servers. When testing an upgrade of vFire Core, a separate test environment will ensure the integrity of any customizations that have been applied in the production environment.

What are the web server prerequisites for vFire Core to support POP3/IMAP/SMTP over SSL?

The web server should be able to communicate with the POP3/IMAP/SMTP server.

How should the web server be optimized?

Alemba recommends optimizing the web server for background service performance.

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Database Server Requirements

This section details the requirements for running the database component of the current release of vFire Core.

We recommend that you install vFire Core on a separate server to the database server.

Hardware Requirements

Your database vendor's documentation should provide the minimum recommended hardware configuration required for the database version you intend to deploy.

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Database Engine Requirements

vFire Core supports the following database engines.

	9.2.0	9.2.1	9.2.2	9.2.3	9.3	9.4	9.5	9.6	9.7	9.8	9.9	9.10
SQL Server 2008 SP1 , 2008 R2 (32 or 64 bit) See **SQL Server Requirements in the online help** below.	Y	Y	Y	Y	Y	Y	Y	Y	Y*	Y*	Y*	Y*
SQL Server 2012 (64 bit) See **SQL Server Requirements in the online help** below.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SQL Server 2014 (64 bit) See **SQL Server Requirements in the online help** below.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

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	9.2.0	9.2.1	9.2.2	9.2.3	9.3	9.4	9.5	9.6	9.7	9.8	9.9	9.10
SQL Server 2016 (64 bit) See **SQL Server Requirements in the online help** below.	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y

* SQL Server 2008 is not supported if you are using the Alemba API.

SQL Server Requirements

SQL Server 2008 requires **Full-Text Search** to be enabled in the Feature Selection section.

SQL Server 2012, 2014 and 2016 and above require the **Full-Text and Semantic Extractions for Search** feature to be enabled.

vFire Core does not support SQL Server Express editions.

Database Account Requirements

The database login account that is used for vFire during normal system operation and system upgrades must:

- be a member of the **db_owner** group
- be granted VIEW DATABASE STATE permission for the vFire database
- have VIEW SERVER STATE permission on the database server
- have DB_DATAREADER permission on the master database

These permissions are required so that the API can read from dm_db_index_usage_stats. It uses this to synchronize the cache between API instances, vFire Core and anything else which might use the database.

The db user needs permission to execute **xp_regread** so that the API services can read the **HKLM\SYSTEM\CurrentControlSet\Control\TimeZoneInformation** reg key from SQL Server.

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The **db user** needs permission to execute **xp_regread** so the API services can read the HKLM\SYSTEM\CurrentControlSet\Control\TimeZoneInformation reg key from SQL Server.

Instructions on how to set up and apply permissions to these accounts is given in Applying Database Account Permissions.

Setting Up the Accounts and Applying Permissions

You can create the accounts and apply the relevant permissions by using the script below. The comments indicate the commands that are executed at each stage of the script, so you may choose to use only part of the script, if you are working with existing logins.

```
--create the vFireLogin login
CREATE LOGIN vFireLogin WITH PASSWORD = 'password'
GO
Use vFireDb;
GO
IF NOT EXISTS (SELECT * FROM sys.database_principals WHERE name = N'vFireUser')
BEGIN
--create a user in vFireDb for the vFireLogin login
CREATE USER vFireUser FOR LOGIN vFireLogin
--make the user a member of the db_owner group
EXEC sp_addrolememberN'db_owner', N'vFireUser'
END;
GO
--grant the user minimum permissions for the vFireDb database
GRANT VIEW DATABASE STATE TO vFireUser;
GRANT VIEW DEFINITION TO vFireUser
USE master;
GO
IF NOT EXISTS (SELECT * FROM sys.database_principalsWHERE name = N'vFireUser')
BEGIN
--create a user in master for the vFireLogin login
CREATE USER vFireUser FOR LOGIN vFireLogin
END
--grant the vFireLogin login minimum permissions for the master database
GRANT VIEW SERVER STATE TO vFireLogin
--grant the vFireUser user minimum permissions for the master database
GRANT EXEC ON master.dbo.xp_regreadTO vFireUser
GO
```


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If the setting **DB NT Auth** is selected in the **system settings** in Server Console, when upgrading to a newer version the Upgrade MSI connects to the database using the account "NT AUTHORITY\SYSTEM" and therefore this account must be granted "sysadmin" permissions to the database server, and "db_owner" permissions to the database in order for the upgrade to complete successfully.

Network Location

The network location of the database server to the vFire Core server will have an impact on performance. Network switching and firewall configurations need to be considered in the design of the system.

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Client Requirements

This section details the client requirements for the current release of vFire Core.

vFire Core

The current release of vFire Core is supported on Microsoft Windows clients with the following browser and operating system combinations.

Internet Explorer 32-bit and 64-bit browsers are supported. By default, vFire Core runs in 32-bit mode in Internet Explorer. The 64-bit client is available as a separate installer, but is not automatically deployed.

	Windows Vista	Windows 7	Windows 8.1	Windows 10
Internet Explorer 9	Y*	N	N	N
Internet Explorer 11	N	Y	Y	Y

* Microsoft documents that extended support for Vista ends in April 2017.

We advise that you ensure that you have installed all critical browser updates to ensure smooth operation.

Designer is not compatible with Vista and Internet Explorer 9. A known limitation with vFire Core and Vista/IE9 prevents screens rendering correctly in Designer.

ActiveX Support

The current release of vFire Core client requires permission to download and execute signed ActiveX controls. If this is not feasible, you can install the ActiveX controls using the available MSI package.

You need to configure browser settings for vFire Core (internet and intranet) to download ActiveX controls. Follow these steps.

1. In Internet Explorer, go to the **Tools** menu and select **Internet Options**.
2. In the **Security** tab, highlight the **Internet** or **Local Intranet** security level icons, depending on where the web server is located.
3. Click on the **Custom Level button**. The **Security Settings** window is displayed.
4. Select the option to enable or prompt for **Download Signed ActiveX controls**.

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vFire Core signs its controls so that they are regarded as trusted controls. This should not affect the majority of sites, as most people will not have modified their default settings.

vFire Self Service

The current release of vFire Self Service is supported on the following browser and operating system combinations.

