IBM System x3300 M4 tower servers feature fast 4C or 6C Intel Xeon processors with one QPI link and 10 MB or 15 MB cache for enhanced performance and scalability

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At a glance

IBM® System x3300 M4 servers feature:

- A 1.8 GHz/6.4 GTS-10 MB 4C Intel™ E5-2403, a 2.2 GHz/6.4 GTS-10 MB 4C E5-2407, a 1.9 GHz/7.2 GTS-15 MB 6C E5-2420, a 2.2 GHz/7.2 GTS-15 MB 6C E5-2430, or a 2.4 GHz/7.2 GTS-15 MB 6C E5-2440, Intel Xeon™ processor data bus to the system with one QPI link.
- 2 GB or 4 GB of 1333 MHz DDR3 ECC system memory[1]; 48 GB maximum or 384 GB maximum when 32 GB DIMMs installed; Express® models have 8 GB.
- Eight-port SAS/SATA with RAID controller.
- One fixed 460-watt 80 Plus Bronze certified power supply fitted standard; one hot-swap 550-watt 80 Plus Platinum certified redundant power supply on Models D2, D4,and F2.
- Integrated management module (IMM2).
- Five PCI-Express card slots standard, one PCI-Express card slot enabled with dual processors, and one optional PCI-X card slot when using interposer card.
- Support for up to sixteen 2.5-inch drives plus one standard optical drive and one optional half-height tape drive, or up to eight 3.5-inch drives plus one standard optical drive and one optional half-height tape drive.
- Up to 16 TB[2] with 1 TB 2.5-inch HS NL SFF SAS/SATA disk drives.

- Intel I350CM2 integrated Quad Gigabit Ethernet controllers, two ports standard and two more ports using Software license key and SAS or SATA support.
- SVGA video with 16 MB memory shared.
- Support for optional Remote Presence function.
- 4U tower industry-standard models, rack mount through special bid or option.
- Two USB front and four USB rear ports, two USB internal port, one d-sub connector, four 10/100/1000 RJ45 ports, and one serial port.

For ordering, contact your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: YE001).

Overview

The System x3300 M4 servers include:

- Quickpath Interconnect (QPI) support for 6.4 and 7.2 Gigabit transfers per second (GTS), supporting one QPI link.
- Two simple-swap fans standard with single processor or three simple-swap fans standard with dual processors. Optional redundant cooling option and power supplies are available.
- Five PCI-Express card slots standard; one PCI-Express card slot enabled with dual processors; and one optional PCI-X card slot when using interposer card.
- Integrated dual Gigabit Ethernet, quad with software upgrade.
- RAID-0, RAID-1, and RAID-10 support standard or optional RAID-1E, RAID-5, RAID-10, and RAID-50 using a PCI-E adapter.
- DDR3 ECC DIMMs, combined with an integrated ECC memory controller in core logic that corrects many soft and hard single-bit memory errors and minimizes disruption of service to LAN clients.
- Integrated management module (IMM2) with optional Remote Presence function.
- Light path diagnostics with a light path panel visible at front of chassis.

Powered and scaled for business growth

- These servers contain one of the following:
  - A 1.8 GHz/6.4 GTS-10 MB 4C Intel E5-2403, a 2.2 GHz/6.4 GTS-10 MB 4C E5-2407, a 1.9 GHz/7.2 GTS-15 MB 6C E5-2420, a 2.2 GHz/7.2 GTS-15 MB 6C E5-2430, or a 2.4 GHz/7.2 GTS-15 MB 6C E5-2440, Intel Xeon processor data bus to the system with one QPI link.
- Either a 1066 MHz or 1333 MHz functional speed processor operations to memory.
- 2 GB or 4 GB of high-speed DDR3 - 1333 MHz ECC memory[1], 48 GB maximum using 4 GB memory DIMMs[6], or 384 GB maximum using 32 GB memory DIMMs[7], Express models come standard with 8 GB.
- High-speed, wide-bandwidth slots: Five PCI-Express card slots with single processor, one more PCI-Express card slot with dual processors, and one optional PCI-X card slot when using interposer card.
- Intel I350CM2 integrated Quad Gigabit Ethernet controllers, two ports standard and two more ports using Software license key and SAS or SATA support.
- Standard SATA DVD-ROM and tape drive bay.
- Eight standard 2.5-inch hot-swap drive bays and up to sixteen 2.5-inch bays available when using upgrade options with total HDD storage capacity of 16 TB, when using 1 TB Near-Line SFF SAS/SATA HDD options.

High availability for around-the-clock business demands

- Integrated management module (IMM2) and support for the optional Remote Presence function.
- Wake on LAN.

- ECC memory to detect double-bit errors and correct single-bit errors.
- Integrated memory mirroring and sparing.

Service and support perfected for business needs

- ServerGuide and IBM Director.
- IBM Server support and web support[3].
- Three-year, customer replaceable unit (CRU) and on-site service[4], limited warranty[5]; optional warranty service upgrades available.

Note: For configurations that support the RAID battery, the RAID battery will be warranted for one year effective on its "date of installation." All other product warranty terms for the machine remain unchanged.

IBM x3300 M4 Express Models

New System x® configurations are being added to the IBM Express Portfolio™ , designed and priced meet the needs of mid-sized businesses. Reliable and easy to manage, Express models and configurations vary by country. They further enhance the ease of doing business with IBM by offering a robust portfolio of products supported by aggressive pricing and simplified incentives.

The latest System x Express models consist of relevant system configurations for the System x3300 M4 servers.

System x Express servers deliver robust capabilities while taking into account limited resources and budgets. Find the right hardware for your business needs today, while helping to protect your investments with flexible, scalable products that can grow with your business.

Notes :

[1]DDR3 1333 RDIMM memory. DDR3 memory stands for double data rate, which means up to twice the data is transferred compared to SDRAM in the same clock cycle.

[2]When referring to HDD or tape backup capacity, GB stands for 1,000,000,000 bytes and TB stands for 1,000,000,000,000 bytes. User capacity may vary depending on operating environments.

[3]Some programs may not be available in all countries.

[4]With respect to on-site service, you may be asked certain diagnostic questions before a technician is sent.

[5]For information on the IBM Statement of Limited Warranty, visit

http://www.ibm.com/servers/support/machine_warranties/

This information is also available by calling 800-426-7378 or contacting your IBM representative or reseller. Copies are available upon request.

[6]Twelve DIMM slots that enable you to deploy up to 384 GB of DDR3 SDRAM Registered DIMM memory, with 12 slots populated with 32 GB DIMMs optional, 2 GB or 4 GB memory standard.

[7]2.5-inch Drive bays provide 8.0 TB using 8x 1 TB SFF SAS HDD options, this can be doubled to 16 TB with optional 8x 2.5-inch HDD upgrade. (Special bid models support up to sixteen 2.5-inch bays with an additional 8 TB of HDD capacity for a total of 16 TB).

