MODULE 2: INSTALLATION REQUIREMENTS

Module Overview

Microsoft Dynamics® NAV 2013 takes advantage of the Microsoft software platform. Therefore, all the software prerequisites of Microsoft Dynamics NAV 2013 are part of the Microsoft software stack. This software platform consists of the following prerequisites for Microsoft Dynamics NAV 2013:

- Windows Server 2008, Windows Server 2008 R2 and Windows Server 8
- Microsoft SQL Server™ 2008, Microsoft SQL Server 2008 R2 or Microsoft SQL Server 2012
- The Microsoft® .NET Framework 3.5
- Microsoft Windows Web Services Enhancements
- Microsoft Report Viewer 2010

These software requirements determine the hardware configuration. The hardware configuration must be sufficient to run the software prerequisites. If this is not the case then the software prerequisites do not run correctly. This leads to a failed implementation of Microsoft Dynamics NAV.

Objectives

The objectives are:

- Understand the operating system and software prerequisites for Microsoft Dynamics NAV 2013.
- Select the correct Microsoft Windows® Server Edition for the core components.
- Select the correct Microsoft SQL Server edition for the Microsoft Dynamics NAV 2013 environment.

Software Prerequisites for Microsoft Dynamics NAV 2013

Install and configure the following to prepare the server on which you will load Microsoft Dynamics NAV:

- **Windows Server 2008** is the infrastructure platform for powering connected applications, networks, and web services from the workgroup to the data center.
- **Microsoft SQL Server** is a comprehensive database platform providing enterprise-class data management with integrated business intelligence (BI) tools. The Microsoft SQL Server 2008 database engine provides improved security and reliable storage for both relational and structured data. This enables you to build and manage highly available, performance data applications for use in your business.
- The **.NET Framework** is a development and execution environment that enables different programming languages and libraries to work together seamlessly to create Microsoft Windows-based applications that are easier to build, manage, deploy, and integrate with other networked systems.
- The **Web Services Enhancements** for Microsoft .NET is an add-in to Microsoft Visual Studio® and the Microsoft .NET Framework 3.5 that enables developers to build secure web services that are based on the latest web services protocol specifications.

The **Microsoft Report Viewer 2010** redistributable package includes Windows Forms and ASP.NET Web server controls for viewing reports designed by using Microsoft reporting technology. Microsoft Report Viewer control enables applications that run on the .NET Framework to display reports designed by using Microsoft reporting technology.

Windows Server 2008 and Windows Server 2008 R2

Windows Server 2008 is a multipurpose server designed to increase the reliability and flexibility of the server or private cloud infrastructure, helping you save time and reduce costs. It gives you powerful tools to react to business needs faster than ever with more control and confidence.

Windows Server 2008 R2 delivers many improvements for you to implement a robust datacenter and desktop virtualization plan. Whether you want to combine servers, build a private cloud, or offer virtual desktop infrastructure (VDI), the features of Windows Server 2008 R2 help you take your datacenter and desktop strategy to a new level.

Windows Server 2008 and Windows Server 2008 R2 come in different editions. Each edition provides key functionality to support any size business and IT challenge.

The figure Windows Server 2008 Roles per Edition illustrates:

Server Role	Enterprise	Datacenter	Standard	Itanium	Web
Web Services	✓	✓	✓	✓	✓
Application Server	✓	✓	✓	✓	○
Print Services	✓	✓	✓	○	○
Hyper-V[1]	✓	✓	✓	○	○
Active Directory Domain Services	✓	✓	✓	○	○
Active Directory Lightweight Directory Services	✓	✓	✓	○	○
Active Directory Rights Management Services	✓	✓	✓	○	○
DHCP Server	✓	✓	✓	○	○
DNS Server	✓	✓	✓	○	○
Fax Server	✓	✓	✓	○	○
UDDI Services	✓	✓	✓	○	○
Windows Deployment Services	✓	✓	✓	○	○
Active Directory Certificate Services	✓	✓	◉[2]	○	○
File Services	✓	✓	◉[3]	○	○
Network Policy and Access Services	✓	✓	◉[4]	○	○
Terminal Services	✓	✓	◉[5]	○	○
Active Directory Federation Services	✓	✓	○	○	○

1 For customers that do not need virtualization, Windows Server 2008 Standard, Enterprise, and Datacenter editions are available without Windows Server Hyper-V Technology.

2 Limited to creating Certificate Authorities—no other ADFS features (NDES, Online Responder Service). See ADCS role documentation on TechNet for more information.

3 Limited to one standalone DFS root.

4 Limited to 250 RRAS connections, 50 IAS connections, and 2 IAS Server Groups.

5 Limited to 250 Terminal Services Gateway connections.

FIGURE 2.1: WINDOWS SERVER 2008 ROLES PER EDITION WINDOW

Windows Server 2008 Datacenter Edition

Windows Server 2008 R2 Datacenter delivers an enterprise-class platform to deploy business-critical applications and large-scale virtualization on small and large servers. It helps you with the following:

- Improve availability, enhance power management, and integrate solutions for mobile and branch workers.
- Reduce infrastructure costs by combining applications that have unlimited virtualization licensing rights.
- Scale from two to 64 processors.

Windows Server R2 2008 Datacenter provides a foundation on which to build enterprise-class virtualization and scale-up solutions.

Windows Server 2008 Enterprise Edition

Windows Server 2008 R2 Enterprise is an advanced server platform that provides more cost-effective and reliable support for mission-critical workloads. It offers innovative features for virtualization, power savings, and manageability and helps make it easier for mobile workers to access company resources.

