Lenovo Server Operating System Interoperability Guide

Last Update: 24 June 2016

Provides key operating system compatibility information

Covers System x, ThinkServer, NeXtScale, iDataPlex, Flex System, and BladeCenter servers

Includes useful links to operating system resources

Companion to Lenovo ServerProven

David Watts

Last update on 24 June 2016

Contents

Preface

This document is comprehensive source of information about operating system compatibility with Lenovo servers. The document includes servers in the System x, ThinkServer, Flex System and BladeCenter product families and covers servers that are currently supported by Lenovo under warranty.

An easy-to-remember link you can use to share this guide: `http://lenovopress.com/osig`

Server families covered in this document are:

► System x M5, M4 and M3 servers
► System x X6 and X5 servers
► ThinkServer Generation 5, 4 and 3 servers
► NeXtScale System M5 and M4 servers
► iDataPlex M4 servers
► Flex System compute nodes
► BladeCenter servers back to HS22 and HS12

The following operating systems are included:

► Microsoft Windows
► Red Hat Enterprise Linux
► SUSE Linux Enterprise Server
► VMware ESXi (vSphere)
► Oracle Linux
► Oracle Solaris
► Citrix XenServer
► Canonical Ubuntu
► Toshiba 4690 OS

About the author

David Watts is a Senior IT Consultant and the program lead for Lenovo Press. He manages residencies and produces pre-sale and post-sale technical publications for hardware and software topics that are related to System x®, ThinkServer®, Flex System™, and BladeCenter® servers. He has authored over 300 books and papers. David has worked in the IT industry, both in the U.S. and Australia, since 1989, and is currently based in Morrisville, North Carolina. David holds a Bachelor of Engineering degree from the University of Queensland (Australia).

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Summary of recent changes

This section describes the recent changes made in this update of the OSIG and in previous updates. These updates might also include minor corrections and editorial changes that are not identified.

24 June 2016

► Added Red Hat Enterprise Linux 6.8 as Supported & Certified to all servers that are already Supported & Certified with RHEL 6.7.

14 June 2016

New information:

► Added Citrix XenServer 7.0 certification statements to all XenServer tables
► Added VMware ESXi 6.0 U2 support statements to various systems (some previously only Certified)

Support of VMware ESXi 6.0 U1 removed from the following systems (these systems are still certified by VMware):

► System x3850 X6 (3837)
► System x3950 X6 (3837)
► System x3750 M4 (8752/8718)
► System x3850 X5 and x3950 X5 (7143)
► Flex System x220 (7906)
► Flex System x222 (7916)
► Flex System x240 (8737 with E5-2600)
► Flex System x240 (8737 with E5-2600 v2)
► Flex System x440 (7917)
► Flex System x880 X6 / x480 X6 / x280 X6 (7903)

7 June 2016

New information

► Added the Lenovo System x3850 X6 and x3950 X6 with Intel Xeon E7 v4 processors, 1.2, "System x X6 systems" on page 8
► Added the Lenovo ThinkServer sd350, 3.1, "Dense systems" on page 62

10 May 2016

New information:

► Added the Lenovo System x3250 M6, 1.1, "System x M5 and M6 systems" on page 2

- ► Added a table listing Canonical Ubuntu support for dense systems, Table 3-6 on page 66
- ► VMware ESXi 6.0 U1 is supported on the x3650 M5 (8871) and x3550 M5 (8869), Table 1-4 on page 5
- ► Citrix XenServer is Certified on E5 v4 systems when the equivalent E5 v3 system is Certified:
  - – Table 1-6 on page 7 for System x
  - – Table 2-5 on page 41 for ThinkServer
  - – Table 4-6 on page 72 for Flex System
- ► Oracle Solaris 11 is Certified on the x3850 X6 / x3950 X6 (E7 v3), Table 1-14 on page 12

Changed information:

- ► For all Ubuntu tables:
  - – Merged v12.04.1 and v12.04.4 into v12.04
  - – Merged v14.04.1 into v14.04
- ► SLES 12 and 12.1 on HS23 are Certified but not Supported, Table 5-3 on page 84
- ► Windows Server 2012 and 2012 R2 are Supported & Certified with the x3250 M6, TS150 and TS450, except for Datacenter Edition, Table 1-1 on page 2 and Table 2-9 on page 43.

7 April 2016

- ► Windows Server 2008 R2 is not supported with the x3650 M5 (v4 processors) and x3550 M5 (v4 processors), Table 1-1 on page 2.
- ► VMware ESXi 6.0 on HS23 7875 with v2 is certified but not supported, Table 5-4 on page 85
- ► SLES 12 on HX5 7873 is certified but not supported, Table 5-10 on page 93

4 April 2016

- ► Clarified in the footnotes that non-support of software RAID in ThinkServer systems means no support for RAID 110i, RAID 100, or RAID 300.
- ► Oracle Solaris 11 is now Certified on the System x3550 M5 and x3650 M5 with v3 processors, Table 1-5 on page 6.

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System x servers

This chapter lists operating system compatibility for System x servers.

The System x servers are split out as follows:

In these tables, "S+C" and "Supp+Cert" mean Supported and Certified.

Definitions are as follows:

- ► Supported

  Lenovo provides hardware / OS interoperability support on Lenovo servers. Lenovo validates selected products for compatibility with Lenovo servers and works with third-party vendors to test their equipment with ours.

- ► Certified

  Server has met the OS Partner Certified/Logo program requirements. OS vendor provides OS support. Lenovo only provides hardware level support, and works with the hardware partner and OS vendors to close any compatibility issues customers may experience with their installation. Lenovo will work with the OS provider to submit hardware compatibility (HCL) test suite results so that the supported solution can be posted to the respective OS providers HCL site.

- ► Tested

  Either the OS or hypervisor was successfully installed on the server. Lenovo acknowledges the community based OSs, and Lenovo will provide hardware level support only, and will not make any statement regarding the support of the OS, including interactions with Lenovo tools or device drivers, or special software provided by Lenovo.

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1.1 System x M5 and M6 systems

This section lists the operating system compatibility for System x M5 and M6 servers.

- ► 1.1.1, "Windows support"
- ► 1.1.2, "RHEL support"
- ► 1.1.3, "SLES support" on page 4
- ► 1.1.4, "VMware support" on page 5
- ► 1.1.5, "Oracle support" on page 6
- ► 1.1.6, "Citrix XenServer support" on page 7
- ► 1.1.7, "Canonical Ubuntu support" on page 7
- ► 1.1.8, "Linux Distribution support" on page 8
- ► 1.1.9, "Toshiba 4690 support" on page 8

In the tables, "S+C" means Supported and Certified.

1.1.1 Windows support

Table 1-1 lists the Windows compatibility for System x M5 and M6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-1   M5 and M6 systems - Windows

Model	x3650 M5 8871 (v4)	x3650 M5 5462 (v3)	x3550 M5 8869 (v4)	x3550 M5 5463 (v3)	x3500 M5 5464	x3250 M6 3633 / 3943	x3250 M5 5458	x3100 M5 5457
Microsoft Windows Server 2008 R2								
Windows Server 2008 R2	No	No	No	No	No	No	No	No
Windows Server 2008 R2 SP1	No	S+C	No	S+C	S+C	No	S+C	S+C
Microsoft Windows Server 2012 and 2012 R2								
Windows Server 2012	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C	S+C
Windows Server 2012 R2	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C	S+C

a. Excludes Windows Server 2012 / 2012 R2 Datacenter Edition

1.1.2 RHEL support

Table 1-2 lists the Red Hat Enterprise Linux compatibility for System x M5 and M6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-2   M5 and M6 systems - Red Hat Enterprise Linux

Model	x3650 M5 8871 (v4)	x3650 M5 5462 (v3)	x3550 M5 8869 (v4)	x3550 M5 5463 (v3)	x3500 M5 5464	x3250 M6 3633 / 3943	x3250 M5 5458	x3100 M5 5457
Red Hat Enterprise Linux 5								
RHEL 5.8 32-bit	No	No	No	No	No	No	No	No
RHEL 5.8 Xen 32-bit	No	No	No	No	No	No	No	No
RHEL 5.8 x64	No	No	No	No	No	No	No	No
RHEL 5.8 Xen x64	No	No	No	No	No	No	No	No
RHEL 5.9 32-bit	No	No	No	No	No	No	S+C	No
RHEL 5.9 Xen 32-bit	No	No	No	No	No	No	No	No
RHEL 5.9 x64	No	No	No	No	No	No	S+C	No
RHEL 5.9 Xen x64	No	No	No	No	No	No	No	No
RHEL 5.10 32-bit	No	No	No	No	No	No	S+C	S+C
RHEL 5.10 Xen 32-bit	No	No	No	No	No	No	No	No
RHEL 5.10 x64	No	No	No	No	No	No	S+C	S+C
RHEL 5.10 Xen x64	No	No	No	No	No	No	S+C	S+C
Red Hat Enterprise Linux 6								
RHEL 6.0	No	No	No	No	No	No	No	No
RHEL 6.1	No	No	No	No	No	No	No	No
RHEL 6.2	No	No	No	No	No	No	No	No
RHEL 6.3	No	No	No	No	No	No	No	No
RHEL 6.4	No	No	No	No	No	No	No	No
RHEL 6.5 32-bit	No	No	No	No	No	No	S+C	S+C
RHEL 6.5 x64	No	S+C	No	S+C	S+C	No	S+C	S+C
RHEL 6.6 32-bit	No	No	No	No	No	No	S+C	S+C
RHEL 6.6 x64	No	S+C	No	S+C	S+C	No	S+C	S+C
RHEL 6.7 32-bit	No	No	No	No	No	No	S+C	S+C
RHEL 6.7 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.8 32-bit	No	No	No	No	No	No	S+C	S+C
RHEL 6.8 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Red Hat Enterprise Linux 7								
RHEL 7	No	S+C	No	S+C	S+C	No	S+C	S+C
RHEL 7.1	No	S+C	No	S+C	S+C	No	S+C	S+C
RHEL 7.2	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C

1.1.3 SLES support

Table 1-3 lists the SUSE Linux Enterprise Server compatibility for System x M5 and M6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-3   M5 and M6 systems - SUSE Linux Enterprise Server

Model	x3650 M5 8871 (v4)	x3650 M5 5462 (v3)	x3550 M5 8869 (v4)	x3550 M5 5463 (v3)	x3500 M5 5464	x3250 M6 3633 / 3943	x3250 M5 5458	x3100 M5 5457
SUSE Linux Enterprise Server 11								
SLES 11 x86	No	No	No	No	No	No	No	No
SLES 11 x64	No	No	No	No	No	No	No	No
SLES 11 Xen x64	No	No	No	No	No	No	No	No
SLES 11 x86 SP1	No	No	No	No	No	No	No	No
SLES 11 x64 SP1	No	No	No	No	No	No	No	No
SLES 11 Xen x64 SP1	No	No	No	No	No	No	No	No
SLES 11 x86 SP2	No	No	No	No	No	No	S+C	No
SLES 11 x64 SP2	No	No	No	No	No	No	S+C	No
SLES 11 Xen x64 SP2	No	No	No	No	No	No	No	No
SLES 11 x86 SP3	No	No	No	No	No	No	S+C	S+C
SLES 11 x64 SP3	No	S+C	No	S+C	S+C	No	S+C	S+C
SLES 11 Xen x64 SP3	No	S+C	No	S+C	S+C	No	S+C	No
SLES 11 x86 SP4	No	No	No	No	No	No	S+C	S+C
SLES 11 x64 SP4	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 11 Xen x64 SP4	S+C	S+C	S+C	S+C	S+C	No	S+C	No
SUSE Linux Enterprise Server 12								
SLES 12	No	S+C	No	S+C	S+C	No	S+C	S+C
SLES 12 with Xen	No	S+C	No	S+C	S+C	No	S+C	S+C
SLES 12 SP1	No	S+C	No	S+C	S+C	S+C	S+C	S+C
SLES 12 with Xen SP1	S+C	S+C	S+C	S+C	S+C	No	S+C	S+C

1.1.4 VMware support

Table 1-4 lists the VMware ESXi compatibility for System x M5 and M6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-4   M5 and M6 systems - VMware

Model	x3650 M5 8871 (v4)	x3650 M5 5462 (v3)	x3550 M5 8869 (v4)	x3550 M5 5463 (v3)	x3500 M5 5464	x3250 M6 3633 / 3943	x3250 M5 5458	x3100 M5 5457
VMware ESXi 5.1								
VMware ESXi 5.1	No	No	No	No	No	No	No	No
VMware ESXi 5.1 U1	No	No	No	S+C[a]	S+C[a]	No	S+C[ab]	No
VMware ESXi 5.1 U2	No	S+C[a]	No	S+C[a]	S+C[a]	No	S+C[ab]	S+C[a]
VMware ESXi 5.1 U3	S+C[a]	S+C[a]	No	S+C[a]	S+C[a]	No	S+C[ab]	S+C[a]
VMware ESXi 5.5								
VMware ESXi 5.5	No	No	No	No	No	No	S+C[ac]	S+C[a]
VMware ESXi 5.5 U1	No	No	No	No	No	No	S+C[ac]	S+C[a]
VMware ESXi 5.5 U2	No	S+C[ac]	No	S+C[ac]	S+C[a]	No	S+C[ac]	S+C[a]
VMware ESXi 5.5 U3	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[a]	S+C[a]	S+C[ac]	S+C[a]
VMware ESXi 6.0								
VMware ESXi 6.0	No	S+C[ac]	No	S+C[ac]	S+C[ac]	No	S+C[ac]	S+C[ac]
VMware ESXi 6.0 U1	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]
VMware ESXi 6.0 U2	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	Cert[ac]	S+C[ac]	S+C[ac]

a. VMware vSphere does not support 512e and 4K Native drives. See `http://kb.vmware.com/kb/2091600`
b. Models with that use embeded RAID (ServeRAID™ C100/C105) are not supported
c. Please use the parameter settings in RETAIN TIP H213638,
   `http://ibm.com/support/entry/portal/docdisplay?lndocid=MIGR-5096729`

1.1.5 Oracle support

Table 1-5 lists the Oracle compatibility for System x M5 and M6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-5   M5 and M6 systems - Oracle

Model	x3650 M5 8871 (v4)	x3650 M5 5462 (v3)	x3550 M5 8869 (v4)	x3550 M5 5463 (v3)	x3500 M5 5464	x3250 M6 3633 / 3943	x3250 M5 5458	x3100 M5 5457
Oracle Linux								
Oracle Linux 6.1	No	No	No	No	No	No	No	No
Oracle Linux 6.2	No	No	No	No	No	No	No	No
Oracle Linux 6.3	No	No	No	No	No	No	No	No
Oracle Linux 6.4	No	No	No	No	No	No	No	No
Oracle Linux 6.5	No	No	No	No	No	No	No	No
Oracle Linux 6.6	No	No	No	No	No	No	No	No
Oracle Linux 6.7	No	No	No	No	No	No	No	No
Oracle Linux 7.0	No	No	No	No	No	No	No	No
Oracle Linux 7.1	No	Cert	No	Cert	No	No	No	No
Oracle VM								
Oracle VM 3.2	No	No	No	No	No	No	No	No
Oracle VM 3.3	No	Cert	No	Cert	No	No	No	No
Oracle Solaris								
Solaris 10	No	No	No	No	No	No	No	No
Solaris 11	No	Cert	No	Cert	No	No	No	No

1.1.6 Citrix XenServer support

Table 1-9 lists the Citrix XenServer operating system support for System x M5 and M6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-6   M5 and M6 systems - Citrix XenServer

Model	x3650 M5 8871 (v4)	x3650 M5 5462 (v3)	x3550 M5 8869 (v4)	x3550 M5 5463 (v3)	x3500 M5 5464	x3250 M6 3633 / 3943	x3250 M5 5458	x3100 M5 5457
Citrix XenServer 6.0.2	No	No	No	No	No	No	No	No
Citrix XenServer 6.1	No	No	No	No	No	No	No	No
Citrix XenServer 6.2	Cert	Cert	No	No	No	No	No	No
Citrix XenServer 6.5	Cert	Cert	Cert	Cert	No	No	No	No
Citrix XenServer 7.0	Cert	Cert	Cert	Cert	No	No	No	No

1.1.7 Canonical Ubuntu support

Table 1-7 lists the Canonical Ubuntu support for System x M5 and M6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-7   M5 and M6 systems - Ubuntu

Model	x3650 M5 8871 (v4)	x3650 M5 5462 (v3)	x3550 M5 8869 (v4)	x3550 M5 5463 (v3)	x3500 M5 5464	x3250 M6 3633 / 3943	x3250 M5 5458	x3100 M5 5457
Ubuntu 12.04 LTS 64-bit	No	No	No	No	No	No	No	Cert
Ubuntu 14.04 LTS 64-bit	No	Cert	No	Cert	No	Cert	No	Cert

1.1.8 Linux Distribution support

Table 1-8 lists the Linux Distribution compatibility for System x M5 and M6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-8   M5 and M6 systems - Linux Distributions

	x3650 M5 8871 (v4)	x3650 M5 5462 (v3)	x3550 M5 8869 (v4)	x3550 M5 5463 (v3)	x3500 M5 5464	x3250 M6 3633 / 3943	x3250 M5 5458	x3100 M5 5457
Fedora 20 (32-bit and 64-bit)	No	No	No	No	No	No	No	No
Fedora 22 (32-bit and 64-bit)	No	No	No	No	No	Tested	No	No
Debian 7.4 (32-bit and 64-bit)	No	No	No	No	No	No	No	No
Debian 7.8 (32-bit and 64-bit)	No	No	No	No	No	Tested	No	No
FreeBSD 10.0 (32-bit and 64-bit)	No	No	No	No	No	No	No	No
FreeBSD 10.2 (32-bit and 64-bit)	No	No	No	No	No	No	No	No
CentOS 7.1 (32-bit and 64-bit)	No	No	No	No	No	Tested	No	No
Neokylin 6.0	No	No	No	No	No	No	No	No

1.1.9 Toshiba 4690 support

Table 1-9 lists the Toshiba 4690 operating system support for System x M5 and M6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-9   M5 and M6 systems - Toshiba 4690

Model	x3650 M5 8871 (v4)	x3650 M5 5462 (v3)	x3550 M5 8869 (v4)	x3550 M5 5463 (v3)	x3500 M5 5464	x3250 M6 3633 / 3943	x3250 M5 5458	x3100 M5 5457
Toshiba / IBM								
IBM 4690 OS V6	No	No	No	No	No	No	No	Supp
Toshiba 4690 OS V6	No	No	No	No	No	No	Supp	Supp

1.2 System x X6 systems

This section lists the operating system compatibility for System x X6 servers.

- ► 1.2.1, "Windows support"
- ► 1.2.2, "RHEL support" on page 9
- ► 1.2.3, "SLES support" on page 10

In the tables, Supp+Cert means Supported and Certified.

1.2.1 Windows support

Table 1-10 lists the Windows compatibility for System x X6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-10   X6 systems - Windows support

Model	x3850 X6/ x3950 X6 (6241, E7 v4)	x3850 X6/ x3950 X6 (6241, E7 v3)	x3850 X6/ x3950 X6 (6241, E7 v2)	x3850 X6/ x3950 X6 (3837, E7 v2)
Microsoft Windows 2008 R2				
Windows Server 2008 R2	No	No	No	No
Windows Server 2008 R2 SP1	No	Supp+Cert	Supp+Cert	Supp+Cert
Microsoft Windows 2012 and 2012 R2				
Windows Server 2012	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
Windows Server 2012 R2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

1.2.2 RHEL support

Table 1-11 lists the Red Hat Enterprise Linux compatibility for System x X6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-11   X6 systems - Red Hat Enterprise Linux support

Model	x3850 X6/ x3950 X6 (6241, E7 v4)	x3850 X6/ x3950 X6 (6241, E7 v3)	x3850 X6/ x3950 X6 (6241, E7 v2)	x3850 X6/ x3950 X6 (3837, E7 v2)
Red Hat Enterprise Linux 6				
RHEL 6.0	No	No	No	No
RHEL 6.1	No	No	No	No
RHEL 6.2	No	No	No	No
RHEL 6.3	No	No	No	No
RHEL 6.4	No	No	No	No
RHEL 6.5 32-bit	No	No	No	No
RHEL 6.5 x64	No	No	Supp+Cert	Supp+Cert
RHEL 6.6 32-bit	No	No	No	No

Model	x3850 X6/ x3950 X6 (6241, E7 v4)	x3850 X6/ x3950 X6 (6241, E7 v3)	x3850 X6/ x3950 X6 (6241, E7 v2)	x3850 X6/ x3950 X6 (3837, E7 v2)
RHEL 6.6 x64	No	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.7 32-bit	No	No	No	No
RHEL 6.7 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.8 32-bit	No	No	No	No
RHEL 6.8 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
Red Hat Enterprise Linux 7				
RHEL 7	No	No	Supp+Cert	Supp+Cert[a]
RHEL 7.1	No	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 7.2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

a. Currently supported with in-box drivers only. IMM remote console viewer not supported

1.2.3 SLES support

Table 1-12 lists the SUSE Linux Enterprise Server compatibility for System x X6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-12   X6 systems - SUSE Linux Enterprise Server support

Model	x3850 X6/ x3950 X6 (6241, E7 v4)	x3850 X6/ x3950 X6 (6241, E7 v3)	x3850 X6/ x3950 X6 (6241, E7 v2)	x3850 X6/ x3950 X6 (3837, E7 v2)
SUSE Linux Enterprise Server 11				
SLES 11 x86	No	No	No	No
SLES 11 x64	No	No	No	No
SLES 11 Xen x64	No	No	No	No
SLES 11 x86 SP1	No	No	No	No
SLES 11 x64 SP1	No	No	No	No
SLES 11 Xen x64 SP1	No	No	No	No
SLES 11 x86 SP2	No	No	No	No
SLES 11 x64 SP2	No	No	No	No
SLES 11 Xen x64 SP2	No	No	No	No
SLES 11 x86 SP3	No	No	No	No
SLES 11 x64 SP3	No	Supp+Cert	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP3	No	Supp+Cert	Supp+Cert	Supp+Cert[a]
SLES 11 x86 SP4	No	No	No	No

Model	x3850 X6/ x3950 X6 (6241, E7 v4)	x3850 X6/ x3950 X6 (6241, E7 v3)	x3850 X6/ x3950 X6 (6241, E7 v2)	x3850 X6/ x3950 X6 (3837, E7 v2)
SLES 11 x64 SP4	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP4	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert[a]
SUSE Linux Enterprise Server 12				
SLES 12	No	Supp+Cert	Supp+Cert	Supp+Cert
SLES 12 with Xen	No	Supp+Cert	Supp+Cert	Supp+Cert
SLES 12 SP1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 12 with XEN SP1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

a. Currently supported with in-box drivers only. IMM remote console viewer not supported

1.2.4 VMware support

Table 1-13 lists the VMware ESXi compatibility for System x X6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

No custom image support for 3837: x3850 X6 and x3950 X6, machine type 3837, do not support any of the Lenovo custom images for VMware ESXi that are currently available on the VMware web site.

