

IBM System x IBM ToolsCenter Suite User's Guide

Version 9.60



IBM System x IBM ToolsCenter Suite User's Guide

Version 9.60

Note

Before using this information and the product it supports, read the information in "Notices" on page 117.

Edition notice

This edition applies to version 9.60 of ToolsCenter Suite and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this publication

This publication provides information about how to download and use IBM[®] ToolsCenter Suite.

Conventions and terminology

In this book, when you are instructed to enter a command, type the command and press Enter.

These notices are designed to highlight key information.

Note: These notices provide important tips, guidance, or advice.

Important: These notices provide information or advice that might help you avoid inconvenient or difficult situations.

Attention: These notices indicate possible damage to programs, devices, or data. An attention notice appears before the instruction or situation in which damage can occur.

The following table provides a description of commonly used acronyms in the *IBM ToolsCenter Suite User's Guide* and graphical user interface.

Acronym	Definition
BIOS	Basic Input Output System
BMU	Bare Metal Update
CLI	Command Line Interface
CNA	Converged Network Adapter
DIMM	Dual Inline Memory Modules
Fix-id	Unique identifier for updates.
FoD	Features on Demand
FTP	File Transfer Protocol
GUI	Graphical User Interface
НВА	Host Bus Adapter
HTTP	Hypertext Transfer Protocol
iSCSI	Internet Small Computer System Interface
IPMI	Intelligent Platform Management Interface
IPMI SEL	Intelligent Platform Management Interface System Event Log
IMM	Integrated Management Module
KCS	Keyboard Controller Style Keyboard
KMS	Key Management System

,,,l

Table 1. Acronyms

Acronym	Definition
LED	Light Emitting Diode
MAC	Media Access Control
OOB	Out-of-Band
PCIE	Peripheral Component Interconnect Express
PXE	Preboot Execute Environment
TCS	ToolsCenter Suite
uEFI	Unified Extensible Firmware Interface
UTF8	8-bit Unicode Transformation Format
UXSP	UpdateXpress System Pack
UXSPI	UpdateXpress System Pack Installer

Publications and related information

VPD

WoL

To view a PDF file, you need Adobe Acrobat Reader, which can be downloaded for free from the Adobe website at www.adobe.com/products/acrobat/readstep.html.

Vital Product Data Wake on LAN

Information centers and topic collections

IBM ToolsCenter for System x[®] and BladeCenter[®] information center provides integrated information for multiple IBM Systems x and BladeCenter tools, including ToolsCenter Suite: IBM ToolsCenter for System x and BladeCenter information center.

Publications

The IBM ToolsCenter Suite User's Guide: This publication is available for download on the IBM Support website in several languages, and provides information about how to download and use to collect system information, configure firmware settings, and update firmware.

Web resources

The following websites and information center topics relate to ToolsCenter Suite.

Websites

• IBM ToolsCenter for System x and BladeCenter

http://www-947.ibm.com/support/entry/portal/docdisplay?lndocid=tool-center Use this website to download tools that support IBM System x and IBM BladeCenter products.

IBM ToolsCenter Suite support portal

http://www.ibm.com/support/entry/portal/docdisplay?lndocid=TOOL-TCSUITE

Use this website to download the IBM ToolsCenter Suite tool and documentation.

IBM PureSystems Redbooks[®]

http://www.redbooks.ibm.com/portals/puresystems/

Use this website to find published Redbooks on IBM Flex Systems.

• Using IBM System x Features on Demand Redbook

http://www.redbooks.ibm.com/redbooks.nsf/RedpieceAbstracts/ redp4895.html?Open

Use this website to download the *Using IBM System x Features on Demand* publication.

• IBM Flex System Compute Nodes

http://pic.dhe.ibm.com/infocenter/flexsys/information/topic/ com.ibm.acc.common.nav.doc/compute_blades.html

Use this section of the IBM Flex System Information Center to obtain information on IBM Flex System Compute Nodes.

• Support for IBM BladeCenter

http://www-03.ibm.com/systems/bladecenter/support/

Use this website to find information about online technical support, downloads and drivers, and RETAIN[®] tips, and to provide feedback about IBM BladeCenter products.

• Support for IBM System x

http://www-03.ibm.com/systems/x/support/

Use this website to find information about online technical support, downloads and drivers, and RETAIN tips, and to provide feedback about IBM System x products.

• IBM ServerProven[®]

www.ibm.com/servers/eserver/serverproven/

Use this website to learn about hardware compatibility of IBM System x and IBM BladeCenter systems with IBM applications and middleware.

Forums

• IBM System x Forum

https://www.ibm.com/developerworks/community/forums/html/ forum?id=11111111-0000-0000-0000-000000002691#topicsPg=0

Use this website on ibm.com[®] to learn about various forums that are available to discuss technology-related and product-related issues pertaining to IBM System x hardware and software products. This website includes a link for obtaining the forum using a Rich Site Summary (RSS) feed.

IBM BladeCenter Forum

https://www.ibm.com/developerworks/community/forums/html/ forum?id=1111111-0000-0000-00000-00000000819

Use this website on ibm.com to learn about various forums that are available to discuss technology-related and product-related issues pertaining to IBM BladeCenter hardware and software products. This website includes a link for accessing the forum using a Rich Site Summary (RSS) feed.

How to send your comments

Your feedback is important in helping to provide the most accurate and highest quality information.

If you have any comments about this publication or any other IBM ToolsCenter for System x and BladeCenter publication:

- Go to the IBM ToolsCenter for System x and BladeCenter information center information center website at http://publib.boulder.ibm.com/infocenter/ toolsctr/v1r0/index.jsp. There you will find the feedback page where you can enter and submit comments.
- Complete one of the forms at the back of any IBM ToolsCenter for System x and BladeCenter publication and return it by mail, by fax, or by giving it to an IBM representative.

New in this release

IBM ToolsCenter Suite 9.60 provides a number of enhancements since the previous release, 9.53.

New system support

The following hardware is supported by IBM ToolsCenter Suite 9.60:

- IBM Flex System x240 Compute Node, machine type 8956
- IBM Flex System x280/x480/x880 X6 Compute Node, machine type 4259, 7903
- IBM System x3100 M5, machine type 5457
- IBM System x3650 M4 BD, machine type 5466
- IBM System x3750 M4, machine type 8718, 8752
- IBM System x3950 X6, machine type 3837, 3839

New operating system support

The following operating systems are supported by IBM ToolsCenter Suite 9.60:

• Red Hat Enterprise Linux 7 Server (x64) Editions

For complete operating system support information, see the "Supported operating systems" topic of the User's Guide.

New server options support

None

Problem(s) fixed

None

Enhancement(s)

IBM ToolsCenter Suite 9.60 includes the following enhancements:

- FOD mass activation has support for adapters.
- The Out-of-band (OOB) update reboots to os/IMM.
- For Flex systems using out-of-band (OOB) mode, you can create an IPMI account with the same credentials as the CIM account.

Known limitations

IBM ToolsCenter Suite 9.60 has the following limitations:

Multi-Node System Support:

ToolsCenter Suite shows only the information of the Primary Node on the Home page and the Information Page. ToolsCenter Suite provides only the Configuration Function for the Primary Node.

FoD Mass Activation: (Root Cause: IMM CIM Class IBM_ActivationKey did not provide the FoD UID of the device on which the key installed.) Note the following:

- In the 9.60 release, ToolsCenter Suite FoD Mass Activation is unable to support the scenario of more than one identical adapters being installed on a server, while a key is installed only on some of these adapters. In this situation, ToolsCenter will not install the key for any adapters even it does not have this key installed.
- ToolsCenter Suite cannot display FOD UID when exporting keys for Multiple Endpoints in FoD Mass Activation.

OOB connect to Flex System

If you have already created an IPMI account with a username that is the same as the CIM, if it has a different password, ToolsCenter Suite will fail to create the IPMI account with the same credential as the CIM account.

In this case, to continue providing support for that remote Flex Server:

- 1. You need create another CIM account whose username is different from that of the IPMI account, and then input this account in TCS.
- 2. Either you or TCS (when user is aware of that) can change the IPMI account password to make it same as the CIM account password.

Workarounds

None

Warnings

None

Dependencies

None

Chapter 1. Technical overview

IBM ToolsCenter Suite is a collection of server management tools that help manage your IBM System x, IBM BladeCenter, and IBM Flex System environment. ToolsCenter Suite provides full support of in-band management of updates, configuration, and system information on a local machine and out-of-band (OOB) management of updates, configuration, and system information on a remote machine.

The three main functions of ToolsCenter Suite are:

Updates:

You can use the Updates function to update the UpdateXpress System Pack firmware and drivers or individual firmware and drivers by connecting to the IBM website or a local repository. There are three update methods:

- · Recommended Updates
- Individual Updates
- Download Updates

Configuration:

You can use the Configuration function to modify firmware settings, change frequently used settings, or change an individual configuration using the Full Settings option.

Frequently Used Settings:

- Activation Key Management (for Features on Demand)
- Boot Order
- Energy and Performance
- IMM User Accounts
- System Contact
- Features on Demand Mass Activation

Full settings:

- BootOrder
- IMM
- iSCSI
- Network
- PXE
- SYSTEM_PROD_DATA
- uEFI

System Information:

You can use the System Information function to collect full system information, catalog this information, and send the collected information to an IBM support team or customer site FTP server. This function also provides system health status, including the IMM system event logs and Light Path information.

ToolsCenter Suite collects full system information about the following aspects of a system for both a local machine and a remote machine:

Alerts

- Basic analysis and highlights
- Hardware
- Logs
- Software (including Operating Systems)

Prerequisites

ToolsCenter Suite requires the following prerequisites:

- You must have administrator or root-equivalent operating-system privileges to use ToolsCenter Suite.
- An Internet connection is required to download updates from the IBM website, or to send the collected system information file to the IBM website or the customer site FTP server.
- A browser supported by ToolsCenter Suite. For a complete list of supported browsers, refer to the Supported web browsers topic of the *IBM ToolsCenter Suite User's Guide*.
- To ensure ToolsCenter Suite works correctly, verify that Java script and CSS are enabled in your browser settings.

Chapter 2. ToolsCenter Suite support list

ToolsCenter Suite has specific hardware, operating system, and browser support lists. If you attempt to run ToolsCenter Suite on a server, browser, or operating system that is not on the list, this will be at your own risk with no functional guarantee. Before you begin using ToolsCenter Suite, review the hardware, operating system, and browser support sections.

Supported hardware

IBM ToolsCenter Suite supports the IBM systems listed in the following table.

Table 2. Supported IBM systems	
Server	Machine type
IBM BladeCenter HS22	1911, 1936, 7809, 7870
IBM BladeCenter HS22V	1949, 7871
IBM BladeCenter HS23	1929, 7875
IBM BladeCenter HS23E	8038, 8039
IBM BladeCenter HX5	1909, 1910, 7872, 7873
IBM Flex System x220 Compute Node	2585, 7906
IBM Flex System x222 Compute Node	7916
IBM Flex System x240 Compute Node	7863, 8737, 8738, 8956
IBM Flex System x280/x480/x880 X6 Compute Node	4259, 7903
IBM Flex System x440 Compute Node	7917
IBM NeXtScale nx360 M4	5455
IBM System x iDataPlex Direct Water Cooled dx360 M4 server	7918, 7919
IBM System x iDataPlex dx360 M2 server	6380, 7321, 7323
IBM System x iDataPlex dx360 M3	6391
IBM System x iDataPlex dx360 M4	7912, 7913
IBM System x iDataPlex dx360 M4 Water Cooled	7918, 7919
IBM System x3100 M4	2582
IBM System x3100 M5	5457
IBM System x3200 M3	7327, 7328
IBM System x3250 M3	4251, 4252, 4261
IBM System x3250 M4	2583
IBM System x3250 M5	5458
IBM System x3400 M2	7836, 7837
IBM System x3400 M3	7378, 7379
IBM System x3500 M2	7839
IBM System x3500 M3	7380
IBM System x3500 M4	7383

Table 2. Supported IBM systems

Server	Machine type
IBM System x3530 M4	7160
IBM System x3550 M2	4198, 7946
IBM System x3550 M3	4254, 7944
IBM System x3550 M4	7914
IBM System x3620 M3	7376
IBM System x3630 M3	7377
IBM System x3630 M4	7158
IBM System x3650 M2	4199, 7947
IBM System x3650 M3	4255, 5454, 7945
IBM System x3650 M4	7915
IBM System x3650 M4 BD	5460, 5466
IBM System x3690 X5	7147, 7148, 7149, 7192
IBM System x3750 M4	8718, 8722, 8733, 8752
IBM System x3755 M3	7164
IBM System x3850/x3950 X5	7143, 7145, 7146, 7191
IBM System x3850/x3950 X6	3837, 3839

Supported operating systems

Use the information in this section to identify operating systems that are supported by ToolsCenter Suite:

Windows

ToolsCenter Suite supports the following Windows operating systems.

Windows Server 2012 Edition

- Microsoft Windows Server 2012
- Microsoft Windows Server 2012 R2

Windows Server 2011 Editions

- Microsoft Windows Small Business Server 2011
- Microsoft Windows Small Business Server 2011 Essentials

Windows Server 2008 Editions

- Microsoft Windows Server 2008 R2
- Microsoft Windows Server 2008 R2 SP1
- Microsoft Windows Server 2008 R2 HPC Edition (x64, Reseller Option Kit)
- Microsoft Windows Server 2008, Datacenter Edition (x86, x64)
- Microsoft Windows Server 2008, Enterprise Edition (x86, x64)
- Microsoft Windows Server 2008 Foundation
- Microsoft Windows Server 2008 HPC Edition
- Microsoft Windows Server 2008, Standard Edition (x86, x64)
- Microsoft Windows Server 2008, Web Edition (x86, x64)
- Windows Essential Business Server 2008 Premium Edition
- Windows Essential Business Server 2008 Standard Edition

Linux

ToolsCenter Suite supports the following Linux operating systems.

Red Hat

- Red Hat Enterprise Linux 7 Server (x64) Editions
- Red Hat Enterprise Linux 6 Server (x86 & x64) Editions, (up to U5)
- Red Hat Enterprise Linux 5 Update 10 Server (x86 & x64) Editions
- Red Hat Enterprise Linux 5 Update 10 Server with Xen (x86 & x64) Editions
- Red Hat Enterprise Linux 5 Update 9 Server (x86 & x64) Editions
- Red Hat Enterprise Linux 5 Update 9 Server with Xen (x86 & x64) Editions
- Red Hat Enterprise Linux 5 Update 8 Server (x86 & x64) Editions
- Red Hat Enterprise Linux 5 Update 8 Server with Xen (x86 & x64) Editions
- Red Hat Enterprise Linux 5 Update 7 Server (x86 & x64) Editions
- Red Hat Enterprise Linux 5 Update 7 Server with Xen (x86 & x64) Editions
- Red Hat Enterprise Linux 5 Server (x86 & x64) Editions, (up to U6)
- Red Hat Enterprise Linux 5 Server with Xen (x86 & x64) Editions, (up to U6)

SUSE

- SUSE Linux Enterprise Server 11 (x86 & x64) SP3
- SUSE Linux Enterprise Server 11 with Xen (x86 & x64) SP3
- SUSE Linux Enterprise Server 11 (x86 & x64) SP2
- SUSE Linux Enterprise Server 11 with Xen (x86 & x64) SP2
- SUSE Linux Enterprise Server 11 (x86 & x64) (up to SP1)
- SUSE Linux Enterprise Server 11 with Xen (x86 & x64) (up to SP1)
- SUSE Linux Enterprise Real Time 10 AMD64/EM64T
- SUSE Linux Enterprise Server 10 (x86 & x64) (up to SP4)
- SUSE Linux Enterprise Server 10 with Xen (x86 & x64) (up to SP4)

Supported browsers

To view the information that is collected by ToolsCenter Suite, you must use one of these web browsers:

- Firefox 3.6 or later
- Google Chrome 19.0 or later
- Internet Explorer 8.0 Service Pack 1 or later

Chapter 3. Downloading and starting IBM ToolsCenter Suite

The topics in this section describe how to download and startToolsCenter Suite.

Downloading IBM ToolsCenter Suite

ToolsCenter Suite is a self-extracting application that does not require installation.

About this task

You can download ToolsCenter Suite from the IBM ToolsCenter Suite support portal website at http://www.ibm.com/support/entry/portal/ docdisplay?lndocid=TOOL-TCSUITE.

Procedure

- 1. Select one of the following shipment packages:
 - ibm_utl_tcsuite_9.60r_winsrvr_i386.zip
 - ibm_utl_tcsuite_9.60r_winsrvr_x86-64.zip
 - ibm_utl_tcsuite_9.60r_rhel5_i386.tgz
 - ibm_utl_tcsuite_9.60r_rhel5_x86-64.tgz
 - ibm_utl_tcsuite_9.60r_rhel6_i386.tgz
 - ibm_utl_tcsuite_9.60r_rhel6_x86-64.tgz
 - ibm_utl_tcsuite_9.60r_sles10_i386.tgz
 - ibm_utl_tcsuite_9.60r_sles10_x86-64.tgz
 - ibm_utl_tcsuite_9.60r_sles11_i386.tgz
 - ibm_utl_tcsuite_9.60r_sles11_x86-64.tgz
- **2**. After downloading the appropriate ToolsCenter Suite zip file, double-click the file to complete the file extraction.

IBM ToolsCenter Suite files

This section describes where IBM ToolsCenter Suite files are stored.

The ToolsCenter Suite log file

The ToolsCenter Suite log file is stored in the %ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\logs directory. %ToolsCenterSuite% is the working directory.

New log information is appended to the tcsuite_20120909225751.log file. The number in the log file name represents: year/month/date/hour/minute/second.

Update files

The update files that are downloaded using one of the Update options are stored in the following directories.

UpdateXpress System Pack XML and binary files:

%ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\
depot\Update\%MachineType%\%OperatingSystem%\uxsp

Individual XML and binary files:

%ToolsCenterSuite%\apache-tomcat-7.0.26\webapps\tcsuite\WEB-INF\
depot\Update\%MachineType%\%OperatingSystem%\individual

%ToolsCenterSuite%:

The ToolsCenter Suite working directory

%MachineType%:

The four-digit machine type of the server and represents the machine type selected

%OperatingSytem%:

The server operating system

Starting IBM ToolsCenter Suite

After you have downloaded and copied the appropriate ToolsCenter Suite zip file for the target server and extracted the files, you can start the IBM ToolsCenter Suite program. ToolsCenter Suite must be run on the target server.

Before you begin

When starting ToolsCenter Suite for the first time, you are prompted to read the terms of the license agreement. After accepting the terms of the license agreement, this page does not display again. If you need to reference the license agreement again, there is a link in the About menu item for viewing the license agreement.

Note: ToolsCenter Suite does not support running concurrent sessions of ToolsCenter Suite. If another session of ToolsCenter Suite is already open with active operations that cannot be stopped, such as configuration and inventory updates or compare and updates, a message is displayed stating:

Another user is currently logged in and performing an operation that cannot be interrupted. Wait for several minutes, and log in again.

However is the session that is already open is able to stop, a message is displayed stating:

Another user is currently logged in with the same user ID. Do you want to log in with the same user ID? If you select Yes, the user currently logged in will automatically be logged out. If you select No, you will return to the login page, where you can enter a different user ID.

About this task

The first time you are starting ToolsCenter Suite:

- For a Windows system, perform steps 1, 3, and 4.
- For a Linux system, perform steps 2 through 4.

On subsequent sessions of ToolsCenter Suite:

- For a Windows, perform steps 1 and 4.
- For a Linux, perform steps 2 and 4.

Procedure

 For Windows, double click run.bat. The ToolsCenter Suite script file launches the Tomcat server and starts the default browser using https:// localhost:8843/tcsuite/login.html. **Note:** The first time using ToolsCenter Suite, the ToolsCenter Suite License Agreement page opens. On subsequent sessions of ToolsCenter Suite, the log in window opens.

icense	IBM Notice	Non-IBM Licenses	Upgrades and download te	rms	E	nglish
ntern	ational Lie	cense Agreem	ent for Non-Warra	nted Program	ns	
Part 1	- General	Terms				
BY DC	WNLOAE	DING, INSTAL	LING, COPYING, A	CCESSING,	CLICKING	ON AN
			ERWISE USING T			
			THIS AGREEMEN			
			OF LICENSEE, YO HORITY TO BIND I			
		GREE TO THI	monun no bine i	LICENSEE I	0 IIIE3E	1 EIWIS, IF
OO N	NOT DOW	NLOAD, INST	TALL, COPY, ACCE	SS, CLICK C	N AN "AC	CEPT"
BUTT	ON, OR U	SE THE PROC	GRAM; AND			
			UNUSED MEDIA A			
			S OBTAINED FOR			
PAID. PROG		RUGRAM WA	S DOWNLOADED,	DESTROY A	LL COPIES	SOFTHE
the lic	cense agree	ment carefully a	nd click I Accept to co	ntinue.		

Figure 1. License Agreement

 For Linux, double click run.sh. The ToolsCenter Suite script file launches the Tomcat server and starts the default browser pointing to https:// localhost:8843/tcsuite/login.html .

Note: The first time using ToolsCenter Suite, the ToolsCenter Suite License Agreement page opens. On subsequent sessions of ToolsCenter Suite, the log in window opens.

3. Read the license agreement and click I accept.

After initially starting ToolsCenter Suite, and you have accepted the license agreement , the log in window opens.

	sCenter Su	ite	
Version 9.60 User name: 🥥			
Password:			

Figure 2. Log In window

- 4. In the log in window, enter the following information and then click Log In.
 - a. User name
 - b. Password

The IBM ToolsCenter Suite Home page opens.

IBM ToolsCenter Suite	Change	Target Machine 🔻 Settings About
Home Updates Configuration System	Information	Host Machine 🧭 Alerts: 📀 2 🔥 1 👔
Welcome to IBM ToolsC ToolsCenter Suite is a collection of ser hat help you manage your IBM Syster environment.	ver management tools	System x3650 M4 BD Descriptive Name: AsutestSP Machine Type/Model: 7916AC1
	1 0	Serial Number: 7916AC1
Specifically, ToolsCenter suite can ass	ist you with these major system functions	System Information
Simplifies the installation and update process and provides: • Recommended updates • Individual updates	Easily modifies your firmware settings using: • Common configuration tasks • Full configuration	Maximizes the collection process allowing you to obtain: • System health status • Full system information

Figure 3. Home page

What to do next

The Home page provides access to the IBM ToolsCenter Suite functions, the **Settings** and **About** menu items, the **Advanced User Complete Tool Listing**, and the following information:

- Machine name
- Descriptive Name
- Machine Type/Model
- Serial Number
- Health Status
- Alerts

Viewing the Advanced User Complete Tool Listing

The Advanced User Complete Tool Listing provides a list of command line and deployment tools and IBM support page links for each of these advanced user tools.

Procedure

 To view the list of the Command Line and Deployment Tools, click Advanced User Complete Tool Listing on the Home page. The Advanced User Complete Tools Listing window opens.

IBM ToolsCenter Su			Change Targ	et Machine 👻 Settings	
Home Updates	Configuration System Informa	ation		Host Ma Alerts:	achine ⊘ 🔕 2 🛕 1 🖷
ToolsCenter Suite i	IBM ToolsCent	anagement tools nd BladeServer			
Health Status	Advanced User Co	mplete Tool Listing	l	1	
Ale Critical	Advanced Settings • Scriptable tool for u	configuration Utility	Deployment Tools Create custom bootable Bootable Media Creator Customize operating sys ServerGuide Scripting Tr	firmware media tem installation	imber:
Specifically, Tools0	 Scriptable tool for it 	inventory and diagnostic	Install Microsoft windows ServerGuide		
Updat	es	Configura	ation	System Info	rmation
	fies the installation and e process and provides:	Easily mo settings u	difies your firmware , sing:	Maximizes the process allow	e collection /ing you to obtain:
	ommended updates vidual updates vnload updates	Commo Full con	n configuration tasks figuration	 System hea Full system 	

Figure 4. Advanced User Complete Tool Listing

- 2. To view one of the items in the list, click a link. A browser window opens for the related IBM support page.
- **3**. To close the Advanced User Complete Tool Listing window and return to the Home page, click **x**.

IBM ToolsCenter Suite menu options

The ToolsCenter Suite graphical user interface (GUI) has the following menu options:

Change Target Machine

You can use the **Change Target Machine** option to connect to a remote machine or a ToolsCenter Suite host machine.