	Windows Vista	Windows 7	Windows 8.1	Windows 10	Mac
Internet Explorer 9	Y	N	N	N	N
Internet Explorer 11	N	Y	Y	Y	N
Windows Edge	N	N	N	Y	N
Firefox	Y	Y	Y	Y	Y
Chrome	Y	Y	Y	Y	Y
Safari	N	N	N	N	Y

Minimum Supported Browser Versions

This list describes the minimum supported browser versions for the vFire Self Service portal. All versions above the ones listed are supported.

- Internet Explorer 9 (as per table above)
- Chrome version 47.0.2526
- Firefox version 43.0.3
- Safari version 11.0

Chrome and Firefox use the 'always up to date' model of frequent background updates which regularly increases their version numbers.

Microsoft browsers are excluded from this list as only the versions specified above are supported.

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Nano

Minimum Supported Browser Versions

This list describes the minimum supported browser versions for Nano on Windows 7, 8.1 and 10, and Mac. All versions above the ones listed are supported.

- Internet Explorer 11.0.9600.17031
- Chrome version 47.0.2526
- Firefox version 43.0.3
- Safari version 11.0

Chrome and Firefox use the 'always up to date' model of frequent background updates which regularly increases their version numbers.

vFire Universal Access Appliance

We support all browsers on Windows 7, 8.1 and 10.

For on-premise installations (non-cloud), you will need the following:

- Windows 2012 R2 Server: The server needs approximately 5.2 GHz (2vCPU), 8GB RAM per 10 – 20 users. If the appliance is installed in a virtual environment, the VM must have access to the full allocation of resources (vCPU & RAM). It cannot be overcommitted.
- The vFire Application URL (setup in DNS)
- The vUA appliance URL (setup in DNS pointing to the vUA appliance)
- If SSL certificates are setup on the vFire Application server, the name of the certificate needs to be typed into the vUA appliance at install.
- If a test system is required on the vUA appliance, it will require a separate appliance to be installed.

vFire Officer and Portal

Microsoft Silverlight is required to run vFire Officer and Portal. Microsoft Silverlight can be downloaded from the **Microsoft Silverlight web page**. There is a list of compatible operating systems and browsers in the **System Requirements** tab. Officer and Portal can be run on all operating systems and browsers which are supported by Microsoft.

Silverlight is supported on the following browsers.

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	Internet Explorer	Safari	Firefox	Chrome
PC	Y	N	Y	N
Mac	N	Y	Y	N

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Client Prerequisites for Microsoft Office Integration

vFire Core is integrated with a number of Microsoft Office applications such as Word, Excel and Project. The client machine must have Office 2007 or above installed.

> Microsoft Office 2016 is not currently certified against any of our products, and you may encounter problems when using spellcheck and other features.

Local Screen Resolution

Analysts using vFire Core should configure their screen resolution to a minimum screen resolution height of 700 to ensure that users can access the scroll bar in submenus in the new vFire Menu display.

This should not require adjustment of most standard and recommended settings. You are advised to view the menu to determine whether changes are needed before adjusting any settings.

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Email Server Requirements

The following email server types are supported by vFire Core.

	9.2.0	9.2.1	9.2.2	9.2.3	9.3	9.4	9.5	9.6	9.7	9.8	9.9	9.10
Exchange 2010	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Exchange 2013	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Exchange 365	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y

Email Protocols

This release supports email protocols of:

Incoming Email: POP3, IMAP and MAPI

Outgoing Email: SMTP, MAPI

Other email servers like Novell GroupWise and IBM Lotus Notes should also work, as long as one of the supported email protocols is used.

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Configuring the Server

Before you start

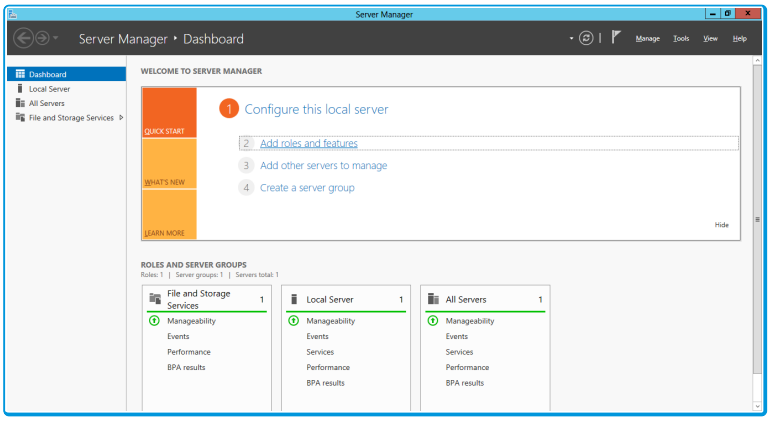
Before doing an installation, check that your server and client machines meet all the prerequisites for web server deployment, database server requirements and client requirements .

Oracle databases are not supported for vFire 9.9 and above.

To configure a Windows 2012 or 2016 Server for vFire Core, follow the instructions in this section.

If you are using Windows 2008, you will need to follow the instructions outlined in the documentation on **Adding ASP.NET to Windows 2008** in the Install/Upgrade documentation.