Windows Server 2008 Standard Edition

Windows Server 2008 R2 Standard is the most robust Windows Server operating system to date. With built-in, improved web and virtualization capabilities, it increases the reliability and flexibility of the server infrastructure while helping to save time and reduce costs. Powerful tools give you more control over the servers and streamline configuration and management tasks. Plus, enhanced security features work to harden the operating system to help protect your data and network and provide a solid, highly dependable foundation for your business.

Windows Server 2008 R2 also offers four special purpose editions.

Windows Server 2008 R2 Web Edition

Windows Web Server 2008 R2 is a powerful web application and services platform. Featuring Internet Information Services (IIS) 7.5 and designed exclusively as an Internet-facing server, it offers improved administration and diagnostic tools to help reduce infrastructure costs when you use it with different popular development platforms. With included Web server and DNS server roles, in addition to improved reliability and scalability, this platform helps you manage the most demanding environments — from a dedicated web server to a whole web server farm.

Windows Server 2008 R2 HPC Edition

Windows HPC Server 2008 R2, the Microsoft third-generation HPC solution, provides a comprehensive and cost-effective solution for harnessing the power of high-performance computing. Out-of-the-box, world-class performance, and scalability enable organizations of all sizes to rapidly deploy solutions ranging from personal HPC workstations to large clusters spanning thousands of nodes. Customers can lower both their operating and capital costs. Windows HPC Server 2008 R2 integrates easily with existing IT infrastructure to enable end-users to access HPC resources by using familiar Windows-based technologies. With a tightly integrated set of dedicated cluster and parallel development tools, anchored around Visual Studio 2010, developers can build robust and scalable HPC applications easily and quickly. Windows HPC Server 2008 R2 is complemented by a rich ecosystem of SI, ISV, and OEM partners to make sure that customers have access to the applications of their choice and the resources required to successfully run them.

Windows Server 2008 R2 for Itanium-based Systems

Windows Server 2008 R2 for Itanium-based systems delivers an enterprise-class platform to deploy business-critical applications. With it, you can scale database, line-of-business, and custom applications to meet growing business needs. However, note that Windows Server 2008 R2, SQL Server 2008 R2, and the current 2010 line-up of developer tools, plus associated .NET frameworks, will be the last iterations in each product line to support the Intel Itanium processor and associated OEM server platforms. Microsoft Dynamics NAV 2013 does not support this Windows Server edition.

Windows Server 2008 R2 Foundation Edition

Windows Server 2008 R2 Foundation is a cost-effective, entry-level technology foundation targeted at small business owners and IT generalists who support small businesses. Foundation is an inexpensive, easy-to-deploy, proven, and reliable technology that provides organizations with the foundation to run the most prevalent business applications and share information and resources.

For more information about Windows Server 2008 and the different editions and features in each edition, see http://www.microsoft.com/windowsserver/.

Windows Small Business Server 2008

Designed and priced for small businesses with up to 75 users, Windows Small Business Server 2008 delivers enterprise-class server technology in an affordable, all-in-one solution. It helps protect your business information from loss by performing automatic daily backups. Additionally, it helps users be more productive with features such as email, Internet connectivity, internal websites (collaboration), remote access, and file and printer sharing.

For more information about Microsoft Windows Small Business Server, see http://www.microsoft.com/sbs/.

Windows Essential Business Server 2008

Windows Essential Business Server (EBS) combines several Microsoft technologies to meet the needs of businesses with up to 300 users or computers. With Windows EBS, businesses benefit from the power and versatility of a multiserver, multi-computer network, and IT administrators enjoy reduced installation time and complexity. Administrators can perform most of their daily operations tasks from a single, integrated console. Administrators can also connect remotely to the Windows EBS Administration Console.

Note: *Some core components and clients such as the Microsoft Dynamics NAV Server and the Microsoft Dynamics NAV Portal Framework for SharePoint® 2010 can only be installed on 64 bit editions.*

The Microsoft Dynamics NAV Server Administration Tool does not run on Windows Server 2008. It does run on Windows Server 2008 R2.

SQL Server 2008

Microsoft SQL Server is a comprehensive database server and information platform offering a complete set of enterprise-ready technologies and tools that help people derive the most value from information at the lowest total cost of ownership. Enjoy high levels of performance, availability, and security, use more productive management and development tools, and deliver widespread insight with self-service business intelligence (BI).

SQL Server 2008 R2 delivers several breakthrough capabilities that will help organizations to scale database operations with confidence, improve IT and developer efficiency, and enable highly scalable and well-managed business intelligence on a self-service basis for users.

