



IBM System Cluster 1350

Supported Component by Software Release

Contents

Cluster 1350 supported components by release	1
June 2003 release components	1
November 2003 release components	2
February 2004 release components	3
June 2004 release components	5
November 2004 release components	7
November 2005 release components	9
July 2006 release components	12

Cluster 1350 supported components by release

This document lists previously released Cluster 1350 components.

June 2003 release components

This section provides a list of the Cluster 1350 components supported for the June 2003 software release.

Cluster nodes:

- IBM® @server® 325 server
- IBM xSeries® 335
- IBM xSeries 345
- IBM xSeries 360
- IBM BladeCenter™ unit populated with HS20 blade servers
- IBM @server BladeCenter unit and IBM BladeRunner blade servers, models:
 - 8677-11X
 - 8678-21X
 - 8678-41X
 - 8678-51X
 - 8678-61X

Storage servers:

- IBM TotalStorage™ FAStT200 Fibre Channel
- IBM TotalStorage FAStT600 Fibre Channel
- IBM TotalStorage FAStT700 Fibre Channel

Storage expansion units:

- IBM FAStT™ EXP 500 disk storage expansion unit
- IBM FAStT EXP 700 disk storage expansion unit

KVM/console/terminal servers:

- iTouch 8020 terminal and port server
- iTouch 8040 terminal and port server
- IBM NetBAY™ remote console manager
- IBM NetBAY 2x8 console switch

Switches:

- Cisco Catalyst 4003 high speed switch
- Cisco Catalyst 4006 high speed switch
- Cisco Catalyst 3550-24 XL Ethernet switch
- Cisco Catalyst 3550-48 XL Ethernet switch
- Cisco Catalyst 3508G Ethernet switch

Other: IBM 1410-42L BladeCenter unit

Operating Systems:

- Red Hat Version 8.0
- Red Hat AS Version 2.1
- SUSE LINUX Version 8.1
- SUSE LINUX Enterprise Server (SLES) Version 7 and Version 8
- Linux Cluster Installation Tool (LCIT) Version 3.0

November 2003 release components

This section provides a list of the Cluster 1350 components supported for the November 2003 software release.

Cluster nodes:

- IBM @server 325
- IBM xSeries 335
- IBM xSeries 345 models:
 - 3.06 GHz
 - 533 GHz
 - FSB
- IBM xSeries 360
- IBM @server BladeCenter unit populated with HS20 blade servers

Storage servers:

- IBM TotalStorage FAStT200 storage controller
- IBM TotalStorage FAStT600 storage controller
- IBM TotalStorage FAStT700 storage controller
- IBM TotalStorage FAStT900 storage controller

Storage expansion units:

- IBM TotalStorage FAStT EXP 400 disk storage expansion unit
- IBM TotalStorage FAStT EXP 700 disk storage expansion unit

SCSI/RAID controllers:

- IBM ServeRAID™ -6I Ultra320 SCSI controller
- IBM ServeRAID -6M Ultra320 SCSI controller

KVM/console/terminal servers:

- In-Reach LX 4032 terminal server
- In-Reach LX 4048 terminal server
- IBM NetBAY remote console manager
- IBM NetBAY 2x8 console switch

Switches:

- Cisco Catalyst 3550-24 XL Ethernet switch
- Cisco Catalyst 3550-48 XL Ethernet switch
- Cisco Catalyst 3508G Ethernet switch
- Cisco Catalyst 4003 high-speed switch
- Cisco Catalyst 4006 high-speed switch

- Myrinet high-speed switch models:
 - M3-E32
 - M3-E64
 - M3-E128
 - M3F-PC164C-2
 - M3F-PCIXD-2

Power management module: APC Master Switch model AP9212

Power Distribution Units (PDUs):

- IBM NetBAY rack PDU
- IBM NetBAY front end rack PDU
- IBM @server xSeries Distributed Power Interconnect (DPI) rack PDU
- IBM @server xSeries front end DPI rack

Operating Systems:

- Red Hat Version 8.0 and Red Hat AS Version 2.1
- SUSE LINUX Version 8.1
- SLES Version 7 and Version 8
- LCIT Version 3.0

February 2004 release components

This section provides a list of the Cluster 1350 components supported for the February 2004 software release.