1. Go to the **Server Manager** application, select **Dashboard**, and select the **Add roles and features** link.



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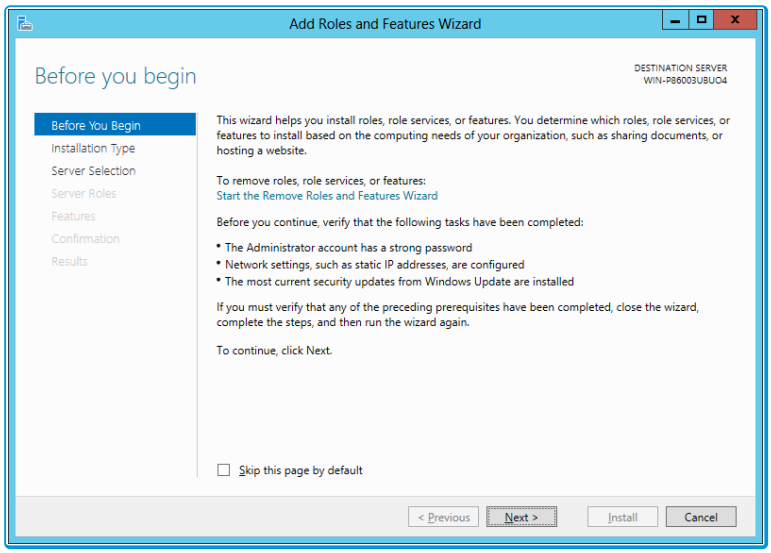
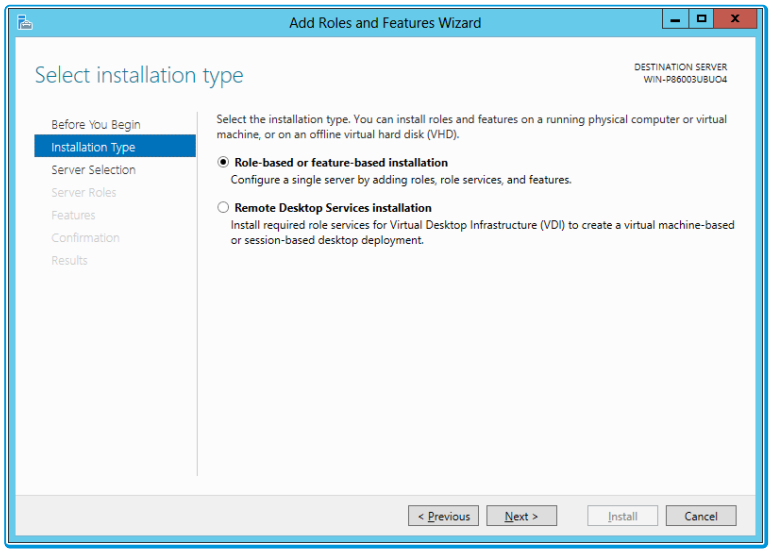
2. This will bring up the **Add Roles and Features Wizard** which opens on the **Before You begin** window. Read this page carefully and ensure that you have completed the tasks listed.



3. Select **Next** to continue.
4. On the **Select installation type** window, select **Role-based or feature-based installation**.



5. Select **Next** to continue.

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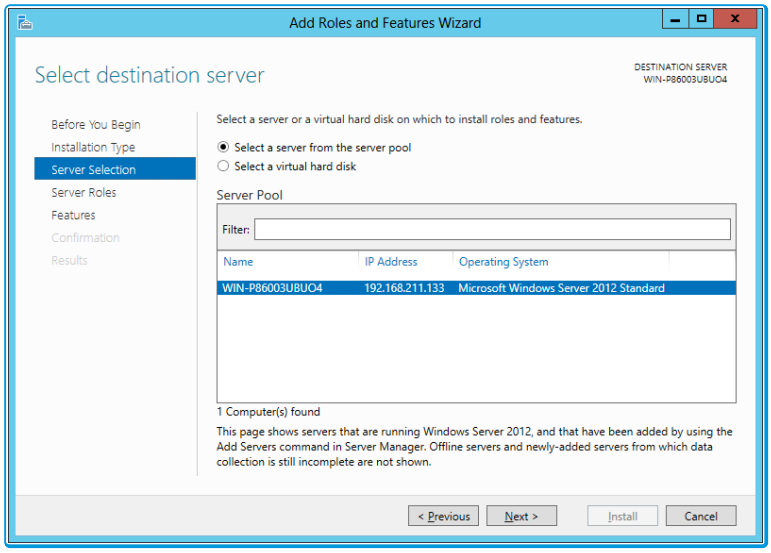
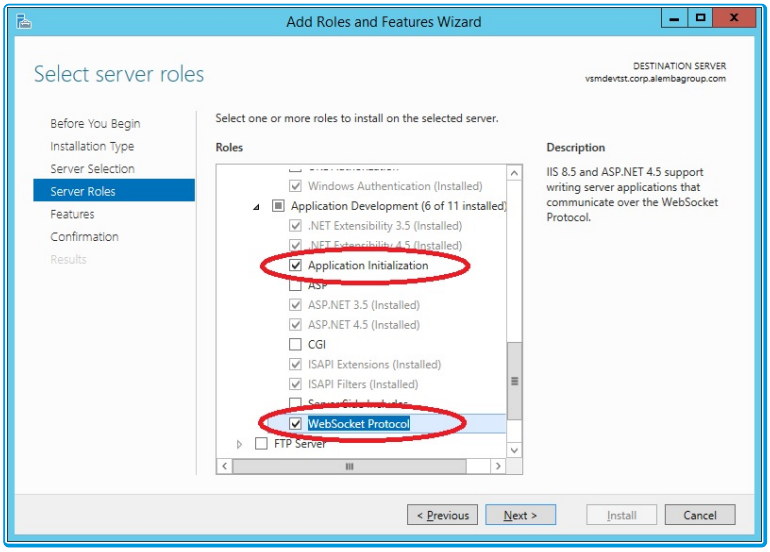
6. On the **Select destination server** window, select the server that you will be using.



7. Select **Next** to continue.
8. In the **Select server roles** window, the **Description** field on the right side of the window gives you an explanation of the purpose of the different roles. Within **Application Development**, select **Application Initialization** and **WebSocket Protocol**.



These options will not be available if you are working in Windows 2008.