Settings

You can use **Settings** to configure an internet connection. For more information, see "Configuring your Internet connection settings."

About About provides the ToolsCenter Suite version, the terms of use link, the IBM ToolsCenter Suite website link, and a link to download for the latest version of the *IBM ToolsCenter Suite User's Guide*.

Home Home opens the ToolsCenter Suite primary page.

Updates

The **Updates** function provides several options for downloading and installing firmware and driver updates.

Configuration

The **Configuration** function assists you in modifying firmware settings.

System Information

The **System Information** function maximizes the system information collection process, providing system health status and full system information.

Configuring your Internet connection settings

The following procedure describes how to configure and test your internet connection using proxy settings. Proxy settings are used for the Send to IBM and Send to FTP options of the **System Information** function. It is necessary to have an Internet connection for using the **Updates** function and **Feature on Demand** by proxy. Proxy settings use an HTTP proxy. IBM ToolsCenter Suite uses the **HTTP/1.1 CONNECT** method with UTF-8 encoding and **passive ftp mode** to connect with the HTTP proxy.

Procedure

1. Click **Settings** on the title bar of the IBM ToolsCenter Suite screen. The Settings dialog box opens.

Internet Connection			
Select one of the following metho			
The management server ca		영양 전 사람이 있는 것 같은 것이 같은 것이 없다. 것 같은 것이 없는 것이 없는 것이 없다.	
The management server re		ver to access the Interi	net.
IP address or hostname:	Port:	17	
9.119.41.121	8080		
Requires authentication			
User name:			
username			
Password:			
Test Internet Connection			

Figure 5. Settings - Internet Connection

- 2. Select one of following options for configuring your internet connection:
 - a. The management server can access the Internet without a proxy server: The IP address or host name, Port, Username, and Password fields are greyed out.
 - **b.** The management server requires a proxy server to access the Internet: For this option, complete the following steps:
 - 1) Enter the IP address or host name.
 - 2) Enter the Port.
 - **3**) Select **Requires authentication** to enable the authentication fields and enter the following information:
 - User name
 - Password
- **3**. Click **Test Internet Connection**. This operation verifies whether the internet connection is working.

The internet connection test checks the proxy settings and displays the results.

4. Click **OK** to save the internet connection settings or click **Cancel** to not save any changes and quit Settings.

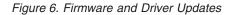
Chapter 4. Using the Updates function

The topics in this section provide complete instructions for each of the **Updates** options. By using the **Updates** function, you can check the compliance of firmware and drivers, download and install firmware and device drivers, add support for new systems, and manage updates on a local machine using in-band mode and out-of-band (OOB) mode for a remote machine.

Procedure

1. On the Home page or from the ToolsCenter Suite menu, click **Updates**. The Firmware and Driver Updates page opens.

IBM To	oolsCenter S	Suite		Change Target Machine 💌	Settings	About	IBM.		
Home	Updates	Configuration	System Information			chine 🞯	and characters		
					Alerts:	S 0 A	0 🔢 0		
Firmware	Firmware and Driver Updates								
Check the com	pliance of curre	ent firmware and driver,	and update accordingly.						
	Basan	nmended Updates							
-01	Recoil	imended opdates							
	Check firmware	e and driver level and a	pply the latest updates package.						
	Indi	vidual Updates							
	Apply individua	I firmware and driver u	pdates. @						
5	Dow	vnload Updates							
	Download UXS	P or individual update	package from the IBM website.						



Tip: To view additional information for each type of update, hover the mouse pointer over the question mark icon.

- 2. Select one of the Updates options:
 - **Recommended Updates**: This option checks the firmware and driver levels of the latest UpdateXpress System Pack, from the IBM website or in a local directory, and compares the recommended updates with the local machine installed firmware and driver levels. You can selectively download and apply UpdateXpress System Pack firmware and driver updates from the IBM website or selectively apply firmware and driver UpdateXpress System Pack updates from a local directory.
 - **Individual Updates**: This option checks the firmware and driver levels and compares the currently installed firmware and drivers to the individual updates on the IBM website or in a local directory. You can selectively download and apply firmware and driver updates from the IBM website or selectively apply firmware and driver updates from a local directory.

• **Download Updates**: This option downloads an UpdateXpress System Pack or an individual update package for a specific machine type and operating system. Updates are downloaded to a specified directory and can be applied at any time.

Example: You can download Updates that can be applied when a lab machine (A) needs to update the firmware or a driver, but does not have internet access. You can use another lab machine (B) with internet access, to download the update packages for lab machine A. Use one of the following two methods; the first method is easier to use and recommended.

- a. Copy the entire ToolsCenter Suite working directory on lab machine B to lab machine A. Launch ToolsCenter Suite on lab machine A. The updates can be done from the local directory.
- b. If lab machine A has ToolsCenter Suite software, copy the downloaded update packages under the ToolsCenter Suite working directory on lab machine B to ToolsCenter Suite working directory on lab machine A. Launch ToolsCenter Suite in lab machine A. The updates can then be done from the local directory.

The Recommended Update Wizard

The Recommended Updates Wizard checks the firmware and driver levels and applies a package of updates (UpdateXpress System Pack). This option is the preferred method for obtaining firmware and driver updates for the server because the UpdateXpress System Pack consists of an integration-tested software bundle of updatable firmware and device driver updates for each IBM System x, IBM BladeCenter server, and IBM Flex System.

Using the latest UXSP updates package from the IBM website option

By using **The latest UXSP updates package from the IBM website** option, you can download and apply the latest UpdateXpress System Pack updates package from the IBM website.

Procedure

1. Click **Recommended Updates** on the Firmware and Driver Updates page. The Firmware and Driver Updates page of the Recommended Update Wizard opens.

IBM ToolsCenter Suite		Change Target Machine 💌	Settings About	t <u>IBM</u> .
Home Updates Configuration	System Information		Host Machine 🥝 Alerts: 🚫 0) ▲ 0 ■ 0
Recommended Update Wiz	ard			
1.Firmware Updates Settings	2.Check Firmware Compliance	3.Update Firmware		
Compare the currently installed firms	ware to the following source:			
The latest UXSP updates package for a second sec	from the IBM website			
minor oxse updates package.				
Update Content:				
Also include updates that are not in	nstalled or undetected @			
		<back< td=""><td>Next></td><td>Cancel</td></back<>	Next>	Cancel

Figure 7. Recommended Update Wizard

- 2. Select The latest UXSP updates package from the IBM website.
- **3**. Optional: You can select to **Also include updates that are not installed or undetected**. Select this option only if you have any unknown devices and you need to detect all possible hardware in this system.
- 4. Click **Next** to complete the check firmware compliance step, or **Cancel** to quit this operation. If **Cancel** is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Select one of the follow options:
 - Click **OK** to quit the update wizard.
 - Click **Cancel** to continue the update process.

The check firmware compliance step acquires the current machine's UXSP firmware and driver levels from the IBM website.

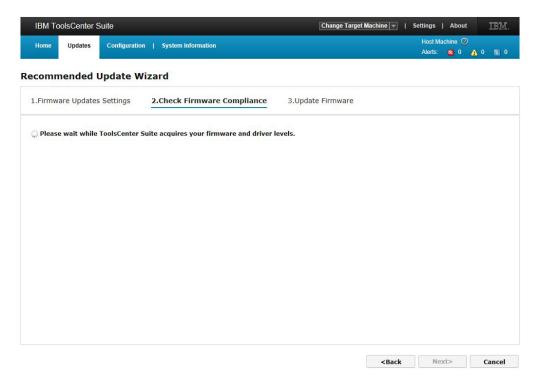


Figure 8. Recommended Updates - acquiring the current machine's UXSP firmware and driver levels

During the acquire operation, the progress icon is displayed and the current page is locked, **Cancel** is enabled, and the following message is displayed: Please wait while ToolsCenter Suite acquires your firmware and driver levels. After the acquire operation finishes, the check firmware compliance operation begins.

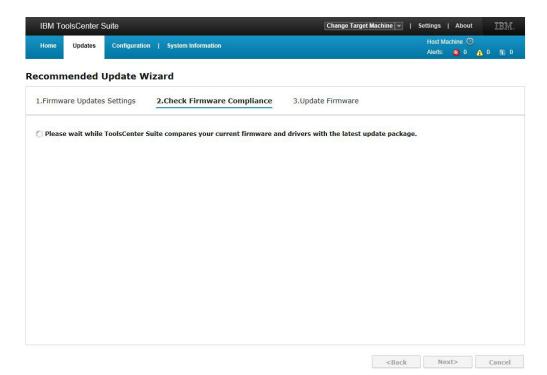


Figure 9. Recommended Updates - checking the current machine's UXSP firmware and driver levels

While the compliance check firmware compliance operation is working, the current page is locked, **Cancel** is disabled, and the following message is displayed:

Please wait while ToolsCenter Suite compares your current firmware and drivers with the latest update package.

Note: If you are not connected to the Internet, the Configure Internet Connection dialog box opens. Check your configuration or try again, otherwise, click **OK** to continue or **Cancel**. For more information, see "Configuring your Internet connection settings" on page 12.

When the check firmware compliance operation finishes, the number of items with new versions is displayed above the firmware and driver updates table.

Home	Updates Configuration System Informatio	n			ost Machine 🎯 Ierts: 🚳 0 🛕 0	m 0
om	mended Update Wizard					
.Firm	ware Updates Settings 2.Check Firmwa	re Compliance	3.Update Firmware			
Com	pliance check complete. Select the desired firm	vare components an	d then click "Next" to up	date.		
7 fir	mware and drivers items available. The recommen	nded items were select	ed by default.			
	Name	Severity	New Version	Installed Version	Reboot Required	
	intel_dd_inteldp_9.2.3.1020_winsvr_32-64	Suggested	9.2.3.1020	Undetected	Yes	Ē
	mtrox_dd_video_2.04.001_winsrvr_32-64	Suggested	2.04.001	Undetected	Yes	
	mlnx_fw_nic_4.40.14223p8_windows_32-64	Suggested	4.40.14223p8	Undetected	Yes	
4 HE	BA/CNA items available. If an HBA/CNA update is n	eeded, contact the ven	dor to confirm it.			
	Name	Severity	New Version	Installed Version	Reboot Required	
	elx_dd_nic_ibm1212-4.6.203.1-6_windows_32-64	Suggested			Yes	-
	i be2nd62.sys		4.6.203.1	4.1.370.0		
	brcd_dd_cna_3.2.1.1_windows_32-64	Suggested	3.2.1.1	Undetected	Yes	

Figure 10. Recommended Updates - Check Firmware Compliance results

By default, all updates listed in the table are checked and preselected for updating and can be deselected.

The firmware and driver updates table provides the following information for each update listed in the table:

- Name: update name
- Severity: Initial Release, Suggested, Critical, or Not Required
- New Version: new version number
- Installed Version: current version number or Undetected
- Reboot Required: Yes rebooting is necessary for the update or No rebooting is not necessary for the update

The HBA/CNA updates table provides the following information for each update listed in the table:

- Name: update name
- Severity: Initial Release, Suggested, Critical, or Not Required
- New Version: new version number
- Installed Version: current version number or Undetected
- Reboot Required: Yes rebooting is necessary for the update or No rebooting is not necessary for the update
- 5. Optional: If there are any updates that you do not want to download and install, deselect those updates in the left column.
- 6. Click **Next** to proceed with the update process. If you selected to install firmware or drivers that includes OS agnostic software (including uEFI/IMM/DSA/FPGA updates), for inband updates, ToolsCenter Suite checks whether the entered user name and password is able to pass the IMM user authentication.

Complete the following steps:

a. Enter the IMM credentials:

- IMM User Name
- Password
- b. Click **Target the secondary firmware bank** to have the secondary or alternate flash bank targeted if it is available. If a secondary or alternate device is not supported the IMM may ignore this option.
- c. Click Continue Updates.

If IMM authentication passes, the firmware and driver installation continues. To install the OS agnostic software, the IMM account and password must pass authentication. If you cannot pass IMM account and password authentication, deselect the OS agnostic software to continue the firmware and driver installation without the OS agnostic software.

- 7. Click **Continue Update** to proceed to the update firmware step by downloading the UXSP updates from the IBM website and applying the downloaded firmware and drivers, or click **Cancel** to return to the Firmware and Driver Updates page. If **Cancel** is selected, the Confirm to Cancel Updates dialog box is displayed, asking if you are sure you want to cancel the whole update process? Click one of the follow options:
 - Click **OK** to quit the update wizard.
 - Click Cancel to continue the update process.

During the download operation, the progress of the current downloading item indicates the total bytes and the downloaded bytes. A progress bar provides the overall progress of all download items. The updates listed in the table display the status as either: Not Started, Downloading, and Downloaded.

You can click **Stop** to stop downloading the current item.

IBM ToolsCenter Suite		Change Target Mad	ichine 🔻 Settings Ab	out IBM.
Home Updates Configura	tion System Information		Host Machine Alerts: 🔇	⊘ 0 <u>∧</u> 0 ∎ 0
commended Update	Wizard			
1.Firmware Updates Settings	2.Check Firmware Complian	ce 3.Update Firmware		
Downloading [elx_dd_nic_ib Overall process : 1 of 1 down	m1212-4.6.203.1-6_windows_32- loads, 20235 of 20235 KB	54] : 20235 of 20235 KB		
10	0%			
Items		Status		
elx_dd_nic_ibm1212-4.6.203.1-6_wind		Downloaded		

Figure 11. Recommended Updates - UXSP downloading from the IBM website

When the download operation finishes, the update operation begins.

IBM ToolsCenter Suite		Change Target Ma	ichine 🔻 S	Settings About	IBM.
Home Updates Configura	tion System Information			Host Machine 🥥 Alerts: 🙆 0	
Recommended Update	Wizard				
1.Firmware Updates Settings	2.Check Firmware Compliance	a 3.Update Firmware			
🔆 Updating is in progress. 0 of	1 items have been updated.				
\Lambda Do not close your browser while	e the update is in progress. Do not take	any power actions on target server.			3
Items	S	tatus			
elx_dd_nic_ibm1212-4.6.203.1-6_wind	lows_32-64 D	ownloaded			
			<back< td=""><td>Finish</td><td>Cancel</td></back<>	Finish	Cancel

Figure 12. Recommended Updates - Update Firmware operation

During the update operation, a progress icon and the following message is displayed:

Updating is in progress. x of y items have been updated. Do not close your browser while the update is in progress. Do not take any power actions on target server.

When the update operation finishes, the table provides the status of the updates. A timestamp provides the time the update operation finished.

IBM ToolsCenter Suite		Change Target Machine 💌	Settings About	IBM.
Home Updates Configuration	System Information		Host Machine 🎯 Alerts: 🚳 0	
Recommended Update Wiza	ard			
1.Firmware Updates Settings 2	Check Firmware Compliance	3.Update Firmware		
3 1 selected items update failed.Finis	hed at 1:10:07 PM			
Items	Statu	JS		
elx_dd_nic_ibm1212-4.6.203.1-6_windows_32-	-64 🔞 F	ailed		
		<back< td=""><td>Finish</td><td>Cancel</td></back<>	Finish	Cancel

Figure 13. Recommended Updates - Update Firmware results

8. Click Finish to return to the Firmware and Drivers Updates page.

Using the Import UXSP updates package option

By using the **Import UXSP updates package** option you can apply a UXSP updates package (or individual updates) from a local directory.

Procedure

1. Click **Recommended Update** on the Firmware and Driver Updates page. The Firmware Updates Settings page of the Recommended Update Wizard opens.

IBM ToolsCenter Suite		Change Target Machine	Settings About	IBM.
Home Updates Configuration	System Information		Host Machine 🎯 Alerts: 🔞 0) <u>A</u> 0 T0
Recommended Update Wiz	ard			
1.Firmware Updates Settings	2.Check Firmware Compliance	3.Update Firmware		
Compare the currently installed firm	ware to the following source:			
 The latest UXSP updates package Import UXSP updates package: 	from the IBM website			
C:\UXSP				
Update Content:				
Also include updates that are not i	nstalled or undetected @			
		<back< td=""><td>Next></td><td>Cancel</td></back<>	Next>	Cancel

Figure 14. Recommended Updates - Firmware Updates Settings

2. Select **Import UXSP updates package**, and on the next line enter the directory path where the updates are located. If you enter an invalid local directory address, the following message is displayed:

Cannot find the given local directory. Make sure the directory path is valid.

- **3**. Optional: You can select **Also include updates that are not installed or undetected**. Select this option only if you have any unknown devices and you need to detect all possible hardware in this system
- 4. Click **Next** to proceed or **Cancel** to quit this operation. If **Cancel** is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Click one of the follow options:
 - Click **OK** to quit the update wizard.
 - Click Cancel to continue the update process.

While the check firmware compliance operation is working, the current page is locked, **Cancel** is disabled, and the following message is displayed:

Please wait while ToolsCenter Suite compares your current firmware and drivers with the latest update package.

When the check firmware compliance operation finishes, the firmware and driver updates table is displayed.

The firmware and driver updates table provides the following information for each update listed in the table:

- Name: update name
- · Severity: Initial Release, Suggested, Critical, or Not Required
- New Version: new version number
- Installed Version: current version number or Undetected
- Reboot Required: Yes rebooting is necessary for the update or No rebooting is not necessary for the update

The HBA/CNA updates table provides the following information for each update listed in the table:

- Name: update name
- Severity: Initial Release, Suggested, Critical, or Not Required
- New Version: new version number
- Installed Version: current version number or Undetected
- Reboot Required: Yes rebooting is necessary for the update or No rebooting is not necessary for the update
- 5. Select one or more updates in the left column. Updates with a severity level of critical are selected by default. If you want to include additional updates, manually select them.
- 6. Click Next to proceed with the update process. If you selected to install firmware or drivers that includes OS agnostic software (including uEFI/IMM/DSA/FPGA updates), for in-band updates, ToolsCenter Suite checks whether the entered user name and password is able to pass the IMM user authentication.

Complete the following steps:

- a. Enter the IMM credentials:
 - IMM User Name
 - Password
- b. Click **Target the secondary firmware bank** to have the secondary or alternate flash bank targeted if it is available. If a secondary or alternate device is not supported the IMM may ignore this option.
- c. Click Continue Updates.

If IMM authentication passes, the firmware and driver installation continues. To install the OS agnostic software, the IMM account and password must pass authentication. If you cannot pass IMM account and password authentication, deselect the OS agnostic software to continue the firmware and driver installation without OS agnostic software.

- 7. Click Continue Update to continue the updates process from the local directory, or click Cancel to return to the Firmware and Driver Updates page. If Cancel is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Click one of the follow options:
 - Click **OK** to quit the update wizard.
 - Click Cancel to continue the update process.

During the update operation, a progress icon and the following message is displayed:

Updating is in progress. x of y items have been updated. Do not close your browser while the update is in progress. Do not take any power actions on target server.

The updates listed in the table display the status as either: Not Started, Downloading, and Downloaded.

Note: For in-band and out-of-band (OOB) updates, if you selected to install a prior version of firmware or drivers, a backlevel warning dialog box opens. Click **Continue installation** to proceed or **Cancel** to stop the installation.

When the update operation finishes, the firmware and driver updates table provides the status of the updates. A timestamp provides the time the update operation finished. 8. Click Finish to return to the Firmware and Driver Updates page.

The Individual Update Wizard

The Individual Update Wizard checks and compares the currently installed firmware and drivers to individual updates from the IBM website or in a local directory. Use this method if you want to install individual updates or when IBM support instructs you to install individual updates.

Using the Individual updates from the IBM website option

By using **The Individual updates from the IBM website** option, you can download and apply individual firmware and driver updates from the IBM website.

Procedure

1. Click **Individual Updates** on the Firmware and Driver Updates page. The Firmware and Driver Updates page of the Individual Update Wizard opens.

IBM ToolsCenter Suite		Change Target Machine 👻	Settings	About	IBN
Home Updates Configuration	System Information		Host M Alerts:	achine 🥝 🚳 0	A 0 II
dividual Update Wizard					
.Firmware Updates Settings	2.Check Firmware Compliance	3.Update Firmware			
Compare the currently installed firms	ware to the following source:				
 Individual updates from the IBM w Import individual updates 	ebsite				
Ipdate Content:					
Include third party software 🥘					
		<back< td=""><td>Ne</td><td>ext></td><td>Cance</td></back<>	Ne	ext>	Cance

Figure 15. Individual Update Wizard

- 2. Select Individual updates from the IBM website.
- **3**. Optional: You can select **Include third party's software**. Third-party software is vendor management software, such as Broadcom or LSI.

Note: This process may take some time because the size of the third-party software may be larger than the size of the third-party firmware and device driver software.

- 4. Click **Next** to proceed or **Cancel** to quit this operation. If **Cancel** is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Click one of the follow options:
 - Click **OK** to quit the update wizard.

• Click **Cancel** to continue the update process.

The current machine's individual firmware and driver levels are acquired from the IBM website. During the acquire operation, **Cancel** is enabled, and the following message is displayed:

Please wait while ToolsCenter Suite acquires your firmware and driver levels.

After the acquire operation finishes, the check firmware compliance operation begins. While the check firmware compliance operation is working, the current page is locked, **Cancel** is disabled, and the following message is displayed:

Please wait while ToolsCenter Suite compares your current firmware and drivers with the latest update package.

When compliance checking finishes, the number of items with new versions is displayed above the firmware and driver updates table.

Ноте	Updates Configuration System Information	n			est Machine 🧿 erts: 🔕 0 🛕 0	Б
divid	dual Update Wizard					
.Firm	ware Updates Settings 2.Check Firmwa	re Compliance	3.Update Firmware			
	npliance check complete. Select the desired firmv IBM firmware and drivers items available.	ware components and th	en click "Next" to upo	late.		
		102.000		TOTAL AND		
	Name	Severity	New Version	Installed Version	Reboot Required	
	elx_dd_nic_ibm1212-4.6.203.1-6_windows_32-64	Suggested			Yes	
	be2nd62.sys		4.6.203.1	4.1.370.0		
	ibm_fw_uefi_cce126e-1.00_anyos_32-64	Initial Release	1.00 (CCE126E)	1.00 (CCE125E)	Yes	
	ibm_fw_dsa_dsytc4k-9.41_anyos_32-64	Suggested	9.41 (DSYTC4K)	9.41 (DSYTC3J)	Yes	
	brcd_dd_cna_3.2.1.1_windows_32-64	Suggested	3.2.1.1	Undetected	Yes	
	elx_dd_fc_ibm1212-2.74.016.001-6_windows_32-64	Suggested	2.74.016.001-6	Undetected	Yes	
	elx_dd_cna_ibm1212-2.74.016.001-6_windows_32-64	Suggested	2.74.016.001-6	Undetected	Yes	
	elx_dd_iscsi_ibm1212-4.6.130.0-6_windows_32-64	Suggested	4.6.130.0-6	Undetected	Yes	
	mtrox_dd_video_2.04.001_winsrvr_32-64	Suggested	2.04.001	Undetected	Yes	
	mtrox_dd_video_2.04.001_winsrvr_32-64	Suggested	2.04.001	Undetected	Yes	

Figure 16. Individual Update - Check Firmware Compliance results

The firmware and driver updates table provides the following information for each update listed in the table:

- Name: update name
- Severity: Initial Release, Suggested, Critical, or Not Required
- · New Version: new version identifier
- Installed Version: current version identifier or Undetected
- Reboot Required: Yes rebooting is necessary for the update or No rebooting is not necessary for the update

Note: If you selected to install third-party software, a second table is displayed below the firmware and drivers update table providing a list of third-party software.

<Back Next> Cancel

	ware Updates Settings	2.Check Firmwa	re Compliance	3.Update Firmware			
	pliance check complete. Se		vare components and th	nen click "Next" to upo	late.		
13 IE	3M firmware and drivers it	ems available.					
	Name		Severity	New Version	Installed Version	Reboot Required	
	elx_dd_nic_ibm1212-4.6.203.1-	6_windows_32-64	Suggested			Yes	-
	be2nd62.sys			4.6.203.1	4.1.370.0		
	ibm_fw_uefi_cce126e-1.00_any	ros_32-64	Initial Release	1.00 (CCE126E)	1.00 (CCE123L)	Yes	,
0 thi	rd party software updates	available.					
	Name		Severity	New Version	Installed Version	Reboot Required	

Figure 17. Individual Updates- third party software results

- 5. Select one or more updates in the left column.
- 6. Click **Next** to proceed with the update process. If you selected to install firmware or drivers that includes OS agnostic software (including uEFI/IMM/DSA/FPGA updates), for inband updates, ToolsCenter Suite checks whether the entered user name and password is able to pass the IMM user authentication.