Table 1-13   X6 systems - VMware ESXi support

Model	x3850 X6/ x3950 X6 (6241, E7 v4)	x3850 X6/ x3950 X6 (6241, E7 v3)	x3850 X6/ x3950 X6 (6241, E7 v2)	x3850 X6/ x3950 X6 (3837, E7 v2)
VMware ESXi 5.1				
VMware ESXi 5.1	No	No	No	No
VMware ESXi 5.1 U1	No	No	No	Supp+Cert[a]
VMware ESXi 5.1 U2	No	No	Supp+Cert[a]	Supp+Cert[a]
VMware ESXi 5.1 U3	No	No	Supp+Cert[a]	Supp+Cert[a]
VMware ESXi 5.1				
VMware ESXi 5.5	No	No	Supp+Cert[a]	Supp+Cert[ab]
VMware ESXi 5.5 U1	No	No	Supp+Cert[a]	Supp+Cert[ab]
VMware ESXi 5.5 U2	No	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[ab]
VMware ESXi 5.5 U3	No	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[ab]
VMware ESXi 6				
VMware ESXi 6.0	No	Supp+Cert[ab]	Supp+Cert[ab]	Supp+Cert[ab]
VMware ESXi 6.0 U1	No	Supp+Cert[ab]	Supp+Cert[ab]	Cert[ab]

Model	x3850 X6/ x3950 X6 (6241, E7 v4)	x3850 X6/ x3950 X6 (6241, E7 v3)	x3850 X6/ x3950 X6 (6241, E7 v2)	x3850 X6/ x3950 X6 (3837, E7 v2)
VMware ESXi 6.0 U2	Supp+Cert[ab]	Supp+Cert[ab]	Supp+Cert[ab]	Cert[ab]

a. VMware vSphere does not support 512e and 4K Native drives. See `http://kb.vmware.com/kb/2091600`
b. Please use the parameter settings in RETAIN TIP H213638, `http://ibm.com/support/entry/portal/docdisplay?lndocid=MIGR-5096729`

1.2.5 Oracle support

Table 1-14 lists the Oracle compatibility for System x X6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-14   X6 systems - Oracle Linux support

Model	x3850 X6/ x3950 X6 (6241, E7 v4)	x3850 X6/ x3950 X6 (6241, E7 v3)	x3850 X6/ x3950 X6 (6241, E7 v2)	x3850 X6/ x3950 X6 (3837, E7 v2)
Oracle Linux				
Oracle Linux 6.1	No	No	No	No
Oracle Linux 6.2	No	No	No	No
Oracle Linux 6.3	No	No	No	No
Oracle Linux 6.4	No	No	No	No
Oracle Linux 6.5	No	Certified	Certified	Certified
Oracle Linux 6.6	No	Certified	Certified	Certified
Oracle Linux 6.7	No	Certified	Certified	Certified
Oracle Linux 7.0	No	No	No	No
Oracle Linux 7.1	Certified	Certified	Certified	Certified
Oracle VM				
Oracle VM 3.2	No	No	No	No
Oracle VM 3.3	Certified	Certified	Certified	Certified
Oracle Solaris				
Solaris 10	No	No	No	No
Solaris 11	No	Certified	No	No

1.2.6 Citrix XenServer support

Table 1-15 lists the Citrix XenServer compatibility for System x X6 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-15   X6 systems - Citrix XenServer support

Model	x3850 X6/ x3950 X6 (6241, E7 v4)	x3850 X6/ x3950 X6 (6241, E7 v3)	x3850 X6/ x3950 X6 (6241, E7 v2)	x3850 X6/ x3950 X6 (3837, E7 v2)
Citrix XenServer 6.0.2	No	No	No	No
Citrix XenServer 6.1	No	No	No	No
Citrix XenServer 6.2	No	No	No	No
Citrix XenServer 6.5	Certified	Certified	Certified	Certified
Citrix XenServer 7.0	Certified	Certified	Certified	Certified

1.3 System x M4 systems with v2 processors

This section lists the operating system compatibility for M4 systems with E5 v2 processors.

Single-socket servers: For the The x3250 M4 (2583) and x3100 M4 (2582) with E3 v2 processors, see 1.4, "System x M4 systems with v1 processors" on page 20.

In the tables, S+C means Supported and Certified.

1.3.1 Windows support

Table 1-16 lists the Windows compatibility for M4 systems with v2 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-16   M4 systems with v2 processors - Windows support

Model	x3750 M4 8753	x3750 M4 8752/8718	x3650 M4 BD 5466	x3650 M4 7915 E5-v2	x3650 M4 HD 5460	x3630 M4 7158 E5-v2	x3550 M4 7914 E5-v2	x3530 M4 7160 E5-v2	x3500 M4 7383 E5-v2
Microsoft Windows Server 2008									
Windows HPC Server 2008	No	No	No	No	No	No	No	No	No
Windows Server 2008 Foundation	No	No	No	No	No	No	No	No	No
Windows Server 2008 DC x64 (SP2)	No	No	No	S+C	S+C	S+C	S+C	S+C	No
Windows Server 2008 DC x86 (SP2)	No	No	No	S+C	S+C	S+C	S+C	S+C	No
Windows Server 2008 Ent. x64 (SP2)	No	No	No	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2008 Ent. x86 (SP2)	No	No	No	S+C	S+C	No	S+C	S+C	S+C
Windows Server 2008 Std. x64 (SP2)	No	No	No	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2008 Std. x86 (SP2)	No	No	No	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2008 Web x64 (SP2)	No	No	No	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2008 Web x86 (SP2)	No	No	No	S+C	S+C	S+C	S+C	S+C	S+C
Windows SBS 2008 Premium Edition	No	No	No	No	No	No	No	No	No
Windows SBS 2008 Standard Edition	No	No	No	No	No	No	No	No	No
Microsoft Windows Server 2008 R2									
Windows Server 2008 R2	No	No	No	No	No	No	No	No	No
Windows Server 2008 R2 SP1	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Microsoft Windows Server 2012 and 2012 R2									
Windows Server 2012	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2012 R2	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C

1.3.2 RHEL support

Table 1-17 lists the Red Hat Enterprise Linux compatibility for M4 systems with v2 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-17   M4 systems with v2 processors - Red Hat Enterprise Linux support

Model	x3750 M4 8753	x3750 M4 8752/8718	x3650 M4 BD 5466	x3650 M4 7915 E5-v2	x3650 M4 HD 5460	x3630 M4 7158 E5-v2	x3550 M4 7914 E5-v2	x3530 M4 7160 E5-v2	x3500 M4 7383 E5-v2
Red Hat Enterprise Linux 5									
RHEL 5.8 32-bit	No	No	No	No	No	No	No	No	No
RHEL 5.8 Xen 32-bit	No	No	No	No	No	No	No	No	No
RHEL 5.8 x64	No	No	No	No	No	No	No	No	No
RHEL 5.8 Xen x64	No	No	No	No	No	No	No	No	No
RHEL 5.9 32-bit	No	No	No	No	No	No	No	No	S+C
RHEL 5.9 Xen 32-bit	No	No	No	No	No	No	No	No	No
RHEL 5.9 x64	No	No	No	S+C	No	No	S+C	No	S+C
RHEL 5.9 Xen x64	No	No	No	S+C	No	No	S+C	No	No
RHEL 5.10 32-bit	No	No	S+C	No	No	S+C	No	S+C	S+C
RHEL 5.10 Xen 32-bit	No	No	No	No	No	No	No	No	No
RHEL 5.10 x64	No	No	S+C	S+C	No	S+C	S+C	No	S+C
RHEL 5.10 Xen x64	No	No	S+C	S+C	No	S+C	S+C	No	No
Red Hat Enterprise Linux 6									
RHEL 6.0	No	No	No	No	No	No	No	No	No
RHEL 6.1	No	No	No	No	No	No	No	No	No
RHEL 6.2	No	No	No	No	No	No	No	No	No
RHEL 6.3	No	No	No	No	No	No	No	No	No
RHEL 6.4 32-bit	No	No	S+C	S+C	S+C	No	S+C	No	S+C
RHEL 6.4 x64	No	No	S+C	S+C	S+C	No	S+C	No	S+C
RHEL 6.5 32-bit	No	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.5 x64	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.6 32-bit	No	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.6 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.7 32-bit	No	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C

Model	x3750 M4 8753	x3750 M4 8752/8718	x3650 M4 BD 5466	x3650 M4 7915 E5-v2	x3650 M4 HD 5460	x3630 M4 7158 E5-v2	x3550 M4 7914 E5-v2	x3530 M4 7160 E5-v2	x3500 M4 7383 E5-v2
RHEL 6.7 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.8 32-bit	No	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.8 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Red Hat Enterprise Linux 7									
RHEL 7	S+C	S+C[a]	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 7.1	S+C	S+C[a]	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 7.2	S+C	S+C[a]	S+C	S+C	S+C	S+C	S+C	S+C	S+C

a. Currently supported with in-box drivers only. IMM remote console viewer not supported

1.3.3 SLES support

Table 1-18 lists the SUSE Linux Enterprise Server compatibility for M4 systems with v2 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-18   M4 systems with v2 processors - SUSE Linux Enterprise Server support

Model	x3750 M4 8753	x3750 M4 8752/8718	x3650 M4 BD 5466	x3650 M4 7915 E5-v2	x3650 M4 HD 5460	x3630 M4 7158 E5-v2	x3550 M4 7914 E5-v2	x3530 M4 7160 E5-v2	x3500 M4 7383 E5-v2
SUSE LINUX Enterprise Server 11									
SLES 11 x86	No	No	No	No	No	No	No	No	No
SLES 11 x64	No	No	No	No	No	No	No	No	No
SLES 11 Xen x64	No	No	No	No	No	No	No	No	No
SLES 11 x86 SP1	No	No	No	No	No	No	No	No	No
SLES 11 x64 SP1	No	No	No	No	No	No	No	No	No
SLES 11 Xen x64 SP1	No	No	No	No	No	No	No	No	No
SLES 11 x86 SP2	No	No	No	No	No	No	No	No	No
SLES 11 x64 SP2	No	No	No	No	No	No	No	No	No
SLES 11 Xen x64 SP2	No	No	No	No	No	No	No	No	No
SLES 11 x86 SP3	No	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 11 x64 SP3	S+C	S+C	S+C	S+C	S+C	No	No	S+C	S+C
SLES 11 Xen x64 SP3	S+C	S+C	S+C	S+C	S+C	S+C	No	S+C	No

Model	x3750 M4 8753	x3750 M4 8752/8718	x3650 M4 BD 5466	x3650 M4 7915 E5-v2	x3650 M4 HD 5460	x3630 M4 7158 E5-v2	x3550 M4 7914 E5-v2	x3530 M4 7160 E5-v2	x3500 M4 7383 E5-v2
SLES 11 x86 SP4	No	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 11 x64 SP4	S+C	S+C	S+C	S+C	S+C	No	No	S+C	S+C
SLES 11 Xen x64 SP4	S+C	S+C	S+C	S+C	S+C	S+C	No	S+C	No
SUSE LINUX Enterprise Server 12									
SLES 12	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 12 with Xen	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 12 SP1	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 12 with Xen SP1	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C

1.3.4 VMware support

Table 1-19 lists the VMware ESXi compatibility for M4 systems with v2 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

No custom image support: The servers in Table 1-19 do not support any of the Lenovo custom images for VMware ESXi that are currently available on the VMware web site.

Table 1-19   M4 systems with v2 processors - VMware support

Model	x3750 M4 8753	x3750 M4 8752/8718	x3650 M4 BD 5466	x3650 M4 7915 E5-v2	x3650 M4 HD 5460	x3630 M4 7158 E5-v2	x3550 M4 7914 E5-v2	x3530 M4 7160 E5-v2	x3500 M4 7383 E5-v2
VMware ESXi 5.0									
VMware ESXi 5.0	No	No	No	No	No	No	No	No	No
VMware ESXi 5.0 U1	No	No	No	No	No	No	No	No	No
VMware ESXi 5.0 U2	No	No	No	S+C[a]	No	No	S+C[a]	No	S+C[a]
VMware ESXi 5.0 U3	S+C[a]	S+C[a]	No	S+C[a]	No	S+C[ab]	S+C[a]	S+C[ab]	S+C[a]
VMware ESXi 5.1									
VMware ESXi 5.1	No	No	No	No	No	No	No	No	S+C[a]
VMware ESXi 5.1 U1	No	No	No	S+C[a]	S+C[a]	S+C[ab]	S+C[a]	S+C[ab]	S+C[a]
VMware ESXi 5.1 U2	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[ab]	S+C[a]	S+C[ab]	S+C[a]
VMware ESXi 5.1 U3	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[ab]	S+C[a]	S+C[ab]	S+C[a]

Model	x3750 M4 8753	x3750 M4 8752/8718	x3650 M4 BD 5466	x3650 M4 7915 E5-v2	x3650 M4 HD 5460	x3630 M4 7158 E5-v2	x3550 M4 7914 E5-v2	x3530 M4 7160 E5-v2	x3500 M4 7383 E5-v2
VMware ESXi 5.5									
VMware ESXi 5.5	No	No	No	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[abc]	S+C[ac]
VMware ESXi 5.5 U1	S+C[a]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[abc]	Cert[ac]
VMware ESXi 5.5 U2	S+C[a]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[abc]	Cert[ac]
VMware ESXi 5.5 U3	S+C[a]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	Cert[ac]
VMware ESXi 6									
VMware ESXi 6.0	S+C[ac]	S+C[ac]	No	S+C[ac]	No	S+C[ac]	S+C[ac]	S+C[ac]	S+C[a]
VMware ESXi 6.0 U1	S+C[ac]	Cert[ac]	No	S+C[ac]	No	S+C[ac]	S+C[ac]	S+C[ac]	S+C[a]
VMware ESXi 6.0 U2	S+C[ac]	Cert[ac]	No	S+C[ac]	No	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]

a. VMware vSphere does not support 512e and 4K Native drives. See http://kb.vmware.com/kb/2091600
b. Models with that use embeded RAID (ServeRAID C100/C105) are not supported
c. Please use the parameter settings in RETAIN TIP H213638,
   http://ibm.com/support/entry/portal/docdisplay?lndocid=MIGR-5096729

1.3.5 Oracle support

Table 1-21 lists the Oracle compatibility for M4 systems with v2 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-20   M4 systems with v2 processors - Oracle support

Model	x3750 M4 8753	x3750 M4 8752/8718	x3650 M4 BD 5466	x3650 M4 7915 E5-v2	x3650 M4 HD 5460	x3630 M4 7158 E5-v2	x3550 M4 7914 E5-v2	x3530 M4 7160 E5-v2	x3500 M4 7383 E5-v2
Oracle Linux									
Oracle Linux 5.9	No	No	No	No	No	No	Cert	No	No
Oracle Linux 5.10	No	No	No	Cert	No	No	Cert	No	No
Oracle Linux 6.1	No	No	No	No	No	No	No	No	No
Oracle Linux 6.2	No	No	No	No	No	No	No	No	No
Oracle Linux 6.3	No	No	No	No	No	No	Cert	No	No
Oracle Linux 6.4	No	No	No	Cert	No	No	Cert	No	No
Oracle Linux 6.5	No	No	No	Cert	No	No	Cert	No	No
Oracle Linux 6.6	No	No	No	No	No	No	No	No	No
Oracle Linux 6.7	No	No	No	No	No	No	No	No	No

Model	x3750 M4 8753	x3750 M4 8752/8718	x3650 M4 BD 5466	x3650 M4 7915 E5-v2	x3650 M4 HD 5460	x3630 M4 7158 E5-v2	x3550 M4 7914 E5-v2	x3530 M4 7160 E5-v2	x3500 M4 7383 E5-v2
Oracle Linux 7.0	No	No	No	No	No	No	No	No	No
Oracle Linux 7.1	Cert	Cert	No	No	No	No	No	No	No
Oracle VM									
Oracle VM 3.2	No	No	No	Cert	No	No	Cert	No	No
Oracle VM 3.3	Cert	Cert	No	No	No	No	No	No	No
Oracle Solaris									
Solaris 10	No	No	No	No	No	No	No	No	No
Solaris 11	No	No	No	No	No	No	Cert	No	No

1.3.6 Citrix XenServer support

Table 1-21 lists the Citrix XenServer compatibility for M4 systems with v2 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-21   M4 systems with v2 processors - Citrix XenServer support

Model	x3750 M4 8753	x3750 M4 8752/8718	x3650 M4 BD 5466	x3650 M4 7915 E5-v2	x3650 M4 HD 5460	x3630 M4 7158 E5-v2	x3550 M4 7914 E5-v2	x3530 M4 7160 E5-v2	x3500 M4 7383 E5-v2
Citrix XenServer 6.0.2	No	No	No	Cert	No	No	Cert	No	Cert
Citrix XenServer 6.1	Cert	Cert	No	Cert	No	Cert	Cert	No	Cert
Citrix XenServer 6.2	Cert	Cert	No	Cert	No	Cert	Cert	Cert	Cert
Citrix XenServer 6.5	Cert	Cert	No	Cert	No	Cert	Cert	Cert	Cert
Citrix XenServer 7.0	Cert	Cert	No	No	No	No	Cert	Cert	Cert

1.3.7 Canonical Ubuntu support

Table 1-22 lists the Canonical Ubuntu support for M4 systems with v2 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-22   M4 systems with v2 processors - Ubuntu

Model	x3750 M4 8753	x3750 M4 8752/8718	x3650 M4 BD 5466	x3650 M4 7915 E5-v2	x3650 M4 HD 5460	x3630 M4 7158 E5-v2	x3550 M4 7914 E5-v2	x3530 M4 7160 E5-v2	x3500 M4 7383 E5-v2
Ubuntu 12.04 LTS 64-bit	Cert	Cert	Cert	Cert	No	Cert	Cert	No	No
Ubuntu 14.04 LTS 64-bit	Cert	Cert	Cert	Cert	Cert	Cert	Cert	No	No

1.4 System x M4 systems with v1 processors

This section lists the operating system compatibility for System x M4 servers with Intel Xeon E5 v1 processors as well as the x3250 M4 and x3100 M4 with E3 v2, E3 v1, Pentium or Core i3 processors.

▶ 1.4.1, "Windows support"
▶ 1.4.2, "RHEL support" on page 21
▶ 1.4.3, "SLES support" on page 23
▶ 1.4.4, "VMware support" on page 24
▶ 1.4.5, "Oracle Solaris support" on page 26
▶ 1.4.6, "Citrix XenServer support" on page 26
▶ 1.4.7, "Canonical Ubuntu support" on page 27
▶ 1.4.8, "Toshiba 4690 support" on page 27

In the tables, S+C means Supported and Certified.

1.4.1 Windows support

Table 1-23 lists the Windows compatibility for M4 servers with v1 processors

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-23   M4 systems with v1 processors - Windows support

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582
Microsoft Windows 2008									
Windows HPC Server 2008 (SP1)	S+C	No	No	S+C	No	No	No	No	No
Windows Server 2008 Foundation	No	No	No	No	No	No	No	S+C	S+C

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582
Windows Server 2008 DC x64 (SP2)	S+C	S+C	S+C	S+C	S+C	S+C	S+C	No	No
Windows Server 2008 DC x86 (SP2)	S+C	S+C	No	S+C	No	S+C	S+C	No	No
Windows Server 2008 Ent. x64 (SP2)	S+C	S+C	No	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2008 Ent. x86 (SP2)	S+C	S+C	No	S+C	No	S+C	S+C	S+C	S+C
Windows Server 2008 Std. x64 (SP2)	S+C	S+C	No	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2008 Std. x86 (SP2)	S+C	S+C	No	S+C	No	S+C	S+C	S+C	S+C
Windows Server 2008 Web x64 (SP2)	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2008 Web x86 (SP2)	S+C	S+C	No	S+C	No	S+C	S+C	S+C	S+C
Windows SBS 2008 Premium Edition	S+C	S+C (SP2)	S+C	S+C (SP2)	S+C	S+C	S+C	No	No
Windows SBS 2008 Standard Edition	S+C	S+C (SP2)	S+C	S+C (SP2)	S+C	S+C	S+C	No	No
Microsoft Windows 2008 R2									
Windows Server 2008 R2 (SP1)	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Microsoft Windows 2012 and 2012 R2									
Windows Server 2012	S+C	S+C	S+C[a]	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2012 R2	S+C	S+C	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]

a. Models with that use embeded RAID (ServeRAID C100/C105) are not supported

1.4.2 RHEL support

Table 1-24 lists the Red Hat Enterprise Linux compatibility for M4 servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-24   M4 systems with v1 processors - Red Hat Enterprise Linux support

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582
Red Hat Enterprise Linux 5									
RHEL 5.6 32-bit	No	No	No	No	No	No	No	S+C	S+C
RHEL 5.6 Xen 32-bit	No	No	No	No	No	No	No	No	S+C
RHEL 5.6 x64	No	No	No	No	No	No	No	S+C	S+C
RHEL 5.6 Xen x64	No	No	No	No	No	No	No	S+C	S+C
RHEL 5.7 32-bit	No	No	S+C	No	S+C	S+C	No	S+C	S+C

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582
RHEL 5.7 Xen 32-bit	No	No	No	No	No	No	No	No	S+C
RHEL 5.7 x64	No	S+C	S+C	S+C	S+C	S+C	No	S+C	S+C
RHEL 5.7 Xen x64	No	S+C	S+C	S+C	S+C	S+C	No	S+C	S+C
RHEL 5.8 32-bit	No	No	S+C	No	S+C	S+C	S+C	S+C	S+C
RHEL 5.8 Xen 32-bit	No	No	No	No	No	No	No	No	S+C
RHEL 5.8 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 5.8 Xen x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 5.9 32-bit	No	No	S+C	No	S+C	S+C	S+C	S+C	S+C
RHEL 5.9 Xen 32-bit	No	No	No	No	No	No	No	No	S+C
RHEL 5.9 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 5.9 Xen x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 5.10 32-bit	No	No	S+C	No	S+C	S+C	S+C	S+C	S+C
RHEL 5.10 Xen 32-bit	No	No	No	No	No	No	No	No	S+C
RHEL 5.10 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 5.10 Xen x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Red Hat Enterprise Linux 6									
RHEL 6.0	No	No	No	No	No	No	No	No	No
RHEL 6.1 32-bit	No	S+C	No	S+C	No	S+C	No	S+C[a]	S+C[a]
RHEL 6.1 x64	No	S+C	No	S+C	No	S+C	No	S+C[a]	S+C[a]
RHEL 6.2 32-bit	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
RHEL 6.2 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
RHEL 6.3 32-bit	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
RHEL 6.3 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
RHEL 6.4 32-bit	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
RHEL 6.4 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
RHEL 6.5 32-bit	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
RHEL 6.5 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
RHEL 6.6 32-bit	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
RHEL 6.6 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
RHEL 6.7 32-bit	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
RHEL 6.7 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
RHEL 6.8 32-bit	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582
RHEL 6.8 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C[a]	S+C[a]
Red Hat Enterprise Linux 7									
RHEL 7	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 7.1	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 7.2	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C

a. Models with that use embeded RAID (ServeRAID C100/C105) are not supported

1.4.3 SLES support

Table 1-25 lists the SUSE Linux Enterprise Server compatibility for M4 servers with Intel Xeon E5 v1 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-25   M4 systems with v1 processors - SUSE Linux Enterprise Server support

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582
SUSE Linux Enterprise Server 10									
SLES 10 x86 SP3	No	No	No	No	No	No	No	No	No
SLES 10 x64 SP3	No	No	No	No	No	No	No	No	No
SLES 10 Xen x64 SP3	No	No	No	No	No	No	No	No	No
SLES 10 x86 SP4	No	No	S+C	No	S+C	S+C	S+C	S+C	S+C
SLES 10 x64 SP4	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 10 Xen x64 SP4	No	No	No	No	No	No	No	S+C	S+C
SUSE Linux Enterprise Server 11									
SLES 11 x86	No	No	No	No	No	No	No	No	No
SLES 11 x64	No	No	No	No	No	No	No	No	No
SLES 11 Xen x64	No	No	No	No	No	No	No	No	No
SLES 11 x86 SP1	No	S+C	No	S+C	No	S+C	No	S+C	S+C
SLES 11 x64 SP1	No	S+C	No	S+C	No	S+C	No	S+C	S+C
SLES 11 Xen x64 SP1	No	S+C	No	S+C	No	S+C	No	S+C	S+C
SLES 11 x86 SP2	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 11 x64 SP2	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582
SLES 11 Xen x64 SP2	S+C	S+C	S+C	S+C	S+C	S+C	No	S+C	S+C
SLES 11 x86 SP3	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 11 x64 SP3	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 11 Xen x64 SP3	S+C	S+C	S+C	S+C	S+C	S+C	No	S+C	S+C
SLES 11 x86 SP4	No	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 11 x64 SP4	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 11 Xen x64 SP4	S+C	S+C	S+C	S+C	S+C	S+C	No	S+C	S+C
SUSE Linux Enterprise Server 12									
SLES 12	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 12 with XEN	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 12 SP1	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SLES 12 with XEN SP1	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C

1.4.4 VMware support

Table 1-26 lists the VMware ESXi compatibility for M4 servers with Intel Xeon E5 v1 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

No custom image support: The servers in Table 1-26 do not support any of the Lenovo custom images for VMware ESXi that are currently available on the VMware web site.