Cluster nodes:

- IBM @server 326 2.2 GHz
- IBM xSeries 335 3.2 GHz/512KB
- IBM xSeries 345 3.2 GHz
- IBM xSeries 360 3.06 GHz
- IBM @server BladeCenter unit populated with HS20 blade servers

Storage servers:

- IBM TotalStorage FAStT600 Fibre Channel
- IBM TotalStorage FAStT700 Fibre Channel
- IBM TotalStorage FAStT900 Fibre Channel
- IBM TotalStorage FAStT 250 GB S-ATA disk drive

Storage expansion units:

- IBM TotalStorage FAStT EXP400 disk storage expansion unit
- IBM TotalStorage FAStT EXP700 disk storage expansion unit

SCSI/RAID controllers:

- IBM ServeRAID -6I Ultra320 SCSI controller
- IBM ServeRAID -6M Ultra320 SCSI controller

KVM/console/terminal servers:

- MRV LX 32-port terminal server
- MRV 48-port terminal server
- In-Reach LX 4032 terminal server
- In-Reach LX 4048 terminal server
- IBM NetBAY remote console manager
- IBM NetBAY 2.8 console switch

Switches and adapters:

- Cisco Catalyst 4003 high-speed switch
- Cisco Catalyst 4006 high-speed switch
- Cisco Catalyst 3550-24 XL switch
- Cisco Catalyst 3550-48 XL switch
- Cisco Catalyst 3508G switch
- Cisco Catalyst 6548 fabric-enabled 10/100 Mb Ethernet line card
- Cisco Catalyst 6748 fabric-enabled 10/100/1000 Mb Ethernet line card
- Topspin 120 InfiniBand switch
- Topspin 120 InfiniBand host channel adapter
- Myrinet high-speed switch models:
 - M3-E32
 - M3-E64
 - M3-E128
 - M3F-PC164C-2
 - M3F-PCIXD-2
- Myrinet cluster expansion card
- SMC 8624T switch
- SMC BGSLCX1 mini-GBIC expansion module

Power management module: APC Master Switch model AP9212

Power Distribution Units (PDU):

- IBM NetBAY rack PDU
- IBM NetBAY front end rack PDU
- IBM @server xSeries Distributed Power Interconnect (DPI) rack PDU
- IBM @server xSeries front end DPI rack PDU

Other:

- Cisco Catalyst 6503 10/100/1000 Mb Ethernet switch rack unit
- Cisco Catalyst 6509 10/100/1000 Mb Ethernet switch rack unit

Operating Systems:

- Red Hat Enterprise Linux (RHEL) Version 3.0 32-bit and 64-bit
- Red Hat AS Version 2.1
- SUSE LINUX Version 8.1
- SLES Version 7
- LCIT Version 3.1

June 2004 release components

This section provides a list of the Cluster 1350 components supported for the June 2004 software release.

Cluster nodes:

- IBM @server 325 blade server management node
- IBM xSeries 335 cluster node
- IBM xSeries 345 cluster node
- IBM xSeries 360 cluster node
- IBM @server BladeCenter unit populated with HS20 blade servers

Storage servers:

- IBM TotalStorage FAStT200
- IBM TotalStorage FAStT600
- IBM TotalStorage FAStT600 Turbo
- IBM TotalStorage FAStT700
- IBM TotalStorage FAStT900 Fibre Channel

Storage expansion units:

- IBM TotalStorage FAStT EXP100 disk expansion unit
- IBM TotalStorage FAStT EXP400 disk expansion unit
- IBM TotalStorage FAStT EXP500 disk expansion unit
- IBM TotalStorage FAStT EXP700 disk expansion unit

SCSI/RAID controllers:

- IBM ServeRAID -6I Ultra320 SCSI controller
- IBM ServeRAID -6M Ultra320 SCSI controller

KVM/console/terminal servers:

- IBM NetBAY remote console manager (RCM)
- IBM NetBAY local console manager (LCM)
- IBM NetBAY 2x8 console switch (KVM)
- iTouch IR-8020 switch
- iTouch IR-8040 switch
- In-Reach LX 4032 terminal server
- In-Reach LX 4048 terminal server
- Equinox CCM4850 console manager

Switches/adapters:

