



IBM System x3550 M3 Management Node with Software Preload

Quick Start Guide

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Introduction

The IBM System x3550 M3 Management Node with Software Preload (Machine/Type/Model 7944-DD*) is a pre-built subsystem that is used to manage IBM hardware platforms. The subsystem includes both hardware and software, and it can be used in an assortment of deployments.

For example, in context of IBM Cloud offerings based upon BladeCenter, the x3550 M3 Management Node with Software Preload hosts the platform management tools while the virtualization and cloud management components reside on the blades in the BladeCenter. Figure 1 illustrates such a Cloud environment that includes the x3550 M3 Management Node with Software Preload.

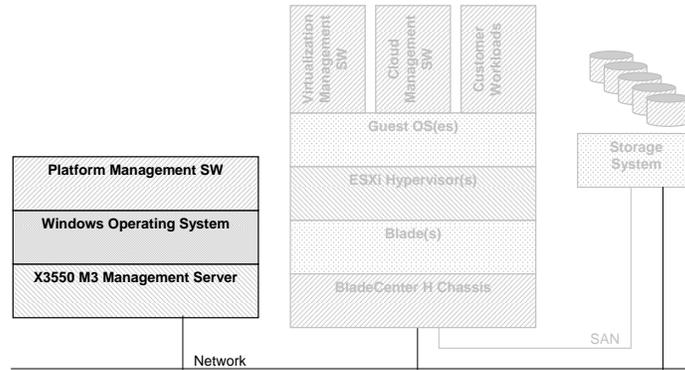


Figure 1 - IBM Cloud Product Overview

The scope of this document is a summary of setup and configuration of the x3550 M3 Management Node with Software Preload. Hardware installation of the x3550 M3 Management Node and other components within the infrastructure are described elsewhere.

Preload Software Components

Figure 2 illustrates the components resident on the x3550 M3 Management System Node with Software Preload. The gray symbols represent components that are external to the x3550 M3 Management Node with Software Preload.

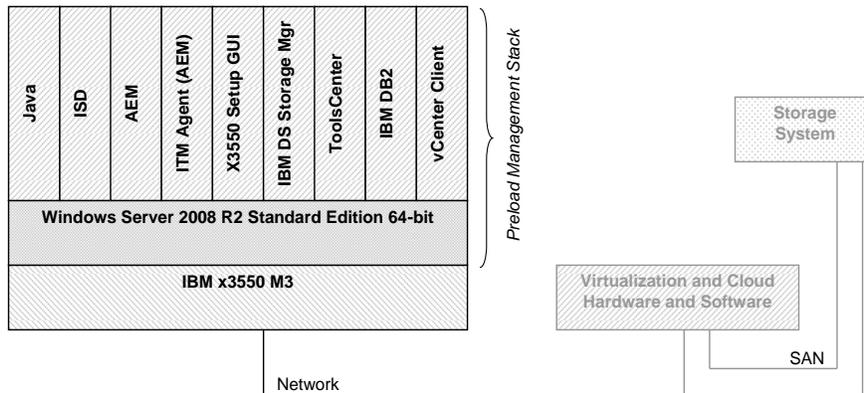


Figure 2 - Management Stack Overview

As illustrated in Figure 2, the x3550 M3 Management Node with Software Preload comes preinstalled with the components shown in Table 1. In the table, column 3 cites references at the end of this document. Column 4 describes the function of each component.

This Quick Start Guide describes the steps required to setup the IBM System x3550 M3 Management Node with Software Preload. For additional information not contained here, refer to the documents for each respective component as cited in Table 1 and the reference section.