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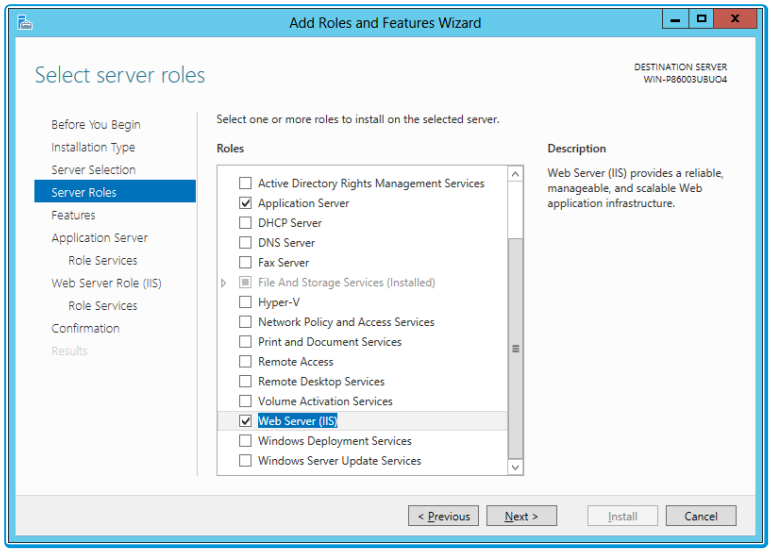
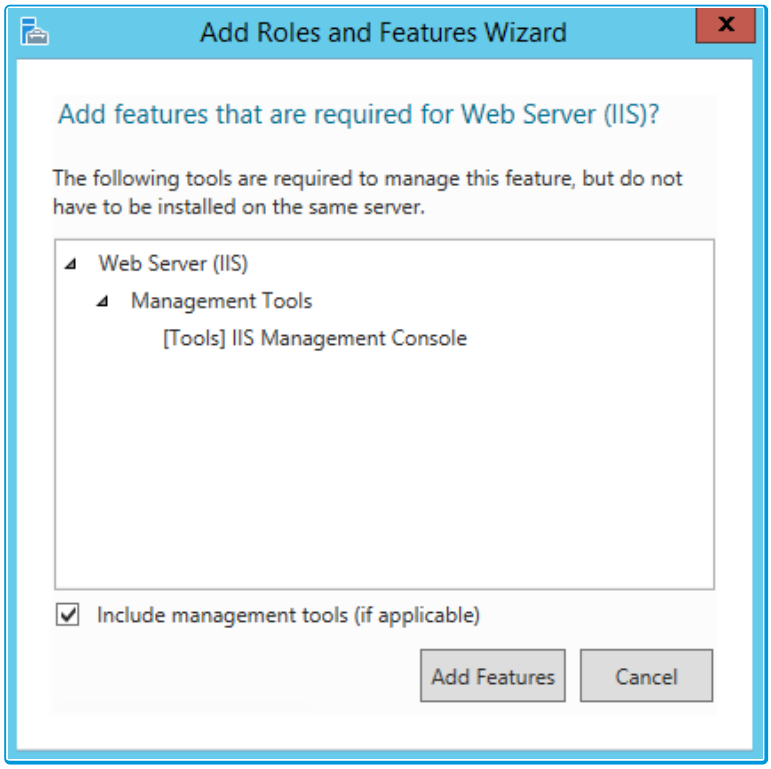
9. Select **Application Server** and **Web Server (IIS)** as a minimum requirement.



10. When you select **Web Server (IIS)**, the **Add Roles and Features Wizard** window is displayed, prompting you to add management tools.



11. Select **Add Features**. The window closes and you are returned to the **Select server roles** window.
12. Select **Next** to continue.

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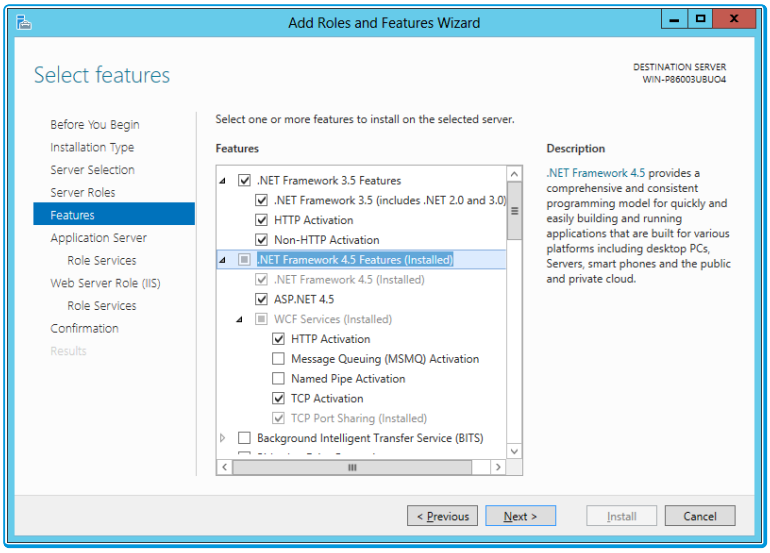
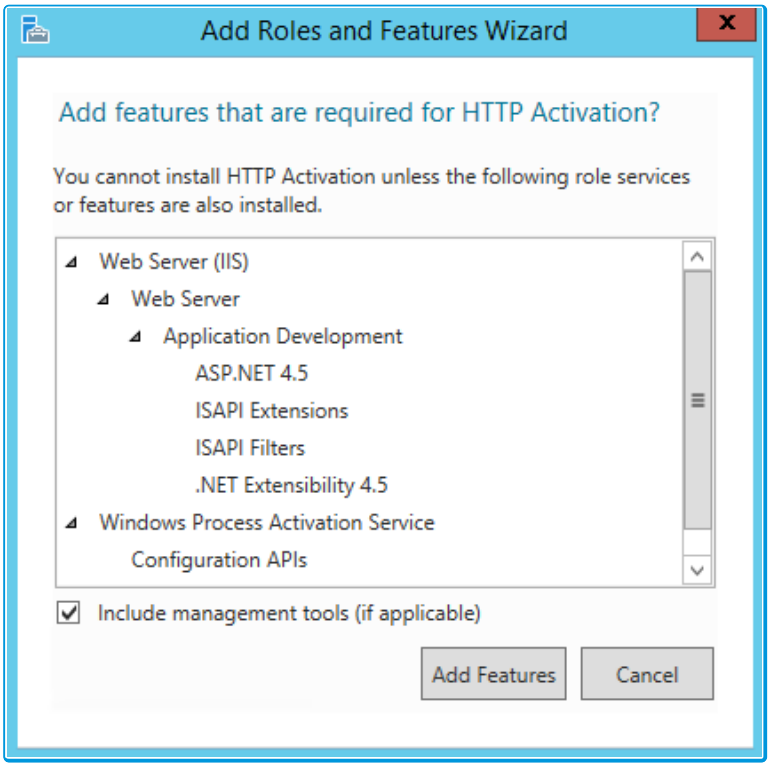
13. In the **Features** window, ensure that the following options are selected.



14. When you select **HTTP Activation** under .NET Framework, the **Add Roles and Features Wizard** window is displayed, prompting you to add further features.