The Microsoft SQL Server database engine is the core of this enterprise data management solution. Additionally, Microsoft SQL Server offers analysis (business intelligence with SQL Server Analysis Services), reporting (SQL Server Reporting Services), integration (SQL Server Integration Services), and notification functionalities. The figure The Microsoft SQL Server Platform shows the SQL Server platform context:

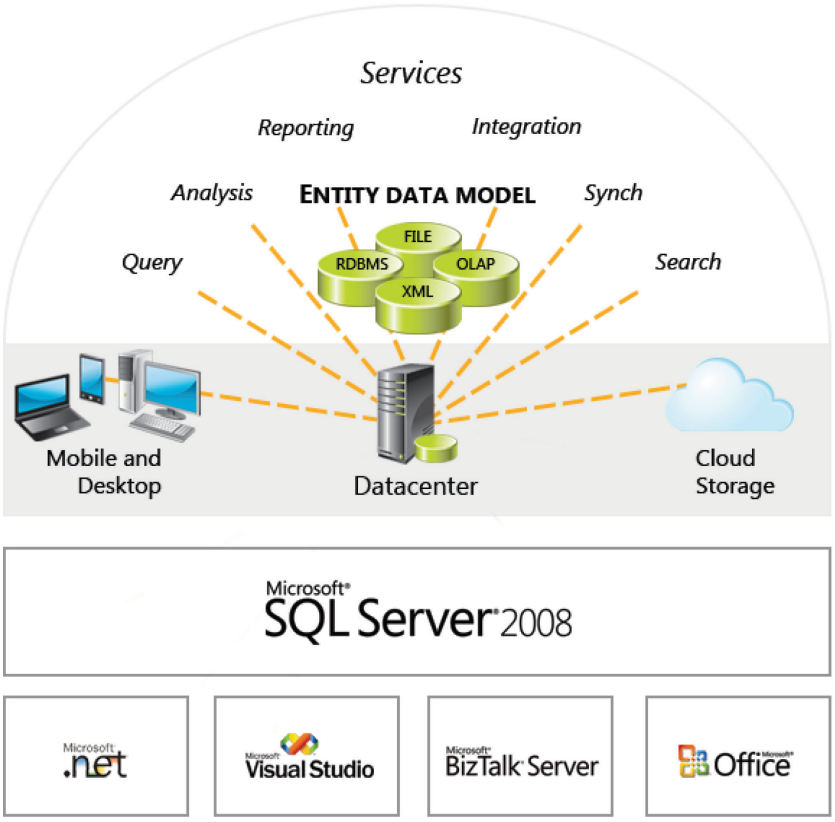

FIGURE 2.2: THE MICROSOFT SQL SERVER PLATFORM WINDOW

Microsoft SQL Server 2008 and SQL Server 2008 R2 come in different editions offering key functionalities to support any business size and IT strategy. SQL Server 2008 editions are available for both 32-bit and 64-bit platforms. However, Microsoft SQL Server 2008 R2 is available only for the 64-bit platform.

Note: *Microsoft Dynamics NAV 2013 supports the 64-bit editions of both Microsoft SQL Server 2008 and Microsoft SQL Server 2008 R2.*

SQL Server 2008 R2 Enterprise Edition

Enterprise Edition is meant to support the largest enterprise online analytical processing environments, highly complex data analysis, data warehousing, and active web servers.

SQL Server 2008 R2 Standard Edition

Standard Edition includes the necessary functionality for e-commerce, data warehousing, and line-of-business solutions that most small- and medium-sized business use. If your organization has to track large amounts of data but does not have to have all the functionality of Enterprise Edition, then Standard Edition will work well with Microsoft Dynamics NAV.

SQL Server 2008 R2 Workgroup Edition

Workgroup Edition is the data management solution for small organizations that need a database that has no limit on the size or number of users and can work as a back end to small web servers and departmental or branch office operations.

SQL Server 2008 R2 Express Edition

SQL Server 2008 R2 Express Edition is a free, easy-to-use and easy-to-manage database that can be redistributed to act as a client database and basic server database. It is usually suited for small data sets and will not work in some Microsoft Dynamics NAV implementations.

To determine which SQL Server edition will work best for the Microsoft Dynamics NAV 2013 implementation, review the features in each edition.

For more information about the features in each edition, see http://www.microsoft.com/sqlsverer/.

SQL Server 2012

SQL Server 2012 will provide **Mission Critical Confidence** with greater uptime, blazing-fast performance and enhanced security features for mission critical workloads. SQL Server 2012 provides both **Breakthrough Insight** with managed self-service data exploration and stunning interactive data visualizations capabilities and **Cloud On Your Own Terms** by enabling the creation and extension of solutions across on-premises and public cloud. SQL Server 2012 will be available in three main editions:

- Enterprise Edition
- Business Intelligence Edition
- Standard Edition

For more information about SQL Server 2012 editions and the corresponding features, please see http://www.microsoft.com/sqlserver/.

.NET Framework

The .NET Framework is an integral Windows component that supports building and running the next generation of applications and web services. The .NET Framework fulfills the following objectives:

- Provides a consistent object-oriented programming environment whether object code is stored and executed locally, executed locally but Internet-distributed, or executed remotely.
- Provides a code-execution environment that minimizes software deployment and versioning conflicts.
- Provides a code-execution environment that promotes safe execution of code, including code created by an unknown or semi-trusted third party.
- Provides a code-execution environment that eliminates the performance problems of scripted or interpreted environments.
- Makes the developer experience consistent across widely varying types of applications, such as Windows-based applications and web-based applications.
- Builds all communication on industry standards to make sure that code based on the .NET Framework can integrate with any other code.

The .NET Framework has two main components: the common language runtime and the .NET Framework class library. The common language runtime is the foundation of the .NET Framework. You can think of the runtime as an agent that manages code at execution time. It provides core services such as memory management, thread management, and remoting, while also enforcing strict type safety and other forms of code accuracy that promote security and robustness. In fact, the concept of code management is a fundamental principle of the runtime. Code that targets the runtime is known as managed code, whereas code that does not target the runtime is known as unmanaged code. The class library, the other main component of the .NET Framework, is a comprehensive, object-oriented collection of reusable types that you can use to develop applications ranging from traditional command-line or graphical user interface (GUI) applications to applications that are based on the latest innovations provided by ASP.NET, such as Web Forms and Web services.