3.5-inch Drive bays provide 12 TB as standard using 4x 3 TB LFF SAS/SATA HDD options. This can be doubled to 24 TB with optional 4x 3.5-inch HDD upgrade. For the latest information on supported HDD options, visit

http://www-03.ibm.com/systems/info/x86servers/serverproven/compat/us/

Feature exchange

None

Key prerequisites

- Monitor
- Keyboard (only in EMEA and United States, Latin America, and Canada)
- Mouse (only in EMEA and Untied States, Latin America, and Canada)

Planned availability date

August 22, 2012: System x3300 M4 - 7382

Description

Related options

IBM memory options

- 2 GB (1 x 2 GB, 2R x 8, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHz LP RDIMM (49Y1392)
- 2 GB (1 x 2 GB, 1R x 4, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHz LP RDIMM (49Y1393)
- 4 GB (1 x 4 GB, 2R x 4, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHz LP RDIMM (49Y1394)

IBM processor options

- Intel Xeon Processor E5-2403 4C 1.8GHz 10MB Cache 1066MHz 80W (00D2581)
- Intel Xeon Processor E5-2407 4C 2.2GHz 10MB Cache 1066MHz 80W (00D2582)
- Intel Xeon Processor E5-2420 6C 1.9GHz 15MB Cache 1333MHz 95W (00D2583)
- Intel Xeon Processor E5-2430 6C 2.2GHz 15MB Cache 1333MHz 95W (00D2584)
- Intel Xeon Processor E5-2440 6C 2.4GHz 15MB Cache 1333MHz 95W (00D2585)

These 4C and 6C processors are ideal for data-intensive applications that range from data mining to evolving web services. Innovative technologies deliver processing speeds of up to 2.7 GHz/8.0 GTS with performance headroom for unpredictable server workloads and escalating computing needs.

Intel Xeon processors with 10 MB or 15 MB cache feature Intel Turbo Boost 2.0 Technology that provides maximum turbo mode duration and speed to improve power and thermal management. The new intelligent performance processors adapt to software workload environment, delivering more computing power when needed. The new Intel Integrated I/O integrates PCIe adaptors into the processor for lower latency and power while growing total capacity and bandwidth.

These enhancements add up to faster response times, support for more simultaneous users, and increased transaction workloads.

These Intel DP processors with Quickpath Interconnect (QPI), with one link, support SMP applications when installed in the second processor slot of System x3300 M4 models with similar processors.

Note: DDR3 ECC DIMMs, combined with an integrated ECC memory controller, correct many soft and hard single-bit memory errors, and minimize disruption of service to LAN clients. Chipkill distributes information covered by error correction coding across separate memory chips, so if any of the chips fail, the data can still be reconstructed from the remaining chips, and the system can continue running.

Increased processor performance coupled with DDR memory enables you to retrieve and process information faster and more efficiently. DDR memory executes twice the number of operations per cycle than traditional SDRAM memory, effectively doubling the data exchange rate between memory and processors.

ServeRAID controllers supported

- IBM 6Gb SAS HBA Controller (46M0907)
- ServeRAID M1115 SAS/SATA Controller for System x (81Y4448)
- ServeRAID M5110 SAS/SATA Controller for IBM System x(81Y4481)
- ServeRAID M5100 Series 512MB Cache/RAID 5 Upgrade for IBM System x (81Y4484)
- ServeRAID M5100 Series 512MB Flash/RAID 5 Upgrade for IBM System x (81Y4487)
- ServeRAID M5100 Series Battery Kit for IBM System x (81Y4508)
- ServeRAID M1100 Series Zero Cache/RAID 5 Upgrade for IBM System x (81Y4542)
- ServeRAID M5100 Series Zero Cache/RAID 5 Upgrade for IBM System x (81Y4544)
- ServeRAID M5100 Series RAID 6 Upgrade for IBM System x (81Y4546)
- ServeRAID M5100 Series 1GB Flash/RAID Upgrade for IBM System x (81Y4559)

IBM support options

- Tower to Rack Conversion Kit (00D2594)
- PCI-X Interposer Conversion Kit (81Y7012)
- Additional 8 x 2.5" Hot-Swap SAS/SATA Upgrade Kit for 16 (00D2592)
- Redundant Cooling Upgrade Kit (00D2593)

IBM Redundant Power and Cooling Option

The redundant power supplies are designed to supply power for all systems.

High-performance server subsystems

System x3300 M4 servers are high-throughput, two-way, SMP-capable network servers with excellent performance scalability when you add memory and a second processor. They incorporate powerful Intel Xeon processors with 10 MB or 15 MB cache, model dependent. These flip-chip, land grid array 6 (FC-LGA6) processors feature advanced transfer caches integrated onto the processor core and run at the same clock speed as the processor core.

Two processor connectors are standard on the system board to support installation of a second processor. High-speed, 1333 MHz DDR3 RDIMMs are optimized for 1333 MHz processor-to-memory subsystem performance. The System x3300 M4 server uses the Intel Patsburg chipset- C600 to maximize throughput from processor to memory and system I/O buses.

Standard System x3300 M4 configurations

Model	Processor	Cache	Memory	SAS Interface	Mechanical
7382-A2x	1.8 GHz/6.4 GTS	10 MB	2 GB	SS SATA	Tower
7382-B2x	2.2 GHz/6.4 GTS	10 MB	4 GB	HS SATA	Tower
7382-C2x	1.9 GHz/7.2 GTS	15 MB	4 GB	HS SAS/SATA	Tower
7382-D2x	2.2 GHz/7.2 GTS	15 MB	4 GB	HS SAS/SATA	Tower
7382-D4x	2.2 GHZ/7.2 GTS	15 MB	4 GB	HS SFF SAS/SATA	Tower
7382-F2x	2.4 GHz/7.2 GTS	15 MB	4 GB	HS SFF SAS/SATA	Tower

Note: For EMEA x=G

Express models

Model	Processor	Cache	Memory	SAS Interface	Mechanical
7382-EAU	2.2 GHz/6.4 GTS,	10 MB	8 GB open-bay	HS SAS/SATA	Tower
7382-EBU	1.9 GHz/7.2 GTS,	15 MB	8 GB open-bay	HS SAS/SATA	Tower
7382-ECU	2.4 GHz/7.2 GTS,	15 MB	8 GB open-bay	HS SFF SAS/SATA	Tower

Additional features:

- Ability to upgrade to two-way processing by adding a second processor of the same speed and processor type
- System board that contains 6 DIMM connectors and CPU expansion board that contains 6 DIMM connectors supporting 2 GB, 4 GB, 8 GB, 16 GB, or 32 GB 1066 MHz, or 1333 MHz, DDR3 memory, model dependent
  - Up to 192 GB of system memory with 16 GB memory RDIMMs installed or up to 384 GB system memory with 32 GB memory LR DIMMs installed
- High-speed, wide-bandwidth, PCI-E and PCIx bus slots support
  - Slot 1 : PCIe 3.0 x8 : PCI-E x8 slot with x8lanes (3.0, from processor 2)
  - Slot 2 : PCIe 3.0 x8 : PCI-E x8 slot with x8lanes (3.0, from processor 1)
  - Slot 3 : PCIe 3.0 x8 : PCI-E x8 slot with x4 lanes (3.0, from processor 1)
  - Slot 4 : PCIe 3.0 x16 : PCI-E x16 slot with x8 lanes (3.0, from processor 1)
  - Slot 5 : PCIe2 x4 : PCI-E x4 slot with x1 lanes (Gen2, from PCH)
  - Slot 6 : PCIe2 x8 : PCI-E x8slot with x4 lanes (Gen2, from PCH)

  Note: Slot 6 can optionally be changed to a PCI-X slot using interposer card.
- Eight-port SAS/SATA RAID controller that supports high-speed internal storage solutions
- Two Ethernet controller ports standard and can be upgraded to quad ports using software license, increasing speed for network communications to LAN clients

The x3300 M4 subsystems are tuned to provide solid system throughput from processor, to memory, to bus, to disk-intensive I/O. These features, combined with SMP capability, make the System x3300 M4 server an excellent choice for a stand-alone or clustered business-critical application, storage, file, and print server.