Complete the following steps:

- a. Enter the IMM credentials:
 - IMM User Name
 - Password
- b. Click **Target the secondary firmware bank** to have the secondary or alternate flash bank targeted if it is available. If a secondary or alternate device is not supported the IMM may ignore this option.
- c. Click Continue Updates.

If IMM authentication passes, the firmware and driver installation continues. To install the OS agnostic software, the IMM account and password must pass authentication. If you cannot pass IMM account and password authentication, deselect OS agnostic software to continue the firmware and driver installation without the OS agnostic software.

- 7. Click Continue Update to continue the updates process by downloading the updates from the IBM website and apply the downloaded firmware and drivers, or click Cancel to return to the Firmware and Driver Updates page. If Cancel is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Click one of the follow options:
 - Click **OK** to quit the update wizard.
 - Click **Cancel** to continue the update process.

During the download operation, the progress of the current downloading item indicates the total bytes and the downloaded bytes. A progress bar provides the overall progress of all download items. The updates listed in the table display the status as either: Not Started, Downloading, and Downloaded. Click **Stop** to stop the current downloading item.

IBM Tools	Center Suite			Change Target I	Machine 🔻	Settings	About		IBM.
Home U	pdates Configuratio	n System Information				Host Mach Alerts: (ine ⊘ 🔉 0	<u>∧</u> 0	0
dividual	Update Wizar	d							
L.Firmware	Updates Settings	2.Check Firmware Compli	iance	3.Update Firmware					
		40.14223p8_windows_32-64 ads, 3062 of 79261 KB] : 3062 of	79261 KB					
	3%	1							
Items			Status						
mInx_fw_nic_4	4.40.14223p8_windows_32	-64	Down	loading (3%)					
					<back< td=""><td>Finis</td><td>h</td><td>Ca</td><td>ncel</td></back<>	Finis	h	Ca	ncel

Figure 18. Individual Updates - downloading firmware from the IBM website

When all of the firmware and drivers have been downloaded, the update operation begins.

During the update operation, a progress icon and the following message is displayed:

Updating is in progress. x of y items have been updated. Do not close your browser while the update is in progress. Do not take any power actions on target server.

IBM ToolsCe	nter Suite			Change Targ	et Machine 👻 🛛	Settings About	IBM.
Home Upda	ates Configuratio	on System Information				Host Machine 🎯 Alerts: 👩 0	▲ 0 📱 0
dividual U	pdate Wizar	d					
1.Firmware Up	dates Settings	2.Check Firmware Complia	ance	3.Update Firmware			
		items have been updated.					
1 Do not close	your browser while t	he update is in progress. Do not t	ake any p	ower actions on target server.			
Items			Status				
mInx_fw_nic_4.40	0.14223p8_windows_32	2-64	Downloa	aded			
					<back< td=""><td>Finish</td><td>Cancel</td></back<>	Finish	Cancel

Figure 19. Individual Updates - updating firmware progress

Note: For inband and out-of-band (OOB) updates, if you selected to install a prior version of firmware or drivers, a backlevel warning dialog box opens. Click **Continue installation** to proceed or click **Cancel** to stop the installation.

When the update operation finishes, the table provides the status of the updates. A timestamp provides the time the update operation finished.

8. Click Finish to return to the Firmware and Driver Updates page.

Using the Import individual updates option

By using the **Import individual updates** option, you can apply previously downloaded updates (UXSP or individual) from a local directory.

Procedure

1. Click **Individual Updates** on the Firmware and Driver Updates page. The Firmware Updates Settings page of the Individual Update Wizard opens.

IBM ToolsCenter Suite		Change Target Machine 💌	Settings About	IBM.
Home Updates Configuration	System Information		Host Machine 🥝 Alerts: 🔕 0	🔥 0 🔳 0
Individual Update Wizard				
1.Firmware Updates Settings	2.Check Firmware Compliance	3.Update Firmware		
Compare the currently installed firms	ware to the following source:			
Individual updates from the IBM w	ebsite			
 Import individual updates C:\Latest 				
Update Content:				
Include third party software				
		<back< td=""><td>Next></td><td>Cancel</td></back<>	Next>	Cancel

Figure 20. Individual Updates - importing individual updates from a local directory

2. Select **Import individual updates** and on the next line, enter the directory path where the individual updates are located. If you enter an invalid local directory address, the following message is displayed:

Cannot find the given local directory. Make sure the directory path s valid.

3. Optional: You can select **Include third party's software**. Third-party software is vendor management software, such as Broadcom or LSI.

Note: This process may take some time because the size of the third-party software may be larger than the size of the third-party firmware and device driver software.

- 4. Click **Next** to proceed or **Cancel** to quit this operation. If **Cancel** is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Click one of the follow options:
 - Click **OK** to quit the update wizard.
 - Click **Cancel** to continue the update process.

While the check firmware compliance operation is working, the current page is locked, **Cancel** is disabled, and the following message is displayed:

Please wait while ToolsCenter Suite checks your firmware and driver levels. When the check firmware compliance operation finishes, a table containing

firmware and driver updates is displayed.

The firmware and driver updates table provides the following information for each update listed in the table:

- Name: update name
- Severity: Initial Release, Suggested, Critical, or Not Required
- New Version: new version number
- Installed Version: current version number or Undetected

• Reboot Required: Yes - rebooting is necessary for the update or No - rebooting is not necessary for the update

Note: If you selected to install third-party software, a second table below the firmware and drivers update table provides a list of third-party software.

- 5. Select one or more updates in the left column.
- 6. Click **Next** to proceed with the update process. If you selected to install firmware or drivers that includes OS agnostic software (including uEFI/IMM/DSA/FPGA updates), for in-band updates, ToolsCenter Suite checks whether the entered user name and password is able to pass the IMM user authentication.

Complete the following steps:

- a. Enter the IMM credentials:
 - IMM User Name
 - Password
- b. Click **Target the secondary firmware bank** to have the secondary or alternate flash bank targeted if it is available. If a secondary or alternate device is not supported the IMM may ignore this option.
- c. Click Continue Updates.

If IMM authentication passes, the firmware and driver installation continues. To install OS agnostic software, the IMM account and password must pass authentication. If you cannot pass IMM account and password authentication, deselect OS agnostic software to continue the firmware and driver installation without OS agnostic software.

- 7. Click Continue Update to continue the updates process from the local directory, or click Cancel to return to the Firmware and Driver Updates page. If Cancel is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Click one of the follow options:
 - Click **OK** to quit the update wizard.
 - Click Cancel to continue the update process.

During the update operation, a progress icon and the following message is displayed:

```
Updating is in progress.
x of y items have been updated.
Do not close your browser while the update is in progress.
Do not take any power actions on target server.
```

Note: For in-band and out-of-band (OOB) updates, if you selected to install a prior version of firmware or drivers, a backlevel warning dialog box opens. Click **Continue installation** to proceed or **Cancel** to stop the installation.

When the update operation finishes, the firmware and driver updates table provides the status of the updates. A timestamp provides the time the update operation finished.

8. Click Finish to return to the Firmware and Driver Updates page.

The Download Update Wizard

The Download Update Wizard downloads a UpdateXpress System Pack or an individual update package for a specific machine type and operating system. The updates are downloaded to the ToolsCenter Suite's working directory, where they are stored until you are ready to apply the updates, using either the **Recommended updates in a local directory** or the **Individual updates in a local directory** or the **Individual updates in a local directory** option.

Using the Download UXSP from the IBM Website option

By using the **Download UXSP from the IBM Website** option, you can selectively download a UXSP or an individual update package for a specific machine and operating system.

Procedure

1. Click **Download Updates** on the Firmware and Driver Updates page. The Download Updates Settings page of the Download Update Wizard opens.

IBM ToolsCenter Suite	Change Target Machine 👻	Settings	About	IB}
Home Updates Configuration System Information		Host N Alerts:	lachine ⊘ 🔕 0	🔥 0 🔳
ownload Update Wizard				
1.Download Updates Settings 2.Download Firmware				
Select target server type:				
Machine type:				
IBM Flex System x222 Compute Node / Machine Type:7916	-			
Operating system:				
Microsoft Windows	-			
Select the package to download:				
Download UXSP from the IBM Website				
O Download individual firmware and drivers from the IBM Website				
	< Back	N	ext>	Cance

Figure 21. Download Updates - Download UXSP from the IBM website

- 2. In the Select target server type section, complete the following steps:
 - From the Machine type list, select the target server type.
 - From the **Operating system** list, select the operating system for the target server.
- 3. In the Select a package to download section, select Download UXSP from the IBM Website.
- 4. Click **Next** to proceed or **Cancel** to quit this operation. If **Cancel** is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Select one of the follow options:

- Click **OK** to quit the update wizard.
- Click **Cancel** to continue the update process.

The Download Firmware page opens.

	izard			
.Download Updates Setti	ngs 2.Download Firmwa	are		
	d_sas-1.12.01_linux_32-64] : 29288 downloads : 63962 of 681168 KB 9%	8 of 101670 KB	D	
Items		Status		
ibm_fw_dsa_dsytc4j-9.41_anyos	_32-64	So Downloading (14 %)	•	
ibm_fw_hdd_sas-1.12.01_linux_3		Downloading (28 %)		
brcd_dd_fc_bfa-3.2.1.1_sles10_3		Downloading (0%)	=	
ibm_fw_imm2_1aoo42y-2.60_an	yos_noarch	Downloading (0 %)		
	les10_32-64	Not Started		
elx_dd_fc_ibm1212-8.2.2.26-1_s		Not Started		
		Not Started		
eix_dd_tc_ibm1212-8.2.2.26-1_s elx_fw_cna_ibm1212-4.6.281.8-1 elx_fw_fc_ibm1212-1.1.43.11-2_l	linux_32-64			
elx_fw_cna_ibm1212-4.6.281.8-1		Not Started		
elx_fw_cna_ibm1212-4.6.281.8-1 elx_fw_fc_ibm1212-1.1.43.11-2_				

Figure 22. Download Updates - Download Firmware progress

During the download operation, the progress of the current downloading item indicates the total bytes and the downloaded bytes. A progress bar provides the overall progress of all download items. The updates listed in the table display status as either : Not Started, Downloading, or Downloaded. Click **Stop** to stop the current downloading item.

When all of the downloads are finished, the total number of items downloaded successfully and the name of the folder containing the updates is displayed. Each update has a status of Downloaded.

5. Click Finish to return to the Firmware and Driver Updates page.

Using the Download individual firmware and drivers from the IBM website option

By using the **Download individual firmware and drivers from the IBM Website** option, you can download individual firmware and drivers from the IBM website.

Procedure

1. Click **Download Updates** on the Firmware and Driver Updates page. The Download Updates Settings page of the Download Update Wizard opens.

IBM ToolsCenter Suite	Change Target Machine 💌	Settings About	IBM.
Home Updates Configuration System Information		Host Machine 🥝 Alerts: 🔕 0) 🔥 0 👔 0
Download Update Wizard			
1.Download Updates Settings 2.Download Firmware			
Select target server type:			
Machine type:			
IBM Flex System x222 Compute Node / Machine Type: 7916	*		
Operating system:			
Microsoft Windows	*		
Select the package to download:			
O Download UXSP from the IBM Website			
Oownload individual firmware and drivers from the IBM Website			
Include third party software			
	<back< td=""><td>Next></td><td>Cancel</td></back<>	Next>	Cancel

Figure 23. Download Updates - Download individual updates

- 2. Select **Download individual firmware and drivers from the IBM Website** on the Firmware and Driver Updates page.
- **3**. Optional: In the **Update Content** section, you can also select **Include third party's software**.

Note: This process may take some time because the size of the third-party software may be larger than the size of the third-party firmware and device driver software.

- 4. Click **Next** to proceed or **Cancel** to quit this operation. If **Cancel** is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Select one of the follow options:
 - Click **OK** to quit the update wizard.
 - Click **Cancel** to continue the update process.

The Download Firmware page opens.

• • • • • • • • • • • • • • • • • • •					
.Download Updates Settings	2.Download Firmware				
Downloading [ibm_fw_hdd_sas-1.1 Overall process : 0 of 22 download 9%		1670 KB	p		
Items		Status			
ibm_fw_dsa_dsytc4j-9.41_anyos_32-64		🔆 Downloading (14 %)	*		
ibm_fw_hdd_sas-1.12.01_linux_32-64		Downloading (28 %)			
brcd_dd_fc_bfa-3.2.1.1_sles10_32-64		Downloading (0%)	=		
ibm_fw_imm2_1aoo42y-2.60_anyos_noarc	'n	Downloading (0 %)			
elx_dd_fc_ibm1212-8.2.2.26-1_sles10_32-6	64	Not Started			
elx_fw_cna_ibm1212-4.6.281.8-1_linux_32	-64	Not Started			
elx_fw_fc_ibm1212-1.1.43.11-2_linux_32-6	4	Not Started			
brcm_fw_nic_2.2.1a_linux_32-64		Not Started			
DICIT_IW_TIC_2.2.18_IITUX_32-04		Not Started			
elx_fw_fc_ibm1212-2.01a11-11_linux_32-6	14	Not Statted			

Figure 24. Download Updates - Download individual firmware and driver updates progress

During the download operation, the progress of the current downloading item indicates the total bytes and the downloaded bytes. A progress bar provides the overall progress of all download items. The updates listed in the table display status as either: Not Started, Downloading, and Downloaded. Click **Stop** to stop the current downloading item.

When all of the downloads are finished, the total number of items downloaded successfully and the name of the folder containing the updates is displayed. Each update has a status of Downloaded.

5. Click **Finish** to return to the Firmware and Driver Updates page.

Chapter 5. Using the Configuration function

You can use the **Configuration** function to view and change one or multiple settings on your system, and manage the configuration of a local machine using inband mode and out-of-band (OOB) mode for a remote machine. This section describes how to display and configure individual and frequently used settings or perform a complete system configuration. You can also change the settings for IBM System x IMM-based and a uEFI-based servers. IMM replaces the Remote Supervisor Adapter and baseboard management controller functions on IMM-based servers. uEFI replaces the basic input/output system (BIOS) and defines a standard interface among the operating system, platform firmware, and external devices.

Procedure

1. On the Home page or from the ToolsCenter Suite menu, click **Configuration**. The Configuration Overview page opens.

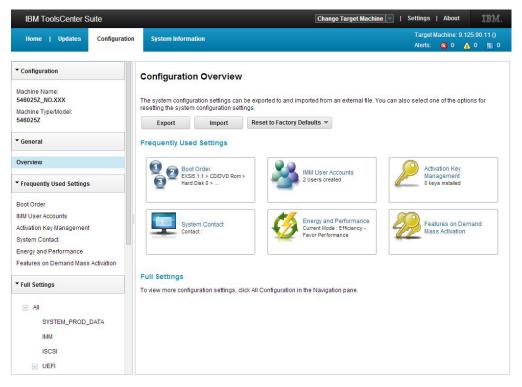


Figure 25. Configuration Overview

- 2. Select one of the configuration options on the Configuration Overview page:
 - System configuration setting options provide easy access for the following actions. For more information, see "Working with system configuration settings" on page 38.
 - Export
 - Import
 - Reset to Factory Defaults

- Frequently Used Settings are selected on the Configuration Overview page or from the navigation pane. For more information, see "Frequently Used Settings" on page 41.
 - Boot Order
 - IMM User Accounts
 - Activation Key Management
 - System Contact
 - Energy and Performance
 - Feature on Demand Mass Activation
- Full Settings allows you to view more configuration settings, from the navigation pane, click **Full Settings** > **All**. For more information, see "Working with the Full Settings option" on page 61.

Working with system configuration settings

The Configuration Overview page provides you with easy access to options that can assist you with exporting, importing, and resetting your system configuration settings.

About this task

The following procedure explains how to use the export, import and reset to factory defaults options.

- **Export**: Export the current machine settings before making configuration changes or installing updates.
- **Import**: Restore or replicate configuration settings to a machine after exporting the settings.
- **Reset to Factory Defaults**: Restore the machine settings to their original state before configuration changes or updates were applied.

Procedure

On the Configuration Overview page, click one of the following options:

• Export: The Opening saveall.out dialog box opens.

Select one of the following export actions:

- Click Open. A browser window opens displaying the export file contents.
- Click Save. The Save As dialog box opens.

Home Updates	Configuration	System Information		Target Machine Alerts: <u> </u> 0	: 9.125.90.16 (system
Configuration lachine Name: ystemXX		Configuration Overview The system configuration settings can be exported to and	l imported from an external file. You	ı can also select one	of the options for
37					
Ge Ge	omputer 🕨 SYST	EM (C:) Users IBM_ADMIN Downloads	✓ ✓ ✓ Sean	h Downloads	Q
Organize 🔻	Open Share	e with 👻 E-mail New folder		8==	
ve 🔶 Favorites		Name	Date modified	Туре	Size
E Desktop		🖬 net.sf.jadclipse_3.3.0.jar	2/10/2014 5:15 PM	Executable Jar File	44 KB
Fre 😺 Downloads		saveall (1).out	2/17/2014 5:45 PM	OUT File	10 KB
With the second se	: (D:) bcrfss03.raleigh.it	saveall.out	2/17/2014 544 PM	OUT File	10 KB
		•	m		E F

Figure 26. Configuration - Export configuration file

Select a folder for saving the export file and click **Save** or **Cancel** to quit the Save As operation.

- Click **Cancel** to quit the Export operation.
- **Import**: The Import configuration file dialog box opens.

IBM ToolsCenter Suite	Change Tar	get Machine 💌 Settings About IBM.
Home Updates Configuratio	n System Information	Target Machine: 9.125.90.16 (systemXX) Alerts: 💰 0 🛕 0 👔 0
▼ Configuration	Configuration Overview	
Machine Name: systemXX Machine Type/Model: 7377AC1	The system configuration settings can be exported to and imported from an extrementing the system configuration settings.	ernal file. You can also select one of the options for
▼ General	Frequently Used Settings	
Overview	Internet Configuration File	Activation Key
▼ Frequently Used Settings	Import Configuration File	Management 0 keys installed
Boot Order IMM User Accounts Activation Key Management System Contact	Select the configuration file to import. Select Configuration File	Features on Demand Mass Activation
Energy and Performance Features on Demand Mass Activation	OK	Cancel
▼ Full Settings	To view more configuration settings, click All Configuration in the Navigation pa	ine.
- All		
SYSTEM_PROD_DATA UEFI IMM		
BootOrder		

Figure 27. Configuration - Import Configuration File

Select one of the following import actions:

- Click Select Configuration File to select the file from the Choose File to Upload dialog box and then click Open, or Cancel to quit the file selection operation. The Import Configuration File dialog box opens displaying the name of the selected configuration file.
- Click **OK** to continue the import operation or click **Cancel** to quit this operation.

If you chose to import the configuration file exported from another machine, the Confirm to Replicate Configuration Settings dialog box opens.

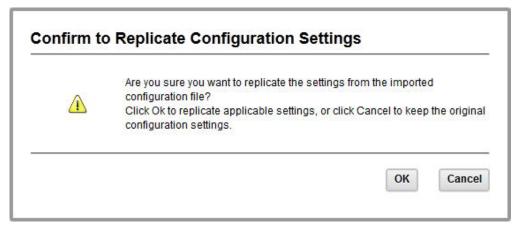


Figure 28. Configuration - Import - Replicate Configuration Settings

Click **OK** to replicate the applicable settings for this machine or click **Cancel** to keep the original configuration settings.

_

If you chose to import the configuration file exported from the same server, the Confirm to Restore Configuration Settings dialog box opens.

0	Are you sure you want to apply all the settings from the imported configuration file?
	Click OK to apply all of the settings for this machine, or click Cancel to k
	the original configuration settings.

Figure 29. Configuration - Import - Restore Configuration Settings

- Reset to Factory Defaults: Select one of the following reset actions:
 - Reset All Settings to Factory Defaults:
 - 1. Click **OK** to reset all of the settings to the factory default settings or click **Cancel** to quit this operation.
 - 2. When the reset operation finishes, you must restart the system.
 - Reset to IMM Factory Defaults:
 - 1. Click **OK** to reset all of the IMM settings to the factory default settings or click **Cancel** to quit this operation. The IMM will restart after the IMM settings are cleared.
 - 2. When the IMM restarts, you must configure the IMM network interface to restore connectivity. After the IMM configuration is cleared, the IMM is restarted.
 - Reset to uEFI Factory Defaults:
 - 1. Click **OK** to reset the uEFI settings to the factory default settings or click **Cancel** to quit this operation.
 - 2. When the reset operation finishes, you must restart the system.

Frequently Used Settings

You can use this option to view and change individual, frequently used settings. The Configuration Overview page provides an abbreviated, current status for each of the frequently used settings.

On the Configuration Overview page from in the navigation pane, you can select one of the following frequently used settings:

- Boot Order
- IMM User Accounts
- Activation Key Management
- System Contact
- Energy and Performance
- Features on Demand Mass Activation

Configuring, viewing, and changing Boot Order

You can use the **Boot Order** option to configure, view, and change the Boot Order and Wake on LAN Boot Order sequences for your system devices. The boot order sequence is stored in the IMM and used by the server firmware during the startup process.

Procedure

1. Click **Boot Order** on the Configuration Overview page or in the navigation pane. The Configuration - Boot Order page opens.

IBM ToolsCenter Suite		Change Target Machine 💌	Settings About	IBM.
Home Updates Configuration	System Information		Target Machine: 9.125.90 Alerts: 🔞 0 🛕 0	
▼ Configuration	Configuration - Boot Order			
Machine Name: 546025Z_NO.XXX Machine Type/Model:	Specify the boot order by adding and removing available de	vices to the current boot order.		
546025Z	Boot Order Wake On LAN Boot Order			
* General	Candidate Devices	Current Devices		
Overview	Floppy Disk Hard Disk 1 Hard Disk 3	EXSI5.1.1 CD/DVD Rom Hard Disk 0		
▼ Frequently Used Settings	USB Storage Diagnostics	Hard Disk 2 PXE Network		
Boot Order	ISCSI ISCSI Critical			
IMM User Accounts	Legacy Only Add >		Move Up	
Activation Key Management	IMM1 < Remove		Move Down	
System Contact	IMM2 USB1			
Energy and Performance	USB2			
Features on Demand Mass Activation	USB3 USB5			
▼ Full Settings	USB9 USB10 USB11			
E All	USB12			
SYSTEM_PROD_DATA				
IMM				
iscsi				
UEFI				

Figure 30. Configuration - Boot Order

- 2. Click one of the following boot order tabs:
 - Boot Order
 - Wake On LAN Boot Order

In the dual list box, the current boot order is shown as Current Devices on the right, and the available devices is shown as Candidate Devices on the left.

- **3**. To change the order of the Current Devices list, perform the following applicable steps:
 - a. To change only the Current Devices sequence, select the device and click either the **Move Up** or **Move Down**.
 - b. To add a device to the Current Devices list, select the device to be added from the Candidate Devices list, and click **Add** >.
 - **c.** To remove a device from the Current Devices list, select the device to be removed and click **Remove** >.
- 4. To cancel any changes, click Reset.
- 5. To save the new current device sequence changes, click Apply.

Creating, modifying, and deleting an IMM User Account

You can use the **IMM User Account** option to create, modify, or delete an IMM user account.

Procedure

1. Click **IMM UserAccount** on the Configuration Overview page or in the navigation pane. The Configuration - IMM User Accounts page opens.

IBM ToolsCenter Suite			Change Target Mach	ine 💌 Settings About IBM.
Home Updates Configuration	System	n Information		Target Machine: 9.125.90.11 () Alerts: 🧟 0 🛕 0 👔 0
▼ Configuration	Config	uration - IMM User A	ccounts	
Machine Name: 546025Z_NO.XXX	You can cr	eate, modify, or delete IMM User	accounts.	
Machine Type/Model: 546025Z	Create	User Delete User	Edit User	
▼ General	U	lser name	Access	Password Expiration
General	0 U	JSERID	Supervisor	No Expiration
Overview	<u> </u>	ESTER	Supervisor	No Expiration
Frequently Used Settings Boot Order IMM User Accounts Activation Key Management System Contact				
Energy and Performance				
Features on Demand Mass Activation				
▼ Full Settings				
 All SYSTEM_PROD_DATA IMM ISCSI UEFI 				

Figure 31. Configuration - IMM User Account

Existing IMM users are shown in the IMM User Account List. The list provides the following information for each user:

- User name
- Access
- Password Expiration
- 2. To create a new user, click Create User. The Create User dialog box opens.
 - **a**. Click the **User Credentials** tab. Enter the following User Credentials and then click **OK** or click **Cancel** to close the Create User dialog box.
 - User Name
 - Password
 - Confirm password

Note: The user name and password rules will be checked automatically after entering the information in each field, verifying whether it satisfies these rules.