- Cisco Catalyst 4003 high-speed switch
- Cisco Catalyst 4006 high-speed switch
- Cisco Catalyst 3550-24 XL switch
- Cisco Catalyst 3550-48 XL switches
- Cisco Catalyst 3508G switch
- Cisco Catalyst 6548 fabric-enabled 10/100 Mb Ethernet line card
- Cisco Catalyst 6748 fabric-enabled 10/100/1000 Mb Ethernet line card
- Cisco Catalyst 6704 10 Gb Ethernet switch
- Topspin 120 InfiniBand switch
- Topspin 120 InfiniBand host channel adapter
- Myrinet high-speed switch, models:
 - M3-E32
 - M3-E64
 - M3-E128
 - M3F-PC164C-2
 - M3F-PCIXD-2
 - M3F2-PCIXE-2
- Myrinet BladeCenter connectivity
 - Myrinet PCI card
 - Optical Pass-thru module
- SMC 8624T switch
- SMC BGS LCX1 mini-GBIC expansion module

Power management module: APC Master Switch model AP9212

Power Distribution Units:

- IBM NetBAY rack PDU
- IBM NetBAY front end rack PDU
- IBM DPI rack PDU
- IBM front-end DPI rack PDU
- IBM DPI high density PDU

Other:

- IBM TotalStorage FAStT 250GB S-ATA disk drive
- Cisco Catalyst 6503 switch rack cabinet
- Cisco Catalyst 6509 10/100/1000 Mb Ethernet switch rack cabinet

Operating systems:

- Red Hat Linux Version 9 for 32-bit
- RHEL Version 3.0 for 32-bit and 64-bit
- SLES Version 8 for 32-bit and 64-bit
- LCIT Version 3.2

November 2004 release components

This section provides a list of the Cluster 1350 components supported for the November 2004 software release.

Cluster nodes:

- IBM @server 326 model 2.4 GHz management node
- IBM xSeries 336 cluster node, models:
 - 2.8 GHz
 - 3.0 GHz
 - 3.2 GHz
 - 3.4 GHz
 - 3.6 GHz
- IBM xSeries 346 cluster node, models:
 - 2.8 GHz
 - 3.0 GHz
 - 3.2 GHz
 - 3.4 GHz
 - 3.6 GHz
- IBM @server BladeCenter HS20 populated with Type 8843 blade servers
- IBM @server BladeCenter JS20 populated with Type 8842 blade servers

Storage servers:

- IBM TotalStorage DS4 100 Serial-ATA storage server
- IBM TotalStorage DS4 100 Turbo storage server
- IBM TotalStorage storage servers, models:
 - DS4 200
 - DS4 300
 - DS4 400
 - DS4 500
 - DS300 storage area network (SAN) storage server
 - DS400 SAN storage server
- IBM SAN 2005 model H-16 storage server

Storage expansion units:

- IBM TotalStorage expansion unit, models:
 - DS4000 EXP100
 - DS4000 EXP400
 - DS4000 EXP500
 - DS4000 EXP700
 - DS4000 EXP900

KVM/console/terminal servers:

- IBM NetBAY remote console manager (RCM)
- IBM NetBAY local console manager (LCM)
- IBM NetBAY 2x8 console switch (KVM)
- iTouch IR-8020 switch

- iTouch IR-8040 switch
- In-Reach LX 4032 terminal server
- In-Reach LX 4048 terminal server

Switches/adapters/controllers:

- IBM Fibre Channel SCSI/iSCSI single channel and dual channel adapters
- Brocade Fibre Channel switch
- IBM @server BladeCenter Fibre Channel switch module
- IBM @server BladeCenter Fibre Channel expansion card
- Force10 switch fabric module
- Topspin 120 InfiniBand switch
- Topspin 270 InfiniBand switch
- Topspin 12-port 4X InfiniBand line card
- Topspin 270 InfiniBand switch fabric module
- Topspin InfiniBand management module
- Topspin InfiniBand host channel adapter
- Topspin InfiniBand host channel adapter PCI-X
- Topspin InfiniBand host channel adapter PCI-Express
- Voltaire 9024 InfiniBand switch router
- Voltaire InfiniBand PCI-X host channel adapter
- Voltaire 1U 24-port InfiniBand switch, power supply, and rail kit
- Voltaire PCI-Express host channel adapter
- Cisco Catalyst 3750G-24T switch
- Cisco Catalyst 6704 Gigabit Ethernet switch
- Cisco Catalyst 6500 line card
- XENPAK 10 GB-SR
- IBM @server BladeCenter Gigabit Ethernet switch module
- SMC Ethernet switch models 8624T and 8648T
- SMC mini-GBIC expansion module
- Force 10 E600 unit:
 - Force 10 E600 Gb Ethernet switch line card
 - Force 10 E600 switch fabric module
 - Force 10 48-port Gb line card
 - Force 10 4-port Gb line card
- Cisco Catalyst 6500 10 Gb Ethernet line card
- Cisco Catalyst 6548 fabric-enabled 10/100 Mb Ethernet line card
- Cisco Catalyst 6748 fabric-enabled 10/100/1000 Mb Ethernet line card
- Cisco Catalyst 6704 4-port 10 Gb Ethernet switch
- XENPAK 10 Gb line card
- Copper Pass-thru module
- PRO/1000 MT dual port server adapter
- Myrinet high-speed Ethernet switch line cards, models:
 - M3-E32
 - M3-E64
 - M3-E128