High-availability and serviceability features

- Redundant cooling includes:
  - Three simple-swap fans (single replaceable unit)
- One fixed power supply standard, and one optional redundant power supply to support robust high-availability applications
- Hot-swap HDD bays with SAS/SATA backplane
- Standard SAS controller to support up to eight internal hot-swap SATA or SAS HDD devices

- DDR3 ECC RDIMMs, combined with an integrated ECC memory controller in core logic, to correct many soft and hard single-bit memory errors (using memory mirroring), while minimizing disruption of services to LAN clients
- Memory hardware scrubbing to correct soft memory errors automatically without software intervention
- 10 MB and 15 MB cache processors to improve data integrity and help reduce downtime
- PFA on memory to help alert the system administrator of an imminent component failure
- Up to four simple-swap redundant system cooling fans to cool system
- Integrated management module (IMM2) that supports:
  - Fan monitoring and control
  - Power supply monitoring
  - Temperature monitoring
  - Voltage monitoring
  - Power on/off, reset sequencing
  - LED controls (light path diagnostics support)
  - IPMI capability that allows you to accept commands and send status
  - Remote firmware update
  - Automatic server restart (ASR)[8]
  - Numeric error logging
- Information LED panel to give visual indications of system health
- Light path diagnostics and onboard diagnostics for an LED map that provides error codes (which are explained in the hardware maintenance manual)
- Easy access to system board, adapter cards, processor, and memory
- CPU failure recovery in SMP configurations
  - Generates alerts error logs

[8]The ASR function is currently supported on Microsoft™ Windows™ 2003 and Windows 2008.

Expandability and growth

The System x3300 M4 server is a 4U tower configuration engineered to meet the compactness of a 4U rack drawer. SVGA video, SAS/SATA, and full-duplex Gigabit Ethernet are integrated on the system board.

Features include:

- System memory expansion to 192 GB with 16 GB memory RDIMMs installed in 12 DIMM slots or 384 GB with 32 GB Memory LRDIMMs installed in 12 DIMM slots
- Five PCI-E slots with single processor, one PCI-Express slot enabled with dual processors and one optional PCI-X card slot when using interposer card
- Up to 16 drive bays plus two 5.25 inch, half-high device bays:
  - Eight 2.5-inch, hot-swap drive bays; two 5.25-inch, half-high device bays standard
  - Optional HDD upgrade kits available to increase the number of storage devices from eight to sixteen, 2.5-inch hot-swap drive bays
  - Internal support for high performance (up to 15,000 rpm) for up to eight SAS HDDs and a high-capacity half-height tape backup device
  - Up to 16 TB, using 1 TB 2.5-inch NL SFF SAS/SATA hot-swap HDDs[2]

These servers can handle applications for today and expand for future growth.

[2]When referring to HDD or tape backup capacity, GB stands for 1,000,000,000 bytes and TB stands for 1,000,000,000,000 bytes. User capacity may vary depending on operating environments.

Systems management

Integrated management module controller (IMM2)

The System x3300 M4 server includes an integrated management module controller that provides industry-standard Intelligent Platform Management Interface (IPMI) 2.0-compliant systems management. The IMM2 comes standard, and has a dedicated onboard Ethernet port for access. IMM2 can be accessed using software that is compatible with IPMI 2.0 (such as xCAT).

- Features and benefits
  - Monitoring of system and CMOS battery voltages.
  - Monitoring of system temperatures.
  - Fan speed control.
  - Fan tachometer monitor.
  - Power good signal monitor.
  - System ID and planar version detection.
  - System power control.
  - System reset control.
  - NMI and SMI detection and generation (System Interrupts).
  - Serial port text console redirection.
  - System LED control (power, HDD, activity, alerts, and heartbeat).
  - An embedded web server gives you remote control from any standard web browser. No additional software is required on the remote administrator's workstation.
  - For users who are accustomed to a command-line interface (CLI), the ability for the administrator to use the CLI from a Telnet session to perform some of the functions that can be performed from the web server.
  - Secure Sockets Layer (SSL) and Lightweight Directory Access Protocol (LDAP).
  - Built-in LAN and serial connectivity that supports virtually any network infrastructure.
  - Multiple alerting functions that warn systems administrators of potential problems through email, IPMI PETs, and SNMP.

IBM Director

x3300 M4 servers feature IBM Director, a powerful, highly integrated systems management software solution built on industry standards and designed for ease of use. Exploit your existing enterprise or workgroup management environments and use rich security features to access and manage physically dispersed IT assets more efficiently over the Internet.

Potentially reduce costs through:

- Reduced downtime
- Increased productivity of IT personnel and end users
- Reduced service and support costs

IBM Director provides integration into leading workgroup and enterprise systems management environments through upward integration modules. The advanced management capabilities built into System x servers can be accessed from:

- Tivoli® Enterprise and Tivoli NetView®
- Computer Associates CA Unicenter TNG Framework

- NetIQ
- IMM Patrol
- Microsoft SMS
- Intel LANDesk Management Suite
- HP OpenView Network Node Manager

IT administrators can view the hardware configuration of remote systems in detail and monitor the usage and performance of critical components such as processors, HDDs, and memory.

IBM Director includes IBM Director Extensions, a portfolio of server tools that integrate into the Director framework and work with the integrated systems management processor to access environmental system information.

The processor supervises the operating system status and the following system components, and alerts the IT administrator to critical errors:

- Fan monitoring and control; status and presence are monitored. Fan speed is controlled and automatically increased to maintain system cooling if temperature thresholds are exceeded. An alert is generated if:
  - Failure occurs or is predicted.
  - Installation or removal occurs.
- Power supply condition changes for the power supply.
  - CPU temperatures are monitored. An alert is generated if (preset) temperature warning thresholds are exceeded or restored, and if critical temperature thresholds are exceeded. Soft and hard system shutdowns are automatically initiated if critical temperature thresholds are exceeded.
  - CPU and power subsystem voltage thresholds are monitored.
  - Light path diagnostics LEDs are illuminated in case of key component errors or failures to enable quick local diagnostics and servicing.
  - Flash update enables updates to the integrated systems management processor firmware.

The IT administrator has comprehensive, virtual on-site control of System x servers and can remotely:

- Access the server regardless of the status
- Inventory and often display detailed system and component information
- View server bootup during POST
- Browse and delete logs of events and errors
- Reset or power cycle the server
- Run diagnostics, SAS/SATA setup, and RAID setup during POST
- Monitor thresholds on server health, including:
  - Operating system load
  - POST time-out
  - Voltage
  - Temperature
- Set proactive alerts for critical server events, including PFA on:
  - Processors
  - Memory
- Define automated actions, such as:
  - Send email or a page to an administrator
  - Run a command or program
  - Deliver an error message to the Director console
- Monitor flash BIOS

- Monitor and graph the utilization of server resources, such as:
  - Memory
  - Processor
  - HDDs
- Identify potential performance bottlenecks and react to prevent down time
- Monitor, manage, and configure RAID subsystems without taking them offline

Advanced Configuration and Power Interface (ACPI)

This open industry specification defines a flexible and extensible hardware interface for the system board. Software designers use this specification to integrate power management features throughout a computer system, including hardware, the operating system, and application software. This integration enables Windows to determine which applications are active, and handles all of the power management resources for computer subsystems and peripherals.

World-class support tools and programs

The System x3300 M4 server includes tools and programs designed to make ownership a positive experience. From the start, IBM programs help you purchase servers, get them running, and keep them running. IBM can help your company maintain ownership of technology leadership network servers.