When a new user is created, it is added to the IMM User Accounts List.

- a. Click the Authority tab and select one of the follow user access levels:
 - Supervisor: This user has no restrictions.

- Read-only: This user has read-only access and cannot perform any save, modify, clear, or state-affecting operations.
- Custom: This user may or may not have any restrictions, depending on which custom authority level is assigned.
- **3**. To delete an existing user from the IMM User Account List, select the **User name** you want to delete, and click **Delete User**. In the Delete IMM User dialog box, click **OK** to confirm the IMM User deletion or click **Cancel** to quit this operation.
- 4. To change an existing user, select the **User Name** and click **Edit User**. The Edit User dialog box opens. You can change the following IMM User options.
 - Click the User Credentials tab to change the User name and Password.
 - Click the Authority tab and select one of the follow user access levels:
 - Supervisor: This user has no restrictions.
 - Read-only: This user has only read-only access, and cannot perform any save, modify, clear, or state affecting operations.
 - Custom: This user may or may not have any restrictions, depending on which custom authority level is assigned.
- 5. When you have finished editing the user information, click **OK** or click **Cancel** to close the Edit User dialog box.

Using Activation Key Management

By using the **Activation Key Management** function, you can activate a feature on a server or activate an option with a software key, that is referred to as the Features on Demand activation key. You can use this function to view the currently installed keys list and to install keys from the IBM website, export locally installed keys, and delete installed key files. For more information about Features on Demand, see the Using IBM System x Features on Demand Redbook.

About this task

The following steps provide an overview of the options available when using the Activation Key Management function:

Procedure

 Click Activation Key Management on the Configuration Overview page or in the navigation pane. The Configuration - Activation Key Management page opens.

IBM ToolsCenter Suite		Change Tar	get Machine 💌 📔 Sett	tings About	IBM.
Home Updates Configuration	System Information			arget Machine: 9. 125.90 Jerts: 🔞 0 🛕 0	
Configuration Machine Name: 546025Z_NO.XXX Machine Type/Model: 546025Z	Configuration - Activation Key Man You can view currently installed keys, import key files a	nd install or replace keys	s from the IBM website. I from the Local File		
General	Feature Description	Unique Identifier	Constraints	Status	
Overview	IBM Integrated Management Module Advanced Upgrade	546006CNZ14	User Reminding:N Expired Date:N/A	I/A Activation ke	ey is valio
▼ Frequently Used Settings					
Boot Order IMM User Accounts					
Activation Key Management					
System Contact					
Energy and Performance					
Features on Demand Mass Activation					
▼ Full Settings					
- All					
SYSTEM_PROD_DATA					
IMM	For keys with status as "Not installed", you may go	to <u>IBM website</u> to purcha	se.		
iscsi					
UEFI					

Figure 32. Configuration - Activation Key Management

The currently installed feature activation keys are displayed in the installed keys table. The table provides the following information:

- Feature Description
- Unique Identifier
- Constraints
- Status

If there is a live internet connection, the available activation keys for the current system can be purchased from the IBM website by using the selecting **Install Selected Keys from IBM Site** or by selecting **IBM website**.

- The Configuration Activation Key Management page provides the following actions:
 - Refresh
 - Export
 - Delete
 - Install Selected Keys from IBM Website
 - Install from the Local File
- To refresh the activation key status, click **Refresh**. The activation key status of the current machine are refreshed and displayed. The Unique Identifier column indicates a unique identifier for IMM and RAID, otherwise the unique identifier is *N*/*A*.
- To download a key file or open a key file in a browser window, select the key file and click **Export**. The File Download dialog box opens. Select one of the following options:
 - Open
 - Save
 - Cancel

- To remove keys, select one or more key files from the list and click **Delete**. The Confirm to Remove keys dialog box opens. Select one of the following options:
 - OK
 - Cancel
- To install an activation key from the IBM website, select the key with a status of Not installed and click Install Selected Keys from IBM Website. The Install Activation Key from IBM website dialog box opens.
 - 1. Enter the following information in the Install Activation Key from IBM website dialog box: For IMM/RAID keys, the unique identifier is displayed, otherwise for any other key, enter the unique identifier of the hardware manually.
 - IBM ID
 - Password
 - Details for each key
 - 2. Click Install Now to install activation keys from the IBM website.

If there is an IBM ID error or if the password is not recognized, the following error message is displayed:

The IBM ID or password is not recognized.

If there is an FOD ID error, the following error message is displayed:

The Feature-On Demand IDs for the indicated license are not recognized. Note that an authorization code and Feature-On-Demand ID are required.

- To install one or more keys from the local file, select one or more key files from the list, click **Install from the Local files**. The Choose File to Upload dialog box opens. Complete the following steps:
 - 1. Select the File Upload directory location and click Open.
 - 2. Select the activation key files to upload to the server. The Activation Keys Installation dialog box opens. A progress bar indicates the key installation percentage and a table lists the installed activation key information.
 - 3. Select any local activation keys from the list and click OK.
 - 4. To refresh the current installed keys list and the available keys list, click **Refresh** at any time.

Note: When you click **Refresh**, the installed feature activation keys for the current system and the available activation keys for that system, are both displayed in the activation key list.

Using the System Contact function

You can use the **System Contact** function to identify a system to operations and support personnel. You can also use this function to add or modify the system contact information.

Procedure

1. Click **System Contact** on the Configuration Overview page or in the navigation pane. The Configuration - System Contact page opens.

IBM ToolsCenter Suite	Change Target Machine	Settir	igs A	bout	IBM.
Home Updates Configuration	System Information	Target I Alerts:		9.115.25 🛕 0	2.30 (54605Z) 👔 0
▼ Configuration	Configuration - System Contact				
Machine Name: 54605Z	Provide a description to identify this system to operations and support personnel.				
Machine Type/Model: 546025Z	Apply Reset				
▼ General	Machine Name: @ 54805Z				
Overview	System descriptive name: <a>Image: System descripti				
▼ Frequently Used Settings	Contact person: @				
Boot Order	Annie Chen				
IMM User Accounts	Location(site, geographical coordinates):				
Activation Key Management	wuyishan				
System Contact					
Energy and Performance	Room ID: 🥥				
Features on Demand Mass Activation	1G-22 Green area				
▼ Full Settings					
- All					
SYSTEM_PROD_DATA					
IMM					
iSCSI					
UEFI 🗸					

Figure 33. Configuration - System Contact

- **2**. Enter the following applicable information for the Machine Name that is displayed.
 - Machine Name
 - System descriptive name
 - Contact person
 - Location (site, geographical coordinates, etc.)
 - Room ID
- 3. To apply and save the new system contact information, click **Apply**.
- 4. To restore the original system contact information, click Reset.

Energy and Performance settings

The Energy and Performance settings are determined by machine type. Performance and power tuning is based on a best estimation. Due to circumstantial differences, the results may not be the same as the best estimation.

Use one of the following options to change the values of the Energy and Performance settings that is applicable for your machine type:

- Energy and Performance settings for M4 machine types
- Energy and Performance settings for pre-M4 machine types

Changing Energy and Performance settings for M4 machine types

You can use this procedure to change the values of the Energy and Performance settings for M4 machine types. M4 machines have four energy and performance options. The default state for an M4 machine is Efficiency.

Procedure

1. Click **Energy and Performance** on the Configuration Overview page or in the navigation pane. The Configuration - Energy and Performance page opens.

IBM ToolsCenter Suite	Change Target Machine 💌 Settings About	IBM.
Home Updates Configuratio	n System Information Target Machine: 9.115.252.30 Alerts: Solution Alerts: Solution Alerts: Target Machine: 9.115.252.30	
• Configuration	Configuration - Energy and Performance	
Machine Name: 54605Z	Select Energy and Performance settings to balance performance and power consumption.	
Machine Type/Model: 546025Z	Apply Reset	
General	Efficiency -Favor Performance	
Overview	Optimizes performance/watt efficiency with a bias towards performance. This is the preferred and default mode for Energy Start compliance.	
Frequently Used Settings	 Maximum Performance Maximizes the absolute performance of the system with less emphasis on power conservation. 	
Boot Order	Fan speed and heat output may increase in addition to power consumption.	
IMM User Accounts	Efficiency -Favor Power	
Activation Key Management	Optimizes performance/watt efficiency with a bias towards power savings.	
System Contact	O Minimal Power	
Energy and Performance Features on Demand Mass Activation	Minimizes power consumption of the system while it is operating and when a power cap is not used.	
▼ Full Settings		
E All		
SYSTEM_PROD_DATA		
IMM		
iSCSI		
UEFI		

Figure 34. Configuration - Energy and Performance

- 2. Select one of the following performance settings for your system:
 - Efficiency Favor Performance: This setting optimizes performance and watt efficiency with a bias towards performance. This is the preferred setting for Energy Star compliance.
 - **Maximum Performance**: This setting maximizes the absolute performance of the system with less emphasis on power conservation. Fan speed and heat output may increase in addition to power consumption.
 - Efficiency Favor Power: This setting optimizes performance and watt efficiency with a bias towards power savings, and is applicable for M4 machine types only.
 - **Minimal Power**: This setting minimizes power consumption of the system while it is operating and when a power cap is not used.
- **3**. Click **Apply** to apply and save the Energy and Performance setting change, or click **Reset** to return to the previous Energy and Performance setting. If no changes are made to the selected options, the **Apply** and **Reset** buttons are not available.

Changing Energy and Performance settings for pre-M4 machine types

You can use this procedure to change the values of the Energy and Performance settings for machine types that are older than M4 machines. For these machines types, there are three energy and performance options.

Procedure

- 1. Click **Energy and Performance** on the Configuration Overview page or in the navigation pane. The Configuration Energy and Performance page opens.
- 2. Select one of the following performance settings for your system:
 - **Efficiency**: This setting optimizes performance and watt efficiency. This is the preferred setting for Energy Star compliance.
 - **Maximum Performance**: This setting maximizes the absolute performance of the system with less emphasis on power conservation. Fan speed and heat output may increase in addition to power consumption.
 - **Minimal Power**: This setting minimizes power consumption of the system while it is operating and when a power cap is not set.
- **3.** Click **Apply** to apply and save the Energy and Performance setting change, or click **Reset** to return to the previous Energy and Performance setting. If no changes are made to the selected options, the **Apply** and **Reset** buttons are not available.

Working with Features on Demand Mass Activation

You can use the **Features on Demand Mass Activation** option to inventory systems vital product data (VPD), download activation keys from the IBM website, and install and export activation keys for multiple end points at the same time.

Procedure

- 1. Click **Features on Demand Mass Activation** on the Configuration Overview page. The Features on Demand Mass Activation primary page opens. From this page you can:
 - Acquire the VPD inventory of the target machines
 - Retrieve keys (includes acquiring and downloading keys)
 - Install keys
 - Export keys
 - View the history of the Features on Demand Mass Activation tasks
 - In the following example, the VPD has been collected for one machine.

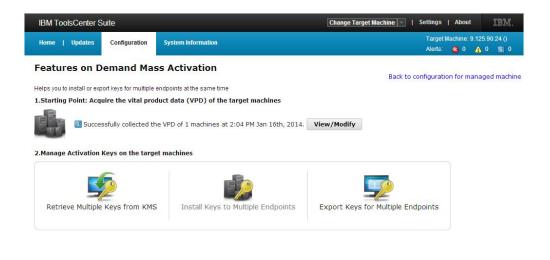


Figure 35. Configuration - Features on Demand Mass Activation primary page

2. Optional: After initially using the Features on Demand Mass Activation function, a history is available that provides information about previously completed Features on Demand Mass Activation tasks, indicating what tasks were completed, such as a key was installed and a date stamp of when the install finished. Click **View Details** to view a list with detailed information for each history item. For more information on the History, see "Viewing the history of Features on Demand Mass Activation" on page 58.

Acquiring VPD Inventory

To manage the activation keys on target machines, you must first acquire the vital product data (VPD) for each machine.

Procedure

- 1. Click **Features on Demand Mass Activation** on the Configuration Overview page. The Features on Demand Mass Activation primary page opens.
- **2**. Click **Start** to acquire the VPD of the target machines. The VPD of the target machines is required for importing or exporting mass keys.

The Acquire the VPD of the Target Machines page opens.

IBM ToolsCenter	Suite		Change Targ	et Machine 🔹 Settings About	IBM.
Home Updates	Configuration	System Information		Host Machine 🎯 Alerts: 🔕 0 🔥	0
		arget Machines	acquire each system's VPD	Alerts: 🔌 0 🔒 I	
0 machine in th	e list.				
ImportIP	Add 🔻	Remove Refresh			
IP Address	Access	Product Name	Description	System VPD (Machine Type/Model/Serial No)
				Re	turn

Figure 36. Acquiring VPD of the target machines

- When initially importing the VPD, click ImportIP. On subsequent imports of the VPD, you can click ImportIP or Import IP Addresses for Target Machines. The import file must be in CSV (.csv) format. The file contents contain the following information for each target machine:
 - IP address
 - IMM user name
 - Password

You can create or edit an existing spread sheet (XLSX) file and save it as a CSV file. The text format for each line in a CSV file is:<ip>,<user>,<password>.

IBM ToolsCenter Suite		Change Target Machi	ine 🥑 Settings About IBM.
Home Updates Configur	ration System Information		Host Machine 🎯 Alerts: 🧕 0 🔥 0 👔 0
Acquire the VPD of t	he Target Machines		
Enter the IP address, IMM user name	me, and the password of the target machines to	acquire each system's VPD	
0 machine in the list.			
ImportIP Add 🔻	Remove Refresh		
IP Address Access	Product Name	Description	System VPD (MachineType/Model/Serial No.)
		Jet Machines (.csv) format. The file contents require the and the IMM user name and password of t	
		Close	Return

Figure 37. Acquiring VPD using an import file

4. Optional: Click **See example file** to view the contents and formatting of a sample CSV file.

5. In the Import IP Addresses for Target Machines dialog box, click **ImportFile**. In the File Upload dialog box, select the file and click **Open**. The Acquire the VPD of the Target Machines page is updated and the number of target machines successfully collected along with a list containing the VPD for each of the target machines.

quire the VPD of the Target Machines inter the IP address, IMM user name, and the password of the target machines to acquire each system's VPD. Successfully collected the VPD for 2 machines. Import IP Add ▼ Remove Refresh Last updated: 11/26/2013 12:47:41 IP Address Access Product Name Description System VPD (Machine Type/Model/Serial No. 9.125.90.26 OK System X 3114 AsutestSP 7163Ac206Natdr	
Successfully collected the VPD for 2 machines. Import IP Add ▼ Remove Refresh Last updated: 11/26/2013 12:47:41 IP Address Access Product Name Description System VPD (Machine Type/Model/Serial No.	
Import IP Add ▼ Remove Refresh Last updated: 11/26/2013 12:47:41 IP Address Access Product Name Description System VPD (Machine Type/Model/Serial No.	
Import IP Add ▼ Remove Refresh Last updated: 11/26/2013 12:47:41 IP Address Access Product Name Description System VPD (Machine Type/Model/Serial No.	
IP Address Access Product Name Description System VPD (Machine Type/Model/Serial No.	
IP Address Access Product Name Description System VPD (Machine Type/Model/Serial No.	
	lel/Serial No.)
9.125.90.87 🗹 OK System x3630 M4 TCD_R095 7383AC10644771	

Figure 38. Acquire the VPD of the Target Machines - Imported file results

The list provides the following VPD for each target machine:

- IP Address
- Access
- Product Name
- Description
- System VPD (Machine Type/Model/Serial No.)
- 6. On the Acquire the VPD of the Target Machines page, to add a new machine, click **Add**. The Add New Machine dialog box opens.

quire the VPD of the Target Machines	M ToolsCenter	Suite		Change Targ	get Machine 💌 Settings About IBM
inter the IP address, IMM user name, and the password of the target machines to acquire each system's VPD IP Address Add Remove Refresh Last updated: 11/15/2013 01:25:38 IP Address Add New Machine Description System VPD (MachineType/Model/Serial No.) 9 125 00.26 IP Address AsutestSP 7158AC206Ngtdr 9 125 00.87 IMM UserName USERID TCD_R095 7383AC10644771	me Updates	Configuration	System Information		
ImportIP Add Remove Refresh Last updated: 11/15/2013 01:25:38 IP Address Add New Machine Description System VPD (Machine Type/Model/Serial No.) 9.125.90.26 9.125.90.87 IP Address AsutestSP 1MM UserName USERID TCD_R095 7383AC10644771 IMM Password IMM Password IMM Password IMM Password	quire the V	- /PD of the T	arget Machines		
IP Address Add New Machine Description System VPD (Machine Type/Model/Serial No.) 9 125 90 26 IP Address AsutestSP 7158AC206Ngtdr 9 125 90 87 IMM UserName USERID TCD_R095 7383AC10644771	Enter the IP address,	IMM user name, and	the password of the target mad	hines to acquire each system's VPD	
ImportIP Add ▼ Remove Refresh Last updated: 11/15/2013 01:25:38 IP Address Add New Machine Description System VPD (Machine Type/Model/Serial No.) 9.125.90.26 IP Address AsutestSP 7168AC208Mgdr/ 9.125.90.87 IMM UserName USERID TCD_R095 7383AC10644771					
IP Address Add New Machine Description System VPD (Machine Type/Model/Serial No.) 9.125.90.26 IP Address AsutestSP 7158AC206Ngtdr 9.125.90.87 IMM UserName USERID TCD_R095 7383AC10644771 IMM Password IMM Password IMM Password IMM Password					
Paddress AsutestSP T158AC206Ngtdr 9.125.90.26 IP Address AsutestSP 7158AC206Ngtdr 9.125.90.87 IMM UserName USERID TCD_R095 7383AC10644771	ImportIP	Add -	Remove Refresh	Last updated: 11/15/2013 01:25:38	
9.125.90.87 9.125.90.87 9.125.90.87 9.125.90.87 9.125.90.87 IMM UserName USERID IMM Password •••••••	IP Address 🔺		chine	Description	
9.125.90.87 IMM UserName USERID IMM Password	9.125.90.26			AsutestSP 7158AC206Ngtdr	
USERID IMM Password	9.125.90.87			TCD_R095	7383AC10644771
IMM Password					
		111 III			
Save Cancel					
			Save Cancel		
					Return

Figure 39. Acquire the VPD of the Target Machines - Adding a new machine

- 7. Enter the following information and then click Save.
 - IP Address
 - IMM UserName
 - IMM Password

While the system is checking the new machine, a query icon is displayed. After the authentication finishes, the new machine shown in the list.

8. Optional: If you entered a duplicate IP address, the Confirm to Acquire the Duplicated IP Address dialog box opens. Click **OK** to acquire the systems with the duplicated IP address or click **Cancel** to retain the previously acquired system VPD for these machines and only acquire VPD for the new IP addresses. If the task fails, the machine list is updated and reflects there is no access to this IP address.

Tip: To view the reason for an invalid entry in the list, hover the mouse pointer over the question mark icon.

- 9. Optional: To remove an invalid entry from the list, select the **IP Address** and then click **Remove**.
- **10**. Click **Return** to return to the Features on Demand Mass Activation primary page.

Retrieving multiple keys from KMS

After acquiring vital product data (VPD) for the target machines, you can retrieve multiples keys from the Key Management System (KMS).

Procedure

- 1. Click **Features on Demand Mass Activation** on the Configuration Overview page. The Feature on Demand Mass Activation primary page opens.
- 2. In the Manage Activation Keys on the target machines section, click **Retrieve Multiple Keys from KMS**. The Retrieve Multiple Keys from KMS with a single Authorization Code page opens.
- 3. Enter the following information and then click Next.
 - IBM ID
 - User Password

• Authorization Code

The following message is displayed while authorization is being processed: Please wait while ToolsCenter Suite is acquiring the information for the authorization code from the IBM website.

1.Enter the IBM	D and Authorizatio	on Code	2.Select Target Machines	3.DownloadKeys		
Enter IBM ID and Authorizatio	on code to verify activation k user@invalid.invalid		<u>VebSite</u> to register one IBM ID			
User Password: Authorization Code:	AUTHORIZATION9199]				

Figure 40. FoD Mass Activation - Retrieving Multiple Keys from KMS with a single Authorization Code

After the authorization code from the IBM website is acquired, the Select Target Machines page opens.

	3M ID and Autho		h a single Authorization Co 2.Select Target Machines 3.	DownloadKeys	
	de: D6NCAAAAAAT6	012933909 (7 keys u i ce Key for IBM System	nused, 10 keys in total) X		
IP Address	Product Name	Description	System VPD(MachineType/Model/Serial No.)	FOD UID(MachineType/Serial No.)	Activation Key Status
IP Address 9.125.90.24	Product Name	Description			Activation Key Status

Figure 41. FoD Mass Activation - retrieved keys from KMS

4. On the Select Target Machines page, select the IP Address of the target machine for downloading multiple keys. The download process begins. When the download finishes, the DownloadKeys page opens indicating the number of keys that were successfully downloaded, and the Activation Key Status shows the key download status.

	Contraction of the		6	T	arget Machine: 9.125.90.24 ()
me Updates	Configuration	System Information	n		ierts: 🙆 0 🛕 0 👔
trieve Mul	tinle Kevs fr	om KMS wit	h a single Authorization	Code	
			_		
1.Enter the	IBM ID and Autho	orization Code	2.Select Target Machines 3	DownloadKeys	
1 keys downl	oaded.				
-					
		6012933909 (7 keys u nce Key for IBM System	nused, 10 keys in total)		
Feature: Server	RAID M5100 Performal	nce Key for IBM System	X		
IP Address	Product Name	Description	System VPD(MachineType/Model/Serial No.	FOD UID(MachineType/Serial No.)	Activation Key Status
IP Address 9.125.90.24	Product Name	Description			Activation Key Status
	Product Name	Description	VPD(MachineType/Model/Serial No.	.) No.)	
	Product Name	Description	VPD(MachineType/Model/Serial No.	.) No.)	
	Product Name	Description	VPD(MachineType/Model/Serial No.	.) No.)	
	Product Name	Description	VPD(MachineType/Model/Serial No.	.) No.)	
	Product Name	Description	VPD(MachineType/Model/Serial No.	.) No.)	
	Product Name	Description	VPD(MachineType/Model/Serial No.	.) No.)	
	Product Name	Description	VPD(MachineType/Model/Serial No.	.) No.)	

Figure 42. FoD Mass Activation - Downloaded Key

5. When all of the activation keys have finished downloading, click **Finish**. The Feature on Demand Mass Activation primary page opens. To install the downloaded, keys see "Installing keys to multiple endpoints"/

Installing keys to multiple endpoints

After downloading the keys, you can install the keys to multiple endpoints.

Procedure

1. Click **Install Keys to Multiple Endpoints**. All of the downloaded keys will now be installed. This process verifies the IP address and user credentials previously entered.

	point Key Inst		y the IP addresses and user c	credentials saved in Step1 are for the target mad	chines.
🎇 Installing (() of 1 keys installed)				
IP Address	Product Name	System VPD(MachineType/M odel/Serial No.)	FOD UID	Feature Description	Activation Key Status
9.115.252.66	IBM xSeries High Volume Racks x3630 M4/x3530 M4	7160AC106NVY22	716006NVY22	ServeRAID M5100 Performance Key for IBM System x	Installing

Figure 43. FoD Mass Activation - Multiple Endpoint Key Installation

If the activation keys installed successfully, the status is shown as Installed. If any of the activation keys failed to install successfully, the status is shown as Failed. The tooltip provides the reason for the installation failure.

		Jan 16th, 2014)	I.(Finish time: 5:31 PM 3	eys have been installed	1 activation k
on Activation Key Status	Feature Description	FOD UID	System VPD(MachineType/M odel/Serial No.)	Product Name	IP Address
	ServeRAID M5100 Performance Key for IBM System x	716006NVY22	7160AC106NVY22	IBM xSeries High Volume Racks x3630 M4/x3530 M4	9.115.252.66
		716006NVY22	odel/Serial No.)	Volume Racks x3630	9.115.252.66

Figure 44. FoD Mass Activation key installed

2. Click **Return** to return to the Features on Demand Mass Activation primary page.

Exporting keys for multiple endpoints

The keys installed on multiple endpoints can be exported as a backup for installing again in the future.