More information on the .NET Framework can be found on http://www.microsoft.com/net/.

Service Accounts

When you install Microsoft Dynamics NAV Server, the service logs on by using the NT Authority\Network Service account by default. This is a shared account that can be used by other unrelated network services. Any users who have rights to this account have rights to all services that are running on this account.

We recommend that you configure Microsoft Dynamics NAV Server (and Microsoft SQL Server) to log on by using a dedicated Windows domain user account instead. This account should not be an administrator either in the domain or on any local computer. You can use the same user account for both Microsoft SQL Server and Microsoft Dynamics NAV Server, but this is optional.

A dedicated domain user account is considered more secure because no other services and therefore no other users have permissions for this account. In addition, a domain user account offers more flexibility when you perform file read and/or write operations on the network. You can easily define the necessary permissions for the domain user account, because it is known on all computers in the domain.

If you want to run the Microsoft Dynamics NAV Server under a domain user account, you must:

- Enable the account to log on as a service.
- Enable the account to register a service principal name (SPN) on itself (or register the SPN manually).
- Give the account necessary database privileges in SQL Server.

Remember that membership in the local Administrators group, or equivalent, is the minimum required to complete these procedures.

Enable the account to log on as a service

Depending on various factors, the account may already have this ability. For example, if you have already installed SQL Server and configured it to run under the same account, SQL Server will have modified the account to log on as a service. If not, you can enable the account by following this procedure:

1. Click **Start**, point to **Run**, type "mmc", and then click **OK**.
2. On the File menu, click Add/Remove Snap-in.
3. In Add/Remove Snap-in, click Add, and then, in Add Standalone Snap-in, double-click Group Policy Object Editor.
4. In **Group Policy Object**, click **Browse**, browse to the Group Policy object (GPO) that you want to modify, click **OK**, and then click **Finish**.
5. Click **Close**, and then click **OK**.
6. In the console tree, click **User Rights Assignment**.

7. In the **details** pane, double-click **Log on as a service**.
8. If the security setting has not yet been defined, select the **Define these policy settings** check box.
9. Click **Add User or Group**, and then add the appropriate account to the list of accounts that have the Log on as a service right.

Enable the Microsoft Dynamics NAV Server account to register an SPN on itself

To enable secure mutual authentication between clients and Microsoft Dynamics NAV Server, you must configure the Microsoft Dynamics NAV Server account to self-register SPNs. Mutual authentication is recommended in a production environment but may not be necessary in a testing or staging environment. The following procedure assumes you are working with a computer that is running Windows Server 2008 or Windows Server 2008 R2. On Windows 7 or Windows Vista, you would have to install the Remote Server Administration Tools first.

1. Start the Active Directory® Users and Computers snap-in in Microsoft Management Console (MMC):
   a. Click **Start > Run**, on the command line type "mmc**"**, and then click **OK**.
   b. When the console opens, click File > Add/Remove Snap-In, select Active Directory Users and Computers, and then click Add.
   If you do not see Active Directory Users and Computers in the list of available snap-ins, you may have to use Server Manager to install the Active Directory Domain Services role on the server.
2. In MMC, select **Active Directory Users and Computers** in the tree view, and then on the **View** menu click **Advanced Features**.
3. Expand the domain node in the tree view, and then click **Users**.
4. Right-click the service account, select **Properties**, and then click the **Security** tab.
5. In the Group or user names list, click SELF.
6. Under **Permissions for SELF**, in the lower part of the panel, scroll down to **Write public information**, and then click to put a check mark in the Allow column.
7. Click **OK** to exit the Properties panel, and close **Active Directory Users and Computers**.

Give the account necessary database privileges on SQL Server

To grant the necessary SQL Server database privileges to the service account, do the following:

1. Start SQL Server Management Studio, and connect to the appropriate Microsoft Dynamics NAV Server instance.
2. Browse the tree view: Databases, <your database>, Users.
3. If the Microsoft Dynamics NAV Server is listed, right-click it and click **Properties**. If the Microsoft Dynamics NAV Server account is not listed, follow these steps:
    a. Right-click **Users** and choose **New User**.
    b. On the right side of the second line in the **Database User – New** dialog box, click the ellipsis button (...).
    c. Enter or browse for identifying information for an existing SQL Server Login.
4. In the **Database role membership** field at the bottom of the **Database User** dialog box, select the **db_owner** role. (Instead of assigning the db_owner role, you can assign the datareader, datawriter and ddladmin roles.)
5. Click **OK** to exit the **Database User** dialog box.

SQL Server Database Components

SQL Server Database Components configure Microsoft SQL Server to work with Microsoft Dynamics NAV 2013. Database components include an edition of SQL Server and a Microsoft Dynamics NAV 2013 database. For production environments, we recommend that you use the Enterprise, Standard, or Workgroup Edition of SQL Server 2012, SQL Server 2008 R2 or SQL Server 2008.

System Requirements

The minimum system requirements for the Microsoft Dynamics NAV 2013 Database Components for SQL Server are as follows:

Domain	Description
SQL Server	The database components run on the following versions and editions of SQL Server: • Microsoft SQL Server 2008 R2 Express, Workgroup, Standard, or Enterprise (64-bit editions only). • Microsoft SQL Server 2008 Express, Workgroup, Standard, or Enterprise (64-bit editions only). The 64-bit edition of SQL Server 2008 R2 Express is automatically installed before the Microsoft Dynamics NAV 2013 database components by Microsoft Dynamics NAV 2013 Setup if a supported SQL Server product is not already installed on the destination computer.