- Support is available by calling 800-IBM SERV (426-7378) in US and Canada for problem determination or placement of service calls for warranty.
- Warranty: Three years, customer replaceable unit (CRU) and on-site service, limited warranty; optional warranty service upgrades available.
- The ServerProven® [9]program enables you to configure your server confidently with various devices and operating systems. This web-based program provides compatibility information from actual testing of the System x3300 M4 servers server with various adapters and devices.
- The ServerGuide CD includes utilities and drivers for assisted installation of popular network operating systems.
- Electronic support on the web provides additional support in an easy-to-use format.

[9] IBM makes no warranties, expressed or implied, regarding non-IBM products and services that are ServerProven , including but not limited to implied warranties of merchantability and fitness for a particular purpose. These products are offered and warranted solely by third parties.

Product positioning

The System x3300 M4 server is positioned above the entry, one-way x3100 M4. These servers comes standard with many advanced availability features, including RAID for high system reliability. High-performance, low-voltage system memory for speed and efficiency as well as enhanced systems management control. As universal servers, they are offered in flexible tower models and can be rack-mounted using a tower-to-rack conversion kit.

The System x3300 M4 server is a compact 4U two-way, SMP-capable Xeon processor-based platform designed with integrated high-availability features for small-and-medium-sized businesses as a departmental or branch office server. They process print and file transactions or office suite applications with ease.

These servers are ideal for clients who require up to sixteen core processing power, ample memory, and storage capacity, and high-speed I/O scalability. These servers are ideal for business platforms to run everyday business applications.

Product number

Single Entity Offerings (SEOs)

Description	SEO number
IBM System x3300 M4	7382A2U 7382B2U 7382C2U 7382D2U 7382D4U 7382F2U
IBM System x3300 M4 Express	7382EAU 7382EBU 7382ECU

Option SEOs

Description	SEO number
IBM System x3300 3.5" HS Kit for HW/SW RAID	00D2591
Redundant System FAN	00D2593
Tower to Rack Kit	00D2594
IBM System x3300 Simple-Swap SATA Kit 4x3.5"	00D2590
IBM System x3300 2nd 2.5" HS Upgrade Kit	00D2592
Intel Xeon Processor E5-2403 4C 1.8GHz 10MB Cache 1066MHz 80W	00D2581
Intel Xeon Processor E5-2407 4C 2.2GHz 10MB Cache 1066MHz 80W	00D2582
Intel Xeon Processor E5-2420 6C 1.9GHz 15MB Cache 1333MHz 95W	00D2583
Intel Xeon Processor E5-2430 6C 2.2GHz 15MB Cache 1333MHz 95W	00D2584
Intel Xeon Processor E5-2440 6C 2.4GHz 15MB Cache 1333MHz 95W	00D2585
Intel Xeon Processor E5-2430L 6C 2.0GHz 15MB Cache 1333MHz 60W	00D2586
Intel Xeon Processor E5-2450L 8C 1.8GHz 20MB Cache 1600MHz 70W	00D2587
Intel Xeon Processor E5-2450 8C 2.1GHz 20MB Cache 1600MHz 95W	00D2588
Intel Xeon Processor E5-2470 8C 2.3GHz 20MB Cache 1600MHz 95W	00D2589

The following are newly announced features on the specified models of the IBM xSeries® 7382 machine type:

Description	MT	Model	Feature
7382-AC1	7382	AC1	
7382-MC1	7382	MC1	
QLogic 10Gb SFP+ SR Optical Transceiver	7382	AC1 MC1	0064
Brocade 10Gb SFP+ SR Optical Transceiver	7382	AC1 MC1	0069
UID Asset Tag Label	7382	AC1 MC1	0747
24" SATA Cable	7382	AC1 MC1	0870
NetXtreme II 1000 Express G Ethernet Adapter- PCIe	7382	AC1 MC1	1485
Brocade 10Gb CNA for IBM System x	7382	AC1 MC1	1637
Emulex 4Gb FC Single-Port PCI-E HBA for IBM System x	7382	AC1 MC1	1698
Emulex 4Gb FC Dual-Port PCI-E HBA for IBM System x	7382	AC1 MC1	1699
EMEA Long Leadtime Configurations	7382	AC1 MC1	1763
Hungary CHW plant 9SH	7382	AC1	1764

		MC1	
Guad CHW plant 9KQ	7382	AC1	1765
		MC1	
ISTC CHW 9K2	7382	AC1	1766
		MC1	
RTP CHW 9NR	7382	AC1	1767
		MC1	
Offload Manufacturing to Guadalajara HVEC	7382	AC1	1768
		MC1	
Offload Manufacturing to RTP HVEC	7382	AC1	1769
		MC1	
Offload Manufacturing to ISTC	7382	AC1	1770
		MC1	
Routing for AP Foxconn	7382	AC1	1771
		MC1	
Capacity Scheduling Service	7382	AC1	1772
		MC1	
Custom SLA Scheduling Service	7382	AC1	1796
		MC1	
Custom Asset Tagging - Standard	7382	AC1	2200
		MC1	
Custom Asset Tagging - Enhanced	7382	AC1	2201
		MC1	
Custom Image Load - Server	7382	AC1	2204
		MC1	
Custom Media Shipgroup	7382	AC1	2206
		MC1	
Request for Global Trade Number (UPC or EAN)	7382	AC1	2207
		MC1	
Custom Software/Firmware Setting - Standard	7382	AC1	2208
		MC1	
Custom Software/Firmware Setting - Enhanced	7382	AC1	2209
		MC1	
Custom RAID Configuration	7382	AC1	2212
		MC1	
Custom Labeling	7382	AC1	2220
		MC1	
Custom Palletization	7382	AC1	2221
		MC1	
Request for a new Vendor Logo Hardware	7382	AC1	2247
		MC1	
Request for an existing IBM Feature	7382	AC1	2248
		MC1	
Request for an existing Public RPQ	7382	AC1	2249
		MC1	
RAID Configuration	7382	AC1	2302
		MC1	
Rack Installation >1U Component	7382	AC1	2306
		MC1	
Primary Array 12 HDDs	7382	AC1	2400
		MC1	
Primary Array 13 HDDs	7382	AC1	2401
		MC1	
Primary Array 14 HDDs	7382	AC1	2402
		MC1	
Primary Array 15 HDDs	7382	AC1	2403
		MC1	
Primary Array 16 HDDs	7382	AC1	2404
		MC1	
Secondary Array 9 HDDs	7382	AC1	2405
		MC1	
Secondary Array 10 HDDs	7382	AC1	2406
		MC1	
Secondary Array 11 HDDs	7382	AC1	2407
		MC1	
Secondary Array 12 HDDs	7382	AC1	2408
		MC1	
Secondary Array 13 HDDs	7382	AC1	2409
		MC1	
Secondary Array 14 HDDs	7382	AC1	2410
		MC1	
Enable selection of Solid State Drives for Secondary Array	7382	AC1	2498
		MC1	