15. Select **Add Features**. The window closes and you are returned to the **Select features** window.

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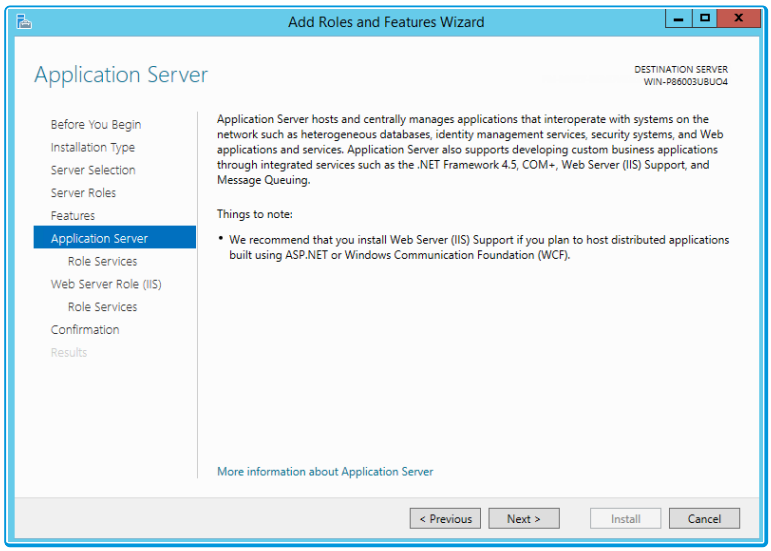
16. Continue adding the features. When you select **HTTP Activation** beneath **WCF Services**, you will see the **Add Roles and Features Wizard** window again. Select **Add Features** to add the required features and return to the Select features window once more.
17. Select **Next** to continue.
18. The **Application Server** window is displayed, giving you information about the application server. Read through the details to ensure you are familiar with them.

    You may not see this window if you are upgrading.



19. Select **Next** to continue.

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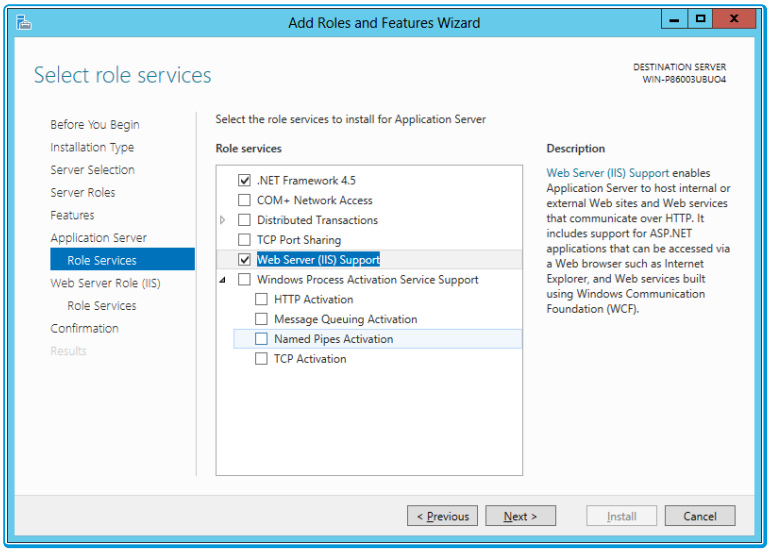
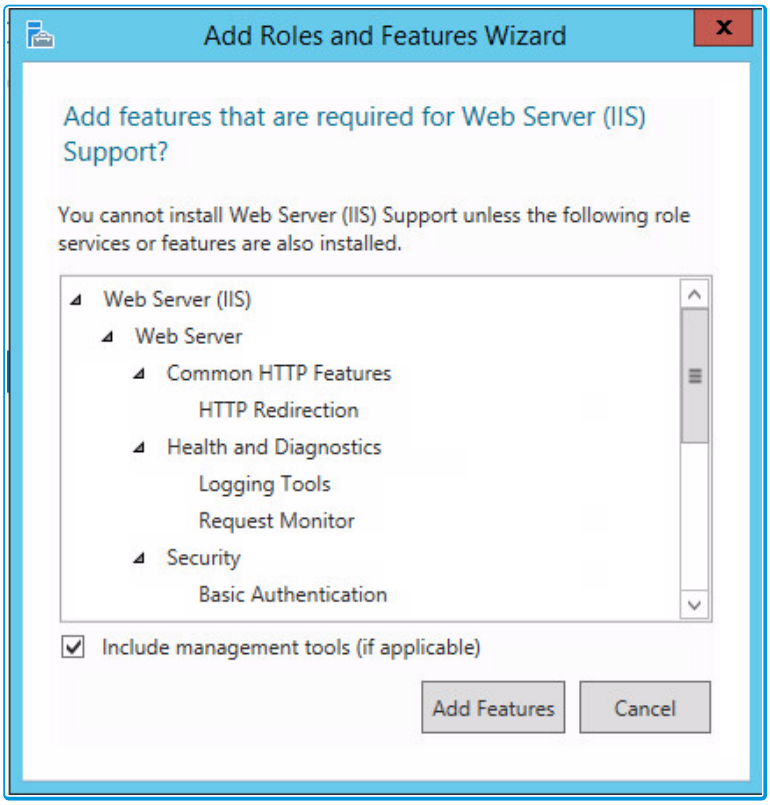
20. In the **Select role services** window, select the following role services for the application server.



21. When the **Add Roles and Features** window is displayed, add the features.



22. Select **Next** to continue.

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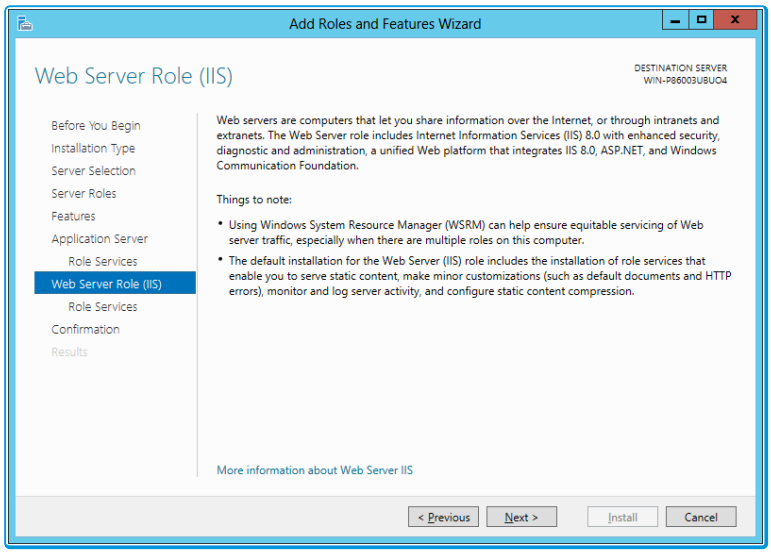
23. In addition to role services for the **Application Server**, you will need to select Role Services for the Web Server Role (IIS). On the **Web Server Role (IIS)** window, read the information provided.