Microsoft Dynamics NAV Server

The Microsoft Dynamics NAV Server can be installed on 64-bit editions of Windows Server 2008 and Windows 2008 R2. Although Microsoft Dynamics NAV Server can be installed on Windows Server 2008, the Microsoft Dynamics NAV Server Administration Tool can only run on Windows Server 2008 R2.

System Requirements

The minimum system requirements for Microsoft Dynamics NAV Server are as follows:

Domain	Description
Operating system	Microsoft Dynamics NAV Server runs only on 64-bit editions of the following versions of Windows: • Windows 7 Professional, Enterprise, or Ultimate (64-bit editions only) • Windows Server 2008 R2 • Windows Server 2008 (64-bit edition only) • Windows Server 8  ***Note:*** *The Microsoft Dynamics NAV Server Administration Tool does not run on Windows Server 2008. It does run on Windows Server 2008 R2.*
Hardware resources	Hard disk space: • 50 MB Memory: • 2 GB Installing additional language modules requires additional disk space on the Microsoft Dynamics NAV server tier (approximately 7 MB per language).

Domain	Description
Additional software	• Microsoft .NET Framework 4.0: Microsoft Dynamics NAV 2013 Setup installs this software if it is not already present on the destination computer. • Active Directory is required for the Microsoft Dynamics NAV Portal Framework for Microsoft SharePoint 2010. • Windows PowerShell 2.0 is required for the command-line API for Microsoft Dynamics NAV Administration. Windows PowerShell 2.0 is included with Windows Server 2008 R2 and Windows 7. • Microsoft Report Viewer 2010 is required for Save as Excel or Save as PDF functionality. Microsoft Dynamics NAV 2013 Setup installs this software if it is not already present on the destination computer.

RoleTailored Client for Windows

Microsoft Dynamics NAV 2013 supports multiple client options, each having different hardware and/or software requirements.

System Requirements

The minimum system requirements for the RoleTailored client are as follows:

Domain	Description
Operating system	The RoleTailored client runs on the following versions of Windows: • Windows 7 Professional, Enterprise, or Ultimate (32-bit or 64-bit editions) • Windows 8 • Windows Server 2008 R2 • Windows Server 2008 (32-bit or 64-bit editions) On 64-bit editions of Windows, the RoleTailored client runs in WOW64 emulation mode.

Domain	Description
Hardware resources	Hard disk space: • 30 MB Memory: • 1 GB Installing additional language modules will require additional disk space on the client (approximately 35 MB per language) and on the Microsoft Dynamics NAV server tier (approximately 7 MB per language).
Additional software	• Microsoft .NET Framework 4.0. • Microsoft Lync 2010 or Microsoft Office Communicator 2007 is required for instant messaging and TAPI. • Microsoft Office 2010 or Microsoft Office 2007 SP1 is required for mail merge, Outlook® client integration, budget import and export to and from Microsoft Excel® and Office XML, and SharePoint links. • Microsoft Office 2010 is required for OneNote integration. • Collaboration data objects (CDO) are required for mail merge and email logging.

Domain	Description
Reports	You design and upgrade reports by using the Microsoft Dynamics NAV development environment. By default, the development environment is installed with the RoleTailored client. You run reports in the RoleTailored client or on Microsoft Dynamics NAV Server. • Microsoft Visual Studio 2010 SP1 Professional, Premium, or Ultimate and Microsoft Report Viewer 2010 SP1 are required for designing reports in the development environment. Microsoft Dynamics NAV Setup installs Microsoft Report Viewer 2010 SP1 if it is not already on the destination computer. • Microsoft SQL Server 2008 R2 Report Builder 3.0 or Microsoft SQL Server 2008 R2 RTM Express with Advanced Services with BIDS installed is required to update reports in the development environment. Microsoft Dynamics NAV Setup installs Microsoft SQL Server 2008 R2 Report Builder 3.0 if neither of these products is already installed on the destination computer. Setup only installs Microsoft SQL Server 2008 R2 Report Builder 3.0 when the development environment is included in the installation. • Microsoft Report Viewer 2010 SP1 is required for running reports in the RoleTailored client or on Microsoft Dynamics NAV Server. Microsoft Dynamics NAV Setup installs this software if it is not already installed on the destination computer.

 ***Note:*** *Microsoft Dynamics NAV 2013 Setup can only install the Excel add-in if Excel 2010 is present on the destination computer.*

Microsoft Dynamics NAV Web Client

With the Microsoft Dynamics NAV Web client, you can access Microsoft Dynamics NAV data over the Internet. From a web browser, you can view and edit data by using an interface that resembles the RoleTailored client.

System Requirements

The minimum system requirements for the Web client are as follows:

Domain	Description
Server component	• Microsoft .NET Framework 4.0. Microsoft Dynamics NAV Setup installs this software if it is not already present on the destination computer. • Internet Information Server 7.0.
Supported browsers	There are no known issues with these browsers: • Internet Explorer® 9 or Internet Explorer 8 on Windows 7, Windows Server 2008 R2, or Windows Server 2008 (32-bit or 64-bit editions). Supported with limitations: • Google Chrome 16 on Windows 7, Windows Server 2008 R2, or Windows Server 2008 (32-bit or 64-bit editions). • Mozilla Firefox 9 on Windows 7, Windows Server 2008 R2, or Windows Server 2008 (32-bit or 64-bit editions).