Enable selection of Solid State Drives for Primary Array	7382	AC1 MC1	2499
PRO/1000 PF Server Adapter	7382	AC1 MC1	2975
NetXtreme II 1000 Express Dual Port Ethernet Adapter	7382	AC1 MC1	2995
Rack 01	7382	AC1 MC1	3101
Rack 02	7382	AC1 MC1	3102
Rack 03	7382	AC1 MC1	3103
Rack 04	7382	AC1 MC1	3104
Rack 05	7382	AC1 MC1	3105
Rack 06	7382	AC1 MC1	3106
Rack 07	7382	AC1 MC1	3107
Rack 08	7382	AC1 MC1	3108
Rack 09	7382	AC1 MC1	3109
Rack 10	7382	AC1 MC1	3110
Rack 11	7382	AC1 MC1	3111
Rack 12	7382	AC1 MC1	3112
Rack 13	7382	AC1 MC1	3113
Rack 14	7382	AC1 MC1	3114
Rack 15	7382	AC1 MC1	3115
Rack 16	7382	AC1 MC1	3116
Rack 17	7382	AC1 MC1	3117
Rack 18	7382	AC1 MC1	3118
Rack 19	7382	AC1 MC1	3119
Rack 20	7382	AC1 MC1	3120
Rack 21	7382	AC1 MC1	3121
Rack 22	7382	AC1 MC1	3122
Rack 23	7382	AC1 MC1	3123
Rack 24	7382	AC1 MC1	3124
Rack 25	7382	AC1 MC1	3125
Rack 26	7382	AC1 MC1	3126
Rack 27	7382	AC1 MC1	3127
Rack 28	7382	AC1 MC1	3128
Rack 29	7382	AC1 MC1	3129
Rack 30	7382	AC1 MC1	3130
Rack 31	7382	AC1 MC1	3131
Rack 32	7382	AC1 MC1	3132
Rack 33	7382	AC1 MC1	3133

Rack 34	7382	AC1 MC1	3134
Rack 35	7382	AC1 MC1	3135
Rack 36	7382	AC1 MC1	3136
Rack 37	7382	AC1 MC1	3137
Rack 38	7382	AC1 MC1	3138
Rack 39	7382	AC1 MC1	3139
Rack 40	7382	AC1 MC1	3140
Rack 41	7382	AC1 MC1	3141
Rack 42	7382	AC1 MC1	3142
Rack 43	7382	AC1 MC1	3143
Rack 44	7382	AC1 MC1	3144
Rack 45	7382	AC1 MC1	3145
Rack 46	7382	AC1 MC1	3146
Rack 47	7382	AC1 MC1	3147
Rack 48	7382	AC1 MC1	3148
Rack 49	7382	AC1 MC1	3149
Rack 50	7382	AC1 MC1	3150
Rack 51	7382	AC1 MC1	3151
Rack 52	7382	AC1 MC1	3152
Rack 53	7382	AC1 MC1	3153
Rack 54	7382	AC1 MC1	3154
Rack 55	7382	AC1 MC1	3155
Rack 56	7382	AC1 MC1	3156
Rack 57	7382	AC1 MC1	3157
Rack 58	7382	AC1 MC1	3158
Rack 59	7382	AC1 MC1	3159
Rack 60	7382	AC1 MC1	3160
Rack 61	7382	AC1 MC1	3161
Rack 62	7382	AC1 MC1	3162
Rack 63	7382	AC1 MC1	3163
Rack 64	7382	AC1 MC1	3164
Rack location U01	7382	AC1 MC1	3201
Rack location U02	7382	AC1 MC1	3202
Rack location U03	7382	AC1 MC1	3203
Rack location U04	7382	AC1 MC1	3204
Rack location U05	7382	AC1 MC1	3205
Rack location U06	7382	AC1 MC1	3206

Rack location U07	7382	AC1 MC1	3207
Rack location U08	7382	AC1 MC1	3208
Rack location U09	7382	AC1 MC1	3209
Rack location U10	7382	AC1 MC1	3210
Rack location U11	7382	AC1 MC1	3211
Rack location U12	7382	AC1 MC1	3212
Rack location U13	7382	AC1 MC1	3213
Rack location U14	7382	AC1 MC1	3214
Rack location U15	7382	AC1 MC1	3215
Rack location U16	7382	AC1 MC1	3216
Rack location U17	7382	AC1 MC1	3217
Rack location U18	7382	AC1 MC1	3218
Rack location U19	7382	AC1 MC1	3219
Rack location U20	7382	AC1 MC1	3220
Rack location U21	7382	AC1 MC1	3221
Rack location U22	7382	AC1 MC1	3222
Rack location U23	7382	AC1 MC1	3223
Rack location U24	7382	AC1 MC1	3224
Rack location U25	7382	AC1 MC1	3225
Rack location U26	7382	AC1 MC1	3226
Rack location U27	7382	AC1 MC1	3227
Rack location U28	7382	AC1 MC1	3228
Rack location U29	7382	AC1 MC1	3229
Rack location U30	7382	AC1 MC1	3230
Rack location U31	7382	AC1 MC1	3231
Rack location U32	7382	AC1 MC1	3232
Rack location U33	7382	AC1 MC1	3233
Rack location U34	7382	AC1 MC1	3234
Rack location U35	7382	AC1 MC1	3235
Rack location U36	7382	AC1 MC1	3236
Rack location U37	7382	AC1 MC1	3237
Rack location U38	7382	AC1 MC1	3238
Rack location U39	7382	AC1 MC1	3239
Rack location U40	7382	AC1 MC1	3240
Rack location U41	7382	AC1 MC1	3241
Rack location U42	7382	AC1 MC1	3242
Rack location U43	7382	AC1 MC1	3243

Rack location U44	7382	AC1 MC1	3244
Rack location U45	7382	AC1 MC1	3245
Rack location U46	7382	AC1 MC1	3246
Rack location U47	7382	AC1 MC1	3247
QLogic 4Gb FC Single-Port PCIe HBA for IBM System x	7382	AC1 MC1	3567
QLogic 4Gb FC Dual-Port PCIe HBA for IBM System x	7382	AC1 MC1	3568
QLogic 8Gb FC Single-port HBA for IBM System x	7382	AC1 MC1	3578
QLogic 8Gb FC Dual-port HBA for IBM System x	7382	AC1 MC1	3579
Emulex 8Gb FC Single-port HBA for IBM System x	7382	AC1 MC1	3580
Emulex 8Gb FC Dual-port HBA for IBM System x	7382	AC1 MC1	3581
Brocade 8Gb FC Single-port HBA for IBM System x	7382	AC1 MC1	3589
Brocade 8Gb FC Dual-port HBA for IBM System x	7382	AC1 MC1	3591
IBM 3M SAS Cable	7382	AC1 MC1	3707
IBM 1M SAS Cable	7382	AC1 MC1	3708
IBM Single Cable USB Conversion Option (UCO)	7382	AC1 MC1	3757
IBM 6Gb Performance Optimized HBA	7382	AC1 MC1	3876
Brocade 4Gb FC Single-port HBA for IBM System x	7382	AC1 MC1	3885
Brocade 4Gb FC Dual-port HBA for IBM System x	7382	AC1 MC1	3886
Half-High SATA DVD-ROM	7382	AC1 MC1	4154
IBM HH Multiburner DVD	7382	AC1 MC1	4155
IBM Half High LTO™ Gen 5 Internal SAS Tape Drive	7382	AC1 MC1	5345
IBM Half High LTO Gen 3 SAS Tape Drive	7382	AC1 MC1	5393
IBM DDS Gen 6 USB Tape Drive	7382	AC1 MC1	5395
IBM Half-high LTO Gen 4 SAS Tape Drive	7382	AC1 MC1	5397
IBM RDX 320GB Cartridge	7382	AC1 MC1	5708
IBM RDX 500GB Cartridge	7382	AC1 MC1	5709
IBM DDS Generation 5 USB Tape Drive	7382	AC1 MC1	5711
QLogic 10Gb CNA for IBM System x	7382	AC1 MC1	5751
NetXtreme II 1000 Express Quad Port Ethernet Adapter	7382	AC1 MC1	5766
Intel Ethernet Dual Port Server Adapter I340-T2 for IBM System x	7382	AC1 MC1	5767
Intel Ethernet Quad Port Server Adapter I340-T4 for IBM System x	7382	AC1 MC1	5768
Select Storage devices - no IBM-configured RAID required	7382	AC1 MC1	5977
Select Storage devices - IBM-configured RAID	7382	AC1 MC1	5978
IBM 6Gb SAS HBA	7382	AC1 MC1	5982