Table 1-26   M4 systems with v1 processors - VMware support

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582	x3755 M3 7164, 63xx
VMware ESX 4.1										
VMware ESX 4.1	No	No	No	No	No	No	No	S+C[ab]	S+C[ab]	No
VMware ESX 4.1 U1	No	No	No	No	No	No	No	S+C[ab]	S+C[ab]	No
VMware ESX 4.1 U2	S+C[a]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	No
VMware ESXi 4.1										
VMware ESXi 4.1	No	No	No	No	No	No	No	S+C[ab]	No	No
VMware ESXi 4.1 U1	No	No	No	No	No	No	No	S+C[ab]	No	No

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582	x3755 M3 7164, 63xx
VMware ESXi 4.1 U2	S+C[a]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	No	No
VMware ESXi 5.0										
VMware ESXi 5.0	S+C[a]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	No	S+C[ab]	S+C[ab]	No
VMware ESXi 5.0 U1	S+C[a]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	No
VMware ESXi 5.0 U2	S+C[a]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	No
VMware ESXi 5.0 U3	S+C[a]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	No
VMware ESXi 5.1										
VMware ESXi 5.1	S+C[a]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	
VMware ESXi 5.1 U1	S+C[a]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 5.1 U2	S+C[a]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 5.1 U3	S+C[a]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 5.5										
VMware ESXi 5.5	S+C[a]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[acd]	S+C[acd]	No
VMware ESXi 5.5 U1	S+C[a]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[acd]	S+C[acd]	S+C[ac]
VMware ESXi 5.5 U2	S+C[a]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[ac]	S+C[acd]	S+C[acd]	S+C[ac]
VMware ESXi 5.5 U3	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
VMware ESXi 6.0										
VMware ESXi 6.0	S+C[a]	No	No	No	No	No	S+C[ac]	Supp[ac]	S+C[ac]	No
VMware ESXi 6.0 U1	S+C[a]	No	No	No	No	No	S+C[ac]	Supp[ac]	S+C[ac]	No
VMware ESXi 6.0 U2	C[a]	No	No	No	No	No	S+C[a]	Supp[ac]	Cert[a]	No

a. VMware vSphere does not support 512e and 4K Native drives. See http://kb.vmware.com/kb/2091600
b. Models with that use embeded RAID (ServeRAID C100/C105) are not supported
c. Please use the parameter settings in RETAIN TIP H213638,
   http://ibm.com/support/entry/portal/docdisplay?lndocid=MIGR-5096729
d. Xeon E3 processors only

1.4.5 Oracle Solaris support

Table 1-27 lists the Oracle Solaris support for M4 servers with Intel Xeon E5 v1 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-27   M4 systems with v1 processors - Oracle Solaris support

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582	x3755 M3 7164, 63xx
Solaris 10	No	Cert[a]	No	Cert[a]	No	Cert[a]	No	No	No	No
Solaris 11	No	Cert	No	Cert	No	No	No	No	No	No

a. 512e Advanced Format support is not available with Solaris 10. The Solaris base OS is Solaris 10 10/10.

1.4.6 Citrix XenServer support

Table 1-28 lists the Citrix XenServer compatibility for M4 systems with v1 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-28   M4 systems with v1 processors - Citrix XenServer support

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582	x3755 M3 7164, 63xx
XenServer 5.6.0	No	No	No	No	No	No	No	No	No	Cert
XenServer 5.6.0 FP1/SP2	No	No	No	No	No	No	No	No	No	Cert
XenServer 6.0.2	No	Cert	No	Cert	Cert	Cert	No	No	No	Cert
XenServer 6.1	Cert	Cert	Cert	Cert	Cert	Cert	No	No	No	Cert
XenServer 6.2	Cert	Cert	Cert	Cert	Cert	Cert	No	No	No	No
XenServer 6.5	Cert	Cert	Cert	Cert	Cert	Cert	No	No	No	Cert
XenServer 7.0	Cert	No	No	Cert	Cert	Cert	No	No	No	No

1.4.7 Canonical Ubuntu support

Table 1-29 lists the Canonical Ubuntu support for M4 systems with v1 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-29   M4 systems with v1 processors - Ubuntu

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582	x3755 M3 7164, 63xx
Ubuntu 12.04 LTS 64-bit	Cert	No	No	No	No	No	No	No	No	Cert
Ubuntu 14.04 LTS 64-bit	Cert	Cert	No	Cert	No	No	No	No	No	Cert

1.4.8 Toshiba 4690 support

Table 1-30 lists the Toshiba 4690 operating system support for M4 servers with Intel Xeon E5 v1 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-30   M4 systems with v1 processors - Toshiba 4690 support

Model	x3750 M4 8722	x3650 M4 7915	x3630 M4 7158	x3550 M4 7914	x3530 M4 7160	x3500 M4 7383	x3300 M4 7382	x3250 M4 2583	x3100 M4 2582	x3755 M3 7164, 63xx
IBM 4690 Operating System V6	No	No	No	No	No	No	Supp.	Supp.	Supp.	No
Toshiba 4690 Operating System V6	No	No	No	No	No	No	Supp.	Supp.	Supp.	No

1.5 System x M3 and X5 systems

This section lists the operating system compatibility for System x M3 and X5™ systems.

- ► 1.5.1, "Windows support"
- ► 1.5.2, "RHEL support" on page 29
- ► 1.5.3, "SLES support" on page 31
- ► 1.5.4, "VMware support" on page 33
- ► 1.5.5, "Oracle support" on page 34
- ► 1.5.6, "Citrix XenServer support" on page 35
- ► 1.5.7, "Canonical Ubuntu support" on page 36

In the tables, S+C means Supported and Certified.

1.5.1 Windows support

Table 1-31 lists the Windows compatibility for M3 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-31   M3 systems - Windows

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
Microsoft Windows Server 2003								
Windows Compute Cluster Server 2003	No	No	No	No	No	No	No	No
Windows Server 2003 Compute Cluster Edition, SP2	No	No	No	No	No	S+C	No	No
Windows Server 2003, Enterprise with MSCS	No	No	No	No	No	No	No	No
Windows Server 2003, Enterprise (64 bit) with MSCS	No	No	No	No	No	No	No	No
Windows Server 2003, Web SP2	No	No	No	S+C	No	S+C	S+C	S+C
Microsoft Windows Server 2003 R2								
Windows Server 2003 R2 Datacenter SP2	No	No	No	No	S+C	No	No	No
Windows Server 2003 R2 x64 Datacenter SP2	No	No	No	S+C	S+C	S+C	No	No
Windows Server 2003/2003 R2, Datacenter SP2	No	No	No	No	S+C	No	S+C	S+C
Windows Server 2003/2003 R2, Datacenter x64 SP2	No	No	No	S+C	S+C	S+C	S+C	S+C
Windows Server 2003/2003 R2, Enterprise SP2	No	No	No	S+C	S+C	S+C	S+C	S+C
Windows Server 2003/2003 R2, Enterprise x64 SP2	No	No	No	S+C	S+C	S+C	S+C	S+C
Windows Server 2003/2003 R2, Standard SP2	No	No	No	S+C	S+C	S+C	S+C	S+C
Windows Server 2003/2003 R2, Standard x64 SP2	No	No	No	S+C	S+C	S+C	S+C	S+C
Windows Storage Server 2003/2003 R2, Standard	No	No	No	No	No	No	No	No
Windows SBS 2003/2003 R2 Premium SP2	No	No	No	S+C	S+C	S+C	S+C	S+C
Windows SBS 2003/2003 R2 Standard SP2	No	No	No	S+C	S+C	S+C	S+C	S+C
Microsoft Windows Server 2008								
Windows Server 2008 Foundation	No	No	No	No	No	No	No	No
Windows Server 2008 HPC Edition (SP2)	S+C	No	No	No	No	No	No	No
Windows HPC Server 2008 (SP2)	No	No	No	S+C	No	S+C	No	No
Windows Server 2008, Datacenter x64 (SP2)	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2008, Datacenter x86 (SP2)	No	No	No	S+C	No	S+C	S+C	S+C
Windows Server 2008, Enterprise x64 (SP2)	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2008, Enterprise x86 (SP2)	No	No	No	S+C	No	S+C	S+C	S+C

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
Windows Server 2008, Standard x64 (SP2)	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2008, Standard x86 (SP2)	No	No	No	S+C	No	S+C	S+C	S+C
Windows Server 2008, Web x64 (SP2)	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2008, Web x86 (SP2)	No	No	No	S+C	No	S+C	S+C	S+C
Microsoft Windows Server 2008 Small Business Server (SBS) and Essential Business Server (EBS)								
Windows SBS 2008 Premium Edition (SP2)	S+C	No	No	S+C	S+C	S+C	S+C	S+C
Windows SBS 2008 Standard Edition (SP2)	S+C	No	No	S+C	S+C	S+C	S+C	S+C
Windows EBS 2008 Premium (SP2)	No	No	No	No	S+C	No	S+C	S+C
Windows EBS 2008 Standard (SP2)	No	No	No	No	S+C	No	S+C	S+C
Microsoft Windows Server 2008 R2								
Windows Server 2008 R2 (SP1)	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Microsoft Windows Server 2012								
Windows Server 2012	S+C	S+C	No	S+C	S+C	S+C	S+C	S+C
Microsoft Windows Server 2012 R2								
Windows Server 2012 R2	S+C	S+C	No	S+C	S+C	S+C	S+C	S+C

1.5.2 RHEL support

Table 1-32 lists the Red Hat Enterprise Linux compatibility for M3 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-32   M3 systems - Red Hat Enterprise Linux

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
Red Hat Enterprise MRG 1.0 Realtime (x64)	No	No	No	S+C	No	S+C	No	No
Red Hat Enterprise MRG 2.0 Realtime (x64)	S+C	No	No	S+C	No	S+C	No	No
Red Hat Enterprise Linux 4								
RHEL 4.8 ES, AS, WS (32-bit)	No	No	No	S+C	No	S+C	No	No
RHEL 4.8 ES, AS, WS (64-bit)	No	No	No	S+C	No	S+C	S+C	S+C

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
Red Hat Enterprise Linux 5								
RHEL 5.4 32-bit	No	No	No	S+C	No	S+C	S+C	S+C
RHEL 5.4 Xen 32-bit	No	No	No	No	No	No	S+C	S+C
RHEL 5.4 x64	No	No	No	S+C	No	S+C	S+C	S+C
RHEL 5.4 Xen x64	No	No	No	S+C	No	S+C	S+C	S+C
RHEL 5.5 32-bit	No	No	No	S+C	No	S+C	S+C	S+C
RHEL 5.5 Xen 32-bit	No	No	No	No	No	No	S+C	S+C
RHEL 5.5 x64	No	No	S+C[a]	S+C	S+C	S+C	S+C	S+C
RHEL 5.5 Xen x64	No	No	S+C[a]	S+C	S+C	S+C	S+C	S+C
RHEL 5.6 32-bit	No	No	No	S+C	No	S+C	S+C	S+C
RHEL 5.6 Xen 32-bit	No	No	No	No	No	No	S+C	S+C
RHEL 5.6 x64	S+C[b]	S+C	S+C[a]	S+C	S+C	S+C	S+C	S+C
RHEL 5.6 Xen x64	S+C[b]	S+C	S+C[a]	S+C	S+C	S+C	S+C	S+C
RHEL 5.7 32-bit	No	No	No	S+C	No	S+C	S+C	S+C
RHEL 5.7 Xen 32-bit	No	No	No	No	No	No	S+C	S+C
RHEL 5.7 x64	S+C[b]	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 5.7 Xen x64	S+C[b]	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 5.8 32-bit	No	No	No	S+C	No	S+C	S+C	S+C
RHEL 5.8 Xen 32-bit	No	No	No	No	No	No	S+C	S+C
RHEL 5.8 x64	S+C[b]	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 5.8 Xen x64	S+C[b]	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 5.9 32-bit	No	No	No	S+C	No	S+C	S+C	S+C
RHEL 5.9 Xen 32-bit	No	No	No	No	No	No	S+C	S+C
RHEL 5.9 x64	S+C[b]	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 5.9 Xen x64	S+C[b]	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 5.10 32-bit	No	No	No	S+C	No	S+C	S+C	S+C
RHEL 5.10 Xen 32-bit	No	No	No	No	No	No	S+C	S+C
RHEL 5.10 x64	S+C[b]	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 5.10 Xen x64	S+C[b]	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Red Hat Enterprise Linux 6								
RHEL 6.0	No	No	No	S+C	S+C	S+C	S+C	S+C
RHEL 6.1	No	No	S+C	S+C	S+C	S+C	S+C	S+C

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
RHEL 6.2	No	No	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.3	No	No	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.4 32-bit	No	No	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.4 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.5 32-bit	No	No	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.5 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.6 32-bit	No	No	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.6 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.7 32-bit	No	No	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.7 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.8 32-bit	No	No	S+C	S+C	S+C	S+C	S+C	S+C
RHEL 6.8 x64	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Red Hat Enterprise Linux 7								
RHEL 7	S+C	S+C	S+C	No	No	No	No	No
RHEL 7.1	S+C	S+C	S+C	No	No	No	No	No
RHEL 7.2	S+C	S+C	S+C	No	No	No	No	No

a. 1-node configuration supported.

b. See RETAIN tips H195189, H196689, and H196690 for additional support information. RHEL 5 server (all service packs) supports a maximum memory array of 1TB. Update 5 required for 2 Node.

1.5.3 SLES support

Table 1-33 lists the SUSE Linux Enterprise Server compatibility for M3 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-33   M3 systems - SUSE Linux Enterprise Server

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
SUSE Linux Enterprise Server 10								
SUSE LINUX Enterprise Real Time 10 x64	No	No	No	No	No	No	No	No
SLES 10 x86 SP1	No	No	No	No	No	No	No	No
SLES 10 x64 SP1	No	No	No	No	No	No	No	No
SLES 10 Xen x64 SP1	No	No	No	No	No	No	No	No

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
SLES 10 x86 SP2	No	No	No	No	No	No	No	No
SLES 10 x64 SP2	No	No	No	No	No	No	No	No
SLES 10 Xen x64 SP2	No	No	No	No	No	No	No	No
SLES 10 x86 SP3	No	No	No	S+C	No	S+C	S+C	S+C
SLES 10 x64 SP3	No	No	S+C[a]	S+C	No	S+C	S+C	S+C
SLES 10 Xen x64 SP3	No	No	No	S+C	S+C	S+C	S+C	S+C
SLES 10 x86 SP4	No	No	No	S+C	No	S+C	S+C	S+C
SLES 10 x64 SP4	S+C[b]	S+C	S+C[a]	S+C	No	S+C	S+C	S+C
SLES 10 Xen x64 SP4	S+C[b]	S+C	No	S+C	S+C	S+C	S+C	S+C
SUSE Linux Enterprise Server 11								
SUSE LINUX Enterprise Real Time 11 x64	No	No	No	S+C	No	S+C	No	No
SLES 11 x86	No	No	No	S+C[c]	No	S+C[c]	S+C[c]	S+C[c]
SLES 11 x64	No	No	No	S+C[c]	No	S+C[c]	S+C[c]	S+C[c]
SLES 11 Xen x64	No	No	No	S+C[c]	No	S+C[c]	S+C[c]	S+C[c]
SLES 11 x86 SP1	No	No	No	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]
SLES 11 x64 SP1	S+C	S+C	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]
SLES 11 Xen x64 SP1	S+C	S+C	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]
SLES 11 x86 SP2	No	No	No	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]
SLES 11 x64 SP2	S+C	S+C	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]
SLES 11 Xen x64 SP2	S+C	S+C	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]
SLES 11 x86 SP3	No	No	No	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]
SLES 11 x64 SP3	S+C	S+C	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]
SLES 11 Xen x64 SP3	S+C[d]	S+C	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]
SLES 11 x86 SP4	No	No	No	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]
SLES 11 x64 SP4	S+C	S+C	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]
SLES 11 Xen x64 SP4	S+C	S+C	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]	S+C[c]
SUSE Linux Enterprise Server 12								
SLES 12	S+C	S+C	S+C	No	No	No	No	No
SLES 12 with XEN	S+C	S+C	S+C	No	No	No	No	No
SLES 12 SP1	S+C	S+C	S+C	No	No	No	No	No
SLES 12 with XEN SP1	S+C	S+C	S+C	No	No	No	No	No

a. See RETAIN tip H201639 for additional support information.

b. 1-node configuration supported.
c. UEFI-mode is not supported. Only supported in legacy BIOS mode.
d. SLES 11 SP3 XEN will not start with more than 5TB of memory. See RETAIN TIP H212438 for more detail

1.5.4 VMware support

Table 1-34 lists the VMware ESX and ESXi compatibility for M3 systems.

> **Note:** Versions of operating systems older than those listed in the table are not supported.

> **No custom image support:** The servers in Table 1-34 do not support any of the Lenovo custom images for VMware ESXi that are currently available on the VMware web site.

Table 1-34   M3 systems - VMware support

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
VMware ESX								
VMware ESX 4.0	No	No	No	No	No	No	No	No
VMware ESX 4.0 (U1)	No	No	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESX 4.1	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESX 4.1 (U1)	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESX 4.1 (U2)	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESXi 4.0								
VMware ESXi 4.0	No	No	No	No	No	No	No	No
VMware ESXi 4.0 (U1)	No	No	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESXi 4.1								
VMware ESX 4.1	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESX 4.1 (U1)	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESX 4.1 (U2)	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESXi 5.0								
VMware ESXi 5.0	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESXi 5.0 U1	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESXi 5.0 U2	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESXi 5.0 U3	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESXi 5.1								
VMware ESXi 5.1	S+C	S+C	No	S+C	S+C	S+C	S+C	S+C
VMware ESXi 5.1 U1	S+C	S+C	No	S+C	S+C	S+C	S+C	S+C

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
VMware ESXi 5.1 U2	S+C	S+C	No	S+C	S+C	S+C	S+C	S+C
VMware ESXi 5.1 U3	S+C	S+C	No	S+C	S+C	S+C	S+C	S+C
VMware ESXi 5.5								
VMware ESXi 5.5	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESXi 5.5 U1	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESXi 5.5 U2	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESXi 5.5 U3	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
VMware ESXi 6.0								
VMware ESXi 6.0	S+C	S+C	No	No	No	No	No	No
VMware ESXi 6.0 U1	Cert	S+C	No	No	No	No	No	No
VMware ESXi 6.0 U2	Cert	Cert	No	No	No	No	No	No

1.5.5 Oracle support

Table 1-35 lists the Oracle Solaris support for M3 and X5 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-35   M3 and X5 systems - Oracle Solaris support

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
Oracle Solaris								
Solaris 10	S+C	No	No	S+C	No	S+C	No	No
Oracle Linux								
Oracle Linux 5.9	Certified	No	No	No	No	No	No	No
Oracle Linux 5.10	Certified	No	No	No	No	No	No	No
Oracle Linux 6.1	No	No	No	No	No	No	No	No
Oracle Linux 6.2	No	No	No	No	No	No	No	No
Oracle Linux 6.3	No	No	No	No	No	No	No	No
Oracle Linux 6.4	Certified	No	No	No	No	No	No	No
Oracle Linux 6.5	Certified	No	No	No	No	No	No	No
Oracle Linux 6.6	No	No	No	No	No	No	No	No
Oracle Linux 6.7	No	No	No	No	No	No	No	No

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
Oracle Linux 7.0	No	No	No	No	No	No	No	No
Oracle Linux 7.1	No	No	No	No	No	No	No	No
Oracle VM								
Oracle VM 3.1	Certified	No	No	No	No	No	No	No
Oracle VM 3.2	Certified	No	No	No	No	No	No	No
Oracle VM 3.3	Certified	No	No	No	No	No	No	No
Oracle Solaris								
Solaris 10	Certified	No	No	Certified	No	Certified	No	No
Solaris 11	No	No	No	No	No	No	No	No

1.5.6 Citrix XenServer support

Table 1-36 lists the Citrix XenServer compatibility for M3 and X5 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-36   M3 and X5 systems - Citrix XenServer support

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
XenServer 5.5.0	No	No	No	Certified	No	Certified	No	No
XenServer 5.6.0	No	No	Certified	Certified	No	Certified	Certified	Certified
XenServer 5.6.0 FP1/SP2	No	No	Certified	Certified	No	Certified	Certified	Certified
XenServer 6.0.2	No	Certified	Certified	Certified	No	Certified	Certified	Certified
XenServer 6.1	No	Certified	Certified	Certified	No	Certified	Certified	Certified
XenServer 6.2	No	Certified	No	No	No	Certified	No	Certified
XenServer 6.5	Certified	Certified	Certified	Certified	No	Certified	Certified	Certified
XenServer 7.0	Certified	Certified	No	Certified	No	No	Certified	Certified

1.5.7 Canonical Ubuntu support

Table 1-37 lists the Canonical Ubuntu support for M4 systems with v1 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 1-37   M3 and X5 systems - Ubuntu

Model	x3850 X5 / x3950 X5 7143	x3690 X5 7147	x3755 M3 7164	x3650 M3 7945	x3630 M3 7377	x3550 M3 7944	x3500 M3 7380	x3400 M3 7378,7379
Ubuntu 12.04 LTS 64-bit	No	No	Cert	No	No	No	No	No
Ubuntu 14.04 LTS 64-bit	No	No	Cert	No	No	No	No	No

ThinkServer systems

This chapter lists operating system (OS) compatibility for ThinkServer rack and tower systems.