Component	Version	Ref	Function
Windows Server 2008 R2 64-bit	Std Edition	26	Baremetal Operating System
Java	6.0	6	Java Runtime (Java VM)
IBM Systems Director (ISD) Server and Console with DB2 for management database	6.3	4, 7, 8, 9, 10, 11	Platform Management Services (i.e., monitoring, inventory, hardware status, update management) – includes DB2 9.7 64-bit Database Server, Storage Manager to monitor DS3524, Update Manager, and Service and Support Manager
Active Energy Manager	4.4	9	Power Management ISD plugin (i.e., complements ISD to support monitoring of wattage, power capping and throttling, and savings potential)
IBM Tivoli Monitoring Agent	6.2.1.01	17	Power Management Agent used by AEM/ITM
IBM DS Storage Manager	10.77	9, 16	DS 3xxx Storage Management
Dynamic System Analysis	4.0	18	System x ToolsCenter System Health
Advanced Setup Utility	4.0	18	System x ToolsCenter Setup/Configuration
Update Express	5.0	18	System x ToolsCenter Systems Updates
Bootable Media Creator	3.0	18	System x ToolsCenter
IBM FastSetup	1.1	5	H22/BCCH Hardware Setup/Configuration
IBM FastSetup System Templates	1.1	5	H22/BCCH Hardware profiles for automated, rapid, and simple hardware setup and configuration
VMware vCenter Client	5.0	25	VMware Virtualization Management Console
Setup and Configuration GUI Utility with documentation	1.0	N/A	Automatic setup/configuration of management Server (C:\IBM)
QuickStart Guide	1.72	N/A	User startup instructions

Table 1 - x3550 M3 Software Preload Components

Getting Started

This document assumes that the IBM System x3550 M3 Management Node with Software Preload hardware has been installed and cabled.

Perform the following prior to starting the configuration procedure:

1. Identify the Host Name of x3550
2. Identify the Windows Domain
3. Identify the IP address of the x3550 if a static IP address is desired
4. Identify a custom DNS suffix if required
5. Identify user access to the IBM Systems Director Server
6. Identify the IP address and credentials of the vCenter Server and ESX Hypervisor

Before using the automatic or manual procedure described below, perform the following steps:

1. Power On the x3550 platform
2. The preloaded Windows OS is unfinished, so complete the initial "Setup Windows Wizard"
3. Reboot the system as required
4. Update the Windows Server if desired

Automatically Setup and Configure the x3550 M3 Management Node with Software Preload

The preferred method for configuring the x3550 M3 Management Node with Software Preload is to use the x3550 M3 Management Server Configuration GUI utility (refer to the x3550 M3 Management Server Configuration GUI utility user guide in C:\IBM) . To automatically setup and configure the system, perform the following steps with the GUI:

1. Execute the GUI utility (i.e., C:\IBM\setup.exe)
2. Press "esc" at any time to exit the utility without configuring the x3550 M3 Management Node with Software Preload
3. Specify the following required input parameters
 - New administrator account name and password for the local server
 - Static IP address of the local server
 - Address of a remote DNS server
4. Click "Finish" to complete the utility and to configure the x3550 M3 Management Node with Software Preload

At this point, the user should examine the GUI log file (C:\IBM\results.txt) to determine success or failure of the utility. If the utility failed for any reason, perform the appropriate manual steps below to configure the x3550 M3 Management Node with Software Preload.

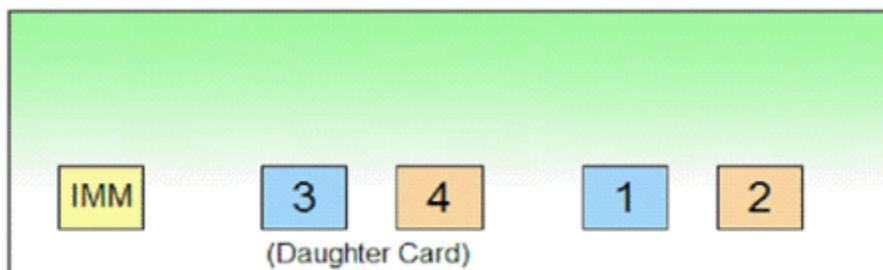
Manually Setup and Configure the x3550 M3 Management Node with Software Preload

1. Remove DNS Server role and reboot
 - Default Administrator Account name is **Administrator**
 - Default Administrator Account password is **Passw0rd**
2. Setup and configure Windows networking per the existing customer environment
 - Verify NIC enumeration
 - Configure NIC teaming
 - Join Windows Domain
3. Configure and Start power management agent and IBM Systems Director components
 - IBM Tivoli Common Agent (i.e., ke9agent.exe)
 - i. Start > Programs > Administrative Tools > Services
 - ii. Locate Tivoli Common Agent > Right Click
 - iii. Properties > Startup Type > Select Automatic