Microsoft Dynamics NAV Portal Framework for Microsoft SharePoint 2010

Microsoft Dynamics NAV Portal Framework is a set of components that you install on a server or servers that run Microsoft SharePoint Foundation 2010. Microsoft Dynamics NAV Portal Framework for Microsoft SharePoint 2010 provides access to Microsoft Dynamics NAV data from Microsoft SharePoint 2010 applications without requiring additional or specialized development work.

System Requirements

The minimum system requirements for the Microsoft Dynamics NAV Portal Framework for SharePoint 2010 are as follows:

Domain	Description
Operating system	Microsoft Dynamics NAV Portal Framework for Microsoft SharePoint 2010 runs on the following versions of Windows: • Windows Server 2008 R2. • Windows Server 2008 (64-bit editions only).
Additional software	• Microsoft .NET Framework 3.5 SP1. Microsoft Dynamics NAV 2013 Setup installs this software if it is not already present on the destination computer. • Microsoft SharePoint Foundation 2010 or SharePoint Server 2010. • SQL Server 2008 R2 (64-bit editions only) or SQL Server 2008 (64-bit editions only).
Supported browsers	There are no known issues with these browsers: • Internet Explorer 9 or Internet Explorer 8 on Windows 7, Windows Server 2008 R2, or Windows Server 2008 (32-bit or 64-bit editions). Supported with limitations: • Google Chrome 16 on Windows 7, Windows Server 2008 R2, or Windows Server 2008 (32-bit or 64-bit editions). • Mozilla Firefox 9 on Windows 7, Windows Server 2008 R2, or Windows Server 2008 (32-bit or 64-bit editions).

Microsoft Dynamics NAV Business Web Services

Microsoft Dynamics NAV business web services offer a way to make application functionality available to many external systems and users.

System Requirements

The minimum system requirements for the Microsoft Dynamics NAV business web services are as follows:

Domain	Description
Additional software	• Microsoft Visual Studio 2010 or Microsoft Visual Studio 2008. • Microsoft .NET Framework 4.0.

Note: *You can use most web service-enabled products with Microsoft Dynamics NAV web services. However, some products may be unable to deal with more complex web service functionality and complex XML structures, such as extension codeunits.*

Automated Data Capture System (ADCS)

Automated Data Capture System (ADCS) enables accurate data to be captured with online wireless devices.

System Requirements

The minimum system requirements for the ADCS for Microsoft Dynamics NAV 2013 are as follows:

Domain	Description
Additional software	• MSXML version 6.0. • Telnet or Microsoft Windows HyperTerminal. VT100 Plug-in, which acts as a virtual Telnet server and is required for each computer on which you install ADCS. • Microsoft Loopback Adapter.

Note: *HyperTerminal is no longer included with Windows. For more information, see What happened to HyperTerminal? in the Windows Help.*

Lab 2.1: Install the Three Tiers on Three Computers

Scenario

Tim, the IT administrator at Contoso, wants to install a Microsoft Dynamics NAV 2013 environment for testing After becoming familiar with the product architecture, he analyzes the system requirements and the available hardware. He then decides to install the three tiers on three separate servers. He will use a new domain user account as service account for the Microsoft Dynamics NAV Server.

Computer Name	Comment
DYN-NAV-SQL	This server will be used as the data tier. This server runs Windows Server 2008 R2. No edition of SQL Server 2008 is currently installed.
DYN-NAV-SRV	This server will host the Microsoft Dynamics NAV server tier. It runs Windows Server 2008 R2.
DYN-NAV-CLT	This computer will host the RoleTailored client as the client tier. It runs Windows 7 Professional (64-bit edition) with Microsoft Office 2010 installed.

Exercise 1: Provision a Service Account

Exercise Scenario

Before he starts the installation of the data and the server tier, Tim creates a new domain user account to use as a service account.

Task 1: Create a Service Account

High Level Steps

1. Create a service account in Active Directory.

Detailed Steps

1. Create a service account in Active Directory.
   a. Click Start, and then click Administrative Tools, Active Directory Users and Computers.
   b. In the left tree view pane, expand the contoso.com node.
   c. In the left navigation pane, right-click the **Managed Service Accounts** node.
   d. In the shortcut menu that opens, select **New > User**.
   e. In the New Object – User window, in the Full Name field, enter NAV Service Account.

f. Enter NAV2013svc in the User Logon Name text box.

g. Click **Next**.

h. In the Password field, type the password for the new account: "Pa$$w0rd".

i. In the Confirm password field, type the password again: "Pa$$w0rd".

j. Clear the User must change password at next logon option.

k. Select the Password never expires option.

l. Click **Next > Finish** to create the user.

m. Close Active Directory Users and Computers.

Task 2: Grant the Logon as a Service Permission

High Level Steps

1. Grant the logon as a service permission.

Detailed Steps

1. Grant the logon as a service permission.
   a. Click **Start**, and then click **Administrative Tools**, **Group Policy Management**.
   b. In the left tree view pane, expand the contoso.com node.
   c. In the left navigation pane, expand the **Domains** node.
   d. Expand the **Group Policy Objects** node.
   e. Right-click the **Default Domain Controllers Policy** object, and then click **Edit**.
   f. In the **Group Policy Management Editor** window, select **Computer Configuration**, **Policies**, **Windows Settings**, **Security Settings**, **Local Policies**, **User Rights Assignment**.
   g. In the right side pane, double-click **Logon as a service**.
   h. Select the **Define these policy settings** option.
   i. Click **Add User or Group**.
   j. In the **Add User or Group** window, enter CONTOSO\NAV2013Svc, and then click **OK**.
   k. Click **Apply** to add the account to the list of accounts that have the logon as a service right.
   l. Close the **Group Policy Management Editor**.
   m. Close **Group Policy Management**.