The ThinkServer systems are split as follows:

In these tables "S+C" means Supported and Certified, "Supp" means Supported, and "Cert" means Certified.

Definitions are as follows:

- ► Supported

  Lenovo provides hardware / OS interoperability support on Lenovo servers. Lenovo validates selected products for compatibility with Lenovo servers and works with third-party vendors to test their equipment with ours.

- ► Certified

  Server has met the OS Partner Certified/Logo program requirements. OS vendor provides OS support. Lenovo only provides hardware level support, and works with the hardware partner and OS vendors to close any compatibility issues customers may experience with their installation. Lenovo will work with the OS provider to submit hardware compatibility (HCL) test suite results so that the supported solution can be posted to the respective OS providers HCL site.

- ► Tested

  Either the OS or hypervisor was successfully installed on the server. Lenovo acknowledges the community based OSs, and Lenovo will provide hardware level support only, and will not make any statement regarding the support of the OS, including interactions with Lenovo tools, Lenovo device drivers, or special software provided by Lenovo.

2.1 ThinkServer Generation 5 systems (E5-2600 v4)

This section lists the operating system compatibility for ThinkServer Generation 5 systems.

- ► 2.1.1, "Windows support"
- ► 2.1.2, "SLES support"
- ► 2.1.3, "RHEL support" on page 39
- ► 2.1.4, "VMware support" on page 40
- ► 2.1.5, "XenServer support" on page 41
- ► 2.1.6, "Oracle support" on page 41
- ► 2.1.7, "Canonical Ubuntu support" on page 42
- ► 2.1.8, "Linux Distribution support" on page 42

2.1.1 Windows support

Table 2-1 lists the Windows compatibility for ThinkServer Generation 5 systems with E5-2600 v4 processors.

> **Note:** Versions of operating systems older than those listed in the table are not supported.

Table 2-1   ThinkServer Generation 5 (E5-2600 v4) - Windows

	TD350	RD350	RD450	RD550	RD650
Windows client operating systems					
Windows 8 (32bit and 64bit)	Supp	No	No	No	No
Windows 8 Professional (32bit and 64bit)	Supp	No	No	No	No
Windows 8.1 (x86 and x64)	Supp	No	No	No	No
Windows 8.1 Professional (x86 and x64)	Supp	No	No	No	No
Windows 10 Professional (x64)	No	No	No	No	No
Windows Server 2008 R2 (x64)					
Windows Server 2008 R2 x64	No	No	No	No	No
Windows Server 2008 R2 x64 with SP1	No	No	No	No	No
Windows Small Business Server (SBS)					
Windows SBS 2011 Essentials	No	No	No	No	No
Windows SBS 2011 Standard	No	No	No	No	No
Windows SBS 2011 Premium Add-on	No	No	No	No	No
Windows Server 2012					
Windows Server 2012	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Windows Server 2012 R2	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]

a. Hyper-V virtualization not supported in models using onboard RAID (RAID 110i)

2.1.2 SLES support

Table 2-2 lists the SUSE Linux Enterprise Server compatibility for ThinkServer Generation 5 systems with E5-2600 v4 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-2   ThinkServer Generation 5 (E5-2600 v4) - SLES

	TD350	RD350	RD450	RD550	RD650
SUSE Linux Enterprise Server 11					
SLES 11 x86	No	No	No	No	No
SLES 11 x64	No	No	No	No	No
SLES 11 x64 Xen	No	No	No	No	No
SLES 11 x86 SP1	No	No	No	No	No
SLES 11 x64 SP1	No	No	No	No	No
SLES 11 x86 SP2	No	No	No	No	No
SLES 11 x64 SP2	No	No	No	No	No
SLES 11 x86 SP3	No	No	No	No	No
SLES 11 x64 SP3	No	No	No	No	No
SLES 11 x86 SP4	S+C	S+C	S+C	S+C	S+C
SLES 11 x64 SP4	S+C	S+C	S+C	S+C	S+C
SUSE Linux Enterprise Server 12					
SLES 12	No	No	No	No	No
SLES 12 SP1	S+C	S+C	S+C	S+C	S+C

2.1.3 RHEL support

Table 2-3 lists the Red Hat Enterprise Linux compatibility for ThinkServer Generation 5 systems with E5-2600 v4 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-3   ThinkServer Generation 5 (E5-2600 v4) - RHEL

	TD350	RD350	RD450	RD550	RD650
Red Hat Enterprise Linux 6 Server					
RHEL 6.0 (32 & 64-bit)	No	No	No	No	No
RHEL 6.1 (32-bit)	No	No	No	No	No
RHEL 6.1 (64-bit)	No	No	No	No	No
RHEL 6.2 (32-bit)	No	No	No	No	No

	TD350	RD350	RD450	RD550	RD650
RHEL 6.2 (64-bit)	No	No	No	No	No
RHEL 6.3 (32-bit)	No	No	No	No	No
RHEL 6.3 (64-bit)	No	No	No	No	No
RHEL 6.4 (32-bit)	No	No	No	No	No
RHEL 6.4 (64-bit)	No	No	No	No	No
RHEL 6.5 (32-bit)	No	No	No	No	No
RHEL 6.5 (64-bit)	No	No	No	No	No
RHEL 6.6 (32-bit)	No	No	No	No	No
RHEL 6.6 (64-bit)	No	No	No	No	No
RHEL 6.7 (32-bit)	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.7 (64-bit)	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.8 (32-bit)	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.8 (64-bit)	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Red Hat Enterprise Linux 7 Server					
RHEL 7 (64-bit)	No	No	No	No	No
RHEL 7.1 (64-bit)	No	No	No	No	No
RHEL 7.2 (64-bit)	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]

a. Supported in Legacy mode (non-UEFI) of BIOS only. Not supported in UEFI mode of BIOS

2.1.4 VMware support

Table 2-4 lists the VMware ESXi compatibility for ThinkServer Generation 5 systems with E5-2600 v4 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Custom image support: ThinkServer Generation 5 systems support Lenovo custom images for VMware ESXi starting from ESXi 6.0 U2.

Table 2-4   ThinkServer Generation 5 (E5-2600 v4) - VMware ESXi

	TD350	RD350	RD450	RD550	RD650
VMware ESXi 5.5					
VMware ESXi 5.5	No	No	No	No	No
VMware ESXi 5.5 U1	No	No	No	No	No
VMware ESXi 5.5 U2	No	No	No	No	No
VMware ESXi 5.5 U3	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]

	TD350	RD350	RD450	RD550	RD650
VMware ESXi 6.0					
VMware ESXi 6.0	No	No	No	No	No
VMware ESXi 6.0 U1	S+C[a][b]	S+C[a][b]	S+C[a][b]	S+C[a][b]	S+C[a][b]
VMware ESXi 6.0 U2	S+C[a][b]	S+C[a][b]	S+C[a][b]	S+C[a][b]	S+C[a][b]

a. Not supported in models using onboard RAID (RAID 110i)
b. VMware vSphere does not support 512e and 4K Native drives. See `http://kb.vmware.com/kb/2091600`

2.1.5 XenServer support

Table 2-5 lists the XenServer compatibility for ThinkServer Generation 5 systems with E5-2600 v4 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-5   ThinkServer Generation 5 (E5-2600 v4) - XenServer

	TD350	RD350	RD450	RD550	RD650
Citrix XenServer 6.0.2	No	No	No	No	No
Citrix XenServer 6.1	No	No	No	No	No
Citrix XenServer 6.2	No	No	No	No	No
Citrix XenServer 6.5	Cert[a]	Cert[a]	Cert[a]	Cert[a]	Cert[a]
Citrix XenServer 6.5.1	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Citrix XenServer 7.0	No	No	No	No	No

a. Not supported in models using onboard RAID (RAID 110i)

2.1.6 Oracle support

Table 2-6 lists the Oracle compatibility for ThinkServer Generation 5 systems with E5-2600 v4 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-6   ThinkServer Generation 5 (E5-2600 v4) - Oracle

	TD350	RD350	RD450	RD550	RD650
Oracle Linux					
Oracle Linux 7.0	No	No	No	No	No
Oracle Linux 7.1	No	No	No	Cert	Cert
Oracle VM					
Oracle VM 3.2	No	No	No	No	No
Oracle VM 3.3	No	No	No	Cert	Cert

	TD350	RD350	RD450	RD550	RD650
Oracle Solaris					
Solaris 10	No	No	No	No	No
Solaris 11	No	No	No	No	No

2.1.7 Canonical Ubuntu support

Table 2-7 lists the Canonical Ubuntu support for ThinkServer Generation 5 systems with E5-2600 v4 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-7   ThinkServer Generation 5 (E5-2600 v4) - Ubuntu

Model	TD350	RD350	RD450	RD550	RD650
Ubuntu 12.04 LTS 64-bit	No	No	No	No	No
Ubuntu 14.04 LTS 64-bit	Cert	Cert	Cert	Cert	Cert

2.1.8 Linux Distribution support

Table 2-8 lists the Linux Distribution compatibility for ThinkServer Generation 5 systems with E5-2600 v4 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-8   ThinkServer Generation 5 (E5-2600 v4) - Linux Distributions

	TD350	RD350	RD450	RD550	RD650
Fedora 20 (32-bit and 64-bit)	Tested	Tested	Tested	Tested	Tested
Fedora 22 (32-bit and 64-bit)	Tested	Tested	Tested	Tested	Tested
Debian 7.4 (32-bit and 64-bit)	Tested	Tested	Tested	Tested	Tested
Debian 7.8 (32-bit and 64-bit)	Tested	Tested	Tested	Tested	Tested
FreeBSD 10.0 (32-bit and 64-bit)	Tested	Tested	Tested	Tested	Tested
FreeBSD 10.2 (32-bit and 64-bit)	Tested	Tested	Tested	Tested	Tested
CentOS 7.1 (32-bit and 64-bit)	Tested	Tested	Tested	Tested	Tested
Neokylin 6.0	No	No	No	No	No

2.2 ThinkServer Generation 5 systems (E5-2600 v3)

This section lists the operating system compatibility for ThinkServer Generation 5 systems with E5-2600 v3 processors.

- ► 2.2.1, "Windows support"
- ► 2.2.2, "SLES support"
- ► 2.2.3, "RHEL support" on page 45
- ► 2.2.4, "VMware support" on page 46
- ► 2.2.5, "XenServer support" on page 47
- ► 2.2.6, "Oracle support" on page 47
- ► 2.2.7, "Canonical Ubuntu support" on page 48
- ► 2.2.8, "Linux Distribution support" on page 48

2.2.1 Windows support

Table 2-9 lists the Windows compatibility for ThinkServer Generation 5 systems with E5-2600 v3 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-9   ThinkServer Generation 5 (E5-2600 v3) - Windows

	TS150	TS450	TD350	RD350	RD450	RD550	RD650
Windows client operating systems							
Windows 8 (32bit and 64bit)	No	No	Supp	No	No	No	No
Windows 8 Professional (32bit and 64bit)	No	No	Supp	No	No	No	No
Windows 8.1 (x86 and x64)	No	No	Supp	No	No	No	No
Windows 8.1 Professional (x86 and x64)	No	No	Supp	No	No	No	No
Windows 10 Professional (x64)	Supp	Supp	No	No	No	No	No
Windows Server 2008 R2 (x64)							
Windows Server 2008 R2 x64	No	No	No	No	No	No	No
Windows Server 2008 R2 x64 with SP1	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Windows Small Business Server (SBS)							
Windows SBS 2011 Essentials	No	No	S+C	S+C	S+C	S+C	S+C
Windows SBS 2011 Standard	No	No	S+C	S+C	S+C	S+C	S+C
Windows SBS 2011 Premium Add-on	No	No	S+C	S+C	S+C	S+C	S+C
Windows Server 2012							
Windows Server 2012	S+C[b]	S+C[b]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Windows Storage Server 2012 Standard	No	No	S+C	S+C	S+C	S+C	S+C
Windows Server 2012 R2							
Windows Server 2012 R2	S+C[b]	S+C[b]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]

	TS150	TS450	TD350	RD350	RD450	RD550	RD650
Window Storage Server 2012 R2 Standard	No	No	S+C	S+C	S+C	S+C	S+C
Windows Multipoint Server							
Windows Multipoint Server 2012	S+C	S+C	S+C	S+C	S+C	S+C	S+C

a. Hyper-V virtualization not supported in models using onboard RAID (RAID 110i)
b. Excludes Windows Server 2012 / 2012 R2 Datacenter Edition

2.2.2 SLES support

Table 2-10 lists the SUSE Linux Enterprise Server compatibility for ThinkServer Generation 5 systems with E5-2600 v3 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-10   ThinkServer Generation 5 (E5-2600 v3) - SLES

	TS150	TS450	TD350	RD350	RD450	RD550	RD650
SUSE Linux Enterprise Server 11							
SLES 11 x86	No	No	No	No	No	No	No
SLES 11 x64	No	No	No	No	No	No	No
SLES 11 x64 Xen	No	No	No	No	No	No	No
SLES 11 x86 SP1	No	No	No	No	No	No	No
SLES 11 x64 SP1	No	No	No	No	No	No	No
SLES 11 x86 SP2	No	No	No	No	No	No	No
SLES 11 x64 SP2	No	No	No	No	No	No	No
SLES 11 x86 SP3	No	No	S+C	S+C	S+C	S+C	S+C
SLES 11 x64 SP3	No	No	S+C	S+C	S+C	S+C	S+C
SLES 11 x86 SP4	No	No	S+C	S+C	S+C	S+C	S+C
SLES 11 x64 SP4	S+C	S+C	S+C	S+C	S+C	S+C	S+C
SUSE Linux Enterprise Server 12							
SLES 12	No	No	S+C	S+C	S+C	S+C	S+C
SLES 12 SP1	No	No	S+C	S+C	S+C	S+C	S+C

2.2.3 RHEL support

Table 2-11 lists the Red Hat Enterprise Linux compatibility for ThinkServer Generation 5 systems with E5-2600 v3 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-11   ThinkServer Generation 5 (E5-2600 v3) - RHEL

	TS150	TS450	TD350	RD350	RD450	RD550	RD650
Red Hat Enterprise Linux 6 Server							
RHEL 6.0 (32 & 64-bit)	No	No	No	No	No	No	No
RHEL 6.1 (32-bit)	No	No	No	No	No	No	No
RHEL 6.1 (64-bit)	No	No	No	No	No	No	No
RHEL 6.2 (32-bit)	No	No	No	No	No	No	No
RHEL 6.2 (64-bit)	No	No	No	No	No	No	No
RHEL 6.3 (32-bit)	No	No	No	No	No	No	No
RHEL 6.3 (64-bit)	No	No	No	No	No	No	No
RHEL 6.4 (32-bit)	No	No	No	No	No	No	No
RHEL 6.4 (64-bit)	No	No	No	No	No	No	No
RHEL 6.5 (32-bit)	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.5 (64-bit)	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.6 (32-bit)	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.6 (64-bit)	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.7 (32-bit)	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.7 (64-bit)	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.8 (32-bit)	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.8 (64-bit)	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Red Hat Enterprise Linux 7 Server							
RHEL 7 (64-bit)	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 7.1 (64-bit)	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 7.2 (64-bit)	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]

a. Supported in Legacy mode (non-UEFI) of BIOS only. Not supported in UEFI mode of BIOS

2.2.4 VMware support

Table 2-12 lists the VMware ESXi compatibility for ThinkServer Generation 5 systems with E5-2600 v3 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Custom image support: ThinkServer Generation 5 systems support Lenovo custom images for VMware ESXi starting from ESXi 6.0 U2.

Table 2-12   ThinkServer Generation 5 (E5-2600 v3) - VMware ESXi

	TS150	TS450	TD350	RD350	RD450	RD550	RD650
VMware ESXi 5.1							
VMware ESXi 5.1	No	No	S+C[abc]	S+C[abc]	S+C[abc]	S+C[abc]	S+C[abc]
VMware ESXi 5.1 U1	No	No	No	No	No	No	No
VMware ESXi 5.1 U2	No	No	No	No	No	No	No
VMware ESXi 5.1 U3	No	No	No	No	No	No	No
VMware ESXi 5.5							
VMware ESXi 5.5	No	No	No	No	No	No	No
VMware ESXi 5.5 U1	No	No	No	No	No	No	No
VMware ESXi 5.5 U2	No	No	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 5.5 U3	No	No	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 6.0							
VMware ESXi 6.0	No	No	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 6.0 U1	No	No	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 6.0 U2	No	No	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]

a. Not supported in models using onboard RAID (RAID 110i)
b. VMware vSphere does not support 512e and 4K Native drives. See http://kb.vmware.com/kb/2091600
c. Requires ESXi 5.1 patch 5

2.2.5 XenServer support

Table 2-13 lists the XenServer compatibility for ThinkServer Generation 5 systems with E5-2600 v3 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-13   ThinkServer Generation 5 (E5-2600 v3) - XenServer

	TS150	TS450	TD350	RD350	RD450	RD550	RD650
Citrix XenServer 6.0.2	No	No	No	No	No	No	No
Citrix XenServer 6.1	No	No	No	No	No	No	No
Citrix XenServer 6.2	No	No	No	No	No	No	No
Citrix XenServer 6.5	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Citrix XenServer 6.5.1	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Citrix XenServer 7.0	No	No	No	No	No	No	No

a. Not supported in models using onboard RAID (RAID 110i)

2.2.6 Oracle support

Table 2-14 lists the Oracle compatibility for ThinkServer Generation 5 systems with E5-2600 v3 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-14   ThinkServer Generation 5 (E5-2600 v3) - Oracle

	TS150	TS450	TD350	RD350	RD450	RD550	RD650
Oracle Linux							
Oracle Linux 7.0	No	No	No	No	No	No	No
Oracle Linux 7.1	No	No	No	No	No	Cert	Cert
Oracle VM							
Oracle VM 3.2	No	No	No	No	No	No	No
Oracle VM 3.3	No	No	No	No	No	Cert	Cert
Oracle Solaris							
Solaris 10	No	No	No	No	No	No	No
Solaris 11	No	No	No	No	No	No	No

2.2.7 Canonical Ubuntu support

Table 2-15 lists the Canonical Ubuntu support for ThinkServer Generation 5 systems with E5-2600 v3 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-15   ThinkServer Generation 5 (E5-2600 v3) - Ubuntu

Model	TS150	TS450	TD350	RD350	RD450	RD550	RD650
Ubuntu 12.04 LTS 64-bit	No	No	No	No	No	No	No
Ubuntu 14.04 LTS 64-bit	Cert	Cert	Cert	Cert	Cert	Cert	Cert

2.2.8 Linux Distribution support

Table 2-16 lists the Linux Distribution compatibility for ThinkServer Generation 5 systems with E5-2600 v3 processors.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-16   ThinkServer Generation 5 (E5-2600 v3) - Linux Distributions

	TS150	TS450	TD350	RD350	RD450	RD550	RD650
Fedora 20 (32-bit and 64-bit)	No	No	Tested	Tested	Tested	Tested	Tested
Debian 7.4 (32-bit and 64-bit)	No	No	Tested	Tested	Tested	Tested	Tested
FreeBSD 10.0 (32-bit and 64-bit)	No	No	Tested	Tested	Tested	Tested	Tested
CentOS 6.5 and later (32-bit and 64-bit)	No	No	Tested	Tested	Tested	Tested	Tested
Neokylin 6.0	No	No	Cert	Cert	Cert	Cert	Cert

2.3 ThinkServer Generation 4 systems

This section lists the operating system compatibility for ThinkServer Generation 4 systems.