- M3F-PC164C-2
- M3F-PCIXD-2
- M3F-PCIXD-4
- M3F2-PCIXE-2
- M3-SW16-8E
- Myrinet BladeCenter connectivity:
 - Myrinet PCI card
 - Optical Pass-Thru module
- SMC 8624T switch
- SMCBGS LCX1 mini-GBIC expansion module

SCSI/RAID controllers:

- ServeRAID 7k, -6I, and -6m Ultra320 SCSI controller adapters
- ServeRAID 7t Serial-ATA controller adapter

Hard disk drives:

- IBM TotalStorage FAStT 250GB S-ATA disk drive
- IBM DS4000 Ultra320 300 GB 10k Hz hard disk drive
- IBM DS4000 Ultra320 146 GB Hz SCSI hard disk drives
- Maxtor 250 GB dual-port Serial-ATA hard disk drive
- Savvio 2.5 inch small-form-factor hard disk drive

Other:

- Cisco Catalyst 6503 switch rack cabinet
- Cisco Catalyst 6509 10/100/1000 Mb Ethernet switch rack cabinet

Power management module: APC Master Switch model AP9212

Power Distribution Units:

- IBM NetBAY rack PDU
- IBM NetBAY front-end rack PDU
- IBM @server xSeries DPI rack PDU
- IBM @server xSeries front-end DPI rack PDU

Operating systems:

- RHEL Version 3.0 preloaded for 32-bit, 64-bit, and 64-bit EMT
- SLES Version 9 for 32-bit, 64-bit EMT, and 64-bit PPC
- LCIT Version 3.4

November 2005 release components

This section provides a list of the Cluster 1350 components supported for the November 2005 software release.

Cluster nodes:

- IBM @server 326m models:
 - 2.4, 2.6, 2.8 GHz single core
 - 1.8, 2.0, 2.2, 2.4 GHz dual core

- IBM xSeries 336 cluster node models:
 - 2.8 GHz
 - 3.0 GHz
 - 3.2 GHz
 - 3.4 GHz
 - 3.6 GHz
 - 3.8 GHz
- IBM xSeries 346 cluster node models:
 - 3.0 GHz
 - 3.2 GHz
 - 3.4 GHz
 - 3.6 GHz
 - 3.8 GHz
- IBM BladeCenter HS20 populated with type 8843 blade servers
- IBM BladeCenter JS20 populated with type 8842 blade servers
- IBM BladeCenter LS20 populated with type 8850 blade servers
- IBM pSeries® OpenPower 710 cluster node model 1.65 GHz
- IBM pSeries OpenPower 720 cluster node model 1.5 GHz
- IBM pSeries p505 cluster node models: 1.5, 1.65 GHz
- IBM pSeries p550 cluster node models: 1.5, 1.9 GHz

Storage servers:

- IBM TotalStorage DS4100 storage server
- IBM TotalStorage DS4300 storage server
- IBM TotalStorage DS4500 storage server

Storage expansion units:

- DS4000 EXP100
- IBM EXP400 external SCSI storage enclosure

KVM/console/terminal servers:

- IBM local 2x8 console manager
- IBM global 2x16 console manager
- IBM global 4x16 console manager
- IBM 1x8 and 2x16 console switch
- MRV LX - 32-port and 48-port terminal server switches
- Cyclades 48-port terminal server switch

Switches:

- SMC 8624T 24-port i Gb switch
- SMC 8648T 48-port 10/100/1000 switch
- SMC 8748M 48-port 1 Gb switch with 10 Gb uplinks
- SMC 8708L2 8-port 10 Gb switch
- Cisco Catalyst 3750 24-port 10/100/1000 switch
- Cisco 4506 6-slot, 6503 3-slot, and 6509 9-slot chassis
- Force10 E600 switch

- Force10 S50 48-port 10/100/1000 switch
- Voltaire 9024 and 9288 Infiniband switches
- Topspin 120 and 270 Infiniband switch
- Myricom M3-E32, M3-E64, M3-128, and CLOS256 Myrinet switches