Exercise 2: Install SQL Server Database Components

Exercise Scenario

As a first step in the installation, Tim installs the data tier on the DYN-NAV-SQL server. Because it is not a production environment, Tim decides to install the SQL Server Express Edition. He will use the CONTOSO\NAV2013svc account as service account for the Microsoft Dynamics NAV Server.

Task 1: Logon to the Server as Administrator

High Level Steps

1. Logon to the server as Administrator.

Detailed Steps

1. Logon to the server as Administrator.
   a. On the desktop, press CTRL+ALT+DEL.
   b. In the **Password** field, enter the password for the Administrator user:
   "Pa$$w0rd".
   c. Press **ENTER** (or click the arrow icon at the right side of the **Password** field).

Task 2: Start Microsoft Dynamics NAV Setup

High Level Steps

1. Insert the Microsoft Dynamics NAV 2013 product DVD in the DVD drive.
2. Start Microsoft Dynamics NAV 2013 Setup.

Detailed Steps

1. Insert the Microsoft Dynamics NAV 2013 product DVD in the DVD drive.
   a. Open the DVD drive by pressing the Eject button on the physical drive.
   b. Put the DVD on the tray.
   c. Press the Close button to close the DVD drive.

2. Start Microsoft Dynamics NAV 2013 Setup.
   a. Open Windows Explorer.
   b. Click **Computer** to see a list of available drives.
   c. Select the DVD drive that contains the product DVD.
   d. In the root folder of the selected drive, double-click setup.exe. If the Open File - Security Warning dialog box pops up (asking whether you want to run the setup.exe application), click Run.

Task 3: Select the Installation Option

High Level Steps

1. Select the installation option.

Detailed Steps

1. Select the installation option.
    a. In the **Welcome to the Microsoft Dynamics NAV 2013 Setup** window, click **Next**.
    b. On the **Microsoft Software License Terms** page, click **I Accept**.
    c. On the **Microsoft Dynamics NAV Setup** page, click **Choose an Installation Option**.
    d. On the **Choose an installation option** page, click **Custom**.
    e. On the **Customize the installation** page, click the icon at the left of the SQL Server Database Components node.
    f. Click **Run All from My Computer**.
    g. Click **Next**.
    h. On the **Specify parameters** page, in the **Service Account** field, enter CONTOSO\NAV2013svc. (If the selected account does not have the logon as a service right, an error message will be displayed. In that case, you must assign the necessary permissions to the specified account before you can continue.)
    i. On the **Specify parameters** page, in the **SQL Database** field, enter NAV_DEMO2013.
    j. Click **Apply**.
    If no SQL Server Edition is installed on the server or if the NAVDEMO instance cannot be found, Setup will display a warning message and will suggest installing SQL Server Express Edition.
    k. Click **OK** to start the installation.

Task 4: Close the Setup Wizard

High Level Steps

1. Close Microsoft Dynamics NAV 2013 Setup.

Detailed Steps

1. Close Microsoft Dynamics NAV 2013 Setup.
    a. Click **Close** to close the setup wizard.

Task 5: Verify Installation

High Level Steps

1. Verify the installation result.

Detailed Steps

1. Verify the installation result.
   a. Click **Start** in the Windows taskbar.
   b. Click **All Programs**, **Administrative Tools**, **Services**.
   c. In the Services management console, browse the list of services in the right side pane.
      The list should now include a service named "**SQL Server (NAVDEMO)**"
   d. Check that the **Status** column for the Microsoft Dynamics NAV Server is Started.

Exercise 3: Install Microsoft Dynamics NAV Server

Exercise Scenario

After he installs the SQL Server database components, Tim continues to install the server tier on the DYN-NAV-SRV server.

Task 1: Log on to the Server as Administrator

High Level Steps

1. Log on to the server as administrator.

Detailed Steps

1. Log on to the server as administrator.
   a. On the desktop, press CTRL+ALT+DEL.
   b. In the **Password** field, enter the password for the Administrator user:
      Pa$$w0rd
   c. Press **ENTER** (or click the arrow icon at the right side of the **Password** field.

Task 2: Start Microsoft Dynamics NAV Setup

High Level Steps

1. Insert the Microsoft Dynamics NAV 2013 Product DVD in the DVD drive.
2. Start Microsoft Dynamics NAV 2013 Setup.

Detailed Steps

1. Insert the Microsoft Dynamics NAV 2013 Product DVD in the DVD drive.
   a. Open the DVD drive by pressing the Eject button on the physical drive.
   b. Put the DVD on the tray.
   c. Press the Close button to close the DVD drive.

2. Start Microsoft Dynamics NAV 2013 Setup.
   a. Open Windows Explorer.
   b. Select **Computer** in the left pane to see a list of available drives.
   c. Select the DVD drive that contains the product DVD.
   d. In the root folder of the selected drive, double-click setup.exe. If the **Open File - Security Warning** dialog box pops up (asking whether you want to run the setup.exe application), click **Run**.

Task 3: Select the Installation Option

High Level Steps

1. Select the installation option.

Detailed Steps

1. Select the installation option.
   a. In the **Welcome to the Microsoft Dynamics NAV 2013 Setup** window, click **Next**.