Procedure

 On the Features on Demand Mass Activation primary page, in the Manage Activation Keys on the target machines section, click Export Keys for Multiple Endpoints. The Export Settings page opens.

IBM ToolsCenter	Suite		Change Target Machine Settings	About IBM.
Home Updates	Configuration Syst	em Information	Host Mach Alerts:	nine 🧭 🔕 0 🔒 0 👖 0
Export Keys f	ttings 2.Export P			
d:	to save activation keys:			
IP Address	Product Name	Description	System VPD (MachineType/Model/SerialNO)	
9.115.252.66	IBM xSeries High Volume Racks x3630 M4/x3530 M4	TCT_R094_Wuling	7160AC106NVY22	
			<back next=""></back>	Cancel

Figure 45. FoD Mass Activation Export Settings

- **2**. In the Select local path to save activation keys section, enter the local directory where the exported activation keys will be saved.
- **3**. In the Select target machines from inventory list section, select the IP address of the target machines for exporting activation keys. The export process begins and the status updates as each export finishes.

port Keys	for Multiple End	lpoints			
1.Export Set	tings 2.Export I	Process			
Exporting	ported activation keys: d:				
IP Address	Product Name	System VPD (MachineType/Model/SerialNO)	FOD UID	Feature Description	Status
9.115.252.66	IBM xSeries High Volume Racks x3630 M4/x3530 M4	7160AC106NVY22	716006NVY22	IBM Integrated Management Module Advanced Upgrade	🔅 Exportin

Figure 46. FoD Mass Activation Exporting keys

While an activation key is being exported, the status is Exporting. When an activation key has been exported, the status is shown as Exported.

M ToolsCenter	Suite		Ch	ange Target Machine 💌 🛛 Settings 📋 Ab	out IB
ome Updates	Configuration	System Information		Host Machine Alerts: 😵	
port Keys f	or Multiple E	ndpoints			
1.Export Sett	ings 2.Expo	rt Process			
	vation keys for 1 tar	get machines. (Finished time: 5:36 PM cal path(d:)	l Jan 16th, 2014)		
IP Address	Product Name	System VPD (MachineType/Model/SerialNO)	FOD UID	Feature Description	Status
9.115.252.66	IBM xSeries High Volume Racks x36 M4/x3530 M4	30 7160AC106NVY22	716006NVY22	IBM Integrated Management Module Advance Upgrade	ed 🗾 Exporte
	M4/x3530 M4	The second second second second		opgiouo	
				<back finish<="" td=""><td>Cancel</td></back>	Cancel
				SBACK FINISN	Cancel

Figure 47. FoD Mass Activation Exported key

4. When the export operation finishes, you can click **Click here to view the folder structure in the local path** or click **Finish** to complete the export process and return to Features on Demand Mass Activation primary page.

Viewing the history of Features on Demand Mass Activation

The history section on the Feature on Demand Mass Activation Keys Management primary page provides information about the last successfully completed activation key management tasks.

Procedure

- To view the history detail for each Features on Demand Mass Activation task, on the Features on Demand Mass Activation primary page in the History section click **View Details** for a task.
 - This figure provides the history of the downloaded key, which is pending installation and provides the following information:
 - IP Address
 - Product Name
 - System VPD
 - FOD UID
 - Feature Description

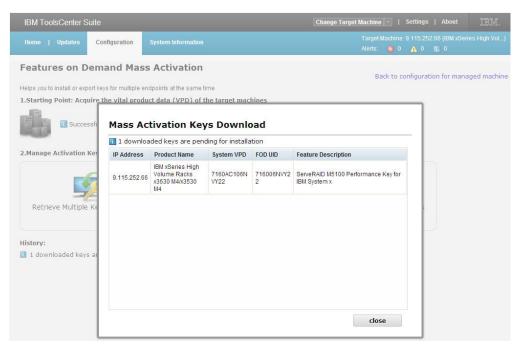


Figure 48. FoD Mass Activation - downloaded keys are pending installation detail information

- This figure provides the history and detail information for an installed key and includes the following information:
 - IP Address
 - Product Name
 - System VPD
 - FOD UID
 - Feature Description

IBM ToolsCenter Suite								
Home Updates Co	nfiguration						ine 🔿 🗿 0 🔥	
Features on Dem lelps you to install or export key Starting Point: Acquire t	/s for multiple end	dpoints at the same ti		chines	Back	to configuratio	n for manai	ged machi
		Endpoint K	-	llation		_		
Manage Activation Ke	IP Address	talled at 5:31 PM Ja Product Name	System VPD	FOD UID	Feature Description			
5	9.115.252.66	IBM xSeries High Volume Racks x3630 M4/x3530 M4	7160AC106N VY22	716006NVY2 2	ServeRAID M5100 Performance Key fo IBM System x	r		
Retrieve Multiple K						s		
story:								
1 keys installed at 01/								
Exported 2 keys for 1 (
					close			

Figure 49. FoD Mass Activation - installed keys detail information

- This figure provides the history and detail information for an exported key and includes the following information:
 - folder location
 - name of the key file
 - a description for each activation key

IBM ToolsCenter Suite			Change Target Machin	e 🧧 Settings	s About	IBM.
Home Updates <mark>Co</mark>	nfiguration System Info			Host Alerts	Machine 💿 s: 🔇 0 🛕	0 👔 0
Features on Dem Helps you to install or export ke				Back to configu	uration for mana	iged machine
1.Starting Point: Acquire						
2.Manage Activation Ke			(Finished time: 5:36 PM Jan 16th, 2	2014)		
	FolderName	Description				
	C C C C C C C C C C C C C C C C C C C	MachineType:7160	Model:AC1 SerialNo.:06NVY22			
-4	27b3f7458f01eb0f	key IBM Integrated Man	agement Module Advanced Upgrade			
Retrieve Multiple K						
History:						
Exported 1 keys for 1						
				close		

Figure 50. FoD Mass Activation - exported keys detail information

• Click **Close** when you have finished viewing the details.

Working with the Full Settings option

You can use the **Full Settings** option to view all of your system settings. The settings listed under Full Settings varies depending on the machine type and model, and therefore it is not a fixed group of settings.

About this task

The **Full Settings** > **All** option includes:

- SYSTEM_PROD_DATA
- IMM
- iSCSI
- UEFI
- BootOrder
- PXE

The following steps provide examples for working with the Full Settings option.

Procedure

• In the navigation pane, click **Full Settings** > **All**. The Configuration - All Configuration page opens. This page provides a table listing for all of the settings, their group name, and the current value.

Tip: To view the definition of a setting, hover the mouse pointer over an entry in the table.

IBM ToolsCenter Suite		Change Target Machine 💌	Settings About
Home Updates Configuration	System Information		Target Machine: 9.125.90.16 (system Alerts: 😵 0 🛕 0 👔 0
Configuration	Configuration - All Configuration		
Machine Name: systemXX Machine Type/Model: 7377AC1	Click a row to edit the setting.		
General	Apply Reset to All Factory Defaults		
Overview	٩		
Frequently Used Settings	Setting Name	Group Name	Value
	SYSTEM_PROD_DATA.SysEncloseAssetTag	SYSTEM_PROD_DATA	
Boot Order MM User Accounts	SYSTEM_PROD_DATA.SysInfoProdName	SYSTEM_PROD_DATA	7377AC1
Activation Key Management	SYSTEM_PROD_DATA.SysInfoUDI	SYSTEM_PROD_DATA	
System Contact	SYSTEM_PROD_DATA.SysInfoUUID	SYSTEM_PROD_DATA	D259ED5E5EAC11DF9BBD002
Energy and Performance	SYSTEM_PROD_DATA.SysInfoSerialNum	SYSTEM_PROD_DATA	06R8134
Features on Demand Mass Activation	SYSTEM_PROD_DATA.SysInfoProdIdentifier	SYSTEM_PROD_DATA	systemXX
Full Settings	uEFI.ProcessorCcxEnable	uEFI	Disable 👻
Tuli Setuligs	uEFI.Com1StopBits	uEFI	1 👻
II All	uEFI.UsbLegacyMode	uEFI	USB 2.0 -
SYSTEM_PROD_DATA	uEFI.AesEnable	uEFI	Enable -
uEFI	uEFI.Usb20_1	uEFI	Enable 👻
IMM	uEFI.DataReuseDisable	uEFI	Enable 👻
BootOrder	UEELUch20 2		Enable

Figure 51. Configuration - All settings

- On this page you have several options for viewing or changing the settings.
 - To search for a setting, enter the name in the search field and click the search icon. (This is not a case sensitive search.) The best match for this setting is found and displayed in the first line of the table.
 - To change the value of a setting, in the Value column, click the arrow to view the available values and select a value from the list.
 - To apply a setting change, click Apply. The Apply the settings changes? dialog box opens. Click OK to proceed or Cancel to quit this operation. If you select OK, the following messages are displayed:

Applying settings. Please wait...

Update the Settings successfully.

Click **OK** to load the settings. The following message is displayed: Loading, please wait...

- To reset all of the settings, click Reset to All Factory Defaults. The Reset to Factory Default dialog box opens. Click OK to proceed with resetting the values or click Cancel.
- To view individual settings, in the navigation pane, click **All** and select the setting you want to view. The individual setting information is displayed in the right pane, providing the group name and current value for this setting.

Viewing and changing SYSTEM_PROD_DATA settings

You can use the **SYSTEM_PROD_DATA** option to view the current SYSTEM_PROD_DATA settings and change the values of these settings. SYSTEM_PROD_DATA is user-configurable vital product data (VPD) settings.

Procedure

1. In the navigation pane, click **Full Settings** > **All** > **SYSTEM_PROD_DATA**. The Configuration - SYSTEM_PROD_DATA Configuration page opens.

IBM ToolsCenter Suite		Change Target Machine	Settings About IBM.
Home Updates Configuratio	n System Information		Target Machine: 9.125.90.16 (system) Alerts: 🔕 0 🛕 0 👔 0
Machine Type/Model: 7377AC1	Configuration - SYSTEM_PROD	DATA Configuration	
General	Click a row to edit the setting.		
Overview			
	Apply Reset to SYSTEM_PROD_D	ATA Factory Defaults	
Frequently Used Settings			
Boot Order	Q		
IMM User Accounts	Setting Name	Group Name	Value
Activation Key Management System Contact	SYSTEM_PROD_DATA.SysEncloseAssetTag	SYSTEM_PROD_DATA	1
Energy and Performance	SYSTEM_PROD_DATA.SysInfoProdName	SYSTEM_PROD_DATA	7377AC1
Features on Demand Mass Activation	SYSTEM_PROD_DATA.SysInfoUDI	SYSTEM_PROD_DATA	
Full Settings	SYSTEM_PROD_DATA.SysInfoUUID	SYSTEM_PROD_DATA	D259ED5E5EAC11DF9BBD002
	SYSTEM_PROD_DATA.SysInfoSerialNum	SYSTEM_PROD_DATA	06R8134
E All	SYSTEM_PROD_DATA.SysInfoProdIdentifier	SYSTEM_PROD_DATA	systemXX
SYSTEM_PROD_DATA			
uEFI			
IMM			
BootOrder			
PXE			
iSCSI			

Figure 52. Configuration - SYSTEM_PROD_DATA

This page provides a table listing for all of the SYSTEM_PROD_DATA settings, their group name, and the current value.

Tip: To view a definition of a SYSTEM_PROD_DATA setting, hover the mouse point over the **Setting Name**.

2. On this page you have several options for viewing or changing SYSTEM_PROD_DATA settings.

Note: The SYS_PROD_DATA_SysInfoProdName setting's values cannot be changed.

- To search for a setting, enter the name in the search field and click on the search icon. (This is not a case sensitive search.) The best match for the setting will be found and shown in the first line of the table.
- To add or change the value of a setting, in the Value column, enter a value.
- To apply a setting change, click **Apply**. The Apply the settings changes? dialog box opens. Click **OK** to proceed or **Cancel** to quit this operation. If you select **OK**, the following messages are displayed:

Applying settings. Please wait...

Update the Settings successfully.

Click **OK** to load the settings. The following message is displayed: Loading, please wait...

• To reset the settings, click **Reset to SYSTEM_PROD_DATA Factory Defaults**. The Reset to factory default dialog box opens. Click **OK** to proceed with resetting the values or click **Cancel** to quit this operation.

Viewing and changing the IMM settings

You can use the **IMM** settings option to view the current IMM settings and change the values of these settings.

Procedure

 In the navigation pane, click Full Settings > All > IMM. The Configuration -IMM Configuration page opens.

		-	
Home Updates Configuration	System Information		Target Machine: 9.125.90.16 (system) Alerts: 🚳 0 🛕 0 👔 0
Machine Type/Model: 377AC1	Configuration - IMM Configuration		
General	Click a row to edit the setting.		
Dverview	Apply Reset to IMM Factory Defaults		
Frequently Used Settings	Apply Reset to mini ractory belauits		
Boot Order	٩		
MM User Accounts Activation Key Management	Setting Name IMM.SNMPTraps	Group Name IMM	Value
System Contact	IMM.LoaderWatchdog	IMM	Disabled 👻
Energy and Performance Features on Demand Mass Activation	IMM.MACAddress1	IMM	00:00:00:00:00
	IMM.DHCPAssignedNetMask1	IMM	255.255.255.0
Full Settings	IMM.RemoteAlertRecipient_Email.7	IMM	spTest@asusptest.com
All	IMM.SNMPv3_AuthenticationProtocol.1	IMM	HMAC-SHA -
	IMM.ClientDN	IMM	cn=test,cn=Users,dc=us,dc=ibm
SYSTEM_PROD_DATA	IMM.RemoteConsoleDiskPriv.1	IMM	No -
uEFI	IMM.RemoteConsolePriv.1	IMM	No 💌
IMM	IMM.IPv6DHCPAssignedPrimaryDNS1	IMM	0::0
BootOrder	IMM.SSL_Client_Enable	IMM	Disabled 👻
PXE	IMM.CIMXMLOverHTTPS_Enable	IMM	Disabled -
iSCSI			

Figure 53. Configuration - IMM settings

This page provides a table listing all of the IMM settings, their group name, and the current value.

Tip: To view a definition of an IMM setting, hover the mouse point over the **Setting Name**.

- 2. On this page you have several options for viewing and changing the IMM settings.
 - To search for a setting, enter the name in the search field and click the search icon. (This is not a case sensitive search.) The best match for this setting will be found and shown in the first line of the table.
 - To change the value of a setting, in the Value column, select a value from the list.
 - To apply a setting change, click **Apply**. The Apply the settings changes? dialog box opens. Click **OK** to proceed or **Cancel** to quit this operation. If you select **OK**, the following messages are displayed:

Applying settings. Please wait... Update the Settings successfully.

Click **OK** to load the settings. The following message is displayed: Loading, please wait...

• To reset the settings, click **Reset to IMM Factory Defaults**. The Reset to factory default? dialog box opens. Click **OK** to proceed with resetting the values or click **Cancel** to quit this operation.

Viewing and changing the iSCSI settings

You can use the **iSCSI** settings option to view and change these settings. The iSCSI settings are grouped into a record. **iSCSI.AttemptName** setting is the record key for each record. Each record represents an attempt. The term attempt is equivalent to the term instance. More than one attempt can be defined. If more than one attempt is defined, the same setting names that define the attempt group is used, but each attempt contains the next sequential instance number. For example, **iSCSI.MacAddress.1** and **iSCSI.MacAddress.2** belong to the "first" attempt and the "second" attempt respectively. The only parameter that is defined as a global iSCSI setting to all attempts and that does not require an instance index is the

iSCSI.InitiatorName.

Procedure

1. In the navigation menu, click **Full Settings** > **All** > **iSCSI** . The Configuration - iSCSI Configuration page opens.

IBM ToolsCenter Suite		Change Target Machine 👻	Settings About IBM.
Home Updates Configuration	System Information		Host Machine ⑦ Alerts: 🔇 2 🛕 1 👫 0
SYSTEM_PROD_DATA	Configuration - iSCSI Con Click a row to edit the setting.	figuration	
Emulex10GNICBusDevFun	Apply Reset to iSCSI F	actory Defaults	
iSCSI			
UEFI	Q		
BackupBankManagement	Setting Name	Group Name	Value
BootModes	iSCSI.InitiatorName	ISCSI	iqn.1
DevicesandIOPorts			
LegacySupport Memory			
OperatingModes			
POSTAttempts			
Power E			
Processors			
SystemRecovery			
SystemSecurity			
BootOrder			
PXE			

Figure 54. Configuration - iSCSI

This page provides a table listing for all of the iSCSI settings, and includes their group name and the current value.

Tip: To view the definition of an iSCSI setting, hover the mouse pointer over the **Setting Name**.

- 2. The iSCSI Configuration pages provides several options for viewing or changing iSCSI settings.
 - To search for a setting, enter the name in the search field and click the search icon. (This is not a case sensitive search.) The best match for this setting is found and is shown in the first line of the table.
 - To change the value of a setting, in the Value column, enter the new value.

• To apply a setting change, click **Apply**. If an incorrect value was entered, a dialog box opens and displays this information. Click **Close**. If a correct value was entered, The Apply the setting changes? dialog box is displayed. Click **OK** to proceed or **Cancel** to quit this operation. If you select **OK**, the following messages are displayed:

Applying settings. Please wait... Update the Settings successfully.

Click **OK** to load the settings. The following message is displayed: Loading, please wait...

- To reset the settings, click **Reset to iSCSI factory defaults**. The Reset to factory default dialog box opens. Click **OK** to proceed with resetting the values or click **Cancel** to quit this operation.
- **3**. To view individual settings, in the navigation pane, click **All** > **iSCSI** and click the setting you want to view. The individual setting information is shown in the right pane, providing the group name and the current value for this setting.

Viewing and changing the UEFI settings

You can use the UEFI settings option to view and change UEFI settings.

About this task

UEFI settings include:

- BackupBankManagement
- BootModes
- DevivesandIOPorts
- LegacySupport
- Memory
- OperatingModes
- POSTAttempts
- Power
- Processors
- SystemRecovery
- SystemSecurity

Procedure

1. In the navigation pane, click **Full Settings** > **All** > **uEFI**. The Configuration - uEFI Configuration page opens.

BM ToolsCenter Suite		Change Target Machine 👻	Settings About
Home Updates Configuration	System Information		Host Machine 📀
			Alerts: 🔕 2 🛕 1 👔
SYSTEM_PROD_DATA	Configuration - UEFI Configuration		g to take effect
	Apply Reset to UEFI Factory Defaul	Its	
Emulex10GNICBusDevFun			
iSCSI			
😑 UEFI	Q		
BackupBankManagement	Setting Name	Group Name	Value
BootModes	BackupBankManagement.BackupBankManagement Method	UEFI	User Managed 👻
DevicesandIOPorts LegacySupport	BackupBankManagement.NumberOfSuccessfulCon secutiveBoots	UEFI	10
and the second	BackupBankManagement.NumberOfWeeks	UEFI	
Memory	BootModes.SystemBootMode	UEFI	UEFI Only 💌
OperatingModes	BootModes.OptimizedBoot	UEFI	Enable
	Bround and Spanne and S	UEFI	
POSTAttempts	BootModes.QuietBoot	UEFI	Enable 👻
			Enable - All -
POSTAttempts Power E Processors	BootModes.QuietBoot	UEFI	
POSTAttempts Power E	BootModes QuietBoot BootModes DriverHealthCheck DevicesandIOPorts.ConfiguretheonboardSATAports	UEFI UEFI	All -
POSTAttempts Power E Processors	BootModes.QuietBoot BootModes.DriverHealthCheck DevicesandIOPorts.ConfiguretheonboardSATAports as	UEFI UEFI UEFI	All v IDE v
POSTAttempts Power E Processors SystemRecovery	BootModes.QuietBoot BootModes.DriverHealthCheck DevicesandIOPorts.ConfiguretheonboardSATAports as DevicesandIOPorts.ConfigureIDEmode	UEFI UEFI UEFI	All - IDE - Compatibility mode -

Figure 55. Configuration - UEFI settings

This page provides a table listing all of the uEFI settings, their group name, and the current value.

Tip: To view a definition of a UEFI setting, hover the mouse point over the **Setting Name**.

- 2. The UEFI Configuration page provides several options for viewing or changing UEFI settings.
 - To search for a setting, enter the name in the search field and click the search icon. (This is not a case sensitive search.) The best match for this setting is found and is shown in the first line of the table.
 - To change the value of a setting, in the Value column, click the **Value** list and select a value.
 - To apply a setting change, click **Apply**. The Apply the settings changes? dialog box opens. Click **OK** to proceed or **Cancel** to quit this operation. If you select **OK**, the following messages are displayed:

```
Applying settings. Please wait...
```

Update the Settings successfully.

Click **OK** to load the settings. The following message is displayed: Loading, please wait...

- To reset the settings, click **Reset to uEFI Factory Defaults**. The Reset to factory default dialog box opens. Click **OK** to proceed with resetting the values or click **Cancel** to quit this operation.
- **3**. To view individual settings, in the navigation pane, click **All** > **uEFI** and select the setting you want to view. The individual setting information is displayed in the right pane, providing the group name and the current value for this setting.

Configuring the BootOrder settings

You can use the **BootOrder** settings option to view and configure the BootOrder settings. If any changes are made to BootOrder settings, the change will take affect after a system reboot.

Procedure

 In the navigation pane, click Full Settings > All > BootOrder or perform a search on boot order. The Configuration - Boot Order Configuration page opens.

BM ToolsCenter Suite	Change Target Mac	hine V Settings About IBM
lome Updates Configuratio	System Information	Host Machine 🎯 Alerts: 🙁 2 🔥 1 👔 (
SYSTEM_PROD_DATA IMM Emulex10GNICBusDevFunc Emulex10GNICBusDevFun	Configuration - Boot Order Specify the boot order by adding and removing available devices to the current boot order Apply Reset	ier.
Emulex10GNICBusDevFun ISCSI UEFI BackupBankManagement BootModes DevicesandIOPorts LegacySupport Memory OperatingModes POSTAttempts Power Processors SystemRecovery SystemRecovery SystemSecurity BootOrder	Boot Order Wake On LAN Boot Order Candidate Devices PXE Network CD/D0K 4 Hard Disk 4 PXE Network CD/D0 Rom USB Storage Diagnostics ISCSI Critical IMM12 Add > SIGSI Critical IMM12 E VSB 1 Current Devices USB 2 Current Devices USB 3 Current Devices Signification Current Devices Signification Current Devices Visit Current Devices USB 3 Current Devices USB 4 Current Devices USB 5 Current Devices USB 4 Current Devices USB 4 Current Devices USB 5 Current Devices USB 4 Current Devices USB 5 Current Devices USB 6 Current Devices USB 7 Current Devices USB 7 Current Devices USB 7 Current Devices <t< td=""><td>Move Up Move Down</td></t<>	Move Up Move Down

Figure 56. Configuration - Boot Order

Tip: To view a definition of a boot order setting, hover the mouse point over the **Setting Name**.

- 2. Select one of the following options:
 - To reset the settings, click **Reset to BootOrder Factory Defaults**. The Reset to factory default dialog box opens. Click **OK** to proceed with resetting the values or click **Cancel** to quit this operation.
 - Click Boot Order in the Value column to select one of the boot order items listed. The Configure Boot Order dialog box opens. Click OK to continue or click Cancel to close the dialog box and return to the Configuration -BootOrder page.

Related tasks:

"Configuring, viewing, and changing Boot Order" on page 42 Provides additional information about Boot Order configuration.

Configuring the PXE settings

You can use the **PXE** settings option to view and configure Preboot Execute Environment (PXE) settings. PXE is an environment to boot computers using a network interface independent of data storage devices, such as hard disks or installed operating systems.

Procedure

1. In the navigation pane, click **Full Settings** > **All** > **PXE** . The Configuration - PXE page opens.

BM ToolsCenter Suite		Change Target Machine 💌	Settings About
Home Updates Configuration	System Information		Host Machine 📀 Alerts: 🔇 2 🛕 1 👔
SYSTEM_PROD_DATA IMM Emulex10GNICBusDevFunc Emulex10GNICBusDevFun Emulex10GNICBusDevFun ISCSI	Configuration - PXE Configuration Click a row to edit the setting. Apply Reset to PXE Factory Default		
 UEFI BackupBankManagement 	Setting Name	Group Name	Value
BootModes	PXE.NicPortPxeMode.1	PXE	UEFI and Legacy Support
DevicesandIOPorts	PXE.NicPortPxeMode.2	PXE	UEFI and Legacy Support 👻
LegacySupport	PXE.NicPortMacAddress.1	PXE	34:40:B5:E9:03:A4
Memory	PXE.NicPortMacAddress.2	PXE	34:40:B5:E9:03:A8
OperatingModes	PXE.NicPortPxeProtocol.1	PXE	AUTO 👻
POSTAttempts	PXE.NicPortPxeProtocol.2	PXE	IPV4 -
Power E Processors SystemRecovery SystemSecurity BootOrder PXE			

Figure 57. Configuration - PXE settings

The PXE settings table provides a list of PXE MAC addresses, PXE port devices, and PXE port protocols.