24. Select **Next** to continue.

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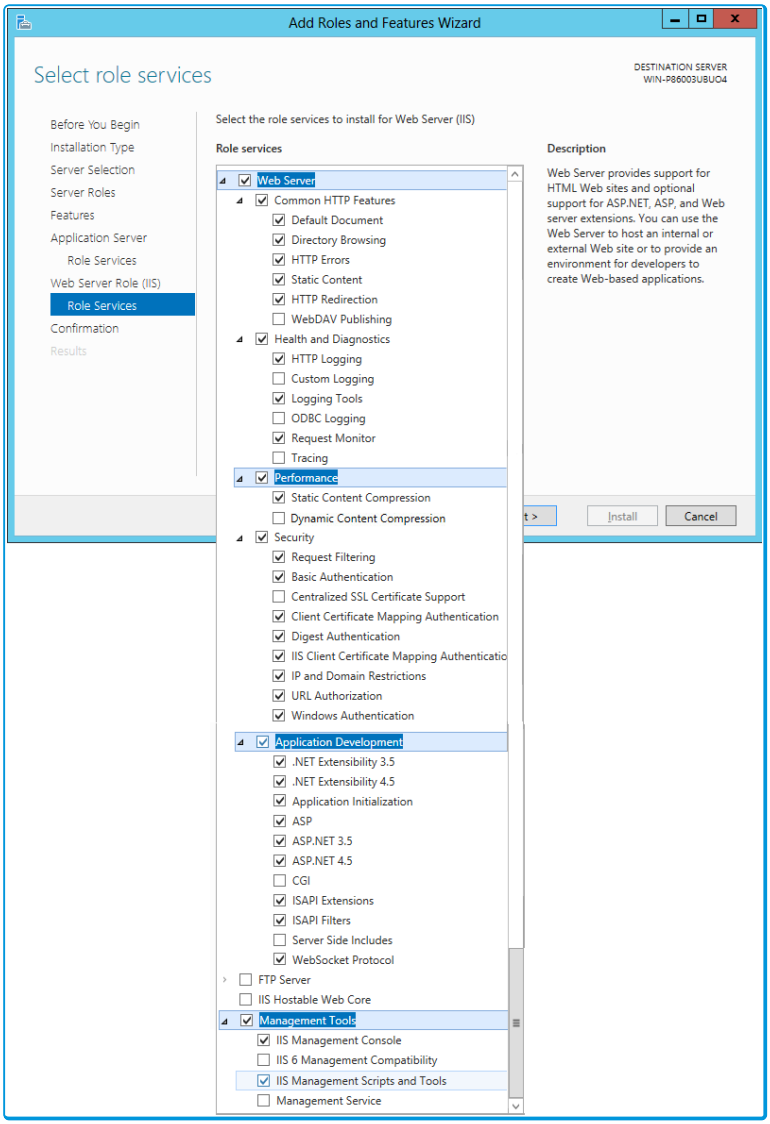
25. On the **Select role services** window, ensure that all of the roles shown in the following screenshot are ticked.



vFire Core provides its own **Dynamic Content Compression**, which tests indicate performs slightly better than IIS Dynamic Content Compression. Disabling IIS Dynamic Content Compression is a viable option but not required.

Dynamic Content Compression is automatically enabled in IIS. When disabled, the Web Server (IIS) Support Role is also disabled, therefore, it is recommended you review the Role Services enabled by the Web Server (IIS) Support Role and manually re-enable those required for your environment.

26. Select **Next** to continue.

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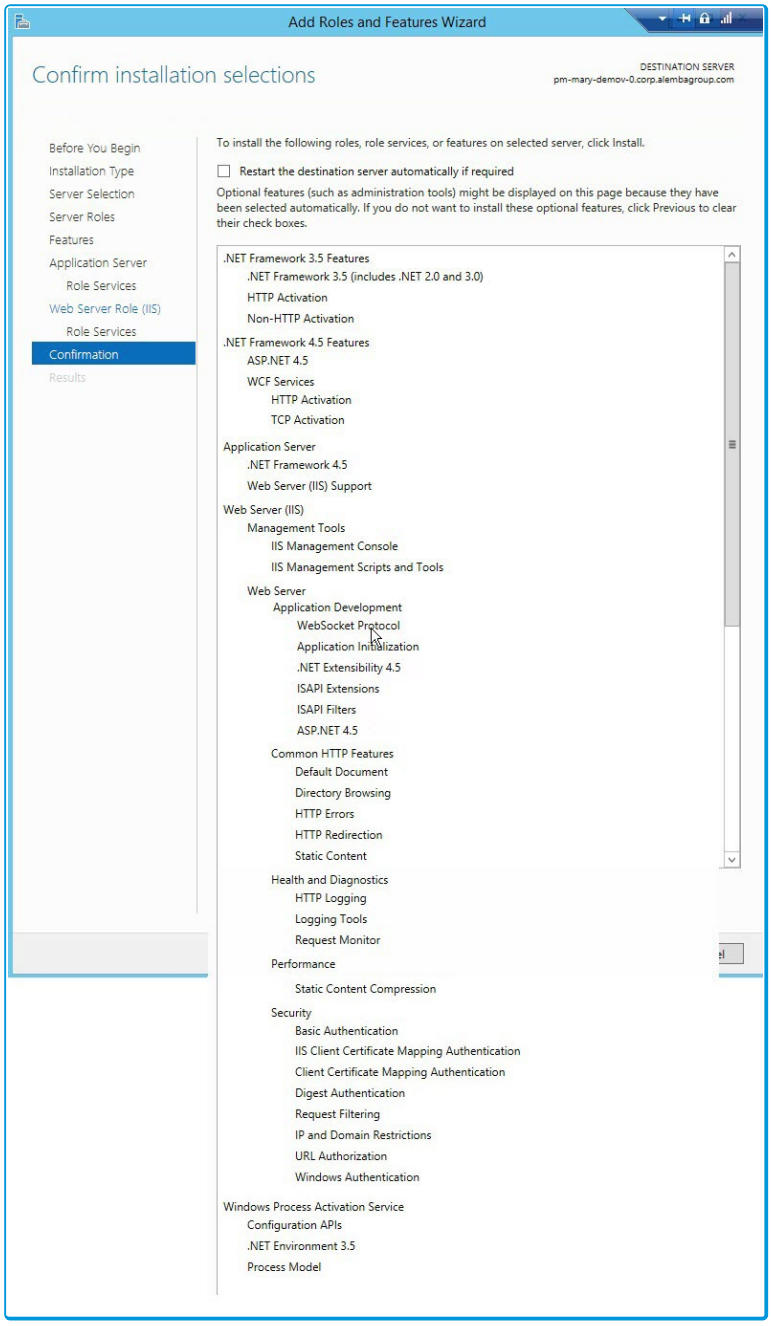
27. In the **Confirm installation selections** window, confirm that you have the following selected. Scroll down to see the details.