Note: *When you install the second and the third tier on the same computer, Microsoft Dynamics NAV Setup will start in Maintenance mode. The setup interface can be a bit different in that case. (See also the instructor notes.)*

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   b. On the **Microsoft Software License Terms** page, click **I Accept**.
   c. On the **Microsoft Dynamics NAV Setup** page, click **Choose an Installation Option**.
   d. On the **Choose an installation option** page, click **Custom**.
   e. On the **Customize the installation** page, click the icon at the left of the Server node.
   f. Select **Run All from My Computer**.

g. Click **Next**.

h. On the **Specify parameters** page, in the **Service Name** field, enter DynamicsNAV2013.

i. In the **Account Password** field, enter the password for the CONTOSO\NAV2013svc account.

If you have chosen to install SQL Server Express Edition, go to step 13. If you have installed another edition of Microsoft SQL Server

j. On the **Specify parameters** page, in the **SQL Server** field, enter the name of the computer running SQL Server.

k. On the same page, in the **SQL Server Instance** field, enter NAV_DEMO.

l. On the **Specify parameters** page, in the **SQL Database** field, enter NAV_DEMO2013.

m. Click **Apply** to start the installation.

If Microsoft .NET Framework 4.5 is not installed on the server, Setup will install this automatically.

Task 4: Close the Setup Wizard

High Level Steps

1. Close Microsoft Dynamics NAV 2013 Setup.

Detailed Steps

1. Close Microsoft Dynamics NAV 2013 Setup.
   a. Select **Close** to close the setup wizard.

Task 5: Verify Installation

High Level Steps

1. Verify the installation result.

Detailed Steps

1. Verify the installation result.
   a. Click **Start** in the Windows taskbar.
   b. Click **All Programs**, **Administrative Tools**, **Services**.
   c. In the Services management console, browse the list of services in the right-side pane.
   The list should now include a service named "Microsoft Dynamics NAV Server [DynamicsNAV2013]"
   d. Check that the Status column for the Microsoft Dynamics NAV Server is Started.

Exercise 4: Install Microsoft Dynamics NAV RoleTailored Client for Windows

Exercise Scenario

Now that the data and the server tiers are available, Tim installs the RoleTailored client on the DYN-NAV-CLT computer.

Task 1: Log on to the Computer as Administrator

High Level Steps

1. Log on to the server as Administrator.

Detailed Steps

1. Log on to the server as Administrator.
   a. On the desktop, press CTRL+ALT+DEL.
   b. In the **Password** field, enter the password for the Administrator user:
   Pa$$w0rd.
   c. Press **ENTER** (or click the arrow icon at the right side of the **Password** field.

Task 2: Start Microsoft Dynamics NAV Setup

High Level Steps

1. Insert the Microsoft Dynamics NAV 2013 product DVD in the DVD drive.
2. Start Microsoft Dynamics NAV 2013 Setup.

Detailed Steps

1. Insert the Microsoft Dynamics NAV 2013 product DVD in the DVD drive.
   a. Open the DVD drive by pressing the Eject button on the physical drive.
   b. Put the DVD on the tray.
   c. Press the Close button to close the DVD drive.

2. Start Microsoft Dynamics NAV 2013 Setup.
   a. Open Windows Explorer.
   b. Select **Computer** in the left pane to see a list of available drives.
   c. Select the DVD drive that contains the Product DVD.
   d. In the root folder of the selected drive, double-click setup.exe.
   If the **Open File** - **Security Warning** dialog box pops up (asking whether you want to run the setup.exe application), click **Run**.

Task 3: Select the Installation Option

High Level Steps

1. Select the installation option.

Detailed Steps

1. Select the installation option.
    a. In the **Welcome to the Microsoft Dynamics NAV 2013 Setup** window, click **Next**.
    b. On the **Microsoft Software License Terms** page, click **I Accept**.
    c. On the **Microsoft Dynamics NAV Setup** page, click **Choose an Installation Option**.
    d. On the **Choose an installation option** page, click **Client**.
    e. On the **Customize the installation** page, click the icon at the left of the Client node.
    f. Select **Run from My Computer**.
    g. Expand the Client node.
    h. Click the icon at the left of the Microsoft Office Excel Add-in node.
    i. Select **Run from My Computer**.
    j. Click **Next**.
    k. On the **Specify parameters** page, in the **Server Name** field, enter the name of the computer running Microsoft Dynamics NAV Server.
    l. On the **Specify parameters** page, verify that the **Service Name** field is set to DynamicsNAV2013.
    m. Click **Apply** to start the installation.

Task 4: Close the Setup Wizard

High Level Steps

1. Close Microsoft Dynamics NAV 2013 Setup.

Detailed Steps

1. Close Microsoft Dynamics NAV 2013 Setup.
   a. Click **Close** to close the setup wizard.

Task 5: Start the RoleTailored Client

High Level Steps

1. Start the RoleTailored client.

Detailed Steps

1. Start the RoleTailored client.
   a. Click **Start** in the Windows taskbar.
   b. Click **All Programs**, **Microsoft Dynamics NAV 2013**.

Module Review

Module Review and Takeaways

The software prerequisites of Microsoft Dynamics NAV 2013 consist of the Microsoft Stack components including:

- Windows Server 2008 or Windows Server 2008 R2.
- Microsoft SQL Server 2008 (64 bit) or Microsoft SQL Server 2008 R2 (64 bit).