Tip: To view a definition of a PXE setting, hover the mouse point over the **Setting Name**.

- 2. Select one of the following options:
 - To reset the settings, click **Reset to PXE Factory Defaults**. The Reset to factory default dialog box opens. Click **OK** to proceed with resetting the values or click **Cancel** to quit this operation.
 - You can select an entry in the Value column to:
 - Change the MAC addresses by entering a new address.
 - Select a PXE port device value.
 - Select a PXE port protocol value.
 - Click **Apply** to save the new PXE settings.

Chapter 6. Using the System Information function

You can use the **System Information** function to scan and view realtime status, check active status, view light path status and event logs for your system, and manage system information on a local machine using in-band mode and out-of-band (OOB) mode for a remote machine. You can collect full system information for analysis, service, and support. These files can be sent to IBM Support or to a customized FTP server.

Procedure

1. On the Home page or from the ToolsCenter Suite menu, click **System Information**. The System Information - Overview page opens.

System Information System Information - Overview Check Active Status Alerts last updated : 11/08/2013 18:33:30	Host Machine 💿 Alerts: 💿 1 🔥 0 👔 1
Check Active Status	
Alerts Image: 1 Image: 1 Critical Warning	
Collect Full System Information You can collect system information for service and support and s email recipient. Full System Information	send the files to IBM support, FTP server or a designated
	Critical Warning Informational Collect Full System Information You can collect system information for service and support and email recipient.

Figure 58. System Information - Overview

The **Full System Information** button can be used to collect full system information.

- 2. To update the Active Status, click **Refresh**. The Alerts section displays any new alerts since the Active Status was last checked. There are three types of alerts:
 - · Critical: a red icon
 - Warning: a yellow icon
 - Information: a green icon
- **3.** To view the System Overview report, click the report link in the Collect Full System Information section. The System Overview Report opens in a browser window. To return back to the System Information Overview page, close the browser window.
- 4. From the navigation pane, you can select the following System Health options:

- Active Status
- Event Log
- Light Path

Viewing Active Status

You can use the Active Status option to view system health status.

About this task

The following steps explain how to use the features on the Active Status page.

Procedure

• In the navigation pane, click Active Status. The Active Status page opens.

IBM ToolsCenter Suite			Change Target Machine	Settings /	About	IBM
Home Updates Config	juration	System Information			ne ⊘)1 <u>∧</u> 0	
System Information	System H	lealth - Active Status				
M System x3650		ated : 11/08/2013 18:33:30 🤤	eck detailed IMM and uEEI loos	Alerts: 🔕	1 🛕 0	
achine Type/Model:		Severity: Any -	eer detailed min and dET riogs.			
	Severity	Message		Event ID	Message Ti	me
General	8	Sensor CPU 1 OverTemp has transition	oned to non-recoverable.	800706010301ffff	10/19/2013 15:00:34	
Dverview	ī			000000000000000000000000000000000000000	01/01/1970	
System Health						
Active Status						
Event Log						
Light Path						

Figure 59. System Health - Active Status

• In Active Status table, you can click a row to view details for that row. See Figure 60 on page 73.

IBM ToolsCenter S	Suite	Change Target Machine Setting	js About <u>IBM.</u>
Home Updates	Configuration System Information	Hos Aler	et Machine 🧿 rts: 🔞 1 🛕 0 👔 1
- System Information	System Health - Active Stat	us	
Machine Name: IBM System x3650 Machine Type/Model: 546025Z	Event Log Properties		Q 1 ▲ 0 ■ 1
	PerceivedSeverity	Oritical	Message Time
	Indication Time	10/19/2013 15:00:34	ff 10/19/2013
Overview	OwningEntity	DMTF	15:00:34
	SystemName	Management Controller UUID-0D78294CB30411E2A865 E80C2B98000F	000 01/01/1970 00:00:00
▼ System Health	CreationTimeStamp	10/19/2013 15:00:34	
Active Status	Message	Sensor CPU 1 OverTemp has transitioned to non-recover able.	
Event Log	Event ID	800706010301ffff	
Light Path	MessageID	PLAT0530	
	ElementName	System Information Health - Active Status Properties prity Critical DMTF Information DMTF Information DMTF Information DMTF Information Sensor CPU 1 OverTemp has transitioned to non-recover able. B00706010301ffff PLAT0530 PlatformEventLog537 root/cimy2ClM_Sensor CreationClassName="CIM_Sensor	
	AlertingManagedElement	or", DeviceID="2 160.0.32.07.99", SystemCreationClassNa me="IBM_ComputerSystem". SystemName="Host UUID-	
	Source	System	
	AuxiliaryData		
	Serviceable	2 (Serviceable by Customer IT)	
		Close	

Figure 60. System Health - Active Status Property example

- To update the Active Status, click **Refresh**. The Alerts section displays any new alerts since the Active Status was last checked. There are three types of alerts:
 - Critical: a red icon
 - Warning: a yellow icon
 - Information: a green icon
- The Alerts table can be sorted to view information specific to the three table categories:
 - Severity
 - Message
 - Message Time
- From the Severity list, select and to view one of the following severity levels in the Alerts table.
 - Critical
 - Warning
 - Informational

Viewing Event Log information

You can use the **Event Log** option to view detailed information for critical, warning, and informational events collected from the IMM system event logs.

About this task

The following steps explain how to use the features on the Event Log page, beginning with the options at the top of the page.

Procedure

1. In the navigation pane, click **Event Log**. The System Information - Event Log page opens.

There are three levels of severity recorded in the event logs:

- Critical: a red icon
- Warning: a yellow icon
- Informational: a green icon

Home Updates	Configuration	System Information	Hos Aler	st Machine 📀 rts: 🚳 1	🛕 0 🔳 1
- System Information	System I	nformation - Event Log			
Machine Name: IBM System x3650		11/08/2013 18:31:50 🥏	Events:	8 4 🛕 :	264 🚺 517
Machine Type/Model: 546025Z	Filter by:	Severity: Any Source: All			
- General	Severity	Message	Event ID 🥥	Source	Message Time
Overview	٢	Please ensure that the Management Controller SN# 06CNZ14 is flashed with the correct firmware. The Management Controller is unable to match its firmware to the server.	4000001f00000000	System	08/22/2013 15:49:41
 System Health 	8	processor 1 has a Configuration Mismatch. 806f05070301ffff		Processors	08/29/2013 02:37:47
System neutri	8	Sensor CPU 1 OverTemp has transitioned to non-recoverable.	800706010301ffff	System	10/19/2013 15:00:34
Active Status	8	Sensor CPU 1 OverTemp has transitioned to critical from a less severe state.	800702010301ffff	System	10/19/2013 15:04:09
Event Log Light Path		Security: Userid: USRERID had 1 login failures from WEB client at IP address 9.111.21.244.	400000100000000	System	08/02/2013
-9		Security: Userid: USERID had 1 login failures from a CIM client at IP address ::fff(9.111.21.251.	4000008c00000000	System	08/22/2013 16:57:47
		DHCP[0.0.0.0] failure, no IP address assigned.	4000000d00000000	System	08/29/2013 20:34:23
		Security: Userid: USERID had 1 login failures from WEB client at IP address 9.111.23.235.	400000100000000	System	09/23/2013 10:15:44
		DHCP[0.0.0.0] failure, no IP address assigned.	40000000000000000000000000000000000000	System	09/23/2013 10:34:05
		DHCP[0.0.0.0] failure, no IP address assigned.	4000000d00000000	System	09/26/2013 21:20:07
		Security: Userid: 4htA4P7O had 1 login failures from a CIM client at IP address ::ffff:169.254.95.120.	4000008c00000000	System	09/29/2013 17:59:01
	Δ	Security: Userid: 4htA4P7O had 2 login failures from a CIM client at IP address ::ffff:169.254.95.120.	4000008c00000000	System	09/29/2013 17:59:03
		Security: Userid: 4htA4P7O had 3 login failures from a CIM client at IP address ::ffff:169.254.95.120.	4000008c00000000	System	09/29/2013 17:59:05
	A	Security: Userid: 4htA4P7O had 4 login failures from a CIM client at IP	1000000 00000000	0.1	09/29/2013

Figure 61. System Information - Event Log

- 2. To collect the latest Event Log status, click **Refresh**. When you initially open the **Event Log** page, previously-collected Event log information is listed in the table.
- **3**. Click **Installation and Service Guide** to view suggested actions for detected problems found in the event logs.

The following page is an example of the Installation and Service Guide. The Installation and Service Guide provides installation and service guide information.

IBM ToolsCenter						
Home Updates	Configuration System Information		Host Ma Alerts:) A 1 1	0
- System Information	System Information - Event	t Log				
Machine Name: This a test by	Last updated: 10/14/2013 22:13:55	Suide for suggestions on resolving detected problems.	Events: 🔕	0 🔬	0 🛐 150	00
Machine Type/Model: 7148AC1	Event Log Properties	succe of successions of resolving detected problems.				
• General					Message Tim	ne
	PerceivedSeverity	🛐 Informational	10	0000	09/28/2013 15:49:27	* (E)
Overview	CreationTimeStamp	09/28/2013 17:19:22	10		09/28/2013	
- System Health	Message	ENET[sp-ethernetport] DHCP-HSTN=IMM-00 1, DN=N/A, IP@=9.125.90.14, SN=255.255.2	0215E5E129 255.0, GW@		09/28/2013 16:19:26	
Active Status		=9.125.90.1, DNS1@=9.125.90.211	10	0000	09/28/2013 16:34:26	
Event Log	Event ID	0×400000160000000	10	0000	09/28/2013	
Light Path	MessageID	IMM0022			09/28/2013	
	ElementName	IBM:StandardMessageLogEntry7	10		17:04:23	
	AlertingManagedElement		10		09/28/2013 17:19:22	
	Source		10		09/28/2013 17:34:22	
	AuxiliaryData		10		09/28/2013	
	Serviceable	2 (Serviceable by Customer IT)	10	0000	09/28/2013 18:04:20	
		- prove		0000	09/28/2013 18:19:18	
			Close		09/28/2013 18:34:19	
		HCP-HSTN=IMM-00215E5E1291, DN=N/A, 55.255.255.0, GW@=9.125.90.1, DNS1@=9.125.90.211	0×400000160000		09/28/2013 18:49:19	
	ENET[sp-ethemetport] D IP@=9.125.90.14, SN=25	HCP-HSTN=IMM-00215E5E1291, DN=WA, 55.255.255.0, GW@=9.125.90.1, DNS1@=9.125.90.211	0x400000160000		09/28/2013 19:04:19	-

Figure 62. Installation and Service Guide

- 4. From the Severity list, you can select one of the following filtering options:
 - Any
 - Critical
 - Warning
 - Informational
- 5. From the Source list, you can select one of the following filtering options:
 - All
 - Audit
 - Cooling
 - Power
 - Disks
 - Memory
 - Processors
 - System
 - Test
 - Other
 - Unknown
- **6**. You can sort by report category by clicking a column heading. The Event Log has the following column headings:
 - Severity
 - Message
 - Event ID
 - Source
 - Message Time

 You can double click an Event ID to view an Event Log Property. The following figure provides an example of an Event Log property with a PerceivedSeverity of Critical.

Home Updates	Configuration System Information				
			Ale	erts: 🙆 1	
System Information	System Information - Even	nt Log			
Machine Name: BM System x3650	Last updated: 11/08/2013 18:31:50	8	Events:	<u>3</u> 4 <u>A</u> :	264 🛐 517
Machine Type/Model: 546025Z	Event Log Properties				
General				ource	Message
General	PerceivedSeverity	🔕 Critical			
Overview	CreationTimeStamp	08/22/2013 15:49:41		lystem	08/22/2013 15:49:41
System Health	Message	NZ14 is flashed with the correct fir	Please ensure that the Management Controller SN# 06C NZ14 is flashed with the correct firmware. The Managem ent Controller is unable to match its firmware to the serve		
		r.	is innivare to the serve	lystem	10/19/2013 15:00:34
Active Status	Event ID	4000001f00000000	4000001f00000000		
Event Log	MessageID	IMM0031		lystem	15:04:09 08/02/2013
Light Path	ElementName	PlatformEventLog211		lystem	13:19:28
			root/cimv218M_ManagementController.CreationClassNa me="TBM_ManagementController".Name=TManagement Controller UUID-0D78294CB30411E2A865E80C2B9800 0F" System		
	AlertingManagedElement	Controller UUID-0D78294CB3041			
	Source	System			
	AuxiliaryData			system	10:15:44 09/23/2013
	Serviceable	0 (Not Serviceable)			10:34:05 09/26/2013
				lystem	21:20:07
			Close	lystem	09/29/2013 17:59:01
				lystem	09/29/2013 17:59:03
	Security: Userid: 4htA4P7 address ::ffff.169.254.95.1	O had 3 login failures from a CIM client at IP 120.	4000008c00000000	System	09/29/2013 17:59:05
	Security: Userid: 4htA4P7	O had 4 login failures from a CIM client at IP	1000000 0000000		09/29/2013

Figure 63. Event Log Properties

8. Click the Event ID link to view additional information to assist you with problem determination and resolution.

The Event ID links to Info Center event ID link:

40000170000000
4000001f-00000000
Please ensure that the Management Controller [arg1] is flashed with the correct firmware. The Management Controller is unable to match its firmware to the server.
Explanation
This message is for the use case where a Management Controller firmware version does not match the server.
May also be shown as 4000001f0000000 or 0x4000001f0000000
Severity
Error
Alert Category
System - other
Serviceable
No
CIM Information
Prefix: IMM and ID: 0031
SNMP Trap ID
22
Automatically notify Support
No
User response
Update the IMM firmware to a version that the server supports. Important: Some cluster solutions require specific code levels or coordinated code updates. If the device is part of a cluster solution, verify that the latest level of code is supported for the cluster solution before you update the code.
Parent topic: Integrated management module II (IMM2) error messages

Figure 64. Event Log Event ID Link

Viewing Light Path status

You can use the **Light Path** option to view the location and status for light emitting diodes (LEDs) located on the front panel and Detail LEDs in various locations on the planar.

Procedure

1. In the navigation pane, click **Light Path** . The System Information - Light Path page opens.

IBM ToolsCenter Su				et Machine 💌	Settings		IBM
Home Updates	Configuration Sys	stem Information			Host Ma Alerts:	achine ⊘ 🔇 1	6
- System Information	System Info	rmation - Light Path					
Machine Name: IBM Flex System	LEDs on the front	panel of Machine (Level 1)		B			
Machine Type/Model:	LED Label	Location	Status				
7916AC1	Fault	Front Panel	[] Off				
- General	Check Log	Front Panel	Off				
	Power	Front Panel	On On				
Overview		Not Present	Off				
 System Health 	Identity	Not Present					
· system neutan	Detail LEDs						
Active Status	LED Label	Location	Status				
Event Log	Identification	Front Panel	0 Off	<u> </u>			
Light Path	LP	LightPath Card	💡 On				
	MIS	LightPath Card	0 Off				
	MEM	LightPath Card	💡 Off	=			
	SBRD	LightPath Card	0 Off				
	NMI	LightPath Card	🕥 Off				
	TEMP	LightPath Card	0 Off				
	CPU 1	Planar	0 Off				
	CPU 2	Planar	0 Off				
	DIMM 1	Planar	0 Off				
	DIMM 2	Planar	O Off				
	DIMM 3	Planar	0 Off				
	DIMM 4	Planar	Off	+			

Figure 65. System Information - Light Path status

- **2**. To collect the latest light path information, click **Refresh**. When you initially open the Light Path page, previously-collected light path information is listed in the tables.
- 3. You can view the following light path status on this page:

LEDs on the front panel of the machine (Level 1):

- Fault
- Identity
- Power
- Check Log

The status reported for front-panel LEDs is either **On** or **Off**. The location is either **Front Panel** or **Not Present**.

Detail LEDs:

- CPU 1
- CPU 2
- DIMM 1
- DIMM 2

- DIMM 2
- DIMM 4
- DIMM 5
- DIMM 6
- DIMM 7
- DIMM 8
- DIMM 9
- DIMM 10
- DIMM 11
- DIMM 12
- DIMM 13
- DIMM 14
- DIMM 15
- DIMM 16
- PCIE 1
- PCIE 2
- Battery
- IMM2 Heartbeat
- Mezz Card

The status reported for Detail LEDs is either **On** or **Off**, except IMM2 Heartbeat, which has a status of Blinking. The location varies for each machine type.

Collecting Full System Information

You can use the **Full System Information** option to query a system and view full system information for analysis, service, and support. The files generated by the collection process can be sent to IBM support, sent to an FTP server, or saved locally.

Procedure

1. On the System Information - Overview page, the first time you are collecting information, click **System Full Information**. Click **Collect Again** after the information has been initially collected to refresh the full system information before viewing the report. The Collect Full System Information dialog box is displayed while the full system information is being collected.

IBM ToolsCenter Suit	e		Change Target Machine		Settings About IBM.
Home Updates C	Configuration System Information				Host Machine ③ Alerts: 🔕 1 🛕 0 🖷 1
- System Information	System Information - Over	view			
Machine Name: IBM Flex System Machine Type/Model: 7916AC1	Collect Full System Informa	Analis approximation and		_	
← General		38%			
Overview	Description		Status		
- System Health	eventlog: EventLog networkinfo: Network Information C	ollector	Complete	^	
Active Status	nvsmilog: NVIDIA SMI Log Collecto	or.	Complete		
Event Log	numa: NumaLib perfdata: PerfData		Complete		
Light Path	usbinfo: USB Information Collector		Complete		
	displayinfo: Display Information Col	llector	Complete		gnated
	process: Process		Complete	H	gnateu
	pciinfo: PCIInfo		Complete		
	diskmgt: Disk Management Informa	ation Collector	Complete		
	qlogic: QLogic HBA(s) Collector		🔅 In progress	*	
	Clicking Cancel stops the collec	tion process without recording any	data. Save As Car	cel	

Figure 66. System Information - Collect Full System Information

As the collection progresses, an inventory list is generated which provides the status for each inventory item, indicating *Initializing* while collecting information and *Complete* when the collection process is finished. When the Full System Information collection is finished, the following page is displayed.

			Change Target Ma	ichine 💌 🕴		IBM.
Home Updates Co	onfiguration System Information				Host Machine 🎯 Alerts: 🧕 1 💡	∆ 0 🖪 1
- System Information	System Information - Overview	N				
Machine Name: IBM Flex System Machine Type/Model: 7916AC1	Collect Full System Information	2	r 22, 2013 8:24:23 Al	И GMT+08:00.	-	
← General		100%				
Overview	Description		Status			
▼ System Health	Running DSA analyzer plug-ins pass 1. Ipanal: Light Path Analysis		Complet			
Active Status	esainfo: ESA-DSA Information basicanal: Basic Analysis		Complet			
Event Log Light Path	Running DSA analyzer plug-ins pass 2. Ipanal: Light Path Analysis		Complet			
	Running Diagnostics.		Complet			
	Adding DSA log entries to XML file. Writing XML data to file		Complet			
	Writing HTML files to directory Inventory Finished		Complet			
		Send To 💌	Save As	Close	1	

Figure 67. System Information - Collect Full System Information Status is Complete

- 2. Click **Send To** and then select one of the following options, which are explained in further detail below.
 - IBM Support
 - Custom FTP

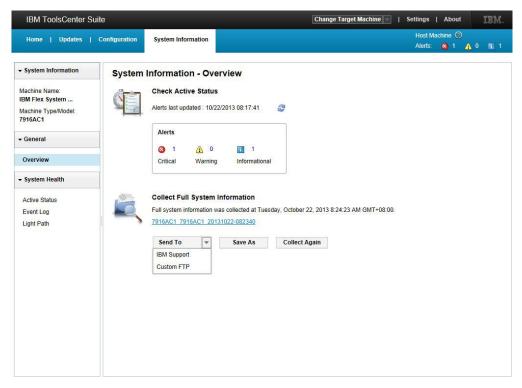


Figure 68. Full System Information Send To options

• To send the full system information report directly to IBM Support, click **Send to IBM Support**. The following message is displayed while the collection is being sent.

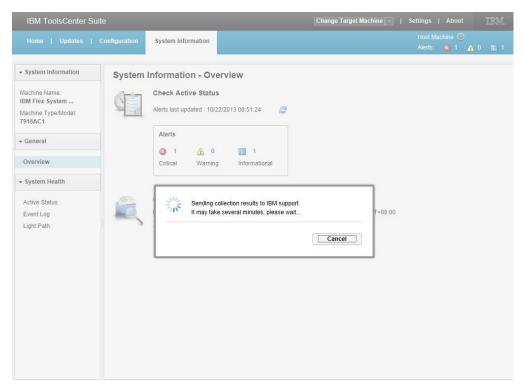


Figure 69. Full System Information being sent to IBM Support

When this operation is finished, click **Close**. If the send to IBM Support fails, the Configure Internet Connection dialog box opens.

Note: If you are not connected to the Internet, the Configure Internet Connection dialog box is displayed. Check your configuration and try again, otherwise, click **OK** to continue or **Cancel** to quit this operation. For more information see "Configuring your Internet connection settings" on page 12.

• To send the collected logs to a customized FTP server, click **Send to FTP Server**. The Send to FTP Server dialog box opens.

Send the collected logs to an FTP	server.	
P Address:		
9.125.9.34		
Port:		
21		
User name:		
username		
Password:		
'assword:		

Figure 70. Full System Information Report being sent to FTP server

Complete the following steps and then click OK.

- Enter the IP Address
- Enter the Port
- Optional: Select Require Authentication. If you select this option, enter the following information:
 - User name
 - Password

After entering the FTP server information, the following message is displayed while the collection is being sent.

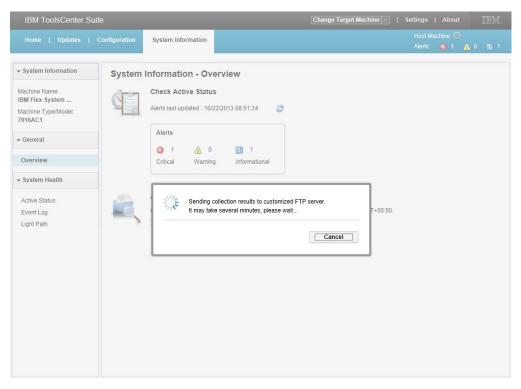


Figure 71. Full System Information being sent to customized FTP Server

3. To download the Full Collection Information zip file to a local directory, click **Save As**. The Save As file dialog box provides the name of the full system report zip file.

IBM ToolsCenter Suit		System Information		Change Targ	et macinine	Settings Host Ma Alerts:	chine 💿	IBI
System Information	System	Information - Overvi	ew					
ad 🥝 Save As	677	Crack Autor Spice						×
	puter	A (C:) ▶ IBM ▶			- - + 2 + 2 + 2 + 3 − 1 + 3 + 3 + 1 + 3 + 1 +1 +1 1 + 1 +1 1 + 1 +1 1 +1 1 +1 1 +1 1 +1 1 1 1 1 1 1 1 1 1	Search IBM		٩
1 Organize 🔻 New	older						955 💌	?
Favorites	^ Name	1	Date modified	Туре	Size			
Downloads Downloads Downloads Recent Places Desktop Propbox Documents Music Prictures Videos SYSTEM (C:) Q systemview (\\9.	е	3	9/8/2013 10:42 PM	File folder				
File name:		_20131022-082340.zrp ズ件 (*.zip)						•
Hide Folders						Save	Can	cel

Figure 72. Full System Information Save As option

Select one of the following options.

• Click **Save** to save the Full Collection Information zip file.

The Save As dialog box opens to select a folder for saving the zip file.

• Click **Cancel** to quit this operation.

Viewing the ToolsCenter Suite report

You can use this option to view the ToolsCenter Suite report and detailed information produced by the Collect Full System Information function.

Procedure

1. Click the **Full System Information report** link on the System Information -Overview page to view the full system information report. The System Overview report is displayed in a browser window as shown below.