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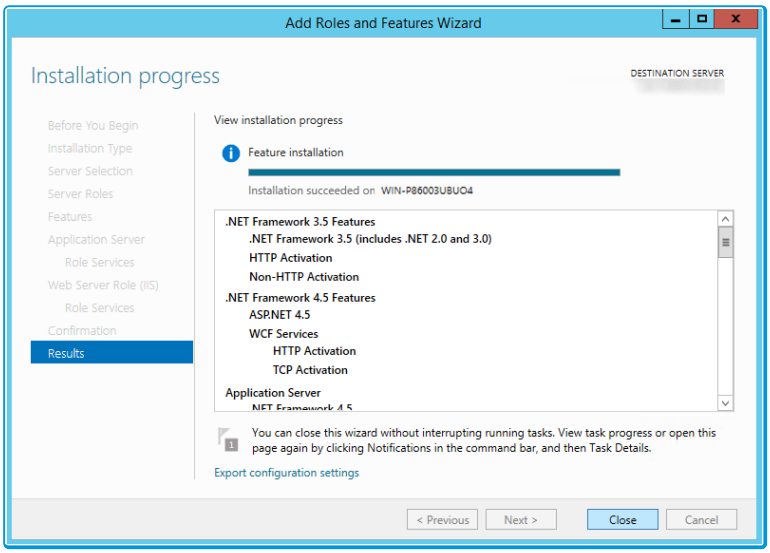
28. Select **Install** when you are ready to proceed. When installation is complete, the results window will display all roles, role services and features which have been installed.



29. Select **Close** to close the wizard. The configuration is complete.

What's Next

Once the configuration has been completed, the following components need to be installed:

- Microsoft .NET Framework v4.5.2 (offline installer - click **here** to download)
- Windows Management Framework 5.1 for Windows Server 2012 R2 (MSU file - click **here** to download)

The **Full-Text and Semantic Extractions for Search** is required for the **Suggested Knowledge** and **Matching Panel** features in v9.8. To install the feature on the SQL Server Database platform, you need access to the SQL Server Installer MSI. Installation instructions (via MS TechNet) are available via the following links:

- **Install and Configure Semantic Search (SQL Server 2012)**
- **Install and Configure Semantic Search (SQL Server 2014)**
- **Install and Configure Semantic Search (SQL Server 2016 and later)**

You also need to enable the feature within the system.

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User Directory Servers

The following directory servers are supported by vFire Core.

Directory Server	Version
Microsoft Active Directory	2008
Microsoft Active Directory	2012
Novell eDirectory	8
Sun Java System Directory	5

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vFire Officer App Prerequisites

Ensure that your system meets the following prerequisites before configuring your environment for the vFire Officer app.

- You need to be using vFire Core 9.2.2 or above (server version)
- Your mobile device must be able to navigate to the vFire HTML pages delivered via IIS web services. This may require you to configure your firewall.
- You must have a valid vFire login account, and be flagged as an Analyst.
- Ensure that your authentication is correctly configured for the app. See the documentation on **Authentication** in the online help for more details.
- You must know your system name and URL to configure the settings when you first use the app. Your system administrator will provide these.

Supported Versions

The app is supported on the following iOS and Android mobile operating systems:

- Windows Phone 8.1
- iOS versions 7 or higher
- Android versions 4.3 or higher

It has been tested on the following devices. (Other devices are also supported.)

- iPhone 5
- iPhone 6
- Samsung Galaxy S3
- Sony Xperia Z3
- HTC One

Compatibility Statement

Currently, the app is only available in English, and for the mobile phone types and platforms specified. We do not support other tablets or devices in this release.

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vFire App Prerequisites

The vFire app is designed for users to log calls, and view their calls, approvals, order and assets. Before users can install the app on their mobile devices, you need to ensure that your system meets the following prerequisites, and configure your environment.

- The app uses the **Alemba API**, which is installed by default when you install/upgrade to 9.7 or above. However, if this is actively disabled by your system administrator, you cannot run the app.
- You must be using **vFire Core 9.10.1** or above (server version). If you are running a lower version of vFire Core, users may experience issues.
- The mobile device must be able to navigate to the **vFire HTML pages** delivered via IIS web services. This may require you to configure your firewall.
- Ensure that your authentication is correctly configured for the app. See the documentation on **Authentication** in the online help for more details.
- Users must have a **valid vFire login** account, and be flagged as a User and/or Analyst.
- Users must know their **system name and URL** to configure the settings when they first use the app, or change device.
- The app is currently available on Windows 8.1 and 10; iOS version 11; and Android version 6.0.1 phones or higher.

Tested Platforms

The app has been tested on the following devices. (Other devices are also supported.)

- Windows 10 Mobile - HP Elite X3
- iPhone 6+ running iOS 11
- Samsung Galaxy S5 running Android version 6.0.1

Compatibility Statement

Currently, the app is only available in English, and for the mobile phone types and platforms specified. We do not support other tablets or devices in this release. If in doubt, please assume that the prerequisites outlined above are accurate.

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Prerequisites Checklist

The recommended requirements for the new vFire system are as summarized below. If you have any queries or require further information, consult the relevant sections in the **Prerequisites**, **Install** and **Upgrade** documentation.