2.3.1 Windows support

Table 2-17 lists the Windows compatibility for ThinkServer Generation 4 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-17   ThinkServer Generation 4 systems - Windows

	TS140	TS440	TD340	RS140	RD340	RD440	RD540	RD640
Client operating systems								
Windows 7 Ultimate (x86 and x64) SP1	Supp	Supp	No	Supp	No	No	No	No
Windows 7 Professional (x86 and x64) SP1	Supp	Supp	No	Supp	No	No	No	No
Windows 8 (32bit and 64bit)	Supp	Supp	No	Supp	No	No	No	No
Windows 8 Professional (32bit and 64bit)	Supp	Supp	No	Supp	No	No	No	No
Windows 8.1 (x86 and x64)	Supp	Supp	No	Supp	No	No	No	No
Windows 8.1 Professional (x86 and x64)	No	No	No	No	No	No	No	No
Windows 10 Professional (x64)	No	No	No	No	No	No	No	No
Windows Server 2008 x86 Edition								
Windows Server 2008 Standard x86	No	No	Supp[a]	No	Supp[a]	Supp[a]	Supp[a]	Supp[a]
Windows Server 2008 Enterprise x86	No	No	Supp[a]	No	Supp[a]	Supp[a]	Supp[a]	Supp[a]
Windows Server 2008 Datacenter x86	No	No	Supp[a]	No	Supp[a]	Supp[a]	Supp[a]	Supp[a]
Windows Server 2008 x64 Edition								
Windows Server 2008 Foundations x64	No	No	No	No	No	No	No	No
Windows Server 2008 Standard x64	No	No	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Windows Server 2008 Enterprise x64	No	No	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Windows Server 2008 Datacenter x64	No	No	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Hyper-V Server 2008	No	No	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Windows Server 2008 R2								
Windows Server 2008 R2 x64	No	No	No	No	No	No	No	No
Windows Server 2008 R2 x64 SP1	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Windows Small Business Server (SBS)								
Windows SBS 2011 Essentials	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Windows SBS 2011 Standard	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Windows SBS 2011 Premium Add-on	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Windows Server 2012								
Windows Server 2012	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Window Storage Server 2012 Standard	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2012 R2								
Windows Server 2012 R2	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Window Storage Server 2012 R2 Standard	S+C	S+C	S+C	S+C	S+C	S+C	S+C	S+C
Windows Multipoint Server								
Windows Multipoint Server 2011	Supp	No	No	No	No	No	No	No

	TS140	TS440	TD340	RS140	RD340	RD440	RD540	RD640
Windows Multipoint Server 2012	No	No	No	No	No	No	No	No

a. Supported in Legacy mode (non-UEFI) of BIOS only. Not supported in UEFI mode of BIOS

2.3.2 SLES support

Table 2-18 lists the SUSE Linux Enterprise Server compatibility for ThinkServer Generation 4 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-18   ThinkServer Generation 4 systems - SLES

	TS140	TS440	TD340	RS140	RD340	RD440	RD540	RD640
SUSE Linux Enterprise Server 10								
SLES 10 for x86 SP3	No	No	No	No	No	No	No	No
SLES 10 for AMD64 & EMT64 SP3	No	No	No	No	No	No	No	No
SLES 10 for x86 SP4	No	No	Supp[a]	No	Supp[a]	Supp[a]	Supp[a]	Supp[a]
SLES 10 for AMD64 & EMT64 SP4	No	No	Supp[a]	No	Supp[a]	Supp[a]	Supp[a]	Supp[a]
SUSE Linux Enterprise Server 11								
SLES 11 for x86	No	No	No	No	No	No	No	No
SLES 11 for AMD64 & EM64T	No	No	No	No	No	No	No	No
SLES 11 for AMD64 & EM64T XEN	No	No	No	No	No	No	No	No
SLES 11 for x86 SP1	No	No	No	No	No	No	No	No
SLES 11 for AMD64 & EMT64 SP1	No	No	No	No	No	No	No	No
SLES 11 for x86 SP2	No	S+C[a]	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
SLES 11 for AMD64 & EMT64 SP2	No	S+C	No	No	S+C[b]	S+C[b]	S+C	S+C
SLES 11 for x86 SP3	No	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
SLES 11 for AMD64 & EMT64 SP3	No	S+C	No	S+C	S+C[b]	S+C[b]	S+C	S+C
SLES 11 for x86 SP4	No	No	No	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]
SLES 11 for AMD64 & EMT64 SP4	No	No	No	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]
SUSE Linux Enterprise Server 12								
SLES 12	No	No	No	No	No	No	No	No
SLES 12 SP1	No	No	No	No	No	No	No	No

a. Supported in Legacy mode (non-UEFI) of BIOS only. Not supported in UEFI mode of BIOS
b. Models with onboard RAID are supported in Legacy mode (non-UEFI) of BIOS only. Not supported in UEFI mode of BIOS
c. Not supported in models using onboard/software RAID (RAID 110i, RAID 100, RAID 300)

2.3.3 RHEL support

Table 2-19 lists the Red Hat Enterprise Liinux compatibility for ThinkServer Generation 4 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-19   ThinkServer Generation 4 systems - RHEL

	TS140	TS440	TD340	RS140	RD340	RD440	RD540	RD640
Red Hat Enterprise Linux 5 Server								
RHEL 5.6 (32 & 64-bit)	No	No	No	No	No	No	No	No
RHEL 5.7 (32-bit)	No	No	No	No	No	No	No	No
RHEL 5.7 (64-bit)	No	No	No	No	No	No	No	No
RHEL 5.8 (32-bit&64-bit)	No	No	No	No	No	No	No	No
RHEL 5.9 (32-bit)	No	No	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 5.9 (64-bit)	No	No	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 5.10 (32-bit)	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 5.10 (64-bit)	No	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Red Hat Enterprise Linux 6 Server								
RHEL 6.0 (32 & 64-bit)	No	No	No	No	No	No	No	No
RHEL 6.1 (32-bit)	No	No	No	No	No	No	No	No
RHEL 6.1 (64-bit)	No	No	No	No	No	No	No	No
RHEL 6.2 (32-bit)	No	No	No	No	No	No	No	No
RHEL 6.2 (64-bit)	No	No	No	No	No	No	No	No
RHEL 6.3 (32-bit)	No	No	No	No	No	No	No	No
RHEL 6.3 (64-bit)	No	No	No	No	No	No	No	No
RHEL 6.4 (32-bit)	No	S+C[a]	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.4 (64-bit)	No	S+C[a]	S+C[a]	No	S+C[b]	S+C[b]	S+C	S+C
RHEL 6.5 (32-bit)	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.5 (64-bit)	S+C	S+C	S+C[b]	S+C	S+C[b]	S+C[b]	S+C	S+C
RHEL 6.6 (32-bit)	Cert	Cert	Cert	Cert	Cert	Cert	Cert	Cert
RHEL 6.6 (64-bit)	Cert	Cert	Cert	Cert	Cert	Cert	Cert	Cert
RHEL 6.7 (32-bit)	Cert[c]	Cert[c]	Cert[c]	Cert	Cert[c]	Cert[c]	Cert[c]	Cert[c]
RHEL 6.7 (64-bit)	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]
RHEL 6.8 (32-bit)	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]
RHEL 6.8 (64-bit)	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]	Cert[c]

	TS140	TS440	TD340	RS140	RD340	RD440	RD540	RD640
Red Hat Enterprise Linux 7 Server								
RHEL 7 (64-bit)	S+C	S+C	S+C[b]	S+C	S+C[b]	S+C[b]	S+C	S+C
RHEL 7.1 (64-bit)	S+C	S+C	S+C[b]	S+C	S+C[b]	S+C[b]	S+C	S+C
RHEL 7.2 (64-bit)	S+C	S+C	S+C[b]	S+C	S+C[b]	S+C[b]	S+C	S+C

a. Supported in Legacy mode (non-UEFI) of BIOS only. Not supported in UEFI mode of BIOS
b. Models with onboard RAID are supported in Legacy mode (non-UEFI) of BIOS only. Not supported in UEFI mode of BIOS
c. Not supported in models using onboard/software RAID (RAID 110i, RAID 100, RAID 300)

2.3.4 VMware ESXi support

Table 2-20 lists the VMware ESXi compatibility for ThinkServer Generation 4 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

No custom image support: The servers in Table 2-20 do not support any of the Lenovo custom images for VMware ESXi that are currently available on the VMware web site.

Table 2-20   ThinkServer Generation 4 systems - VMware

	TS140	TS440	TD340	RS140	RD340	RD440	RD540	RD640
VMware ESXi 5.0								
VMware ESXi 5.0	No	No	No	No	No	No	No	No
VMware ESXi 5.0 U1	No	No	No	No	No	No	No	No
VMware ESXi 5.1								
VMware ESXi 5.1	No	No	No	No	No	No	No	No
VMware ESXi 5.1 U1	No	S+C[abcd]		No	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 5.1 U2	S+C[abcd]	S+C[abcd]	S+C[ab]	No	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 5.1 U3	S+C[abcd]	S+C[abcd]	S+C[ab]	No	Cert[ab]	Cert[ab]	Cert[ab]	Cert[ab]
VMware ESXi 5.5								
VMware ESXi 5.5	S+C[abcd]	S+C[abcd]	S+C[ab]	S+C[abcde]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 5.5 U1	S+C[abcd]	S+C[abcd]	S+C[ab]	S+C[abcd]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 5.5 U2	S+C[abcd]	S+C[abcd]	S+C[ab]	S+C[abd]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 5.5 U3	S+C[abcd]	S+C[abcd]	S+C[ab]	S+C[abd]	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 6.0								
VMware ESXi 6.0	No	No	No	No	No	No	No	No
VMware ESXi 6.0 U1	No	No	No	No	No	No	No	No
VMware ESXi 6.0 U2	No	No	No	No	No	No	No	No

a. Not supported in models using onboard/software RAID (RAID 110i, RAID 100, RAID 300)
b. VMware vSphere does not support 512e and 4K Native drives. See `http://kb.vmware.com/kb/2091600`
c. Onboard NIC driver (i217) is not supported
d. VMware does not support Core i3 processors nor the onboard NIC. Support requires a Xeon E3 processor and a separate network adapter card.
e. Requires the VMware 5.5 Rollup

2.3.5 XenServer support

Table 2-21 lists the XenServer compatibility for ThinkServer Generation 4 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-21   ThinkServer Generation 4 systems - XenServer

	TS140	TS440	TD340	RS140	RD340	RD440	RD540	RD640
Citrix XenServer 6.0.2	No	No	S+C[ab]	No	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
Citrix XenServer 6.1	No	No	No	No	No	No	S+C[ab]	S+C[ab]
Citrix XenServer 6.2	No	S+C[ab]	S+C[ab]	No	Supp[ab]	S+C[ab]	Supp[ab]	No
Citrix XenServer 6.5	No	No	No	No	No	No	No	No
Citrix XenServer 6.5.1	No	No	No	No	No	No	No	No
Citrix XenServer 7.0	No	No	No	No	No	No	No	No

a. Supported in Legacy mode (non-UEFI) of BIOS only. Not supported in UEFI mode of BIOS
b. Not supported in models using onboard/software RAID (RAID 110i, RAID 100, RAID 300)

2.3.6 Oracle support

Table 2-22 lists the Oracle compatibility for ThinkServer Generation 4 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-22   ThinkServer Generation 4 systems - Oracle

	TS140	TS440	TD340	RS140	RD340	RD440	RD540	RD640
Oracle Linux								
Oracle Linux 5.9	No	No	No	No	No	No	No	Cert
Oracle Linux 5.10	No	No	No	No	No	No	No	Cert
Oracle Linux 6.1	No	No	No	No	No	No	No	No
Oracle Linux 6.2	No	No	No	No	No	No	No	No
Oracle Linux 6.3	No	No	No	No	No	No	No	No
Oracle Linux 6.4	No	No	No	No	No	No	No	Cert
Oracle Linux 6.5	No	No	No	No	No	No	No	Cert
Oracle Linux 6.6	No	No	No	No	No	No	No	No

	TS140	TS440	TD340	RS140	RD340	RD440	RD540	RD640
Oracle Linux 6.7	No	No	No	No	No	No	No	No
Oracle Linux 7.0	No	No	No	No	No	No	No	Cert
Oracle Linux 7.1	No	No	No	No	No	No	No	No
Oracle VM								
Oracle VM 3.2	No	No	No	No	No	No	No	Cert
Oracle VM 3.3	No	No	No	No	No	No	No	Cert
Oracle Solaris								
Solaris 10	No	No	No	No	No	No	No	No
Solaris 11	No	No	No	No	No	No	No	No

2.3.7 Canonical Ubuntu support

Table 2-23 lists the Canonical Ubuntu support for ThinkServer Generation 4 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-23   ThinkServer Generation 4 systems - Ubuntu

Model	TS140	TS440	TD340	RS140	RD340	RD440	RD540	RD640
Ubuntu 12.04 LTS 64-bit	No	No	No	No	No	No	No	No
Ubuntu 14.04 LTS 64-bit	Cert	Cert	No	Cert	No	No	No	No

2.4 ThinkServer Generation 3 systems

This section lists the operating system compatibility for ThinkServer Generation 3 systems.

► 2.4.1, "Windows support"
► 2.4.2, "SLES support" on page 56
► 2.4.3, "RHEL support" on page 57
► 2.4.4, "VMware support" on page 58
► 2.4.5, "Oracle support" on page 60
► 2.4.6, "XenServer support" on page 60

2.4.1 Windows support

Table 2-24 lists the Windows compatibility for ThinkServer Generation 3 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-24   ThinkServer Generation 3 systems

	TS130	TD230	TS430	RD230	RD330	RD430	RD530	RD630
Windows Client OS								
Windows 7 Ultimate (x86 and x64) SP1	Supp	No	No	No	No	No	No	No
Windows 7 Professional (x86 and x64) SP1	Supp	No	No	No	No	No	No	No
Windows 8 (32bit and 64bit)	Supp	No	No	No	No	No	No	No
Windows 8 Professional (x86 and x64)	Supp	No	No	No	No	No	No	No
Windows 8.1 (x86 and x64)	No	No	No	No	No	No	No	No
Windows 8.1 (x86 and x64)	No	No	No	No	No	No	No	No
Windows 8.1 Professional (x86 and x64)	No	No	No	No	No	No	No	No
Windows 10 Professional (x64)	No	No	No	No	No	No	No	No
Windows Server 2003								
Windows Server 2003 R2 Standard (x86 and x64) SP2	Supp[a]	No	Supp[a]	Supp	No	No	Supp[a]	Supp[a]
Windows Server 2003 R2 Enterprise (x86 and x64) SP2	Supp[a]	No	Supp[a]	Supp	No	No	Supp[a]	Supp[a]
Windows Server 2008								
Windows Server 2008 Standard x86	Supp[a]	S+C	Supp[a]	Supp[a]	Supp[a]	Supp[a]	Supp[a]	Supp[a]
Windows Server 2008 Enterprise x86	Supp[a]	S+C	Supp[a]	Supp[a]	Supp[a]	Supp[a]	Supp[a]	Supp[a]
Windows Server 2008 Datacenter x86	No	No	No	No	No	No	Supp[a]	Supp[a]
Windows Server 2008 Foundations x64	Supp	No	S+C	No	No	No	No	No
Windows Server 2008 Standard x64	Supp	S+C	S+C	S+C	S+C[b]	S+C[b]	S+C	S+C
Windows Server 2008 Enterprise x64	Supp	S+C	S+C	S+C	S+C[b]	S+C[b]	S+C	S+C
Windows Server 2008 Datacenter x64	No	No	No	No	No	No	S+C	S+C
Hyper-V Server 2008	No	No	No	No	S+C	S+C[b]	S+C	S+C
Windows Server 2008 R2								
Windows Server 2008 R2 x64	Supp	S+C	S+C	S+C	S+C[b]	S+C[b]	S+C	S+C
Windows Server 2008 R2 x64 SP1	Supp	S+C	S+C	S+C	S+C[b]	S+C[b]	S+C	S+C
Windows Small Business Server (SBS) and Essential Business Server (EBS)								
Windows EBS 2008 Standard	No	No	No	S+C	No	No	No	No
Windows EBS 2008 Premium	No	No	No	S+C	No	No	No	No
Windows SBS 2008 Standard SP2	No	S+C	No	S+C	No	No	No	No
Windows SBS 2008 Premium SP2	No	S+C	No	S+C	No	No	No	No
Windows SBS 2011 Essentials	Supp	S+C	S+C	S+C	S+C[b]	S+C[b]	No	No
Windows SBS 2011 Standard	Supp	S+C	S+C	S+C	S+C[b]	S+C[b]	S+C	S+C

	TS130	TD230	TS430	RD230	RD330	RD430	RD530	RD630
Windows SBS 2011 Premium Add-on	Supp	S+C	S+C	S+C	S+C[b]	S+C[b]	S+C	S+C
Windows Server 2012								
Windows Server 2012	S+C	No	S+C	No	S+C	S+C	S+C	S+C
Window Storage Server 2012 Standard	No	No	No	No	No	No	No	No
Windows Server 2012 R2								
Windows Server 2012 R2	Supp	No	S+C	No	S+C	S+C	S+C	S+C
Window Storage Server 2012 R2	No	No	No	No	No	No	No	No
Windows Multipoint Server								
Windows Multipoint Server 2011	Supp	No	S+C	No	No	No	No	No
Windows Multipoint Server 2012	No	No	No	No	No	No	No	No

a. Supported in Legacy mode (non-UEFI) of BIOS only. Not supported in UEFI mode of BIOS
b. Models with embedded/software RAID (RAID 100, RAID 300)are supportted in Legacy mode of BIOS only. Not supported in UEFI mode of BIOS

2.4.2 SLES support

Table 2-25 lists the SUSE Linux Enterprise Server compatibility for ThinkServer Generation 3 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-25   ThinkServer Generation 3 systems - SLES

	TS130	TD230	TS430	RD230	RD330	RD430	RD530	RD630
SUSE Linux Enterprise Server 10								
SLES 10 for x86 SP3	No	No	No	Supp[a]	No	No	No	No
SLES 10 for AMD64 & EMT64 SP3	No	No	No	Supp[a]	No	No	No	No
SLES 10 for x86 SP4	No	No	S+C	No	No	No	No	No
SLES 10 for AMD64 & EMT64 SP4	No	No	S+C	No	No	No	No	No
SUSE Linux Enterprise Server 11								
SLES 11 for x86	No	S+C	No	S+C[a]	No	No	No	No
SLES 11 for AMD64 & EM64T	No	S+C	No	S+C[a]	No	No	No	No
SLES 11 for AMD64 & EM64T with XEN	No	S+C	No	Cert	No	No	No	No
SLES 11 for x86 SP1	No	No	S+C[b]	Cert	S+C[b]	S+C[b]	S+C[b]	S+C[b]
SLES 11 for AMD64 & EMT64 SP1	No	No	S+C	Cert	S+C[c]	S+C[c]	S+C	S+C
SLES 11 for x86 SP2	No	No	S+C[b]	Cert	S+C[b]	S+C[b]	S+C[b]	S+C[b]
SLES 11 for AMD64 & EMT64 SP2	No	No	S+C	Cert	S+C[c]	S+C[c]	S+C	S+C
SLES 11 for x86 SP3	No	No	Cert	Cert	Cert	Cert	Cert	Cert

	TS130	TD230	TS430	RD230	RD330	RD430	RD530	RD630
SLES 11 for AMD64 & EMT64 SP3	No	No	Cert	Cert	Cert	Cert	Cert	Cert
SLES 11 for x86 SP4	No	No	Cert[a]	Cert[a]	Cert[a]	Cert[a]	Cert[a]	Cert[a]
SLES 11 for AMD64 & EMT64 SP4	No	No	Cert[a]	Cert[a]	Cert[a]	Cert[a]	Cert[a]	Cert[a]
SUSE Linux Enterprise Server 12								
SLES 12	No	No	No	No	No	No	No	No
SLES 12 SP1	No	No	No	No	No	No	No	No

a. Not supported in models using onboard/software RAID (RAID 100, RAID 300)
b. Supported in Legacy mode (non-UEFI) of BIOS only. Not supported in UEFI mode of BIOS
c. Models with software RAID are supported in Legacy mode of BIOS only. Not supported in UEFI mode of BIOS

2.4.3 RHEL support

Table 2-26 lists the Red Hat Enterprise Liinux compatibility for ThinkServer Generation 3 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-26   ThinkServer Generation 3 systems - RHEL

	TS130	TD230	TS430	RD230	RD330	RD430	RD530	RD630
Red Hat Enterprise Linux 5								
RHEL 5.6 (32 & 64-bit)	No	No	S+C	No	No	No	No	No
RHEL 5.7 (32-bit)	No	No	S+C	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 5.7 (64-bit)	No	No	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 5.8 (32-bit&64-bit)	No	No	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 5.9 (32-bit)	No	No	No	No	Cert	Cert	Cert	Cert
RHEL 5.9 (64-bit)	No	No	No	No	Cert	Cert	Cert	Cert
RHEL 5.10 (32-bit)	S+C	No	S+C	No	Cert	Cert	S+C	Cert
RHEL 5.10 (64-bit)	S+C	No	S+C	No	Cert	Cert	S+C	Cert
Red Hat Enterprise Linux 6								
RHEL 6.0 (32 & 64-bit)	No	No	S+C	No	No	No	No	No
RHEL 6.1 (32-bit)	No	S+C	No	S+C[b]	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.1 (64-bit)	No	S+C	No	S+C[b]	S+C[c]	S+C[c]	S+C	S+C
RHEL 6.2 (32-bit)	Supp[a]	Cert	S+C[a]	Cert	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.2 (64-bit)	Supp[c]	Cert	S+C	Cert	S+C[c]	S+C[c]	S+C	S+C
RHEL 6.3 (32-bit)	Cert	Cert	S+C[a]	Cert	S+C[a]	S+C[a]	S+C[a]	S+C[a]
RHEL 6.3 (64-bit)	Cert	Cert	S+C	Cert	S+C[c]	S+C[c]	S+C	S+C
RHEL 6.4 (32-bit)	Cert	Cert	Cert	Cert	Cert	Cert	Cert	Cert

	TS130	TD230	TS430	RD230	RD330	RD430	RD530	RD630
RHEL 6.4 (64-bit)	Cert	Cert	Cert	Cert	Cert	Cert	Cert	Cert
RHEL 6.5 (32-bit)	S+C	Cert	S+C	Cert	Cert	Cert	S+C	Cert
RHEL 6.5 (64-bit)	S+C	Cert	S+C	Cert	Cert	Cert	S+C	Cert
RHEL 6.6 (32-bit)	Cert	Cert	Cert	Cert	Cert	Cert	Cert	Cert
RHEL 6.6 (64-bit)	Cert	Cert	Cert	Cert	Cert	Cert	Cert	Cert
RHEL 6.7 (32-bit)	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]
RHEL 6.7 (64-bit)	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]
RHEL 6.8 (32-bit)	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]
RHEL 6.8 (64-bit)	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]	Cert[b]
Red Hat Enterprise Linux 7 Server								
RHEL 7 (64-bit)	No	No	No	No	No	No	No	No
RHEL 7.1 (64-bit)	No	No	No	No	No	No	No	No
RHEL 7.2 (64-bit)	No	No	No	No	No	No	No	No

a. Supported in Legacy mode (non-UEFI) of BIOS only. Not supported in UEFI mode of BIOS
b. Not supported in models using onboard/software RAID (RAID 100, RAID 300)
c. Models with software RAID are supportted in Legacy mode of BIOS only. Not supported in UEFI mode of BIOS

2.4.4 VMware support

Table 2-27 lists the VMware compatibility for ThinkServer Generation 3 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

No custom image support: The servers in Table 2-27 do not support any of the Lenovo custom images for VMware ESXi that are currently available on the VMware web site.

Table 2-27   ThinkServer Generation 3 systems - VMware

	TS130	TD230	TS430	RD230	RD330	RD430	RD530	RD630
VMware ESX								
VMware ESX 4.0	No	S+C	No	S+C	No	No	No	No
VMware ESXi 4.1	No	S+C	No	S+C	No	No	No	No
VMware ESX 4.1 U1	No	No	S+C[a]	No	No	No	No	No
VMware ESXi 4.x								
VMware ESXi 4.0	No	S+C	No	S+C	No	No	No	No
VMware ESX 4.1	No	S+C	No	S+C	No	No	No	No
VMware ESXi 4.1 U1	No	No	S+C[a]	No	No	No	No	No

	TS130	TD230	TS430	RD230	RD330	RD430	RD530	RD630
VMware ESXi 5.0								
VMware ESXi 5.0	No	S+C	S+C[a]	S+C	S+C[a]	S+C[a]	S+C[a]	S+C[a]
VMware ESXi 5.0 U1	No	No	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
VMware ESXi 5.1								
VMware ESXi 5.1	No	No	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
VMware ESXi 5.1 U1	No	No	Cert	No	Cert	Cert	Cert	Cert
VMware ESXi 5.1 U2	No	No	S+C	No	Cert	Cert	S+C	Cert
VMware ESXi 5.1 U3	No	No	Cert	No	Cert	Cert	S+C	Cert
VMware ESXi 5.5								
VMware ESXi 5.5	No	No	S+C[a]	No	S+C[ab]	S+C[ab]	S+C[ab]	S+C[ab]
VMware ESXi 5.5 U1	No	No	S+C	No	Cert	Cert	S+C	Cert
VMware ESXi 5.5 U2	No	No	Cert	No	Cert	Cert	Cert	Cert
VMware ESXi 5.5 U3	No	No	Cert	No	Cert	Cert	Cert	Cert
VMware ESXi 6.0								
VMware ESXi 6.0	No	No	No	No	No	No	No	No
VMware ESXi 6.0 U1	No	No	No	No	No	No	No	No
VMware ESXi 6.0 U2	No	No	No	No	No	No	No	No

a. Not supported in models using onboard/software RAID (RAID 100, RAID 300)
b. Must update BIOS to 8.20 or later.