You can also click **Collect Again** to collect full system information again before viewing the report. The Collect Full System Information dialog box is displayed while the full system information is updated. For more information, see "Collecting Full System Information" on page 78.

BM ToolsCenter Suite		System x3650 M4 BD -(7916AC1) WIN-KBC2P8GMS3F			
Software					
System Overview	System Overview				
Installed Applications	Computer System				
Installed Hotfixes	Manufacturer	IBM			
Device Drivers System Services	Version	02			
Network Settings	Product Name	System x3650 M4 BD -[7916AC1]			
Resource Utilization	Serial Number	79164C1			
Processes	System UUID	4023bb12-f0a3-b601-dba1-b4a06317a653			
OS Configuration	Operating System				
Hardware					
Hardware Inventory PCI Information	Computer Name	WIN-KBC2P8GMS3F			
Firmware/VPD	Product Name	Windows Server 2012 R2 64-bit			
IMM Configuration	Suite Type	Standard Edition			
Environmentals	Version	6.3			
Drive Health	Service Pack	No service packs installed			
LSI Controller	Build Number	9431			
LSI IDE Controller	Vendor	Microsoft Corporation			
Mellanox Adapter	Registered Owner	Windows User			
Solarflare Adapter IBM High IOPS Adapter	Product ID	00133-32500-00010-AA582			
PMC RAID	Installation Date	09/12/2013 03:03:24			
ServeRAID	Uptime	21 hours 56 minutes 44 seconds			
ServeRAID Logs	Time of Last Boot	10/21/2013 10:26:00			
Qlogic Emulex	TimeZone	TimeZone			
Broadcom	LocalDateTime	10/22/2013 08:22:00			
Brocade Adapter	Current Time Zone	Pacific Daylight Time			
VMware ESXi	GMT Date and Time	10/22/2013 15:22:00			
Light Path IMM Built-in Self Test	Current User				
FoD Activation Key	User Name	Administrator			

Figure 73. System Information - Full System Information Report

- 2. From the navigation pane, you can select specific items listed within the five main report categories to get more detailed information. The available report information is determined by machine type, operating system, installed hardware and software. Information that is not applicable to your system will be greyed out in the navigation menu.
 - Software:
 - System Overview
 - Installed Packages
 - Kernel Modules
 - Network Settings
 - Resource Utilization
 - Processes
 - OS Configuration
 - Linux Config Files

- Hardware:
 - Hardware Inventory
 - PCI Information
 - Firmware/VPD
 - IMM Configuration
 - Environmentals
 - Drive Health
 - LSI Controller
 - LSI IDE Controller
 - Mellanox Adapter
 - PMC RAID
 - ServeRAID
 - ServeRAID Logs
 - Qlogic
 - Emulex
 - Broadcom
 - Brocade Adapter
 - VMware ESXi
 - Light Path
 - IMM Built-in Self Test
 - FoD Activation Key
- Platform Logs:
 - /var/log/boot.log
 - /var/log/cron
 - /var/log/dmesg
 - /var/log/messages
 - /var/log/secure
- IMM Logs:
 - Chassis Event Log
 - IPMI Event
- Analysis:
 - Merged Log
 - UpdateXpress
 - File Loader Results
 - Diagnostics Log
 - DSA Error Log
- 3. When you have finished viewing the information, close the browser window.

Chapter 7. Using the Change Target Machine function for remote connectivity

The topics in this section describe how to use the **Change Target Machine** function for connecting to remote machines from the ToolsCenter Suite host machine.

Connecting to a remote machine

The IBM ToolsCenter Suite host can connect to remote machines, manage them in out-of-band mode (OOB) using IMM. The out-of-band management functionality includes: Configuration, System Information, and Updates for System x firmware.

Procedure

 On the Home page, click Change Target Machine > Connect to remote machines. The Connect to Remote Machine dialog box opens.

Connect the the IBM sy	stem x machine that can be managed by	IMM.
MM IP Address:	9.125.90.87	w
Jser Name:	USERID	
Password:	******	
Connecting to the	e remote machine Connect to Manage	Cancel

Figure 74. OOB log in

- 2. Enter the following information and then click OK.
 - IMM IP Address

Note: After a connection to a remote machine has been made, the IMM IP Address can be selected from the IMM IP Address list.

- User Name
- Password

While the Host Machine connects to the remote machine, a message stating "Connecting to the remote machine..." is displayed.

When the remote connection is complete, the ToolsCenter Suite Home page opens on the remote machine. In the menu banner, the target machine information is displayed.



Figure 75. Remote machine Home page

Results

If the remote machine is a Flex system, ToolsCenter Suite has the ability to use the CIM credentials to connect to IMM and create an IPMI account. The IMM IPMI account dialog box is displayed.

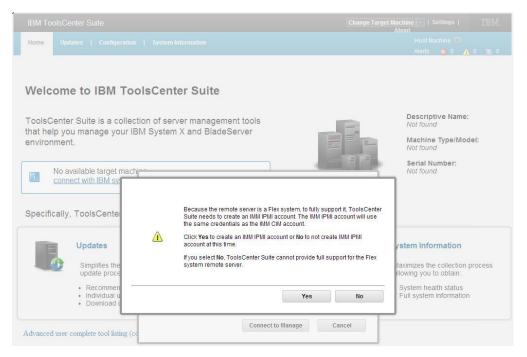


Figure 76. Remote machine - creating an IMM IPMI account

- 1. Click **Yes** to create an IPMI account. The IMPI account is created and ToolsCenter Suite automatically logs in to the IMM of the remote Flex system with the CIM account credentials.
- 2. Click No to not create an IPMI account at this time.

Note: If you select **No**, ToolsCenter Suite support for the Flex system remote server is limited.

Related reference:

"IBM ToolsCenter Suite menu options" on page 12 The ToolsCenter Suite graphical user interface (GUI) has the following menu options:

Using the Updates function on a remote machine

You can update firmware and add support for a remote machine using the **Updates** function. The topics in this section describe how to check the compliance of firmware, how to download and install updates, and how to use the Bare Metal Update option that allows you to download and install an earlier version of firmware.

Procedure

1. On the Home page or from the ToolsCenter Suite menu, click **Updates**. The Firmware Updates page opens.

IBM ToolsCenter Suite	Change Target Machine 💌 Settings About IBM.
Home Updates Configuration System Information	Target Machine: 9.115.253.116 (8737AC1) Alerts: 🧟 0 🛕 0 👔 0
Firmware Updates	
Check the compliance of current firmware, and update accordingly.	
 1.Select the content for remote server updates: Update IBM firmware(including IMM, uEFI, pDSA, no reboot required) Update any available firmware (target machine reboot needed) 2.Select the update method: 	
Recommended Updates	
Check firmware level and apply the latest updates package.	
Individual Updates	
Apply individual firmware updates.	

Figure 77. Remote machine - Firmware Updates

Tip: To view additional information for each update type, hover the mouse pointer over the question mark icon.

- 2. In the Select the content for remote server updates section, select one of the following options:
 - Update IBM firmware (including IMM, uEFI, pDSA, no reboot required)
 - Update any available firmware (target machine reboot needed)

Update any available firmware (target machine reboot needed) is the Bare Metal Update option that requires the target machine is rebooted. It also checks the target machine's firmware levels. If the target machine's IMM or pDSA version does not satisfy the bare metal update requirement, the following warning message is displayed:

The target server's IMM and DSA version don't meet the selected feature requirement, please update the IBM firmware first. IMM: 1A0049W or higher version DSA: DSYTB7U or higher version

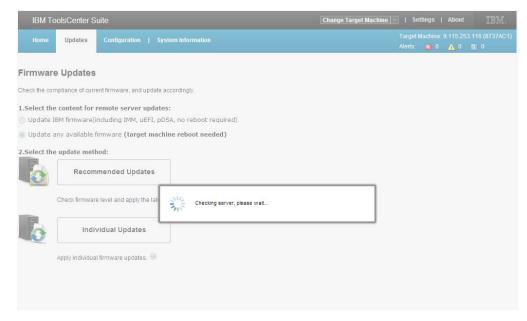


Figure 78. Remote machine - Bare metal update firmware check

If you selected the **Update any available firmware (target machine reboot needed)** option and the target machine's firmware level satisfies the bare metal update requirement, the following message is displayed:

The target system will reboot to enter a bare metal machine update environment, because you have chosen to update any available firmware. Compare the currently installed firmware to the following source:

- **3**. In the Select the update method section, you can select one of the following update options:
 - **Recommended Updates**: Check firmware level and apply the latest updates package.
 - Individual Updates: Apply individual firmware updates.

Refer to the corresponding update method in this section for complete instructions.

Using the Recommended Updates from the IBM website option for a remote machine

You can use the **Recommended Updates from the IBM website** option to check the firmware levels of the remote machine and applies the latest updates package (IMM, uEFI, pDSA UXSP firmware) that was downloaded from the IBM website.

Before you begin

Start ToolsCenter Suite on the host computer and connect to a remote machine. See "Connecting to a remote machine" on page 87.

About this task

This procedure provides an example of using Recommended Updates from the IBM website and includes the Bare Metal Update option.

Procedure

- 1. On the Firmware Updates page, in the Select the content for remote server updates section, click one of the following options:
 - Update IBM firmware (including IMM, uEFI, pDSA, no reboot required)
 - Update any available firmware (target machine reboot needed)

Update any available firmware (target machine reboot needed) is the Bare Metal Update option that requires the target machine is rebooted. It also checks the target machine's firmware levels. If the target machine's IMM or pDSA version does not satisfy the bare metal update requirement, the following warning message is displayed:

The target server's IMM and DSA version don't meet the selected feature requirement, please update the IBM firmware first. IMM: 1A0049W or higher version DSA: DSYTB7U or higher version

2. In the Select the update method section, click **Recommended Updates** and then click **Next**.

If you selected the **Update any available firmware (target machine reboot needed)** option and the target machine's firmware level satisfies the bare metal update requirement, the following message is displayed.

The target system will reboot to enter a bare metal machine update environment, because you have chosen to update any available firmware. Compare the currently installed firmware to the following source:

IBM ToolsCenter Suite		Change Target Machine	- Set	tings	About	IBM.
Home Updates Configuration	System Information		Target M Alerts:	lachine: 9 () 0		3.116 (8737AC
commended Update Wi	zard					
.Firmware Updates Settings	2.Check Firmware Compliance	3.Update Firmware				
The target system will reboot to e ompare the currently installed firmy		ironment, because you have chosen to	update a	ny availa	able fi	mware.
The latest UXSP updates package						
Import UXSP updates package:						
		<bac< td=""><td>k</td><td>Next</td><td>></td><td>Cancel</td></bac<>	k	Next	>	Cancel

Figure 79. Remote machine - Recommended Updates using the latest UXSP from the IBM website - bare metal update reboot message

3. Click **The latest UXSP updates package from the IBM website** and then click **Next**.

The check firmware compliance process begins by acquiring the current machine's firmware levels from the IBM website. During the acquire operation, **Cancel** is enabled, and the following message is displayed:

Please wait while ToolsCenter Suite acquires your firmware levels.

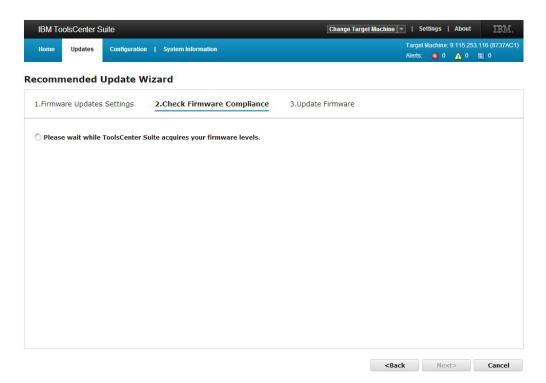


Figure 80. Remote machine - Recommended Updates - TCS acquiring current machine's firmware levels for a bare metal update

After the acquire operation finishes, the check firmware compliance operation begins.

However, if you selected to **Update any available firmware (target machine reboot needed)**, the Updates page is locked, **Cancel** is disabled, and the following message is displayed:

Rebooting the target server to enter a bare metal machine update environment.

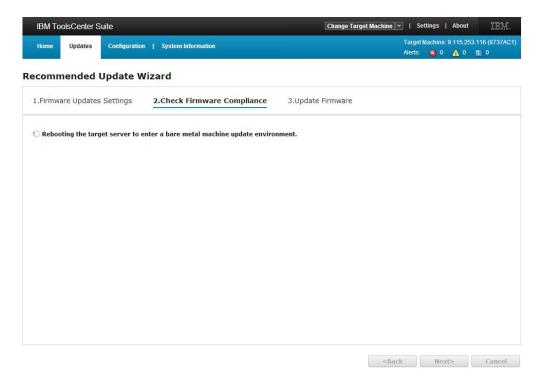


Figure 81. Remote machine - Recommended Updates - target server rebooting to bare metal environment

If the IMM and/or DSA version does not satisfy the bare metal update requirements, ToolsCenter Suite downloads the latest version of IMM and/or DSA and flashes the target machine's IMM and/or DSA.

While the compliance checking operation is working, the Check Firmware Compliance page is locked, **Cancel** is disabled, and the following message is displayed:

Please wait while ToolsCenter Suite compares your current firmware with the latest update package.

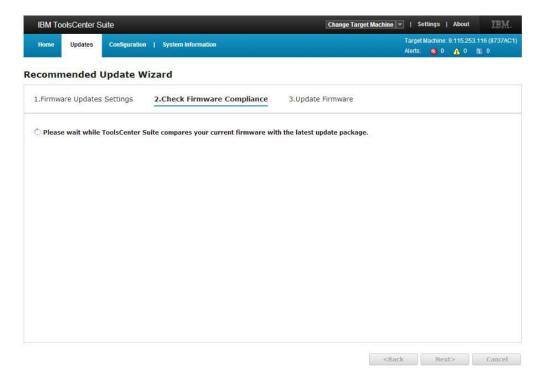


Figure 82. Remote machine - Recommended Updates - TCS compares current firmware with the latest update package

Note: If you are not connected to the Internet, the Configure Internet Connection dialog box opens. Check your configuration or try again, otherwise, click **OK** to continue or **Cancel** to quit this operation. For more information, see "Configuring your Internet connection settings" on page 12.

When the check firmware compliance operation finishes, the number of firmware items available is displayed above the firmware updates table.

Home	Updates Configuration System Information				achine: 9.115.253.116 (8 🔞 0 🛕 0 👔 0	737AC
com	mended Update Wizard					
.Firmv	ware Updates Settings 2.Check Firmware	Compliance 3	.Update Firmware			
Com	pliance check complete. Select the desired firmware	components and the	n click "Next" to updat	e.		
7 fir	mware items available. The recommended items were	selected by default.				
	Name	Severity	New Version	Installed Version	Reboot Required	
	(required) ibm_fw_imm2_1aoo42y-2.60_anyos_noarch				Yes	^
	ibm_fw_hdd_sas-1.13.02_linux_32-64	Not Required			No	
	MBF2300RC (Disk Slot 0, Tray 65535)		SB2C	SB2C		
	MBF2300RC (Disk Slot 1, Tray 65535)		SB2C	SB2C		
	ibm_fw_mpt2sas_x240-1.15_linux_32-64	Not Required			Yes	
	SAS2004 Firmware		15.00.00.00	15.00.00.00		E
	SAS2004 Bios		07.29.01.00	07.29.01.00		
	brcm_fw_nic_2.2.1a_linux_32-64	Suggested	2.2.1a	Undetected	Yes	
	ibm_fw_imm2_1aoo50b-3.50_anyos_noarch	Not Required	3.50 (1AOO50B)	4.00 (1A0051F)	No	-

Figure 83. Remote machine - Recommended Updates - Check Firmware Compliance results

The firmware updates table provides the following information for each update listed in the table:

- Name: update name
- Severity: Initial Release, Suggested, Critical, or Not Required
- · New Version: new version identifier
- Installed Version: current version identifier or Undetected
- Reboot Required: Yes rebooting is necessary for the update or No rebooting is not necessary for the update
- 4. Select one or more firmware components in the left column.
- 5. Click Next to proceed with the Update Firmware process by downloading the firmware updates from the IBM website and applying the downloaded firmware, or click Cancel to return to the Firmware Updates page. If Cancel is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Select one of the follow options:
 - Click **OK** to quit the update wizard.
 - Click **Cancel** to continue the update process.

Important: If you selected to install an earlier version of firmware, the following message is displayed:

There are risks associated when downgrading any firmware yourself. Please confirm the versions.

If you want to continue installing the earlier version, select **I'm willing to take** on the risks to downgrade the firmware component below. Click Continue Updates. When the update operation finishes, the table provides the status of the updates indicating whether an update was successful or failed. A timestamp provides the time the update operation finished.

If you selected the **Update any available firmware (target machine reboot needed)** option, the following message is displayed:

You need reboot IMM / OS to make IMM / uEFI to take effect.

IBM ToolsCe	nter Suite					Change	e Target Machine About	💌 Settings	IB)
Home Upda	ates C	onfiguration	System In	formation				arget Machine: 9. Jerts: 🔞 0	115.252.148 🛕 0 📲
commenc	led Up	date Wi	zard						
Firmware Up	dates Se	ttings	2.Check Fi	rmware Compliance	3.Update F	irmware			
1 selected it	ems have	been updat	ed.Finished	at 10:58:01 AM					
Restart IMM	Rest	art OS Yo	u need rebo	ot IMM / OS to make I	MM / uEFI to take e	ffect.			
Items					tatus				
ibm_fw_hdd_sa:	s-1.13.04_li	nux_32-64			Updated				
							<back< td=""><td>Finish</td><td>Cance</td></back<>	Finish	Cance

Figure 84. Remote machine - Recommended Updates - Bare Metal Updates - Firmware update results

- 6. Optional: If an IMM is installed, click **Restart IMM**. When this operation is complete, the Firmware Updates primary page is displayed.
- 7. Optional: If a uEFI is installed, click **Restart OS**. When this operation is complete, the Firmware Updates primary page is displayed.
- 8. Click Finish.

Using the Recommended Updates in a local repository option for the remote machine

You can use the **Recommended Updates in a local repository** option to check the firmware levels of the remote machine and applies the IMM, uEFI, pDSA UXSP package previously downloaded and located in a local repository.

Before you begin

Start ToolsCenter Suite on the host computer and connect to a remote machine. See "Connecting to a remote machine" on page 87.

About this task

This procedure provides an example of using Recommended Updates from a local repository and includes the Bare Metal Update option.

Procedure

- 1. On the Firmware Updates page, in the Select the content for remote server updates section, click one of the following options:
 - Update IBM firmware (including IMM, uEFI, pDSA, no reboot required)
 - Update any available firmware (target machine reboot needed)

Update any available firmware (target machine reboot needed) is the Bare Metal Update option that requires the target machine is rebooted. It also checks the target machine's firmware levels. If the target machine's IMM or pDSA version does not satisfy the bare metal update requirement, the following warning message is displayed:

The target server's IMM and DSA version don't meet the selected feature requirement, please update the IBM firmware first. IMM: 1A0049W or higher version DSA: DSYTB7U or higher version

2. In the Select the update method section, click **Recommended Updates** and then click **Next**.

If you selected the **Update any available firmware (target machine reboot needed)** option, and the target machine's firmware level satisfies the bare metal update requirement, the following message is displayed:

The target system will reboot to enter a bare metal machine update environment, because you have chosen to update any available firmware. Compare the currently installed firmware to the following source:

3. Click **Import UXSP updates package** and on the next line enter the local directory of the updates package.

If you enter an invalid local directory address, the following message is displayed:

Cannot find the given local directory. Make sure the directory path is valid.

IBM ToolsCenter Suite		Change Target Machine 🛛	Se	ttings	About	IBM.
Home Updates Configuration	System Information		Target M Alerts:		9.115.25 A 0	3.116 (8737AC1)
Recommended Update Wi	zard					
1.Firmware Updates Settings	2.Check Firmware Compliance	3.Update Firmware				
The target system will reboot to Compare the currently installed firm	enter a bare metal machine update envi ware to the following source:	ironment, because you have chosen to u	pdate a	ny ava	ilable fi	rmware.
 The latest UXSP updates package Import UXSP updates package: 						
C:\UXSP						
		<back< td=""><td></td><td>Nex</td><td>t></td><td>Cancel</td></back<>		Nex	t>	Cancel

Figure 85. Remote machine - Recommended Updates - Import UXSP updates package

If the remote machine's IMM or pDSA version satisfies the bare metal update requirement, ToolsCenter Suite starts to boot to the bare metal environment. However, if the remote machine's IMM or pDSA does not support the bare metal update requirement, ToolsCenter Suite downloads the latest version of IMM or DSA and flashes the target machine's IMM and/or DSA.

- 4. Click **Next** to proceed with the Check Firmware Compliance process, or **Cancel** to quit this operation. If **Cancel** is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Select one of the follow options:
 - Click **OK** to quit the update wizard.
 - Click **Cancel** to continue the update process.

While the compliance checking operation is working, the Check Firmware Compliance page is locked, **Cancel** is disabled, and the following message is displayed:

Please wait while ToolsCenter Suite checks your firmware levels.

When the check firmware compliance operation finishes, the number of firmware items available is displayed above the firmware updates table.

e Updates Settings	2.Check Firmware C	Compliance 3.	Update Firmware		
nce check complete. Sel	ect the desired firmware	components and the	en click "Next" to unda	te.	
me		Severity	New Version	Installed Version	Reboot Required
_fw_uefi_y5e134f-1.50_anyo	s_32-64	Suggested	1.50 (Y5E134F)	1.40 (Y5E127O)	Yes
_fw_dsa_dsytc2l-9.41_anyos	_32-64	Suggested	9.41 (DSYTC2L)	9.41 (DSY1C1P)	Yes
_fw_imm2_1aoo48h-3.10_an	iyos_noarch	Not Required	3.10 (1AOO48H)	4.00 (1AOO49W)	No
	rce check complete. Sel re items available. The me _fw_uefi_y5e134f-1.50_anyo _fw_dsa_dsytc2l-9.41_anyos	ce check complete. Select the desired firmware	re check complete. Select the desired firmware components and the re items available. The recommended items were selected by default. me Severity _fw_uefi_y5e134f-1.50_anyos_32-64 Suggested _fw_dsa_dsytc2I-9.41_anyos_32-64 Suggested	me Severity New Version _fw_uefi_y5e134f.1.50_anyos_32-64 Suggested 1.50 (Y5E134F) _fw_dsa_dsytc2I-9.41_anyos_32-64 Suggested 9.41 (DSYTC2L)	Acc check complete. Select the desired firmware components and then click "Next" to update. re items available. The recommended items were selected by default. me Severity New Version Installed Version _fw_uefi_y5e134f.1.50_anyos_32-64 Suggested 1.50 (Y5E134F) 1.40 (Y5E127O) _fw_dsa_dsytc2I-9.41_anyos_32-64 Suggested 9.41 (DSYTC2L) 9.41 (DSYTC1P)

Figure 86. Remote machine - Recommended Updates - Check Firmware Compliance results

The firmware updates table provides the following information for each update listed in the table:

- Name: update name
- · Severity: Initial Release, Suggested, Critical, or Not Required
- New Version: new version identifier
- Installed Version: current version identifier or Undetected
- Reboot Required: Yes rebooting is necessary for the update or No rebooting is not necessary for the update
- 5. Select one or more firmware components in the left column.
- 6. Click **Next** to proceed with the update process.

During the update operation, a progress icon and the following message is displayed:

```
Updating is in progress.
x of y items have been updated.
Do not close your browser while the update is in progress.
Do not take any power actions on target server.
```

The status for each update is displayed as: Pending, Updating, Updated, or Failed.

Important: If you selected to install an earlier version of firmware, the following message is displayed:

There are risks associated when downgrading any firmware yourself. Please confirm the versions.

If you want to continue installing the earlier version, select **I'm willing to take** on the risks to downgrade the firmware component below. Click Continue Updates. When the update operation finishes, the table provides the status of the updates indicating whether the update was successful or failed. A timestamp provides the time the update operation finished.

If you selected the **Update any available firmware (target machine reboot needed)** option, the following message is displayed:

Note that system power cycle is required to make the updated firmware take effect.

7. Click Finish to start the system reboot back to the original system.

Using the Individual Updates from the IBM website option for a remote machine

You can use the **Individual Updates from the IBM website** option to check the firmware and driver levels of the remote machine and applies the IMM, uEFI, pDSA firmware downloaded from the IBM website.