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<table>
<tr><th>Element</th><th>Requirement</th><th>Check?</th></tr>
<tr><td>Application Server</td><td>
Operating System:
<table>
<tr><th>Operating System</th><th>IIS Version</th><th>Hardware</th><th>Additional Requirements</th></tr>
<tr><td>Windows Server 2008 R2 (64-bit)</td><td>IIS 7.5</td><td rowspan="3">64-bit</td><td rowspan="3">.NET 4.5.2;
MMC 3.0 or above;
PowerShell 5</td></tr>
<tr><td>Windows Server 2012</td><td>IIS 8.0</td></tr>
<tr><td>Windows Server 2012 R2</td><td>IIS 8.5</td></tr>
<tr><td>Windows Server 2016</td><td>IIS 10.0</td><td></td><td></td></tr>
</table>
Hardware Requirements (minimum/recommended):
<table>
<tr><th>Hardware</th><th>Minimum Requirement (per system)</th><th>Recommended Requirement (per system)</th></tr>
<tr><td>CPU</td><td>2 CPU Cores</td><td>4 CPU Cores</td></tr>
<tr><td>Memory</td><td>1 GB RAM</td><td>4 GB</td></tr>
<tr><td>HD</td><td>1 GB of available space</td><td>2 GB of available space</td></tr>
</table>
Roles/Features:

Please see the Installation & Upgrade Guides.

Hardware Requirements:
</td><td></td></tr>
</table>

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<tr><th>Element</th><th>Requirement</th><th>Check?</th></tr>
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</table>
Roles/Features:

Please see the vFire 9.9 Installation & Upgrade Guides.

Additional Requirements:

.NET 4.5.2
Windows Management Framework v5.1

</td><td></td></tr>
</table>

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Element	Requirement	Check?
Database Server	Minimum Supported Versions: • SQL Server 2008 ! This is not supported if you are using the Alemba API. • SQL Servers 2012, 2014, 2016 (all 64-bit) Minimum Hardware Requirements: • Your database vendor's documentation should provide the minimum recommended hardware configuration required for the database version you intend to deploy. • It is recommended that you install vFire Core on a separate server to the database server. Additional Requirements: • You must enable the Full-Text and Semantic Extractions for Search feature needs as it is required for the Suggested Knowledge and Matching Panel features introduced in v9.8	
Database Account Permissions	Ensure that the Database Account has the required permissions: The **database login account** that is used for vFire during normal system operation and system upgrades must: • be a member of the **db_owner** group • be granted VIEW DATABASE STATE permission for the vFire database • have VIEW SERVER STATE permission on the database server • Have DB_DATAREADER permission on the master database The **db user** needs permission to execute **xp_regread** See page 13 for more details on how to do this.	

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Element	Requirement	Check?
Exchange Server	Minimum Supported Versions: • Exchange 2010 • Exchange 2013 • Exchange 365 Email Protocols • Incoming Email: POP3, IMAP and MAPI • Outgoing Email: SMTP, MAPI While the MAPI protocol is supported, it is not recommended due to the severe constraints its design places upon the flexibility of the email functionality in vFire.	
Networking	The network location of the database server to the vFire Core server will have an impact on performance. Network switching and firewall configurations need to be considered in the design of the system, and are fully the responsibility of your infrastructure team. Alemba can only provide very limited guidance in this area, but can recommend third-party consultants to provide specialist advice.	
vFire Core Client	Minimum Supported Browsers: • Internet Explorer 11 (Internet Explorer 9 is supported with Windows Vista, with limitations) Required Add-On for installations not using vUA: • vFire ActiveX Controls (downloadable from application site or via MSI package)	

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Element	Requirement	Check?
vFire Self Service Client	Minimum Supported Browsers for Windows 7, 8.1, 10 desktops: • Internet Explorer 11.0.9600.17031 • Firefox version 43.0.3 • Chrome version 47.0.2526 Minimum Supported Browsers for Mac desktops: • Safari version 11.0	
Nano Client	Minimum Supported Browsers for Windows 7, 8.1, 10 desktops: • Internet Explorer 11.0.9600.17031 • Firefox version 43.0.3 • Chrome version 47.0.2526 Minimum Supported Browsers for Mac desktops: • Safari version 11.0	
Active Directory Connectors	Minimum Supported Versions of Active Directory: • Microsoft Active Directory 2008 • Microsoft Active Directory 2012 Minimum Supported Versions of PowerShell • PowerShell v5.0 Multiple other connectors are also supported. See the Connector Matrix for more details.	

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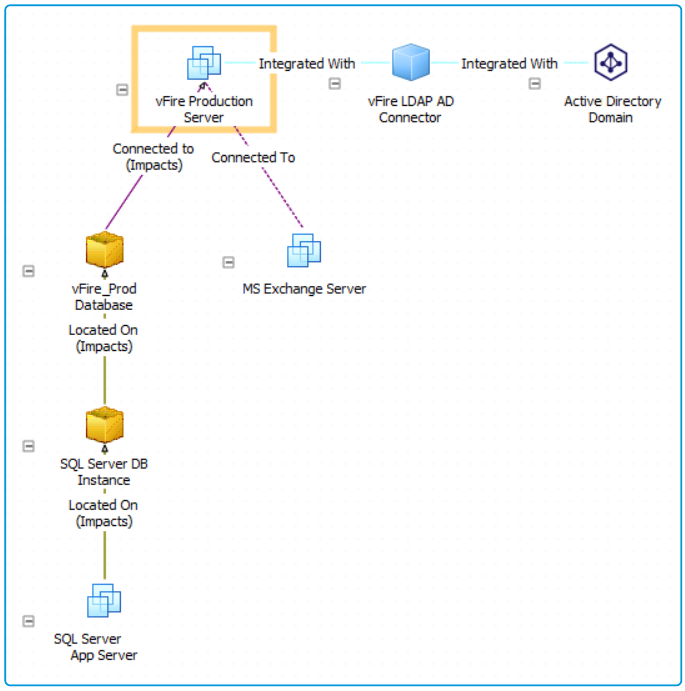
Element	Requirement	Check?
Infrastructure Map	The following is an example of the infrastructure relationships of a standard implementation of vFire Core.  This diagram could differ significantly, depending on your internal infrastructure requirements and datacenter landscape.	

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Further Information

Product Information and Online Support

For information about Alemba products, licensing and services, visit **www.alemba.com**.

For release notes and software updates, go to **www.alemba.help**.

Up-to-date product documentation, training materials and videos can be found at **www.alemba.help/help**.

You may need to register to access some of these details.

Technical Support

For technical support, please visit: **www.alemba.com** and select the **vfire support** link. You will need to log in to the alemba self service portal to contact the Alemba Service Desk.

Comments and Feedback

If you have any comments or feedback on this documentation, submit it to info@alembagroup.com.

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