1.5m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	7382	AC1 MC1	6201
2.8m, 10A/100-250V, C13 to IEC 320-C20 Rack Power Cable	7382	AC1 MC1	6204
Line cord - 4.3M, 10A/125V, C13 to NEMA 5-15P (US)	7382	AC1 MC1	6207
4.3m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	7382	AC1 MC1	6263
2.8m, 10A/120V, C13 to NEMA 5-15P (US) Line Cord	7382	AC1 MC1	6313
Line cord - 2.8m, 10A/250V, C13 to NEMA 6-15P (US)	7382	AC1 MC1	6372
2.8m, 13A/120V, C13 to NEMA 5-15P (US) Line Cord	7382	AC1 MC1	6401
Primary Array 2 HDDs	7382	AC1 MC1	7008
Primary Array 3 HDDs	7382	AC1 MC1	7009
Primary Array 4 HDDs	7382	AC1 MC1	7010
Primary Array 5 HDDs	7382	AC1 MC1	7011
Primary Array 6 HDDs	7382	AC1 MC1	7012
Primary Array 7 HDDs	7382	AC1 MC1	7013
Primary Array 8 HDDs	7382	AC1 MC1	7014
Secondary Array 2 HDDs	7382	AC1 MC1	7015
Secondary Array 3 HDDs	7382	AC1 MC1	7016
Secondary Array 4 HDDs	7382	AC1 MC1	7017
Secondary Array 5 HDDs	7382	AC1 MC1	7057
Secondary Array 6 HDDs	7382	AC1 MC1	7058
Secondary Array 7 HDDs	7382	AC1 MC1	7059
Secondary Array 8 HDDs	7382	AC1 MC1	7060
"China Warranty"	7382	AC1 MC1	7599
Primary Array 9 HDDs	7382	AC1 MC1	7664
Grouped Product	7382	AC1 MC1	7830
Customer Solution Center Services	7382	AC1 MC1	7831
e1350 Special Bid Solution Component	7382	AC1 MC1	7929
No HDD Selected	7382	AC1 MC1	8026
Consolidate Shipment	7382	AC1 MC1	8031
e1350 Solution Component	7382	AC1 MC1	8034
Compute Node	7382	AC1 MC1	8036
Management Node	7382	AC1 MC1	8037
Storage Node	7382	AC1 MC1	8038
TAA Compliant Order	7382	AC1 MC1	8067
General Racking Solution	7382	AC1 MC1	8072

No SATA HDD Selected	7382	AC1 MC1	8080
No 2.5" SAS HDD Selected	7382	AC1 MC1	8081
No 3.5" SAS HDD Selected	7382	AC1 MC1	8082
No Pointing Device Selected	7382	AC1 MC1	8084
No Keyboard Selected	7382	AC1 MC1	8085
No Publications Selected	7382	AC1 MC1	8086
4GB (1x4GB, 2Rx8, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHz LP UDIMM	7382	AC1 MC1	8648
IBM Keyboard w/ Int. Pointing Device USB - US English 103P RoHS	7382	AC1 MC1	A31J
IBM Pref. Pro Keyboard USB - US English 103P RoHS	7382	AC1 MC1	A32E
IBM 2 Button Optical Wheel Mouse - Black - USB	7382	AC1 MC1	8912
8GB (1x8GB, 2Rx4, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHz LP RDIMM	7382	AC1 MC1	8923
16GB (1x16GB, 4Rx4, 1.35V) PC3L-8500 CL7 ECC DDR3 1066MHz LP RDIMM	7382	AC1 MC1	8939
2GB (1x2GB, 1Rx8, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHz LP RDIMM	7382	AC1 MC1	8940
4GB (1x4GB, 1Rx4, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHz LP RDIMM	7382	AC1 MC1	8941
4GB (1x4GB, 2Rx8, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHz LP RDIMM	7382	AC1 MC1	8942
Integrate in manufacturing	7382	AC1 MC1	8971
Ship Uninstalled (Safety)	7382	AC1 MC1	8972
Hot Spare	7382	AC1 MC1	9013
Memory Sparing	7382	AC1 MC1	9016
Enable Memory Mirroring	7382	AC1 MC1	9017
Storage Subsystem ID 01	7382	AC1 MC1	9170
Storage Subsystem ID 02	7382	AC1 MC1	9171
Storage Subsystem ID 03	7382	AC1 MC1	9172
Storage Subsystem ID 04	7382	AC1 MC1	9173
Storage Subsystem ID 05	7382	AC1 MC1	9174
Storage Subsystem ID 06	7382	AC1 MC1	9175
Storage Subsystem ID 07	7382	AC1 MC1	9176
Storage Subsystem ID 08	7382	AC1 MC1	9177
Storage Subsystem ID 09	7382	AC1 MC1	9178
Storage Subsystem ID 10	7382	AC1 MC1	9179
Storage Subsystem ID 11	7382	AC1 MC1	9180
Storage Subsystem ID 12	7382	AC1 MC1	9181

Storage Subsystem ID 13	7382	AC1 MC1	9182
Storage Subsystem ID 14	7382	AC1 MC1	9183
Storage Subsystem ID 15	7382	AC1 MC1	9184
Storage Subsystem ID 16	7382	AC1 MC1	9185
Storage Subsystem ID 17	7382	AC1 MC1	9186
Storage Subsystem ID 18	7382	AC1 MC1	9187
Storage Subsystem ID 19	7382	AC1 MC1	9188
Storage Subsystem ID 20	7382	AC1 MC1	9189
Preload Specify	7382	AC1 MC1	9200
Windows Specify	7382	MC1	9201
Red Hat Specify	7382	AC1	9202
SuSE Specify	7382	AC1	9203
Drop-in-the-Box Specify	7382	AC1 MC1	9205
No Preload Specify	7382	AC1 MC1	9206
VMWare Specify	7382	AC1 MC1	9207
Preload by Hardware Feature Specify	7382	AC1 MC1	9220
Internal split SAS cable	7382	AC1 MC1	9265
1 meter internal USB cable	7382	AC1 MC1	9266
Primary Array 10 HDDs	7382	AC1 MC1	9714
Primary Array 11 HDDs	7382	AC1 MC1	9715
2GB (1x2GB, 1Rx8, 1.35V) PC3L-10600 ECC DDR3 1333MHz LP UDIMM	7382	AC1 MC1	A0QS
Software Application (Not Preinstalled) Specify	7382	AC1 MC1	A0UF
NVIDIA Quadro 600	7382	AC1 MC1	A13K
Broadcom NetXtreme II Dual Port 10GBaseT Adapter for IBM System x	7382	AC1 MC1	A18Y
IBM 1TB 7.2K 6Gbps NL SATA 2.5" SFF HS HDD	7382	AC1 MC1	A1AV
ServeRAID M5100 Series 512MB Cache/RAID 5 Upgrade for IBM System x	7382	AC1 MC1	A1J3
ServeRAID M5100 Series 512MB Flash/RAID 5 Upgrade for IBM System x	7382	AC1 MC1	A1J4
Mellanox ConnectX-2 Dual Port 10GbE Adapter for IBM System x	7382	AC1 MC1	A1M4
IBM Integrated Management Module Advanced Upgrade	7382	AC1 MC1	A1ML
ServeRAID M1115 SAS/SATA Controller for IBM System x	7382	AC1 MC1	A1MZ
IBM 250GB 7.2K 6Gbps NL SATA 2.5" SFF HS HDD	7382	AC1 MC1	A1NX
IBM 500GB 7.2K 6Gbps NL SATA 2.5" SFF HS HDD	7382	AC1 MC1	A1NZ
IBM 1TB 7.2K 6Gbps NL SAS 2.5" SFF HS HDD	7382	AC1 MC1	A1P3
16GB (1x16GB, 2Rx4, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHz LP RDIMM	7382	AC1 MC1	A1QT
NVIDIA Quadro 2000	7382	AC1 MC1	A1QU