Adapters:

- IBM TotalStorage FC2-133 host bus adapter (HBA)
- IBM Gb Ethernet-SX low profile PCI-X adapter
- IBM 10/100/1000 BASE-TX Ethernet low profile PCI-X adapter
- IBM 10/100 Mbps Ethernet PCI adapter II
- IBM 2-port 10/100/1000 BASE-TX Ethernet PCI-X adapter
- IBM 2-port Gb Ethernet-SX PCI-X adapter
- QLogic 2 Gbps 4-port Fibre Channel to PCI-X HBA
- QLogic 4 Gb Fibre Channel card (SmFF)
- PRO/1000 MT server Ethernet adapter by Intel
- PRO/1000 dual port server adapter by Intel
- PRO/1000 dual port 1 Gb adapter
- NetXtreme 1000 SX+, 1000T+ Ethernet adapters, and 1000T+ dual port Ethernet adapter
- Myrinet 333 MHz dual Fibre/PCI-X "E" card (2 MB memory)
- Myrinet 333 MHz single Fibre/PCI-X "F" card (2 MB memory)
- Myrinet 225 MHz "D" card (revision 2) (2 MB memory) for blade servers
- Myrinet 333 MHz single Fibre/PCI-X interface (4 MB memory) for blade servers
- Infiniband DC module for blade servers
- Topspin 10 Gbps host channel PCI-X adapter, 10 Gbps host channel PCI-Express adapter
- Voltaire 10 Gbps host channel PCI-X adapter, 10 Gbps host channel PCI-Express adapter

BladeCenter switch modules:

- IBM @server BladeCenter optical pass-thru module
- IBM BladeCenter copper pass-thru module
- QLogic 4 Gb, 20-port switch module
- Brocade Enterprise SAN switch module for IBM BladeCenter
- Brocade Entry SAN switch module for IBM BladeCenter
- Infiniband switch module for blade servers
- Nortel L2/L3 copper Gb Ethernet switch module for IBM BladeCenter
- Brocade 20-port, 4 Gb SAN switch module for IBM BladeCenter

SCSI/RAID controllers:

- IBM ServeRAID -6M Ultra320 SCSI controllers (128 MB and 256 MB cache)
- IBM ServeRAID 7t SATA controller

Hard disk drives:

- Ultra320 SCSI disk drive models:
 - 73.4 GB, 10 000 RPM, hot-swap, Secure Socket Layer (SSL)
 - 146.4 GB, 10 000 RPM, hot-swap, SSL
 - 300 GB, 10 000 RPM, hot-swap, SSL
 - 36.4 GB, short form factor (SFF), 10 000 RPM, hot-swap, SSL
 - 73.4 GB, SFF, 10 000 RPM, hot-swap, SSL
 - 36.4 GB, SFF, 10 000 RPM, non-hot-swap, SSL
 - 73.4 GB, SFF, 10 000 RPM, non-hot-swap, SSL
 - 36 GB, 15 000 RPM, hot-swap
 - 73 GB, 15 000 RPM, hot-swap
 - 146 GB, 15 000 RPM, hot-swap
- 73.4 GB, 10 000 RPM, 2 GB, Fibre Channel, hot-swap hard disk drive
- 146.8 GB, 10 000 RPM, Fibre Channel, hot-swap hard disk drive
- 300 GB, 10 000 RPM, 2 GB, Fibre Channel, hot-swap hard disk drive
- 36.4 GB 15 000 RPM, 2 GB, Fibre Channel, hot-swap hard disk drive
- 73.4 GB, 15 000 RPM, 2 GB, Fibre Channel, hot-swap hard disk drive
- 146.8 GB, 15 000 RPM, 2 GB, Fibre Channel, hot-swap hard disk drive

Power distribution units:

- IBM NetBAY rack PDU
- IBM NetBAY front end rack PDU
- IBM @server xSeries DPI rack PDU
- IBM @server xSeries front end DPI rack PDU

Software:

- Red Hat Enterprise Linux Version 4
- SUSE Linux Enterprise Server Version 9
- IBM CSM for Linux Version 1.5
- GPFS Version 2.4 for Linux
- MPI Connect for TCP/IP
- MPI Connect for Myrinet

July 2006 release components

For a complete list of the components supported for the July 2006 release, see the *IBM System Cluster 1350 Installation and Service Guide*.



Part Number: 24R9715

(1P) P/N: 24R9715