- iv. Services Status > Start
 - Server
 - i. Start > Administrative Tools > Services
 - ii. Locate IBM Systems Director Server > Right Click
 - iii. Properties > Startup Type > Select Automatic
 - iv. Services Status > Start
 - Console
 - i. Start > Programs > **'IBM Systems Director Console'**
 - ii. Select "Continue to this Website (if desired - not recommended)"
 - iii. Logon to IBM Systems Director Server
 - Account: **Administrator**
 - Password: **Passw0rd**
4. If the x3550 M3 Management Node with Software Preload is part of the Blade Center Foundations for Cloud (BCFC) SmartCloud Entry with VMware, configure the VMware vCenter Client
- Execute the local VMware vCenter Client and Login to the Remote VMware vCenter Server
 - i. Use IP address of remote server
 - ii. Default Account: **Administrator**
 - iii. Default Password: **Passw0rd**

Verify NIC Enumeration

As illustrated here, the x3550 M3 Management Server has four onboard NICs:



To verify that the Windows Server NIC Enumeration translates to the proper Physical NIC Enumeration perform the following steps:

1. Go to **Control Panel** → **Network and Internet** → Select **Network Sharing Center**, then **Change adapter settings**. You should see **five** network connections.

Local Area Connection 5	LAN or High-Speed Internet	Limited or no connectivity	IBM USB Remote NDIS Network Device
Local Area Connection 3	LAN or High-Speed Internet	Network cable unplugged	Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client) #3
Local Area Connection 4	LAN or High-Speed Internet	Network cable unplugged	Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client) #4
Local Area Connection	LAN or High-Speed Internet	Connected	Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)
Local Area Connection 2	LAN or High-Speed Internet	Connected	Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client) #2

2. Go to the rear of the x3550 system. Take note of which Ethernet port is connected. **Unplug** the existing connection. In *Network Connections*, **Refresh** the screen and you should see all connections in the **Network cable unplugged** state. (**Note:** Ignore the *IBM USB Remote NDIS Network Device*).

Local Area Connection	LAN or High-Speed Internet	Network cable unplugged	Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)
Local Area Connection 2	LAN or High-Speed Internet	Network cable unplugged	Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client) #2
Local Area Connection 3	LAN or High-Speed Internet	Network cable unplugged	Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client) #3
Local Area Connection 4	LAN or High-Speed Internet	Network cable unplugged	Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client) #4
Local Area Connection 5	LAN or High-Speed Internet	Limited or no connectivity	IBM USB Remote NDIS Network Device

3. Take one Ethernet cable and plug it into the NIC that is labeled **1** on the x3550.

- Go back to Windows Server, and refresh the Network Connections Screen. Notice in our example below, the Windows Enumeration is *not* the same as the Physical NIC enumeration on the back of the x3550. Physical NIC 1 is Windows #3.

Local Area Connection	LAN or High-Speed Internet	Network cable unplugged	Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client)
Local Area Connection 2	LAN or High-Speed Internet	Network cable unplugged	Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client) #2
Local Area Connection 3	LAN or High-Speed Internet	Connected	Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client) #3
Local Area Connection 4	LAN or High-Speed Internet	Network cable unplugged	Broadcom BCM5709C NetXtreme II GigE (NDIS VBD Client) #4
Local Area Connection 5	LAN or High-Speed Internet	Limited or no connectivity	IBM USB Remote NDIS Network Device

- In
- Table 2, record what the Physical to Windows Enumeration is for NIC 1. **This is very important. Problems will arise if you do not reference this table in your setup.** Repeat for remaining NICs.

Physical NIC Enumeration (on back of x3550)	Windows Enumeration (Network Connections)
1	
2	
3	
4	

Table 2 – Physical to Windows NIC Enumeration

Caution

The hostname of the x3550 M3 Management Node with Software Preload is defined in manufacturing. A malfunction may occur if the hostname is changed at the site of installation without using the proper procedure.

If the hostname of the x3550 M3 Management Node with Software Preload requires modification at the site of installation, refer to the IBM Retain TIP document at the following location:

- <http://www-304.ibm.com/support/docview.wss?uid=swg21258834>

Validate Configuration and Setup

Use the following steps to confirm that the x3550 M3 Management Node with Software Preload has been setup and configured properly:

- Use the **Ping** command to and from a known host to ensure that network connectivity is operational
- Check to make sure DB2 is started and set to automatic (i.e., Start-> Administrative Tools-> Services -> DIRINST1-0)
- Check to make sure you can log into Director (i.e., Start->All Programs -> IBM Systems Director Console)

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