IBM RDX 1TB Cartridge	7382	AC1 MC1	A1VL
ServeRAID M5120 SAS/SATA Controller for IBM System x	7382	AC1 MC1	A1WX
ServeRAID M5100 Series 1GB Flash/RAID 5 Upgrade for IBM System x	7382	AC1 MC1	A1WY
ServeRAID M1100 Series Zero Cache/RAID 5 Upgrade for IBM System x	7382	AC1 MC1	A1X1
ServeRAID M5100 Series Zero Cache/RAID 5 Upgrade for IBM System x	7382	AC1 MC1	A1X2
ServeRAID M5100 Series RAID 6 Upgrade for IBM System x	7382	AC1 MC1	A1X3
3U bracket for low profile-internal-storage adapters	7382	AC1 MC1	A1X6
ServeRAID M5100 Series 425mm Flash Power Module Cable	7382	AC1 MC1	A1X9
ServeRAID H1110 SAS/SATA Controller for IBM System x	7382	AC1 MC1	A1XL
ServeRAID M5100 Series Battery Kit for IBM System x	7382	AC1 MC1	A22E
IBM 1TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD	7382	AC1 MC1	A22P
IBM 3TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD	7382	AC1 MC1	A22S
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD	7382	AC1 MC1	A22T
IBM 500GB 7.2K 6Gbps NL SATA 3.5" G2SS HDD	7382	AC1 MC1	A22U
IBM 3TB 7.2K 6Gbps NL SATA 3.5" G2SS HDD	7382	AC1 MC1	A22V
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2SS HDD	7382	AC1 MC1	A22W
IBM 1TB 7.2K 6Gbps NL SATA 3.5" G2SS HDD	7382	AC1 MC1	A22X
IBM 500GB 7.2K 6Gbps NL SATA 3.5" G2HS HDD	7382	AC1 MC1	A22Y
4GB (1x4GB, 2Rx8, 1.5V) PC3-12800 CL11 ECC DDR3 1600MHz LP RDIMM	7382	AC1 MC1	A24L
IBM 1TB 7.2K 6Gbps NL SAS 3.5" G2HS HDD	7382	AC1 MC1	A26M
IBM 900GB 10K 6Gbps SAS 2.5" SFF HS HDD	7382	AC1 MC1	A282
IBM 300GB 15K 6Gbps SAS 2.5" SFF HS HDD	7382	AC1 MC1	A283
4GB (1x4GB, 1Rx4, 1.5V) PC3-12800 CL11 ECC DDR3 1600MHz LP RDIMM	7382	AC1 MC1	A28Z
8GB (1x8GB, 2Rx4, 1.5V) PC3-12800 CL11 ECC DDR3 1600MHz LP RDIMM	7382	AC1 MC1	A292
Label KC	7382	AC1 MC1	A2CM
Intel x520 Dual Port 10GbE SFP+ Adapter for IBM System x	7382	AC1 MC1	A2EC
Intel X540-T2 Dual Port 10GBaseT Adapter for IBM System x	7382	AC1 MC1	A2ED
IBM 200GB SATA 2.5" MLC HS SSD	7382	AC1 MC1	A2FN
IBM Blank USB Memory Key for VMWare ESXi Downloads	7382	AC1 MC1	A2G0
Intel Ethernet Adapter Powerville - 4 port upgrade	7382	AC1 MC1	A2GT

Configuration ID 01	7382	AC1 MC1	A2HP
Configuration ID 02	7382	AC1 MC1	A2HQ
Configuration ID 03	7382	AC1 MC1	A2HR
Configuration ID 04	7382	AC1 MC1	A2HS
Configuration ID 05	7382	AC1 MC1	A2HT
Configuration ID 06	7382	AC1 MC1	A2HU
Configuration ID 07	7382	AC1 MC1	A2HV
Configuration ID 08	7382	AC1 MC1	A2HW
Configuration ID 09	7382	AC1 MC1	A2HX
Configuration ID 10	7382	AC1 MC1	A2HY
Configuration ID 11	7382	AC1 MC1	A2HZ
Configuration ID 12	7382	AC1 MC1	A2J0
Configuration ID 13	7382	AC1 MC1	A2J1
Configuration ID 14	7382	AC1 MC1	A2J2
Configuration ID 15	7382	AC1 MC1	A2J3
Configuration ID 16	7382	AC1 MC1	A2J4
Configuration ID 17	7382	AC1 MC1	A2J5
Configuration ID 18	7382	AC1 MC1	A2J6
Configuration ID 19	7382	AC1 MC1	A2J7
Configuration ID 20	7382	AC1 MC1	A2J8
Configuration ID 21	7382	AC1 MC1	A2J9
Configuration ID 22	7382	AC1 MC1	A2JA
Configuration ID 23	7382	AC1 MC1	A2JB
Configuration ID 24	7382	AC1 MC1	A2JC
Configuration ID 25	7382	AC1 MC1	A2JD
Configuration ID 26	7382	AC1 MC1	A2JE
Configuration ID 27	7382	AC1 MC1	A2JF
Configuration ID 28	7382	AC1 MC1	A2JG
Configuration ID 29	7382	AC1 MC1	A2JH
Configuration ID 30	7382	AC1 MC1	A2JJ
Configuration ID 31	7382	AC1 MC1	A2JK
Configuration ID 32	7382	AC1 MC1	A2JL
Configuration ID 33	7382	AC1 MC1	A2JM
Configuration ID 34	7382	AC1 MC1	A2JN
Configuration ID 35	7382	AC1 MC1	A2JP
Configuration ID 36	7382	AC1 MC1	A2JQ
Configuration ID 37	7382	AC1 MC1	A2JR