2.4.5 Oracle support

Table 2-28 lists the Oracle compatibility for ThinkServer Generation 3 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-28   ThinkServer Generation 3 systems - Oracle

	TS130	TD230	TS430	RD230	RD330	RD430	RD530	RD630
Oracle Solaris								
Solaris 10	No	No	No	No	No	No	No	No
Solaris 11	No	No	No	No	No	Cert	Cert	No

2.4.6 XenServer support

Table 2-29 lists the XenServer compatibility for ThinkServer Generation 3 systems.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 2-29   ThinkServer Generation 3 systems - XenServer

	TS130	TD230	TS430	RD230	RD330	RD430	RD530	RD630
Citrix XenServer 6.0.2	No	No	S+C[a]	No	S+C[a]	S+C[a]	S+C[a]	S+C[a]
Citrix XenServer 6.1	No	No	No	No	No	No	No	No
Citrix XenServer 6.2	No	No	No	No	No	No	No	No
Citrix XenServer 6.5	No	No	No	No	No	No	No	No
Citrix XenServer 6.5.1	No	No	No	No	No	No	No	No
Citrix XenServer 7.0	No	No	No	No	No	No	No	No

a. Not supported in models using onboard/software RAID (RAID 100, RAID 300)

3

Dense systems

This chapter lists operating system compatibility for Lenovo's dense systems, NeXtScale System and iDataPlex.

In these tables, "Supp+Cert" mean Supported and Certified.

Definitions are as follows:

► Supported

Lenovo provides hardware / OS interoperability support on Lenovo servers. Lenovo validates selected products for compatibility with Lenovo servers and works with third-party vendors to test their equipment with ours.

► Certified

Server has met the OS Partner Certified/Logo program requirements. OS vendor provides OS support. Lenovo only provides hardware level support, and works with the hardware partner and OS vendors to close any compatibility issues customers may experience with their installation. Lenovo will work with the OS provider to submit hardware compatibility (HCL) test suite results so that the supported solution can be posted to the respective OS providers HCL site.

► Tested

Either the OS or hypervisor was successfully installed on the server. Lenovo acknowledges the community based OSs, and Lenovo will provide hardware level support only, and will not make any statement regarding the support of the OS, including interactions with Lenovo tools or device drivers, or special software provided by Lenovo.

3.1 Dense systems

This section lists the operating system compatibility for dense systems.

- ► 3.1.1, "Windows support"
- ► 3.1.2, "RHEL support"
- ► 3.1.3, "SLES support" on page 64
- ► 3.1.4, "VMware support" on page 65
- ► 3.1.5, "XenServer support" on page 66
- ► 3.1.6, "Canonical Ubuntu support" on page 66

In the tables, Supp+Cert means Supported and Certified.

3.1.1 Windows support

Table 3-1 lists the Windows compatibility.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 3-1   Dense systems - Windows

Model	ThinkServer sd350 5493	NeXtScale nx360 M5 5465 (v3)	NeXtScale nx360 M5 5465 (v4)	NeXtScale nx360 M4 5455	iDataPlex dx360 M4 7912
Microsoft Windows Server 2008					
Windows Server 2008, Datacenter x64 SP2	No	No	No	No	Supp+Cert
Windows Server 2008, Enterprise x64 SP2	No	No	No	No	Supp+Cert
Windows Server 2008, Standard x64 SP2	No	No	No	No	Supp+Cert
Windows Server 2008, Web x64 SP2	No	No	No	No	Supp+Cert
Windows Server 2008 HPC Edition	No	No	No	Supp+Cert	Supp+Cert
Microsoft Windows Server 2008 R2					
Windows Server 2008 R2	No	No	No	Supp+Cert	Supp+Cert
Microsoft Windows Server 2012 and 2012 R2					
Windows Server 2012	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
Windows Server 2012 R2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

3.1.2 RHEL support

Table 3-2 lists the Red Hat Enterprise Linux compatibility.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 3-2   Dense systems - Red Hat Enterprise Linux

Model	ThinkServer sd350 5493	NeXtScale nx360 M5 5465 (v3)	NeXtScale nx360 M5 5465 (v4)	NeXtScale nx360 M4 5455	iDataPlex dx360 M4 7912
Red Hat Enterprise Linux 5					
RHEL 5.8 32-bit	No	No	No	No	No
RHEL 5.8 Xen 32-bit	No	No	No	No	No
RHEL 5.8 x64	No	No	No	No	No
RHEL 5.8 Xen x64	No	No	No	No	No
RHEL 5.9 32-bit	No	No	No	No	No
RHEL 5.9 Xen 32-bit	No	No	No	No	No
RHEL 5.9 x64	No	No	No	Supp+Cert	No
RHEL 5.9 Xen x64	No	No	No	No	No
RHEL 5.10 32-bit	No	No	No	No	No
RHEL 5.10 Xen 32-bit	No	No	No	No	No
RHEL 5.10 x64	No	No	No	Supp+Cert	No
RHEL 5.10 Xen x64	No	No	No	No	No
Red Hat Enterprise Linux 6					
RHEL 6.0	No	No	No	No	No
RHEL 6.1	No	No	No	No	No
RHEL 6.2	No	No	No	No	No
RHEL 6.3	No	No	No	No	No
RHEL 6.4 32-bit	No	No	No	No	No
RHEL 6.4 x64	No	No	No	Supp+Cert	Supp+Cert
RHEL 6.5 32-bit	No	No	No	No	No
RHEL 6.5 x64	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 6.6 32-bit	No	No	No	No	No
RHEL 6.6 x64	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 6.7 32-bit	No	No	No	No	No
RHEL 6.7 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.8 32-bit	No	No	No	No	No

Model	ThinkServer sd350 5493	NeXtScale nx360 M5 5465 (v3)	NeXtScale nx360 M5 5465 (v4)	NeXtScale nx360 M4 5455	iDataPlex dx360 M4 7912
RHEL 6.8 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
Red Hat Enterprise Linux 7					
RHEL 7	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 7.1	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 7.2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

3.1.3 SLES support

Table 3-3 lists the SUSE Linux Enterprise Server compatibility.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 3-3   Dense systems - SUSE Linux Enterprise Server

Model	ThinkServer sd350 5493	NeXtScale nx360 M5 5465 (v3)	NeXtScale nx360 M5 5465 (v4)	NeXtScale nx360 M4 5455	iDataPlex dx360 M4 7912
SUSE Linux Enterprise Server 11					
SLES 11 x86	No	No	No	No	No
SLES 11 x64	No	No	No	No	No
SLES 11 Xen x64	No	No	No	No	No
SLES 11 x86 SP1	No	No	No	No	No
SLES 11 x64 SP1	No	No	No	No	No
SLES 11 Xen x64 SP1	No	No	No	No	No
SLES 11 x86 SP2	No	No	No	No	No
SLES 11 x64 SP2	No	No	No	No	No
SLES 11 Xen x64 SP2	No	No	No	No	No
SLES 11 x86 SP3	No	No	No	No	No
SLES 11 x64 SP3	No	Supp+Cert	No	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP3	No	Supp+Cert	No	No	No
SLES 11 x86 SP4	No	No	No	No	No
SLES 11 x64 SP4	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP4	Supp+Cert	Supp+Cert	Supp+Cert	No	No
SUSE Linux Enterprise Server 12					
SLES 12	No	Supp+Cert	No	Supp+Cert	Supp+Cert
SLES 12 with Xen	No	Supp+Cert	No	Supp+Cert	Supp+Cert

Model	ThinkServer sd350 5493	NeXtScale nx360 M5 5465 (v3)	NeXtScale nx360 M5 5465 (v4)	NeXtScale nx360 M4 5455	iDataPlex dx360 M4 7912
SLES 12 SP1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 12 with Xen SP1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

3.1.4 VMware support

Table 3-4 lists the VMware ESXi compatibility.

Note: Versions of operating systems older than those listed in the table are not supported.

No custom image support for M4 systems: The NeXtScale nx360 M4 (5455) and iDataPlex dx360 M4 (7912) in Table 3-4 do not support any of the Lenovo custom images for VMware ESXi that are currently available on the VMware web site.

Table 3-4   Dense systems - VMware

Model	ThinkServer sd350 5493	NeXtScale nx360 M5 5465 (E5-2600 v3)	NeXtScale nx360 M5 5465 (E5-2600 v4)	NeXtScale nx360 M4 5455	iDataPlex dx360 M4 7912
VMware ESXi 5.0					
VMware ESXi 5.0	No	No	No	No	No
VMware ESXi 5.0 U1	No	No	No	No	No
VMware ESXi 5.0 U2	No	No	No	Supp+Cert[ab]	Supp+Cert
VMware ESXi 5.0 U3	No	No	No	Supp+Cert[ab]	Supp+Cert
VMware ESXi 5.1					
VMware ESXi 5.1	No	No	No	No	No
VMware ESXi 5.1 U1	No	No	No	Supp+Cert[ab]	Supp+Cert
VMware ESXi 5.1 U2	No	Supp+Cert[a]	No	Supp+Cert[ab]	Supp+Cert
VMware ESXi 5.1 U3	No	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[ab]	Supp+Cert
VMware ESXi 5.5					
VMware ESXi 5.5	No	No	No	Supp+Cert[ac]	No
VMware ESXi 5.5 U1	No	No	No	Supp+Cert[ac]	No
VMware ESXi 5.5 U2	No	Supp+Cert[a]	No	Supp+Cert[ac]	No
VMware ESXi 5.5 U3	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Certified[ac]	No
VMware ESXi 6.0					
VMware ESXi 6.0	No	Supp+Cert[ac]	No	Supp+Cert[ac]	No
VMware ESXi 6.0 U1	Supp+Cert[a]	Supp+Cert[ac]	No	Supp+Cert[c]	No

Model	ThinkServer sd350 5493	NeXtScale nx360 M5 5465 (E5-2600 v3)	NeXtScale nx360 M5 5465 (E5-2600 v4)	NeXtScale nx360 M4 5455	iDataPlex dx360 M4 7912
VMware ESXi 6.0 U2	Supp+Cert[ac]	Supp+Cert[ac]	Supp+Cert[ac]	Supp+Cert[ac]	No

a. VMware vSphere does not support 512e and 4K Native drives. See http://kb.vmware.com/kb/2091600
b. The use of embeded RAID (ServeRAID™ C100/C105) is not supported
c. Please use the parameter settings in RETAIN TIP H213638,
http://ibm.com/support/entry/portal/docdisplay?lndocid=MIGR-5096729

3.1.5 XenServer support

Table 3-5 lists the XenServer compatibility for dense servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 3-5   Dense systems - Citrix XenServer

Model	ThinkServer sd350 5493	NeXtScale nx360 M5 5465 (v3)	NeXtScale nx360 M5 5465 (v4)	NeXtScale nx360 M4 5455	iDataPlex dx360 M4 7912
Citrix XenServer 6.0.2	No	No	No	No	No
Citrix XenServer 6.1	No	No	No	No	Certified
Citrix XenServer 6.2	No	No	No	No	No
Citrix XenServer 6.5	No	Certified	Certified	No	Certified
Citrix XenServer 7.0	No	Certified	Certified	No	Certified

3.1.6 Canonical Ubuntu support

Table 3-6 lists the Canonical Ubuntu support for dense servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 3-6   Dense systems - Canonical Ubuntu

Model	ThinkServer sd350 5493	NeXtScale nx360 M5 5465 (v3)	NeXtScale nx360 M5 5465 (v4)	NeXtScale nx360 M4 5455	iDataPlex dx360 M4 7912
Ubuntu 12.04 LTS 64-bit	No	No	No	No	No
Ubuntu 14.04 LTS 64-bit	No	Certified	Certified	No	No

4

Flex System compute nodes

This chapter lists operating system compatibility for Flex System compute nodes available from Lenovo.

Topics in this chapter are:

► 4.1, "Flex System compute nodes with Lenovo-signed firmware" on page 68
► 4.2, "Flex System compute nodes with IBM-signed firmware" on page 73

Definitions are as follows:

► Supported

Lenovo provides hardware / OS interoperability support on Lenovo servers. Lenovo validates selected products for compatibility with Lenovo servers and works with third-party vendors to test their equipment with ours.

► Certified

Server has met the OS Partner Certified/Logo program requirements. OS vendor provides OS support. Lenovo only provides hardware level support, and works with the hardware partner and OS vendors to close any compatibility issues customers may experience with their installation. Lenovo will work with the OS provider to submit hardware compatibility (HCL) test suite results so that the supported solution can be posted to the respective OS providers HCL site.

► Tested

Either the OS or hypervisor was successfully installed on the server. Lenovo acknowledges the community based OSs, and Lenovo will provide hardware level support only, and will not make any statement regarding the support of the OS, including interactions with Lenovo tools or device drivers, or special software provided by Lenovo.

4.1 Flex System compute nodes with Lenovo-signed firmware

This section lists the operating system compatibility for Flex System compute nodes with Lenovo-signed firmware.

- ▶ 4.1.1, "Windows support"
- ▶ 4.1.2, "RHEL support" on page 69
- ▶ 4.1.3, "SLES support" on page 70
- ▶ 4.1.4, "VMware support" on page 71
- ▶ 4.1.5, "Oracle support" on page 71
- ▶ 4.1.6, "Citrix XenServer support" on page 72

In the tables, Supp+Cert means Supported and Certified.

4.1.1 Windows support

Table 4-1 lists the Windows compatibility for Flex System compute nodes with Lenovo-signed firmware.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 4-1   x86 compute nodes with Lenovo-signed firmware - Windows

	x240 (7162)	x240 M5 (9532) (E5-2600 v3)	x240 M5 (9532) (E5-2600 v4)	x440 (7167)	x880 X6 / x480 X6 / x280 X6 (7196)
Microsoft Windows Server 2008					
Windows HPC Server 2008 (SP1)	No	No	No	Supp+Cert	No
Windows Server 2008 Foundation	No	No	No	No	No
Windows Server 2008 DC x64 (SP2)	No	No	No	Supp+Cert	No
Windows Server 2008 DC x86 (SP2)	No	No	No	No	No
Windows Server 2008 Ent. x64 (SP2)	No	No	No	Supp+Cert	No
Windows Server 2008 Ent. x86 (SP2)	No	No	No	No	No
Windows Server 2008 Std. x64 (SP2)	No	No	No	Supp+Cert	No
Windows Server 2008 Std. x86 (SP2)	No	No	No	No	No
Windows Server 2008 Web x64 (SP2)	No	No	No	No	No
Windows Server 2008 Web x86 (SP2)	No	No	No	No	No
Windows SBS 2008 Premium Edition	No	No	No	Supp+Cert	No
Windows SBS 2008 Standard Edition	No	No	No	Supp+Cert	No
Microsoft Windows Server 2008 R2					
Windows Server 2008 R2	No	No	No	No	No
Windows Server 2008 R2 SP1	No	No	No	Supp+Cert	No
Windows Server 2008 R2 SP2	No	No	No	Supp+Cert	No

	x240 (7162)	x240 M5 (9532) (E5-2600 v3)	x240 M5 (9532) (E5-2600 v4)	x440 (7167)	x880 X6 / x480 X6 / x280 X6 (7196)
Microsoft Windows Server 2012 and 2012 R2					
Windows Server 2012	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
Windows Server 2012 R2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert[a]	Supp+Cert

a. Requires Update 1

4.1.2 RHEL support

Table 4-2 lists the Red Hat Enterprise Linux compatibility for Flex System compute nodes with Lenovo-signed firmware.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 4-2   x86 compute nodes with Lenovo-signed firmware - Red Hat

	x240 (7162)	x240 M5 (9532) (E5-2600 v3)	x240 M5 (9532) (E5-2600 v4)	x440 (7167)	x880 X6 / x480 X6 / x280 X6 (7196)
Red Hat Enterprise Linux 6					
RHEL 6.0	No	No	No	No	No
RHEL 6.1	No	No	No	No	No
RHEL 6.2	No	No	No	No	No
RHEL 6.3	No	No	No	No	No
RHEL 6.4 32-bit	No	No	No	No	No
RHEL 6.4 x64	No	No	No	No	No
RHEL 6.5 32-bit	No	No	No	No	Supp+Cert[a]
RHEL 6.5 x64	No	Supp+Cert	No	Supp+Cert	Supp+Cert[a]
RHEL 6.6 32-bit	No	No	No	No	Supp+Cert
RHEL 6.6 x64	Supp+Cert	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 6.7 32-bit	No	No	No	No	Supp+Cert
RHEL 6.7 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.8 32-bit	No	No	No	No	Supp+Cert
RHEL 6.8 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
Red Hat Enterprise Linux 7					
RHEL 7.0	Supp+Cert	Supp+Cert	No	Supp+Cert	No
RHEL 7.1	Supp+Cert	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 7.2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

a. x280 X6 only

4.1.3 SLES support

Table 4-3 lists the SUSE Linux Enterprise Server compatibility for Flex System compute nodes with Lenovo-signed firmware.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 4-3   x86 compute nodes with Lenovo-signed firmware - SUSE Linux Enterprise Server

	x240 (7162)	x240 M5 (9532) (E5-2600 v3)	x240 M5 (9532) (E5-2600 v4)	x440 (7167)	x880 X6 / x480 X6 / x280 X6 (7196)
SUSE Linux Enterprise Server 11					
SLES 11 x86	No	No	No	No	No
SLES 11 x64	No	No	No	No	No
SLES 11 Xen x64	No	No	No	No	No
SLES 11 x86 SP1	No	No	No	No	No
SLES 11 x64 SP1	No	No	No	No	No
SLES 11 Xen x64 SP1	No	No	No	No	No
SLES 11 x86 SP2	No	No	No	No	No
SLES 11 x64 SP2	No	No	No	No	No
SLES 11 Xen x64 SP2	No	No	No	No	No
SLES 11 x86 SP3	No	No	No	No	Supp+Cert
SLES 11 x64 SP3	Supp+Cert	Supp+Cert	No	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP3	Supp+Cert	Supp+Cert	No	Supp+Cert	Supp+Cert
SLES 11 x86 SP4	No	No	No	No	Supp+Cert
SLES 11 x64 SP4	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP4	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SUSE Linux Enterprise Server 12					
SLES 12	Supp+Cert	Supp+Cert	No	Supp+Cert	Supp+Cert
SLES 12 with XEN	Supp+Cert	No	No	Supp+Cert	Supp+Cert
SLES 12 SP1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 12 with Xen SP1	Supp+Cert	No	No	Supp+Cert	Supp+Cert

4.1.4 VMware support

Table 4-4 lists the VMware ESXi compatibility for Flex System compute nodes with Lenovo-signed firmware.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 4-4   x86 compute nodes with Lenovo-signed firmware - VMware

	x240 (7162)	x240 M5 (9532) (E5-2600 v3)	x240 M5 (9532) (E5-2600 v4)	x440 (7167)	x880 X6 / x480 X6 / x280 X6 (7196)
VMware ESXi 5.1					
VMware ESXi 5.1	No	No	No	No	No
VMware ESXi 5.1 U1	No	No	No	No	No
VMware ESXi 5.1 U2	No	Supp+Cert[a]	No	Supp+Cert[a]	No
VMware ESXi 5.1 U3	No	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	No
VMware ESXi 5.5					
VMware ESXi 5.5	No	No	No	No	Supp+Cert[ab]
VMware ESXi 5.5 U1	No	No	No	No	Supp+Cert[ab]
VMware ESXi 5.5 U2	Supp+Cert[a]	Supp+Cert[a]	No	Supp+Cert[a]	Supp+Cert[a]
VMware ESXi 5.5 U3	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]
VMware ESXi 6.0					
VMware ESXi 6.0	Supp+Cert[a]	Supp+Cert[a]	No	Supp+Cert[a]	Supp+Cert[a]
VMware ESXi 6.0 U1	Supp+Cert[a]	Supp+Cert[a]	No	Supp+Cert[a]	Supp+Cert[a]
VMware ESXi 6.0 U2	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]

a. VMware vSphere does not support 512e and 4K Native drives. See http://kb.vmware.com/kb/2091600
b. x280 X6 only; x480 X6 and x880 X6 require U2

4.1.5 Oracle support

Table 4-5 lists the Oracle compatibility for Flex System compute nodes with Lenovo-signed firmware.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 4-5   x86 compute nodes with Lenovo-signed firmware - Oracle

	x240 (7162)	x240 M5 (9532) (E5-2600 v3)	x240 M5 (9532) (E5-2600 v4)	x440 (7167)	x880 X6 / x480 X6 / x280 X6 (7196)
Oracle Linux					
Oracle Linux 5.9	Certified	No	No	No	No

	x240 (7162)	x240 M5 (9532) (E5-2600 v3)	x240 M5 (9532) (E5-2600 v4)	x440 (7167)	x880 X6 / x480 X6 / x280 X6 (7196)
Oracle Linux 5.10	Certified	No	No	Certified	No
Oracle Linux 6.1	No	No	No	No	No
Oracle Linux 6.2	No	No	No	No	No
Oracle Linux 6.3	Certified	No	No	Certified	Certified
Oracle Linux 6.4	Certified	No	No	Certified	Certified
Oracle Linux 6.5	Certified	No	No	Certified	Certified
Oracle Linux 6.6	Certified	No	No	Certified	Certified
Oracle Linux 6.7	Certified	No	No	Certified	Certified
Oracle Linux 7.0	No	No	No	No	No
Oracle Linux 7.1	No	No	No	No	No
Oracle Linux 7.2	No	Certified	No	No	No
Oracle VM					
Oracle VM 3.2	Certified	No	No	Certified	No
Oracle VM 3.3	No	No	No	No	No
Oracle Solaris					
Solaris 10	No	No	No	No	No
Solaris 11	No	No	No	No	No

4.1.6 Citrix XenServer support

Table 4-6 lists the Citrix XenServer operating system support for Flex System compute nodes with Lenovo-signed firmware.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 4-6   x86 compute nodes with Lenovo-signed firmware - Citrix XenServer

Model	x240 (7162)	x240 M5 (9532) (E5-2600 v3)	x240 M5 (9532) (E5-2600 v4)	x440 (7167)	x880 X6 / x480 X6 / x280 X6 (7196)
Citrix XenServer 6.0.2	Certified[a]	No	No	No	No
Citrix XenServer 6.1	Certified[a]	No	No	Certified	No
Citrix XenServer 6.2	Certified[a]	No	No	Certified	No
Citrix XenServer 6.5	Certified[a]	Certified	Certified	Certified	Certified
Citrix XenServer 7.0	Certified[a]	No	No	Certified	Certified

a. See http://blogs.citrix.com/2012/10/01/installing-xenserver-6-0-2-on-the-ibm-hs23-or-x240/

4.2 Flex System compute nodes with IBM-signed firmware

This section lists the operating system compatibility for Flex System compute nodes with IBM-signed firmware.