Before you begin

Start ToolsCenter Suite on the host computer and connect to a remote machine. See "Connecting to a remote machine" on page 87.

About this task

This procedure provides an example of using Individual Updates from the IBM website and includes the Bare Metal Update option.

Procedure

- 1. On the Firmware Updates page, in the Select the content for remote server updates section, click one of the following options:
 - Update IBM firmware (including IMM, uEFI, pDSA, no reboot required)
 - Update any available firmware (target machine reboot needed)

Update any available firmware (target machine reboot needed) is the Bare Metal Update option that requires the target machine is rebooted. It also checks the target machine's firmware levels. If the target machine's IMM or pDSA version does not satisfy the bare metal update requirement, the following warning message is displayed:

The target server's IMM and DSA version don't meet the selected feature requirement, please update the IBM firmware first. IMM: 1A0049W or higher version DSA: DSYTB7U or higher version

2. In the Select the update method section, click **Individual Updates** and then click **Next**.

If you selected the **Update any available firmware (target machine reboot needed)**, option and the target machine's firmware level satisfies the bare metal update requirement, the following message is displayed.

The target system will reboot to enter a bare metal machine update environment, because you have chosen to update any available firmware. Compare the currently installed firmware to the following source:

IBM ToolsCenter Suite	Change Target Machine 🚽 Settings About IBM.
Home Updates Configuration System Information	Target Machine: 9.115.253.116 (8737AC: Alerts: 🤹 0 🛕 0 👔 0
Individual Update Wizard	
1.Firmware Updates Settings 2.Check Firmware Compliance	3.Update Firmware
The target system will reboot to enter a bare metal machine update e Compare the currently installed firmware to the following source:	nvironment, because you have chosen to update any available firmware.
 Individual updates from the IBM website Import individual updates 	
	<back next=""> Cancel</back>

Figure 87. Remote machine - Individual updates from the IBM website - bare metal update reboot message

3. Click Individual updates from the IBM website and then click Next.

The check firmware compliance process begins by acquiring the current machine's firmware levels from the IBM website. During the acquire operation, **Cancel** is enabled, and the following message is displayed:

Please wait while ToolsCenter Suite acquires your firmware levels.

After the acquire operation finishes, the check firmware compliance operation begins.

However, if you selected to **Update any available firmware**, the Check Firmware Compliance page is locked, **Cancel** is disabled, and the following message is displayed:

Rebooting the target server to enter a bare metal machine update environment.

If the remote machine's IMM or pDSA version satisfies the bare metal update requirement, ToolsCenter Suite starts to boot to the bare metal environment. However, if the remote machine's IMM or pDSA does not support the bare metal update requirement, ToolsCenter Suite downloads the latest version of IMM or DSA and flashes the remote machine's IMM and/or pDSA.

While the compliance checking operation is working, the Check Firmware Compliance page is locked, **Cancel** is disabled, and the following message is displayed:

Please wait while ToolsCenter Suite compares your current firmware with the latest update package.

Note: If you are not connected to the Internet, the Configure Internet Connection dialog box opens. Check your configuration or try again, otherwise, click **OK** to continue or **Cancel** to exit this operation. For more information, see "Configuring your Internet connection settings" on page 12. When the check firmware compliance operation finishes, the number of firmware items available is displayed above the firmware updates table.

Ноте	Updates Configuration	1 System Information				chine: 9.115.253.116 (87 🔕 0 🛕 0 👔 0	σ <i>ι</i> κε
divid	lual Update Wizar	d					
1.Firm	ware Updates Settings	2.Check Firmware	Compliance	.Update <mark>F</mark> irmware			
🚺 Com	pliance check complete. Se	lect the desired firmware	components and the	n click "Next" to updat	e.		
* 8 IB	M firmware items available.	4					
	Name		Severity	New Version	Installed Version	Reboot Required	
	ibm_fw_uefi_b2e136t-1.40_an	yos_32-64	Suggested	1.40 (B2E136T)	1.40 (B2E135Q)	Yes	ŕ
	(required) ibm_fw_imm2_1ao	o40e-2.00_anyos_noarch				Yes	
	elx_fw_cna_ibm1212-4.6.281.2	21-1_linux_32-64	Not Required			Yes	
	OCI11102-F-X Firmware			4.6.281.21	4.6.281.21		1
	ibm_fw_dsa_dsytc4p-9.44_any	yos_32-64	Not Required	9.44 (DSYTC4P)	9.51 (DSYTD3A)	Yes	
	(required) ibm_fw_imm2_1ao	o42y-2.60_anyos_noarch				Yes	-
	ibm_fw_hdd_sas-1.13.04_linu	x_32-64	Not Required			No	
	MBF2300RC (Disk Slot 0, 1	Fray 65535)		SB2C	SB2C		
	MBF2300RC (Disk Slot 1, 1	Fray 65535)		SB2C	SB2C		
-							

Figure 88. Remote machine - Individual Updates - Check Firmware Compliance results

The firmware updates table provides the following information for each update listed in the table:

- Name: update name
- Severity: Initial Release, Suggested, Critical, or Not Required
- · New Version: new version identifier
- Installed Version: current version identifier or Undetected
- Reboot Required: Yes rebooting is necessary for the update or No rebooting is not necessary for the update
- 4. Select one or more firmware components in the left column.
- 5. Click Next to continue the Update Firmware process by downloading the firmware updates from the IBM website and applying the downloaded firmware, or click Cancel to return to the Update Firmware page. If Cancel is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Select one of the follow options:
 - Click **OK** to quit the update wizard.
 - Click Cancel to continue the update process.

Important: If you selected to install an earlier version of firmware, the following message is displayed:

There are risks associated when downgrading any firmware yourself. Please confirm the versions.

If you want to continue installing the earlier version, click **I'm willing to take on the risks to downgrade the firmware component below.** and then click **Continue Updates**.

During the download operation, the progress of the current downloading item indicates the total bytes and the downloaded bytes. A progress bar provides the overall progress of all download items. The updates listed in the table display the status as either: Not Started, Downloading, and Downloaded. Click **Stop** to stop the current downloading item.

IBM ToolsCenter Su	ite		Change Target Machine	👻 Se	ttings A	bout	IBM.
Home Updates	Configuration System Information				Machine: 9.1 🔞 0 🔏		
dividual Updat	e Wizard						
1.Firmware Updates S	Settings 2.Check Firmware Comp	bliance 3.U	odate Firmware				
	fw_tape_lto6-1.0_linux_32-64] : 9905 of 1 updates downloaded, 9905 of 3048						
	32%						
Items		Status					
			< B	ack	Finish		Cancel

Figure 89. Individual updates - downloading bare metal updates from the IBM web site

When the download operation finishes, the update operation begins.

During the update operation, a progress icon and the following message is displayed:

Updating is in progress. x of y items have been updated. Do not close your browser while the update is in progress. Do not take any power actions on target server.

IBM Too	IsCenter Si	ite				Change Target N	lachine 💌	Set	tings	About	IBM.
Home	Updates	Configuration	System Information						lachine: ! 🔕 0		3.116 (8737AC1)
ndividu	al Upda	te Wizard									
1.Firmwar	e Updates	Settings	2.Check Firmware Complia	ance	3.Update Fir	mware					
🖑 Updatir	ng is in prog	ress. 0 of 1 ite	ms have been updated.								
Δੇ Do not	close your b	rowser while th	ne update is in progress. Do ni	ot take ar	iy power actions	on target server					
Items				Status							
ibm_fw_ta	pe_lto6-1.0_lir	ux_32-64		Downlo	aded						
							<back< td=""><td></td><td>Finis</td><td>h</td><td>Cancel</td></back<>		Finis	h	Cancel

Figure 90. Individual updates - update firmware status

When the update operation finishes, the table provides the status of the updates indicating whether an update was successful or failed. A timestamp provides the time the update operation finished.

1.Firmware Upd	ates Settings	2.Check Firmware Complianc	e 3.Update Firmware		
3 1 selected iter Restart IMM	ms update failed Restart OS	.Finished at 2:40:57 PM You need reboot IMM / OS to make	IMM / uEFI to take effect.		
Items			Status		
ibm_fw_dsa_dsytd	2y-9.50_anyos_32-		😵 Failed		

Figure 91. Remote machine - Individual Updates - Bare Metal Updates Firmware results

If you selected the **Update any available firmware (target machine reboot needed)** option, the following message is displayed:

You need reboot IMM / OS to make IMM / uEFI to take effect.

- 6. Optional: If an IMM is installed, click **Restart IMM**. When this operation is complete, the Firmware Updates primary page is displayed.
- 7. Optional: If a uEFI is installed, click **Restart OS**. When this operation is complete, the Firmware Updates primary page is displayed.
- 8. Click Finish to start the system reboot back to the original system.

Using the Individual Updates in a local repository option for a remote machine

You can use the **Individual Updates in a local repository** option to check the firmware of the remote machine and applies the IMM, uEFI, pDSA firmware previously downloaded and located in a local repository.

Before you begin

Start ToolsCenter Suite on the host computer and connect to a remote machine. See "Connecting to a remote machine" on page 87.

About this task

This procedure provides an example of using Individual Updates from a local repository and includes the Bare Metal Update option.

Procedure

- 1. On the Firmware Updates Settings page, in the Select the content for remote server updates section, click one of the following options:
 - Update IBM firmware (including IMM, uEFI, pDSA, no reboot required)
 - Update any available firmware (target machine reboot needed)

Update any available firmware (target machine reboot needed) option is a Bare Metal Update and that requires the target machine is rebooted. It also checks the target machine's firmware levels. If the target machine's IMM or pDSA version does not satisfy the bare metal update requirement, the following warning message is displayed:

The target server's IMM and DSA version don't meet the selected feature requirement, please update the IBM firmware first. IMM: 1A0049W or higher version DSA: DSYTB7U or higher version

2. In the Select the update method section, click **Individual Updates** and then click **Next**.

If you selected the **Update any available firmware (target machine reboot needed)** option, and the target machine's firmware level satisfies the bare metal update requirement, the following message is displayed:

The target system will reboot to enter a bare metal machine update environment, because you have chosen to update any available firmware. Compare the currently installed firmware to the following source:

3. Click **Import individual updates** and on the next line enter the local directory of the individual updates. If you enter an invalid local directory address, the following message is displayed:

Cannot find the given local directory. Make sure the directory path is valid.

Home Updates Configuration System Information Target Machine: 9:115:253.116 (8737A Alerts: Alerts: Image: 0 Image: 0 <t< th=""><th>IBM ToolsCenter Suite</th><th></th><th>Change Target Machine</th><th>🚽 Setti</th><th>ngs About</th><th>IBM.</th></t<>	IBM ToolsCenter Suite		Change Target Machine	🚽 Setti	ngs About	IBM.
I.Firmware Updates Settings 2.Check Firmware Compliance 3.Update Firmware	Home Updates Configu	iration System Information				
 The target system will reboot to enter a bare metal machine update environment, because you have chosen to update any available firmware. Compare the currently installed firmware to the following source: Individual updates from the IBM website Import individual updates 	idividual Update Wi	zard				
Compare the currently installed firmware to the following source: Individual updates from the IBM website Import individual updates	1.Firmware Updates Setti	ngs 2.Check Firmware Compliance	3.Update Firmware			
 Import individual updates 			vironment, because you have chosen to	update an	y available fi	rmware.
	 Individual updates from the second sec	the IBM website				
	Import individual update	s				
C: (updates	C:\Updates					
			<bac< td=""><td>:k</td><td>Next></td><td>Cancel</td></bac<>	:k	Next>	Cancel

Figure 92. Remote machine - Individual Updates - Import individual updates

- 4. Click **Next** to proceed with the Check Firmware Compliance process, or **Cancel** to quit this operation. If **Cancel** is selected, the Confirm to Cancel Updates dialog box opens, asking if you are sure you want to cancel the whole update process? Select one of the follow options:
 - Click **OK** to quit the update wizard.
 - Click **Cancel** to continue the update process.

While the compliance checking operation is working, the Check Firmware Compliance page is locked, **Cancel** is disabled, and the following message is displayed:

Please wait while ToolsCenter Suite checks your firmware levels.

However, if you selected to **Update any available firmware**, the Check Firmware Compliance page is locked, **Cancel** is disabled, and the following message is displayed:

Rebooting the target server to enter a bare metal machine update environment.

If the remote machine's IMM or pDSA version satisfies the bare metal update requirement, ToolsCenter Suite starts to boot to the bare metal environment. However, if the remote machine's IMM or pDSA does not support the bare metal update requirement, ToolsCenter Suite downloads the latest version of IMM or DSA and flashes the remote machine's IMM and/or pDSA.

When the check firmware compliance operation finishes, the number of firmware items available is displayed above the firmware updates table.

- Name: update name
- Severity: Initial Release, Suggested, Critical, or Not Required
- New Version: new version identifier
- Installed Version: current version identifier or Undetected
- Reboot Required: Yes rebooting is necessary for the update or No rebooting is not necessary for the update

- 5. Select one or more firmware components in the left column.
- 6. Click Next to proceed with the update process.

During the update operation, a progress icon and the following message is displayed:

Updating is in progress. x of y items have been updated. Do not close your browser while the update is in progress. Do not take any power actions on target server.

The status for each update is displayed as either: Pending, Updating, Updated, or Failed.

Important: If you selected to install an earlier version of firmware, the following message is displayed:

There are risks associated when downgrading any firmware yourself. Please confirm the versions.

If you want to continue installing the earlier version, click **I'm willing to take** on the risks to downgrade the firmware component below and click Continue Updates.

When the update operation finishes, the table provides the status of the updates indicating whether the update was successful or failed. A timestamp provides the time the update operation finished.

If you selected the **Update any available firmware (target machine reboot needed)** option, the following message is displayed:

Note that system power cycle is required to make the updated firmware take effect.

7. Click Finish to start the system reboot back to the original system.

Using the Configuration function on a remote machine

The **Configuration** function can be used on a remote machine in the same way it is used on a host machine. On the remote machine, you can view and change one or multiple settings on your system and configure individual and frequently used settings, or perform a complete system configuration. You can also change the settings for IBM System x IMM-based and a uEFI-based server. IMM replaces the Remote Supervisor Adapter and the baseboard management controller functions on IMM-based servers. uEFI replaces the basic input/output system (BIOS) and defines a standard interface among the operating system, platform firmware, and external devices.

Procedure

1. On the Home page or from the ToolsCenter Suite menu, click **Configuration**. The Configuration Overview page opens.

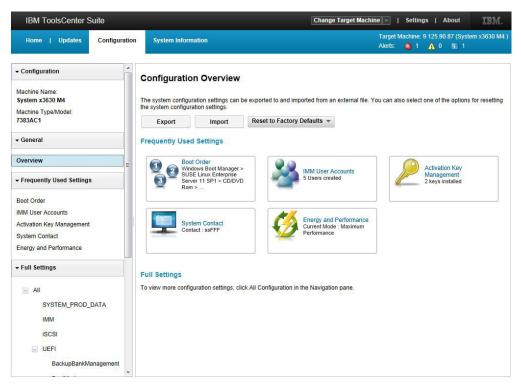


Figure 93. Remote machine - Configuration Overview

2. For detailed information about using the Configuration function, see Chapter 5, "Using the Configuration function," on page 37.

Using the System Information function on a remote machine

The **System Information** function can be used on a remote machine in the same way it is used on a host machine. On the remote machine, you can scan and view real-time status, check active status, light path status, and event logs for your system. You can collect full system information for analysis, service, and support. These files can be sent to IBM Support or to a customized FTP server.

Procedure

1. On the Home page or from the ToolsCenter Suite menu, click **System Information**.

The System Information - Overview page opens.

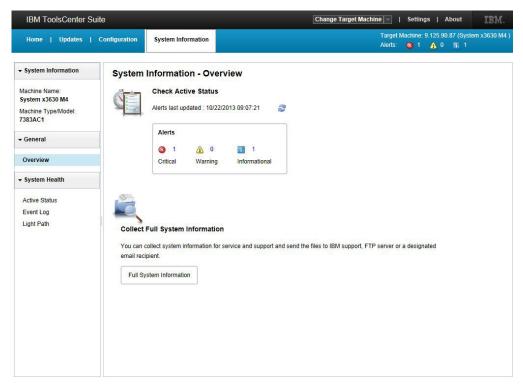


Figure 94. Remote machine - System Information Overview

2. For detailed information about using the System Information function, seeChapter 6, "Using the System Information function," on page 71.

Chapter 8. Troubleshooting and support

Use this section to troubleshoot and resolve problems with ToolsCenter Suite.

Known limitations

The current known limitations for IBM ToolsCenter Suite 9.60 are:

Multi-Node System Support:

ToolsCenter Suite shows only the information of the Primary Node on the Home page and the Information Page. ToolsCenter Suite provides only the Configuration Function for the Primary Node.

FoD Mass Activation: (Root Cause: IMM CIM Class IBM_ActivationKey did not provide the FoD UID of the device on which the key installed.)

Note the following:

- In the 9.60 release, ToolsCenter Suite FoD Mass Activation is unable to support the scenario of more than one identical adapters being installed on a server, while a key is installed only on some of these adapters. In this situation, ToolsCenter will not install the key for any adapters even it does not have this key installed.
- ToolsCenter Suite cannot display FOD UID when exporting keys for Multiple Endpoints in FoD Mass Activation.

OOB connect to Flex System

If you have already created an IPMI account with a username that is the same as the CIM, if it has a different password, ToolsCenter Suite will fail to create the IPMI account with the same credential as the CIM account.

In this case, to continue providing support for that remote Flex Server:

- 1. You need create another CIM account whose username is different from that of the IPMI account, and then input this account in TCS.
- **2**. Either you or TCS (when user is aware of that) can change the IPMI account password to make it same as the CIM account password.

Unzipping the downloaded ToolsCenter Suite package to the ToolsCenter Suite working directory causes the system to crash

Unzipping the downloaded ToolsCenter Suite package to the ToolsCenter Suite working directory causes the system to crash because the ToolsCenter Suite working directory name is too long. Unzip the downloaded ToolsCenter Suite package under the system root directory.

Windows 64-bit operating systems

For all Windows 64-bit operating systems, you will get RAW data and be missing the logic device table information on Windows OS.

Full Settings option

In the Full Settings option, when changing the value of

Power.PowerPerformenceBias, there is no error message reported even though the setting change is not successful.

In Firefox, for Boot Order in Configuration

In Firefox, for Boot Order in Configuration, select the blank row of the list builder widget. The last row of the list builder widget will be selected and highlighted.

Workarounds

The following workarounds are applicable to IBM ToolsCenter Suite 9.60:

Custom mode is not currently supported for Energy and Performance of Frequently Used Settings of Configuration.

Workaround:

Use Full Settings to change these values.

When using IE on some Windows operating systems, the progress icon may not rotate

Workarounds:

For Windows 2008, under Windows Server Manager > Configure IE ESC, turn off the Internet Explore Enhanced Security Configuration for the current user.

When using IE on some Windows operating systems, there is no activation key install progress page when install activation key from Local file. Workarounds:

- For Windows 2012, under **Server Manager** > **Local Server**, turn off the IE Enhanced Security Configuration.
- For Windows 2008, under Windows Server Manager > Configure IE ESC, turn off the Internet Explore Enhanced Security Configuration for the current user.

Warnings

The following warnings are applicable to IBM ToolsCenter Suite 9.60:

- FoD functions, including FoD configuration and FoD mass activation, only work on IMMv2.
- OOB and BMU updates only work on an IMMv2 system.
- For Red Hat and SUSE Linux, to run ToolsCenter Suite you need to run the "/usr/sbin/setenforce 0" command to close SELINUX.
- To run ToolsCenter Suite in a Linux environment, change the execution privilege of run.sh.
- In Internet Explorer v10 (IE10), the password entry field now has an Eye icon. The Eye icon allows you to read the password info. This is a new function of IE 10.
- We do not recommend that you use browser actions such as back, forward, refresh in a browser window. IBM ToolsCenter Suite does not fully support back, forward, and refresh. Under some circumstances, using these browser functions can cause unexpected results.
- System Information and Updates use the proxy configured in the Setting menu item and not the proxy configured in the browser configuration.
- **SYSTEM_PROD_DATA.SysInfoProdName** in the Full Settings option of the Configuration function is not editable, to ensure the server behaves correctly.

Getting help and technical assistance

Use this information to locate technical assistance for your IBM System x, BladeCenter, and IntelliStation tools.

About this task

If you need help, service, or technical assistance or just want more information about IBM products, you will find a wide variety of sources available from IBM to assist you. This section contains information about where to go for additional information about IBM and IBM products, what to do if you experience a problem with your system, and whom to call for service, if it is necessary.

Before you call

Review and use this information before you call Service and Support to report a problem.

About this task

Before you call for assistance, complete these steps to try and resolve the problem yourself:

- Ensure that you have the latest version of the tool installed.
- Check all cables to make sure that they are connected.
- Check the power switches to make sure that the system and any optional devices are turned on.
- Use the troubleshooting information in your system documentation, and use the diagnostic tools that come with your system.
- Go to the IBM support website at www-947.ibm.com/support/entry/portal/ overview to check for technical information, hints, tips, and new device drivers.
- Use an IBM discussion forum on the IBM website to ask questions.

You can solve many problems without assistance by following the troubleshooting procedures that IBM provides in the online help or in the documentation that is provided with your IBM product. The documentation that comes with IBM systems also describes the diagnostic tests that you can perform. Most systems, operating systems, and programs come with documentation that contains troubleshooting procedures and explanations of error messages and error codes. If you suspect a software problem, see the documentation for the operating system or program.

Using the documentation

Information about your IBM system, preinstalled software, or an optional device is available in the documentation that comes with the product. Product documentation can include: information centers, online documents, printed documents, readme files, and help files.

About this task

The troubleshooting information in your system documentation has instructions for using the diagnostic programs. The troubleshooting information or the diagnostic programs might indicate that you need additional or updated device drivers or other software.

The IBM support website has the latest technical information, device drivers, and updates: www-947.ibm.com/support/entry/portal/overview.

The IBM Publications Center website has additional documentation: www.ibm.com/shop/publications/order/

Getting help from the World Wide Web

You can get the latest information about IBM systems, optional devices, services, and support from this list of IBM website links.

- IBM System x information: www.ibm.com/systems/x/.
- IBM BladeCenter information: www.ibm.com/systems/bladecenter/.
- IBM IntelliStation[®] information: www.ibm.com/intellistation/.
- IBM Flex System information: http://www.ibm.com/systems/pureflex/flexconverged-infrastructure.html

Software service and support

You can get assistance for your IBM System x and BladeCenter tools by contacting IBM service and support.

- IBM Support Line provides fee-based telephone assistance with usage, configuration, and software problems for System x servers, BladeCenter products, IntelliStation workstations, and other components. For information about which products are supported by Support Line in your country or region, see www.ibm.com/services/sl/products/.
- In the U.S. and Canada, call 1-800-IBM-SERV (1-800-426-7378).
- For a directory of worldwide IBM support telephone numbers, see: www.ibm.com/planetwide/.
- For IBM IT services, see www.ibm.com/services/.

Hardware service and support

You can get assistance with ordering new equipment or requesting IBM service support. Hardware service and support is available from IBM Services or from your IBM reseller, if your reseller is an authorized IBM warranty service provider.

- In the U.S. and Canada, hardware service and support is available 24 hours a day, 7 days a week. For the U.S. and Canada, call 1-800-IBM-SERV (1-800-426-7378).
- In the U.K., these services are available Monday through Friday, from 9 a.m. to 6 p.m. For a directory of worldwide IBM support telephone numbers, see: www.ibm.com/planetwide/.

Appendix. Accessibility features for IBM ToolsCenter SuiteToolsCenter Suite

Accessibility features help users who have a disability, such as restricted mobility or limited vision, to use information technology products successfully.

Accessibility features

The following list includes the major accessibility features in ToolsCenter Suite:

- Can be operated using only the keyboard
- Communicates all information independent of color
- Supports the attachment of alternate output devices
- Provides online documentation in an accessible format

The ToolsCenter Suite topic collection in the IBM ToolsCenter for System x and BladeCenter information center, and its related publications, are accessibility-enabled and support Next Generation Platform.

Keyboard navigation

This product uses standard Microsoft Windows navigation keys.

IBM and accessibility

See the IBM Human Ability and Accessibility Center website at www.ibm.com/able for more information about the commitment that IBM has to accessibility.

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Readers' Comments — We'd Like to Hear from You

IBM System x IBM ToolsCenter Suite User's Guide Version 9.60

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