In the tables, Supp+Cert means Supported and Certified.

4.2.1 Windows support

Table 4-7 lists the Windows compatibility for Flex System compute nodes with IBM-signed firmware.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 4-7   x86 compute nodes with IBM-signed firmware - Windows

	x220 (7906)	x222 (7916)	x240 E5-2600 (8737 7863)	x240 E5 v2 (8737 8956)	x440 (7917)	x880 X6 / x480 X6 / x280 X6 (7903)
Microsoft Windows Server 2008						
Windows HPC Server 2008 (SP1)	Supp+Cert	No	Supp+Cert	Supp+Cert	Supp+Cert	No
Windows Server 2008 Foundation	No	No	No	No	No	No
Windows Server 2008 DC x64 (SP2)	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No
Windows Server 2008 DC x86 (SP2)	No	No	No	No	No	No
Windows Server 2008 Ent. x64 (SP2)	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No
Windows Server 2008 Ent. x86 (SP2)	No	No	No	No	No	No
Windows Server 2008 Std. x64 (SP2)	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No
Windows Server 2008 Std. x86 (SP2)	No	No	No	No	No	No
Windows Server 2008 Web x64 (SP2)	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No
Windows Server 2008 Web x86 (SP2)	No	No	No	No	No	No
Windows SBS 2008 Premium Edition	No	No	No	No	No	No
Windows SBS 2008 Standard Edition	No	No	No	No	No	No
Microsoft Windows Server 2008 R2						
Windows Server 2008 R2	No	No	No	No	No	No
Windows Server 2008 R2 SP1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	Supp+Cert
Windows Server 2008 R2 SP2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

	x220 (7906)	x222 (7916)	x240 E5-2600 (8737 7863)	x240 E5 v2 (8737 8956)	x440 (7917)	x880 X6 / x480 X6 / x280 X6 (7903)
Microsoft Windows Server 2012 and 2012 R2						
Windows Server 2012	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
Windows Server 2012 R2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

4.2.2 RHEL support

Table 4-8 lists the Red Hat Enterprise Linux compatibility for Flex System compute nodes with IBM-signed firmware.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 4-8   x86 compute nodes with IBM-signed firmware - Red Hat Enterprise Linux

	x220 (7906)	x222 (7916)	x240 E5-2600 (8737 7863)	x240 E5 v2 (8737 8956)	x440 (7917)	x880 X6 / x480 X6 / x280 X6 (7903)
Red Hat Enterprise Linux 5						
RHEL 5.7 32-bit	No	No	No	No	No	No
RHEL 5.7 Xen 32-bit	No	No	No	No	No	No
RHEL 5.7 x64	Supp+Cert	No	Supp+Cert[a]	No	No	No
RHEL 5.7 Xen x64	Supp+Cert[b]	No	Supp+Cert[a]	No	No	No
RHEL 5.8 32-bit	No	No	No	No	No	No
RHEL 5.8 Xen 32-bit	No	No	No	No	No	No
RHEL 5.8 x64	Supp+Cert	No	Supp+Cert[a]	No	Supp+Cert[a]	No
RHEL 5.8 Xen x64	Supp+Cert[b]	No	Supp+Cert[a]	No	Supp+Cert[a]	No
RHEL 5.9 32-bit	No	No	No	No	No	No
RHEL 5.9 Xen 32-bit	No	No	No	No	No	No
RHEL 5.9 x64	Supp+Cert	Supp+Cert	Supp+Cert[a]	Supp+Cert	Supp+Cert[a]	No
RHEL 5.9 Xen x64	Supp+Cert[b]	Supp+Cert	Supp+Cert[a]	Supp+Cert	Supp+Cert[a]	No
RHEL 5.10 32-bit	No	No	No			No
RHEL 5.10 Xen 32-bit	No	No	No			No
RHEL 5.10 x64	Supp+Cert	Supp+Cert	Supp+Cert[a]	Supp+Cert	Supp+Cert[a]	No
RHEL 5.10 Xen x64	Supp+Cert[b]	Supp+Cert	Supp+Cert[a]	Supp+Cert	Supp+Cert[a]	No
Red Hat Enterprise Linux 6						
RHEL 6.0	No	No	No	No	No	No

	x220 (7906)	x222 (7916)	x240 E5-2600 (8737 7863)	x240 E5 v2 (8737 8956)	x440 (7917)	x880 X6 / x480 X6 / x280 X6 (7903)
RHEL 6.1	No	No	No	No	No	No
RHEL 6.2	Supp+Cert	No	Supp+Cert	No	No	No
RHEL 6.3	No	No	No	No	Supp+Cert	No
RHEL 6.4 32-bit	No	No	No	No	No	No
RHEL 6.4 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No
RHEL 6.5 32-bit	No	No	No	No	No	No
RHEL 6.5 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.6 32-bit	No	No	No	No	No	No
RHEL 6.6 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.7 32-bit	No	No	No	No	No	No
RHEL 6.7 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.8 32-bit	No	No	No	No	No	No
RHEL 6.8 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
Red Hat Enterprise Linux 7						
RHEL 7.0	Supp+Cert	Supp+Cert[c]	Supp+Cert[c]	Supp+Cert[c]	Supp+Cert[c]	Supp+Cert[c]
RHEL 7.1	Supp+Cert	Supp+Cert[c]	Supp+Cert[c]	Supp+Cert[c]	Supp+Cert[c]	Supp+Cert[c]
RHEL 7.2	Supp+Cert	Supp+Cert[c]	Supp+Cert[c]	Supp+Cert[c]	Supp+Cert[c]	Supp+Cert[c]

a. pNIC mode is supported with RHEL 5. See RETAIN tip H205800 for support information.

b. Xen is not supported with ServeRAID C105 (SW RAID), but is supported with the use of ServeRAID H1135 Controller 90Y4750 or ServeRAID M5115 Controller 90Y4390.

c. RHEL 7 currently supported with in-box drivers only IMM remote console viewer not supported

4.2.3 SLES support

Table 4-9 lists the SUSE Linux Enterprise Server compatibility for Flex System compute nodes with IBM-signed firmware.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 4-9   x86 compute nodes with IBM-signed firmware - SUSE Linux Enterprise Server

	x220 (7906)	x222 (7916)	x240 E5-2600 (8737 7863)	x240 E5 v2 (8737 8956)	x440 (7917)	x880 X6 / x480 X6 / x280 X6 (7903)
SUSE Linux Enterprise Server 10						
SLES 10 x86 SP3	No	No	No	No	No	No
SLES 10 x64 SP3	No	No	No	No	No	No

	x220 (7906)	x222 (7916)	x240 E5-2600 (8737 7863)	x240 E5 v2 (8737 8956)	x440 (7917)	x880 X6 / x480 X6 / x280 X6 (7903)
SLES 10 Xen x64 SP3	No	No	No	No	No	No
SLES 10 x86 SP4	No	No	No	No	No	No
SLES 10 x64 SP4	Supp+Cert	No	Supp+Cert	No	Supp+Cert	No
SLES 10 Xen x64 SP4	No	No	No	No	No	No
SUSE Linux Enterprise Server 11						
SLES 11 x86	No	No	No	No	No	No
SLES 11 x64	No	No	No	No	No	No
SLES 11 Xen x64	No	No	No	No	No	No
SLES 11 x86 SP1	No	No	No	No	No	No
SLES 11 x64 SP1	No	No	Supp+Cert	No	No	No
SLES 11 Xen x64 SP1	No	No	Supp+Cert[a]	No	No	No
SLES 11 x86 SP2	No	No	No	No	No	No
SLES 11 x64 SP2	Supp+Cert	Supp+Cert	Supp+Cert	No	Supp+Cert	No
SLES 11 Xen x64 SP2	Supp+Cert[b]	Supp+Cert	Supp+Cert[a]	No	Supp+Cert	No
SLES 11 x86 SP3	No	No	No	No	No	No
SLES 11 x64 SP3	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP3	Supp+Cert[b]	Supp+Cert	Supp+Cert[a]	Supp+Cert	Supp+Cert	Supp+Cert
SLES 11 x86 SP4	No	No	No	No	No	No
SLES 11 x64 SP4	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP4	Supp+Cert[b]	Supp+Cert	Supp+Cert[a]	Supp+Cert	Supp+Cert	Supp+Cert
SUSE Linux Enterprise Server 12						
SLES 12	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 12 with XEN	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 12 SP1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 12 with Xen SP1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

a. Only pNIC mode is supported. See RETAIN tip H205800 for support information.
b. Xen is not supported with ServeRAID C105 (SW RAID), but is supported with the use of ServeRAID H1135 Controller 90Y4750 or ServeRAID M5115 Controller 90Y4390.

4.2.4 VMware support

Table 4-10 lists the VMware ESXi compatibility for Flex System compute nodes with IBM-signed firmware.

Note: Versions of operating systems older than those listed in the table are not supported.

No custom image support: The servers in Table 4-10 do not support any of the Lenovo custom images for VMware ESXi that are currently available on the VMware web site.

Table 4-10   x86 compute nodes with IBM-signed firmware - VMware

	x220 (7906)	x222 (7916)	x240 E5-2600 (8737 7863)	x240 E5 v2 (8737 8956)	x440 (7917)	x880 X6 / x480 X6 / x280 X6 (7903)
VMware ESX 4.1						
VMware ESX 4.1	No	No	No	No	No	No
VMware ESX 4.1 (U1)	No	No	No	No	No	No
VMware ESX 4.1 (U2)	Supp+Cert[a]	No	Supp+Cert[b]	No	Supp+Cert	No
VMware ESX 4.1 (U3)	Supp+Cert[c]	Supp+Cert	Supp+Cert[b]	No	Supp+Cert	No
VMware ESXi 4.1						
VMware ESXi 4.1	No	No	No	No	No	No
VMware ESXi 4.1 (U1)	No	No	Supp+Cert[b]	No	Supp+Cert	No
VMware ESXi 4.1 (U2)	Supp+Cert[a]	No	Supp+Cert[b]	No	Supp+Cert	No
VMware ESXi 5.0						
VMware ESXi 5.0	Supp+Cert[a]	No	Supp+Cert	No	Supp+Cert	No
VMware ESXi 5.0 U1	Supp+Cert[a]	No	Supp+Cert	No	Supp+Cert	No
VMware ESXi 5.0 U2	Supp+Cert[a]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No
VMware ESXi 5.0 U3	Supp+Cert[a]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No
VMware ESXi 5.1						
VMware ESXi 5.1	Supp+Cert[a]	No	Supp+Cert	No	Supp+Cert	No
VMware ESXi 5.1U1	Supp+Cert[a]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No
VMware ESXi 5.1 U2	Supp+Cert[a]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 5.1 U3	Supp+Cert[a]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 5.5						
VMware ESXi 5.5	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No
VMware ESXi 5.5 U1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 5.5 U2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

	x220 (7906)	x222 (7916)	x240 E5-2600 (8737 7863)	x240 E5 v2 (8737 8956)	x440 (7917)	x880 X6 / x480 X6 / x280 X6 (7903)
VMware ESXi 5.5 U3	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 6.0						
VMware ESXi 6.0	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 6.0 U1	Certified	Certified	Certified	Certified	Certified	Certified
VMware ESXi 6.0 U2	Certified	Certified	Certified	Certified	Certified	Certified

a. The booting and use of internal drives with VMware is not supported with ServeRAID C105 (SW RAID), but is supported with the use of ServeRAID H1135 Controller 90Y4750 or ServeRAID M5115 Controller 90Y4390.
b. IMM2 Ethernet over USB must be disabled using the IMM2 web interface. See RETAIN Tip H205897 for support information.
c. The booting and use of internal drives with VMware is not supported with ServeRAID C105 (SW RAID), but is supported with the use of ServeRAID H1135 Controller 90Y4750 or ServeRAID M5115 Controller 90Y4390.

4.2.5 Oracle support

Table 4-11 lists the Oracle compatibility for Flex System compute nodes with IBM-signed firmware.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 4-11   x86 compute nodes with IBM-signed firmware - Oracle

	x220 (7906)	x222 (7916)	x240 E5-2600 (8737 7863)	x240 E5 v2 (8737 8956)	x440 (7917)	x880 X6 / x480 X6 / x280 X6 (7903)
Oracle Linux						
Oracle Linux 5.9	No	No	Certified	Certified	No	No
Oracle Linux 5.10	No	No	Certified	Certified	Certified	No
Oracle Linux 6.1	No	No	No	No	No	No
Oracle Linux 6.2	No	No	No	No	No	No
Oracle Linux 6.3	No	No	Certified	Certified	Certified	Certified
Oracle Linux 6.4	No	No	Certified	Certified	Certified	Certified
Oracle Linux 6.5	No	No	Certified	Certified	Certified	Certified
Oracle Linux 6.6	No	No	Certified	Certified	Certified	Certified
Oracle Linux 6.7	No	No	Certified	Certified	Certified	Certified
Oracle Linux 7.0	No	No	No	No	No	No
Oracle Linux 7.1	No	No	No	No	No	No
Oracle VM						
Oracle VM 3.2	No	No	Certified	Certified	Certified	No

	x220 (7906)	x222 (7916)	x240 E5-2600 (8737 7863)	x240 E5 v2 (8737 8956)	x440 (7917)	x880 X6 / x480 X6 / x280 X6 (7903)
Oracle VM 3.3	No	No	No	No	No	No
Oracle Solaris						
Solaris 10	No	No	Certified	No	Certified	No
Solaris 11	Certified	No	Certified	No	Certified	No

4.2.6 Citrix XenServer support

Table 4-12 lists the Citrix XenServer operating system support for Flex System compute nodes with IBM-signed firmware.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 4-12   x86 compute nodes with IBM-signed firmware - Citrix XenServer

Model	x220 (7906)	x222 (7916)	x240 E5-2600 (8737 7863)	x240 E5 v2 (8737 8956)	x440 (7917)	x880 X6 / x480 X6 / x280 X6 (7903)
Citrix XenServer 6.0.2	No	No	Certified[a]	Certified[a]	No	No
Citrix XenServer 6.1	Certified[b]	No	Certified[a]	Certified[a]	Certified	No
Citrix XenServer 6.2	No	Certified	Certified[a]	Certified[a]	Certified	No
Citrix XenServer 6.5	Certified	No	Certified[a]	Certified[a]	Certified	Certified
Citrix XenServer 7.0	Certified	No	Certified[a]	Certified[a]	Certified	Certified

a. See http://blogs.citrix.com/2012/10/01/installing-xenserver-6-0-2-on-the-ibm-hs23-or-x240/
b. See http://blogs.citrix.com/2012/12/10/installing-xenserver-6-1-on-the-ibm-serveraid-c105-controller/

5

BladeCenter servers

This chapter lists operating system compatibility for BladeCenter servers.

With BladeCenter servers, the update or service pack level listed in the tables is the minimum supported. Later updates and service packs are also supported as long as they are within the same OS release family of the operating system. However, support for newer releases or versions are not supported unless specifically identified.

Tables in this chapter:

Definitions are as follows:

► Supported

   Lenovo provides hardware / OS interoperability support on Lenovo servers. Lenovo validates selected products for compatibility with Lenovo servers and works with third-party vendors to test their equipment with ours.

► Certified

   Server has met the OS Partner Certified/Logo program requirements. OS vendor provides OS support. Lenovo only provides hardware level support, and works with the hardware partner and OS vendors to close any compatibility issues customers may experience with their installation. Lenovo will work with the OS provider to submit hardware compatibility (HCL) test suite results so that the supported solution can be posted to the respective OS providers HCL site.

► Tested

   Either the OS or hypervisor was successfully installed on the server. Lenovo acknowledges the community based OSs, and Lenovo will provide hardware level support only, and will not make any statement regarding the support of the OS, including interactions with Lenovo tools or device drivers, or special software provided by Lenovo.

5.1 BladeCenter HS23, HS23E servers

This section lists the operating system compatibility for the BladeCenter HS23 and HS23E servers.

- ► 5.1.1, "Windows support" on page 82
- ► 5.1.2, "RHEL support" on page 83
- ► 5.1.3, "SLES support" on page 84
- ► 5.1.4, "VMware support" on page 85
- ► 5.1.5, "Oracle support" on page 87
- ► 5.1.6, "Citrix XenServer support" on page 88

In the tables, Supp+Cert means Supported and Certified.

5.1.1 Windows support

Table 5-1 lists the Windows compatibility for current BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 5-1   Current BladeCenter servers - Windows

	HS23 (7875, E5 v2)	HS23 (7875)	HS23E (8038)
Microsoft Windows Server 2008			
Windows HPC Server 2008 (SP1)	Supp+Cert	Supp+Cert	Supp+Cert
Windows Server 2008 Foundation	No	No	No
Windows Server 2008 DC x64 (SP2)	Supp+Cert	Supp+Cert	Supp+Cert
Windows Server 2008 DC x86 (SP2)	Supp+Cert	No	Supp+Cert
Windows Server 2008 Ent. x64 (SP2)	Supp+Cert	Supp+Cert	Supp+Cert
Windows Server 2008 Ent. x86 (SP2)	Supp+Cert	No	Supp+Cert
Windows Server 2008 Std. x64 (SP2)	Supp+Cert	Supp+Cert	No
Windows Server 2008 Std. x86 (SP2)	Supp+Cert	No	No
Windows Server 2008 Web x64 (SP2)	Supp+Cert	Supp+Cert	No
Windows Server 2008 Web x86 (SP2)	Supp+Cert	No	No
Windows SBS 2008 Premium Edition	No	Supp+Cert	No
Windows SBS 2008 Standard Edition	No	Supp+Cert	No
Microsoft Windows Server 2008 R2			
Windows Server 2008 R2	No	No	No
Windows Server 2008 R2 SP1	Supp+Cert	Supp+Cert[a]	Supp+Cert
Microsoft Windows Server 2012 and 2012 R2			
Windows Server 2012	Supp+Cert	Supp+Cert	Supp+Cert[b]

	HS23 (7875, E5 v2)	HS23 (7875)	HS23E (8038)
Windows Server 2012 R2	Supp+Cert	Supp+Cert	Supp+Cert

a. When using Hyper-V, support is limited to pNIC functionality.
b. ServeRAID C100/C105 (Software RAID) is not supported with Windows 2012

5.1.2 RHEL support

Table 5-2 lists the Red Hat Enterprise Linux compatibility for current BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 5-2   Current BladeCenter servers - Red Hat Enterprise Linux

	HS23 (7875, E5 v2)	HS23 (7875)	HS23E (8038)
Red Hat Enterprise Linux 5			
RHEL 5.7 32-bit	No	Supp+Cert	No
RHEL 5.7 Xen 32-bit	No	No	No
RHEL 5.7 x64	No	Supp+Cert	No
RHEL 5.7 Xen x64	No	Supp+Cert[a]	No
RHEL 5.8 32-bit	No	Supp+Cert	Supp+Cert
RHEL 5.8 Xen 32-bit	No	No	No
RHEL 5.8 x64	No	Supp+Cert	Supp+Cert
RHEL 5.8 Xen x64	No	Supp+Cert[a]	Supp+Cert
RHEL 5.9 32-bit	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.9 Xen 32-bit	No	No	No
RHEL 5.9 x64	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.9 Xen x64	Supp+Cert	Supp+Cert[a]	Supp+Cert
RHEL 5.10 32-bit	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.10 Xen 32-bit	No	No	No
RHEL 5.10 x64	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.10 Xen x64	Supp+Cert	Supp+Cert[a]	Supp+Cert
Red Hat Enterprise Linux 6			
RHEL 6.0	No	No	No
RHEL 6.1	No	No	No
RHEL 6.2	No	Supp+Cert	Supp+Cert
RHEL 6.3	No	Supp+Cert	Supp+Cert
RHEL 6.4 32-bit	Supp+Cert	Supp+Cert	Supp+Cert

	HS23 (7875, E5 v2)	HS23 (7875)	HS23E (8038)
RHEL 6.4 x64	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.5 32-bit	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.5 x64	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.6 32-bit	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.6 x64	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.7 32-bit	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.7 x64	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.8 32-bit	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 6.8 x64	Supp+Cert	Supp+Cert	Supp+Cert
Red Hat Enterprise Linux 7			
RHEL 7.0	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 7.1	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 7.2	Supp+Cert	Supp+Cert	Supp+Cert

a. Support is limited to the pNIC functionality.

5.1.3 SLES support

Table 5-3 lists the SUSE Linux Enterprise Server compatibility for current BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

No custom image support: The servers in Table 5-3 do not support any of the Lenovo custom images for VMware ESXi that are currently available on the VMware web site.

Table 5-3   Current BladeCenter servers - SUSE Linux Enterprise Server

	HS23 (7875, E5 v2)	HS23 (7875)	HS23E (8038)
SUSE Linux Enterprise Server 10			
SLES 10 x86 SP3	No	No	No
SLES 10 x64 SP3	No	No	No
SLES 10 Xen x64 SP3	No	No	No
SLES 10 x86 SP4	No	Supp+Cert	No
SLES 10 x64 SP4	No	Supp+Cert	Supp+Cert
SLES 10 Xen x64 SP4	No	No	No
SUSE Linux Enterprise Server 11			

	HS23 (7875, E5 v2)	HS23 (7875)	HS23E (8038)
SLES 11 x86	No	No	No
SLES 11 x64	No	No	No
SLES 11 Xen x64	No	No	No
SLES 11 x86 SP1	No	No	No
SLES 11 x64 SP1	No	No	No
SLES 11 Xen x64 SP1	No	No	No
SLES 11 x86 SP2	No	Supp+Cert	Supp+Cert
SLES 11 x64 SP2	No	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP2	No	Supp+Cert[a]	Supp+Cert
SLES 11 x86 SP3	Supp+Cert	Supp+Cert	Supp+Cert
SLES 11 x64 SP3	Supp+Cert	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP3	Supp+Cert	Supp+Cert[a]	Supp+Cert
SLES 11 x86 SP4	Supp+Cert	Supp+Cert	Supp+Cert
SLES 11 x64 SP4	Supp+Cert	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP4	Supp+Cert	Supp+Cert[a]	Supp+Cert
SUSE Linux Enterprise Server 12			
SLES 12	Certified	Certified	Supp+Cert
SLES 12 with XEN	Certified	Certified	Supp+Cert
SLES 12 SP1	Certified	Certified	Supp+Cert
SLES 12 with Xen SP1	Certified	Certified	Supp+Cert

a. Support is limited to the pNIC functionality

5.1.4 VMware support

Table 5-4 lists the VMware ESXi compatibility for current BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

No custom image support: The servers in Table 5-4 do not support any of the Lenovo custom images for VMware ESXi that are currently available on the VMware web site.

Table 5-4   Current BladeCenter servers - VMware

	HS23 (7875, E5 v2)	HS23 (7875)	HS23E (8038)
VMware ESX 4.1			
VMware ESX 4.1	No	No	No

	HS23 (7875, E5 v2)	HS23 (7875)	HS23E (8038)
VMware ESX 4.1 U1	No	No	No
VMware ESX 4.1 U2	No	Supp+Cert	Supp+Cert[a]
VMware ESX 4.1 U3	No	Supp+Cert	Supp+Cert[a]
VMware ESXi 4.1			
VMware ESXi 4.1	No	No	No
VMware ESXi 4.1 U1	No	No	Supp+Cert[a]
VMware ESXi 4.1 U2	No	Supp+Cert	Supp+Cert[a]
VMware ESXi 5.0			
VMware ESXi 5.0	No	Supp+Cert	No
VMware ESXi 5.0 U1	No	Supp+Cert	Supp+Cert[a]
VMware ESXi 5.0 U2	No	Supp+Cert	Supp+Cert[a]
VMware ESXi 5.0 U3	No	Supp+Cert	Supp+Cert[a]
VMware ESXi 5.1			
VMware ESXi 5.1	No	Supp+Cert	Supp+Cert[a]
VMware ESXi 5.1 U1	Supp+Cert	Supp+Cert	Supp+Cert[a]
VMware ESXi 5.1 U2	Supp+Cert	Supp+Cert	Supp+Cert[a]
VMware ESXi 5.1 U2	Supp+Cert	Supp+Cert	Supp+Cert[a]
VMware ESXi 5.5			
VMware ESXi 5.5	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 5.5 U1	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 5.5 U2	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 5.5 U3	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 6.0			
VMware ESXi 6.0	Certified	Certified	No
VMware ESXi 6.0 U1	Certified	Certified	No
VMware ESXi 6.0 U2	Certified	Certified	No

a. The use of internal drives requires the ServeRAID H1135 controller

5.1.5 Oracle support

Table 5-5 lists the Oracle compatibility for current BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 5-5   Current BladeCenter servers - Oracle

	HS23 (7875, E5 v2)	HS23 (7875)	HS23E (8038)
Oracle Linux			
Oracle Linux 5.9	Certified	Certified	No
Oracle Linux 5.10	Certified	Certified	No
Oracle Linux 6.1	No	No	No
Oracle Linux 6.2	No	No	No
Oracle Linux 6.3	No	No	No
Oracle Linux 6.4	Certified	Certified	No
Oracle Linux 6.5	Certified	Certified	No
Oracle Linux 6.6	Certified	Certified	No
Oracle Linux 6.7	Certified	Certified	No
Oracle Linux 7.0	No	No	No
Oracle Linux 7.1	No	No	No
Oracle VM			
Oracle VM 3.2	Certified	Certified	No
Oracle VM 3.3	No	No	No
Oracle Solaris			
Solaris 10	No	Certified	No
Solaris 11	No	Certified	No

5.1.6 Citrix XenServer support

Table 5-6 lists the Citrix XenServer operating system support for current BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 5-6   x86 compute nodes with IBM-signed firmware - Citrix XenServer

Model	HS23 (7875, E5 v2)	HS23 (7875)	HS23E (8038)
Citrix XenServer 6.0.2	Certified[a]	Certified[a]	No
Citrix XenServer 6.1	Certified[a]	Certified[a]	No
Citrix XenServer 6.2	Certified[a]	Certified[a]	No
Citrix XenServer 6.5	No	No	No
Citrix XenServer 7.0	No	No	No

a. See http://blogs.citrix.com/2012/10/01/installing-xenserver-6-0-2-on-the-ibm-hs23-or-x240/

5.1.7 Toshiba support

Table 5-7 lists the Toshiba compatibility for current BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 5-7   Current BladeCenter servers - Toshiba

	HS23 (7875, E5 v2)	HS23 (7875)	HS23E (8038)
IBM 4690 Operating System V6	No	Supp+Cert	No
Toshiba 4690 Operating System V6	No	Supp+Cert	No

5.2 BladeCenter HX5, HS22, HS22V, HS12 servers

This section lists the operating system compatibility for older BladeCenter servers.

In the tables, Supp+Cert means Supported and Certified.

5.2.1 Windows support

Table 5-8 lists the Windows compatibility for BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 5-8   BladeCenter servers - Windows

	HX5 (7873)	HX5 (7872)	HS22 (7870 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
Windows Server 2003						
Windows Compute Cluster Server 2003	No	No	S+C	No	S+C	S+C
Windows Server 2003 Compute Cluster	No	No	S+C (SP2)	No	S+C	S+C
Windows Server 2003 Ent. with MSCS	No	No	S+C (SP2)	No	No	No
Windows Server 2003 Ent. x6**4** w MSCS	No	No	S+C (SP2)	No	No	No
Windows Server 2003, Web	No	No	S+C (SP2)	No	S+C	S+C
Windows Server 2003/2003 R2 DC	No	No	S+C (SP2)	No	No	No
Windows Server 2003/2003 R2 DC x64	No	No	S+C (SP2)	No	No	No
Windows Server 2003/2003 R2 Ent.	No	No	S+C (SP2)	No	S+C (SP2)	S+C (SP2)
Windows Server 2003/2003 R2 Ent. x64	No	No	S+C (SP2)	No	S+C	S+C (SP2)
Windows Server 2003/2003 R2 Std	No	No	S+C (SP2)	No	S+C	S+C (SP2)
Windows Server 2003/2003 R2 Std x64	No	No	S+C (SP2)	No	S+C	S+C (SP2)
Windows Storage Srvr 2003/R2, Std	No	No	No	No	No	No
Windows SBS 2003/2003 R2 Premium	No	No	S+C (SP2)	No	S+C	S+C
Windows SBS 2003/2003 R2 Standard	No	No	S+C (SP2)	No	S+C	S+C
Windows Server 2008						
Windows Server 2008 Foundation	No	No	No	No	S+C	S+C
Windows HPC Server 2008	No	No	S+C	No	No	No

	HX5 (7873)	HX5 (7872)	HS22 (7870 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
Windows Server 2008 HPC	S+C (SP2)	S+C	S+C	S+C (SP2)	No	No
Windows Server 2008 R2	S+C	S+C	S+C	S+C	S+C	S+C
Windows Server 2008, DC x64	S+C (SP2)	S+C (SP2)	S+C	S+C	No	No
Windows Server 2008, DC x86	No	No	S+C	S+C (SP2)	No	No
Windows Server 2008, Ent. x64	S+C (SP2)	S+C (SP2)	S+C	S+C	S+C	S+C
Windows Server 2008, Ent. x86	No	No	S+C	S+C (SP2)	S+C	S+C
Windows Server 2008, Std x64	S+C (SP2)	S+C (SP2)	S+C	S+C	S+C	S+C
Windows Server 2008, Std x86	No	No	S+C	S+C (SP2)	S+C	S+C
Windows Server 2008, Web x64	S+C (SP2)	S+C (SP2)	S+C	S+C	S+C	S+C
Windows Server 2008, Web x86	No	No	S+C	S+C	S+C	S+C
Windows SBS 2008 Premium	S+C (SP2)	No	S+C	S+C	S+C	S+C
Windows SBS 2008 Standard	S+C (SP2)	No	S+C	S+C	S+C	S+C
Windows EBS 2008 Premium	No	No	S+C	S+C	S+C	S+C
Windows EBS 2008 Standard	No	No	S+C	S+C	S+C	S+C
Windows Server 2012						
Windows Server 2012	S+C	S+C	S+C	S+C	No	No
Windows Server 2012 R2	S+C	No	S+C	No	No	No

5.2.2 RHEL support

Table 5-9 lists the Red Hat Enterprise Linux compatibility for BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 5-9   BladeCenter servers - Red Hat Enterprise Linux

	HX5 (7873)	HX5 (7872)	HS22 (7870 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
Red Hat Enterprise Linux 4						
RHEL 4.6 (32-bit)	No	No	No	No	Supp+Cert	Supp+Cert
RHEL 4.6 (64-bit)	No	No	No	No	Supp+Cert	Supp+Cert
RHEL 4.7 (32-bit)	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 4.7 (64-bit)	No	No	No	No	Supp+Cert	Supp+Cert
RHEL 4.8 (32-bit)	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 4.8 (64-bit)	No	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

	HX5 (7873)	HX5 (7872)	HS22 (7870 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
Red Hat Enterprise Linux 5						
RHEL 5.1 32-bit	No	No	No	No	Supp+Cert	Supp+Cert
RHEL 5.1 Xen 32-bit	No	No	No	No	Supp+Cert	Supp+Cert
RHEL 5.1 x64	No	No	No	No	Supp+Cert	Supp+Cert
RHEL 5.1 Xen x64	No	No	No	No	Supp+Cert	Supp+Cert
RHEL 5.2 32-bit	No	No	No	No	Supp+Cert	Supp+Cert
RHEL 5.2 Xen 32-bit	No	No	No	No	Supp+Cert	Supp+Cert
RHEL 5.2 x64	No	No	No	No	Supp+Cert	Supp+Cert
RHEL 5.2 Xen x64	No	No	No	No	Supp+Cert	Supp+Cert
RHEL 5.3 32-bit	No	No	Supp+Cert[a]	No	Supp+Cert	Supp+Cert
RHEL 5.3 Xen 32-bit	No	No	Supp+Cert[a]	No	Supp+Cert	Supp+Cert
RHEL 5.3 x64	No	No	Supp+Cert[a]	No	Supp+Cert	Supp+Cert
RHEL 5.3 Xen x64	No	No	Supp+Cert[a]	No	Supp+Cert	Supp+Cert
RHEL 5.4 32-bit	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 5.4 Xen 32-bit	No	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.4 x64	No	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.4 Xen x64	No	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.5 32-bit	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 5.5 Xen 32-bit	No	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.5 x64	No	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.5 Xen x64	No	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.6 32-bit	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 5.6 Xen 32-bit	No	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.6 x64	Supp+Cert	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.6 Xen x64	Supp+Cert	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.7 32-bit	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 5.7 Xen 32-bit	No	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.7 x64	Supp+Cert	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.7 Xen x64	Supp+Cert	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.8 32-bit	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 5.8 Xen 32-bit	No	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.8 x64	Supp+Cert	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert

	HX5 (7873)	HX5 (7872)	HS22 (7870 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
RHEL 5.8 Xen x64	Supp+Cert	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.9 32-bit	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 5.9 Xen 32-bit	No	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.9 x64	Supp+Cert	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.9 Xen x64	Supp+Cert	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.10 32-bit	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
RHEL 5.10 Xen 32-bit	No	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.10 x64	Supp+Cert	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
RHEL 5.10 Xen x64	Supp+Cert	Supp+Cert[b]	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
Red Hat Enterprise Linux 6						
RHEL 6.0	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	Supp+Cert
RHEL 6.1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	Supp+Cert
RHEL 6.2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	Supp+Cert
RHEL 6.3	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	Supp+Cert
RHEL 6.4 32-bit	No	No	Supp+Cert	No	No	Supp+Cert
RHEL 6.4 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	Supp+Cert
RHEL 6.5 32-bit	No	No	Supp+Cert	No	No	Supp+Cert
RHEL 6.5 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	Supp+Cert
RHEL 6.6 32-bit	No	No	Supp+Cert	No	No	Supp+Cert
RHEL 6.6 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	Supp+Cert
RHEL 6.7 32-bit	No	No	Supp+Cert	No	No	Supp+Cert
RHEL 6.7 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	Supp+Cert
RHEL 6.8 32-bit	No	No	Supp+Cert	No	No	Supp+Cert
RHEL 6.8 x64	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	Supp+Cert
Red Hat Enterprise Linux 7						
RHEL 7.0	Supp+Cert	Supp+Cert	No	No	No	No
RHEL 7.1	Supp+Cert	Supp+Cert	No	No	No	No
RHEL 7.2	Supp+Cert	Supp+Cert	No	No	No	No

a. Update 3 is for 5500 series processors only. 5600 series processors require Update 4 or later.

b. See http://kbase.redhat.com/faq/docs/DOC-28841 for more information

5.2.3 SLES support

Table 5-10 lists the SUSE Linux Enterprise Server compatibility for BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 5-10   BladeCenter servers - SUSE Linux Enterprise Server

	HX5 (7873)	HX5 (7872)	HS22 (7870 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
SUSE Linux Enterprise Server 9						
SLES 9 x86 SP4	No	No	No	No	Supp+Cert	Supp+Cert
SLES 9 x64 SP4	No	No	No	No	Supp+Cert	Supp+Cert
SUSE Linux Enterprise Server 10						
SLES 10 x86 SP1	No	No	No	No	No	No
SLES 10 x64 SP1	No	No	No	No	Supp+Cert	Supp+Cert
SLES 10 Xen x86 SP1	No	No	No	No	Supp+Cert	Supp+Cert
SLES 10 Xen x64 SP1	No	No	No	No	Supp+Cert	Supp+Cert
SLES 10 x86 SP2	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
SLES 10 x64 SP2	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
SLES 10 Xen x86 SP2	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
SLES 10 Xen x64 SP2	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
SLES 10 x86 SP3	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
SLES 10 x64 SP3	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 10 Xen x86 SP3	No	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 10 Xen x64 SP3	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 10 x86 SP4	No	No	Supp+Cert	No	Supp+Cert	Supp+Cert
SLES 10 x64 SP4	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 10 Xen x86 SP4	No	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SLES 10 Xen x64 SP4	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
SUSE Linux Enterprise Server 11						
SLES 11 x86	No	No	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 x64	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 Xen x64	No	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 x86 SP1	No	No	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 x64 SP1	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP1	Supp+Cert	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert

	HX5 (7873)	HX5 (7872)	HS22 (7870 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
SLES 11 x86 SP2	No	No	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 x64 SP2	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP2	Supp+Cert	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 x86 SP3	No	No	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 x64 SP3	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP3	Supp+Cert	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 x86 SP4	No	No	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 x64 SP4	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SLES 11 Xen x64 SP4	Supp+Cert	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert[a]	Supp+Cert	Supp+Cert
SUSE Linux Enterprise Server 12						
SLES 12	Certified	No	No	No	No	No
SLES 12 with XEN	Certified	No	No	No	No	No
SLES 12 SP1	Certified	No	No	No	No	No
SLES 12 with Xen SP1	Certified	No	No	No	No	No

a. Base UEFI-mode is not supported. Only supported in legacy mode.

5.2.4 VMware support

Table 5-11 lists the VMware ESXi compatibility for BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

No custom image support: The servers in Table 5-11 do not support any of the Lenovo custom images for VMware ESXi that are currently available on the VMware web site.

Table 5-11   BladeCenter servers - VMware

	HX5 (7873)	HX5 (7872)	HS22 (7870 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
VMware ESX 3.5						
VMware ESX 3.5 (U4)	No	No	Supp+Cert	No	Supp+Cert	No
VMware ESX 3.5 (U5)	No	No	Supp+Cert	Supp+Cert	Supp+Cert	No
VMware ESXi 3.5						
VMware ESXi 3.5 (U4)	No	No	Supp+Cert	No	Supp+Cert	No
VMware ESXi 3.5 (U5)	No	No	Supp+Cert	Supp+Cert	Supp+Cert	No

	HX5 (7873)	HX5 (7872)	HS22 (7870 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
VMware ESX 4.0						
VMware ESX 4.0	No	No	Supp+Cert[a]	No	Supp+Cert[a]	Supp+Cert[a]
VMware ESX 4.0 (U1)	No	Supp+Cert[b]	Supp+Cert[a]	Supp+Cert	Supp+Cert[a]	Supp+Cert[a]
VMware ESXi 4.0						
VMware ESXi 4.0	No	No	Supp+Cert[a]	No	Supp+Cert[a]	Supp+Cert[a]
VMware ESXi 4.0 (U1)	No	Supp+Cert[b]	Supp+Cert[a]	Supp+Cert	Supp+Cert[a]	Supp+Cert[a]
VMware ESX 4.1						
VMware ESX 4.1	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESX 4.1 (U1)	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESX 4.1 (U2)	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESX 4.1 (U3)	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 4.1						
VMware ESXi 4.1	No	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 4.1 (U1)	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 4.1 (U2)	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 5.0						
VMware ESXi 5.0	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 5.0 U1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 5.0 U2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 5.0 U3	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert
VMware ESXi 5.1						
VMware ESXi 5.1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	No
VMware ESXi 5.1U1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	No
VMware ESXi 5.1 U2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	No
VMware ESXi 5.1 U3	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	No
VMware ESXi 5.5						
VMware ESXi 5.5	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	No
VMware ESXi 5.5 U1	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	No
VMware ESXi 5.5 U2	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	No
VMware ESXi 5.5 U3	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	No
VMware ESXi 6.0						
VMware ESXi 6.0	Supp+Cert	No	No	No	No	No

	HX5 (7873)	HX5 (7872)	HS22 (7870 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
VMware ESXi 6.0 U1	Supp+Cert	No	No	No	No	No
VMware ESXi 6.0 U2	Supp+Cert	No	No	No	No	No

a. LSI MegaRAID Management Suite (MegaRAID Storage Manager & MegaCLI) utilities are not supported

b. MAX5™ not supported with 4.0

5.2.5 Oracle support

Table 5-12 lists the Oracle compatibility for BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 5-12   BladeCenter servers - Oracle

	HX5 (7873)	HX5 (7872)	HS22 (7870 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
Oracle Linux						
Oracle Linux 5.9	No	No	No	No	No	No
Oracle Linux 5.10	No	No	No	No	No	No
Oracle Linux 6.1	No	No	No	No	Certified	Certified
Oracle Linux 6.2	No	No	No	No	No	No
Oracle Linux 6.3	No	No	No	No	No	No
Oracle Linux 6.4	No	No	No	No	No	No
Oracle Linux 6.5	Certified	Certified	No	No	No	No
Oracle Linux 6.6	Certified	Certified	No	No	No	No
Oracle Linux 6.7	Certified	Certified	No	No	No	No
Oracle Linux 7.0	No	No	No	No	No	No
Oracle Linux 7.1	No	No	No	No	No	No
Oracle VM						
Oracle VM 3.2	No	No	No	No	No	No
Oracle VM 3.3	No	No	No	No	Certified	Certified
Oracle Solaris						
Solaris 10	Supp+Cert	Supp+Cert	Supp+Cert	Supp+Cert	No	No
Solaris 11	No	No	No	No	No	No

5.2.6 Citrix XenServer support

Table 5-13 lists the Citrix XenServer operating system support for BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 5-13   BladeCenter servers - Citrix XenServer

Model	HX5 (7873)	HX5 (7872)	HS22 (7870, 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
XenServer 5.0.0	No	No	Certified	No	No	No
XenServer 5.5.0	No	No	Certified	No	No	No
XenServer 5.6.0	No	No	Certified	No	Certified	Certified
XenServer 5.6.0 FP1/SP2	Certified	Certified	Certified	Certified	Certified	Certified
XenServer 6.0.2	Certified	Certified	Certified	Certified	Certified	Certified
XenServer 6.1	Certified	Certified	Certified	Certified	Certified	Certified
XenServer 6.2	No	No	Certified	Certified	Certified	Certified
XenServer 6.5	No	No	No	No	No	No
XenServer 7.0	No	No	No	No	No	No

5.2.7 Toshiba support

Table 5-14 lists the Toshiba compatibility for BladeCenter servers.

Note: Versions of operating systems older than those listed in the table are not supported.

Table 5-14   BladeCenter servers - Toshiba

	HX5 (7873)	HX5 (7872)	HS22 (7870, 7809)	HS22V (7871)	HS12 (8028)	HS12 (8014)
IBM 4690 Operating System V6	No	No	No	No	Supp+Cert	Supp+Cert

6

Related Links

This chapter lists relevant documents and links for further information

6.1 Lenovo ServerProven

- ► ServerProven home page

  http://www.lenovo.com/us/en/serverproven/

- ► OS matrix for current systems:

  - System x: http://www.lenovo.com/us/en/serverproven/nos/matrix.shtml
  - Flex System: http://www.lenovo.com/us/en/serverproven/nos/flexmatrix.shtml
  - BladeCenter: http://www.lenovo.com/us/en/serverproven/nos/ematrix.shtml
  - NeXtScale and ThinkServer sd350:
    http://www.lenovo.com/us/en/serverproven/nos/somatrix.shtml
  - iDataPlex: http://www.lenovo.com/us/en/serverproven/nos/idpxmatrix.shtml

- ► OS matrix for older systems:

  - System x: http://www.lenovo.com/us/en/serverproven/nos/matrix_old.shtml
  - Flex System: http://www.lenovo.com/us/en/serverproven/nos/flexmatrixold.shtml
  - BladeCenter: http://www.lenovo.com/us/en/serverproven/nos/ematrix_old.shtml
  - iDataPlex: http://www.lenovo.com/us/en/serverproven/nos/idpxmatrixold.shtml

6.2 Lenovo links

- ► Lenovo product page for Operating Systems

  http://shop.lenovo.com/us/en/systems/software/os/

- ► Flex System Interoperability Guide

  http://lenovopress.com/fsig

- ► BladeCenter Interoperability Guide

  http://lenovopress.com/bcig

- xREF: System x Reference

  http://lenovopress.com/xref
- PSREF: ThinkServer reference

  http://psref.lenovo.com

6.3 Microsoft links

- Windows Server Catalog

  http://www.windowsservercatalog.com/

6.4 VMware links

- VMware compatibility guide

  http://www.vmware.com/resources/compatibility/search.php
- VMware ESXi custom images for 6.0

  https://my.vmware.com/web/vmware/info/slug/datacenter_cloud_infrastructure/vmware_vsphere/6_0#custom_iso
- VMware ESXi custom images for 5.5

  https://my.vmware.com/web/vmware/info/slug/datacenter_cloud_infrastructure/vmware_vsphere/5_5#custom_iso
- VMware ESXi custom images for 5.1

  https://my.vmware.com/web/vmware/info/slug/datacenter_cloud_infrastructure/vmware_vsphere/5_1#custom_iso

6.5 Red Hat links

- Operating system certifications

  https://hardware.redhat.com/

6.6 SUSE links

- Operating system certifications

  https://www.suse.com/yessearch/Search.jsp

6.7 Citrix links

- Hardware Compatibility List

  http://hcl.xenserver.org

- ► Installing XenServer on IBM UEFI Systems

  http://blogs.citrix.com/2012/12/10/installing-xenserver-on-ibm-uefi-systems/

6.8 Oracle links

- ► Hardware Compatibility List

  https://linux.oracle.com/hardware-certifications
- ► Solaris 10 HCL

  http://www.oracle.com/webfolder/technetwork/hcl/data/sol/index.html
- ► Soiaris 11 HCL

  http://www.oracle.com/webfolder/technetwork/hcl/data/s11ga/index.html

6.9 Canonical Ubuntu links

- ► Ubuntu Server certified hardware list

  http://www.ubuntu.com/certification/server/models/?vendors=Lenovo

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