Configuration ID 38	7382	AC1 MC1	A2JS
Configuration ID 39	7382	AC1 MC1	A2JT
Configuration ID 40	7382	AC1 MC1	A2JU
Configuration ID 41	7382	AC1 MC1	A2JV
Configuration ID 42	7382	AC1 MC1	A2JW
Controller 01	7382	AC1 MC1	A2JX
Controller 02	7382	AC1 MC1	A2JY
Controller 03	7382	AC1 MC1	A2JZ
Controller 04	7382	AC1 MC1	A2K0
Controller 05	7382	AC1 MC1	A2K1
Primary Array - RAID 0	7382	AC1 MC1	A2K6
Primary Array - RAID 1	7382	AC1 MC1	A2K7
Primary Array - RAID 1E	7382	AC1 MC1	A2K8
Primary Array - RAID 5	7382	AC1 MC1	A2K9
Primary Array - RAID 6	7382	AC1 MC1	A2KA
Primary Array - RAID 10	7382	AC1 MC1	A2KB
Secondary Array - RAID 0	7382	AC1 MC1	A2KF
Secondary Array - RAID 1	7382	AC1 MC1	A2KG
Secondary Array - RAID 1E	7382	AC1 MC1	A2KH
Secondary Array - RAID 5	7382	AC1 MC1	A2KJ
Secondary Array - RAID 6	7382	AC1 MC1	A2KK
Secondary Array - RAID 10	7382	AC1 MC1	A2KL
ServeRAID M5100 Series SSD Performance Key for IBM System x	7382	AC1 MC1	A2MC
ServeRAID M5100 Series SSD Caching Enabler for IBM System x	7382	AC1 MC1	A2MD
IBM 3TB 7.2K 6Gbps NL SAS 3.5" G2HS HDD	7382	AC1 MC1	A2R2
Intel Xeon Processor E5-2403 4C 1.8GHz 10MB Cache 1066MHz 80W	7382	AC1 MC1	A2R4
Intel Xeon Processor E5-2407 4C 2.2GHz 10MB Cache 1066MHz 80W	7382	AC1 MC1	A2R5
Intel Xeon Processor E5-2420 6C 1.9GHz 15MB Cache 1333MHz 95W	7382	AC1 MC1	A2R6
Intel Xeon Processor E5-2430 6C 2.2GHz 15MB Cache 1333MHz 95W	7382	AC1 MC1	A2R7
Intel Xeon Processor E5-2440 6C 2.4GHz 15MB Cache 1333MHz 95W	7382	AC1 MC1	A2R8
Intel Pentium™ Processor 1403 2C 2.6GHz 5MB Cache 1066MHz 80W	7382	AC1 MC1	A2R9
Intel Pentium Processor 1407 2C 2.8GHz 5MB Cache 1066MHz 80W	7382	AC1 MC1	A2RA

Intel Xeon Processor E5-2430L 6C 2.0GHz 15MB Cache 1333MHz 60W	7382	AC1 MC1	A2RB
Intel Xeon Processor E5-2450L 8C 1.8GHz 20MB Cache 1600MHz 70W	7382	AC1 MC1	A2RC
Intel Xeon Processor E5-2450 8C 2.1GHz 20MB Cache 1600MHz 95W	7382	AC1 MC1	A2RD
Intel Xeon Processor E5-2470 8C 2.3GHz 20MB Cache 1600MHz 95W	7382	AC1 MC1	A2RE
IBM System x3300 L5 Chassis base	7382	AC1 MC1	A2S7
IBM 460W Fixed PSU	7382	AC1 MC1	A2S8
IBM 550W Redundant PSU	7382	AC1 MC1	A2S9
IBM 750W Redundant PSU	7382	AC1 MC1	A2SA
IBM System x3300 3.5" HS Kit for HW/SW RAID	7382	AC1 MC1	A2SC
IBM System x3300 1st 2.5" HS Kit	7382	AC1 MC1	A2SE
Redundant Power Kit	7382	AC1 MC1	A2SG
PCI-X Riser Kit	7382	AC1 MC1	A2SH
3.5" Bracket for 2nd HDD Cage	7382	AC1 MC1	A2SL
Backplane signal Y cable for Norton(3.5")	7382	AC1 MC1	A2SM
BIOS GBM	7382	AC1 MC1	A2SN
Backplane signal Y cable for Raptor(2.5")	7382	AC1 MC1	A2SP
HDD BP POWER 16 to 14 (RAID management Y cable)	7382	AC1 MC1	A2SQ
3.5" HS HDD Filler	7382	AC1 MC1	A2SR
2.5" HS HDD Filler	7382	AC1 MC1	A2SS
PWR cage Filler	7382	AC1 MC1	A2ST
Agency Label	7382	AC1 MC1	A2SU
Label GBM	7382	AC1 MC1	A2SV
IBM System x3300 Planar	7382	AC1 MC1	A2SW
IBM System x3300 Packaging - Tower model	7382	AC1 MC1	A2SX
IBM System x3300 Packaging - Tower to Rack model	7382	AC1 MC1	A2SY
System Documentation and Software-US English	7382	AC1 MC1	A2TC
IBM 2TB 7.2K 6Gbps NL SAS 3.5" G2HS HDD	7382	AC1 MC1	A2U0
Emulex Dual Port 10GbE SFP+ VFA III for IBM System x	7382	AC1 MC1	A2U1
Emulex VFA III FCoE/iSCSI License for IBM System x (FoD)	7382	AC1 MC1	A2U2
IBM 256GB SATA 2.5" MLC HS Entry SSD	7382	AC1 MC1	A2U3
IBM 128GB SATA 2.5" MLC HS Entry SSD	7382	AC1 MC1	A2U4
16GB (1x16GB, 2Rx4, 1.5V) PC3-12800 CL11 ECC DDR3 1600MHz LP RDIMM	7382	AC1 MC1	A2U5

IBM RDX 3 Internal USB Drive	7382	AC1 MC1	A2U7
Emulex Dual Port 10GbE SFP+ Integrated VFA III for IBM System x	7382	MC1	A2UN
Broadcom NetXtreme I Quad Port GbE Adapter for IBM System x	7382	AC1 MC1	A2V3
Broadcom NetXtreme I Dual Port GbE Adapter for IBM System x	7382	AC1 MC1	A2V4
8-Pack ServeRAID C105 Controller Enabler for IBM System x	7382	AC1 MC1	A2V7
ServeRAID C105 for IBM System x	7382	AC1 MC1	A2VA
IBM USB Memory Key for VMWare ESXi 5.0	7382	AC1 MC1	A2VC
Emulex 16Gb FC Single-port HBA for IBM System x	7382	AC1 MC1	A2W5
Emulex 16Gb FC Dual-port HBA for IBM System x	7382	AC1 MC1	A2W6
No Power Cord Validation	7382	AC1 MC1	A2X0
IBM 146GB 15K 6Gbps SAS 2.5" SFF G2HS HDD	7382	AC1 MC1	A2XB
IBM 300GB 10K 6Gbps SAS 2.5" SFF G2HS HDD	7382	AC1 MC1	A2XC
IBM 600GB 10K 6Gbps SAS 2.5" SFF G2HS HDD	7382	AC1 MC1	A2XD
IBM 500GB 7.2K 6Gbps NL SAS 2.5" SFF G2HS HDD	7382	AC1 MC1	A2XE
IBM 300GB 10K 6Gbps SAS 2.5" SFF G2HS SED	7382	AC1 MC1	A2XF
Brocade 16Gb FC Single-port HBA for IBM System x	7382	AC1 MC1	A2XU
Brocade 16Gb FC Dual-port HBA for IBM System x	7382	AC1 MC1	A2XV
IBM 146GB 15K 6Gbps SAS 2.5" SFF G2HS SED	7382	AC1 MC1	A2ZK
ServeRAID M5110 SAS/SATA Controller for IBM System x	7382	AC1 MC1	A347
IBM USB Memory Key for VMware ESXi 5.0 Update1	7382	AC1 MC1	A383
Intel Xeon Processor E5-1410 4C 2.8GHz 10MB Cache 1333MHz 80W	7382	AC1 MC1	A3AJ
IBM 550W Redundant PSU (Optional)	7382	AC1 MC1	A3DQ
IBM 750W Redundant PSU (Optional)	7382	AC1 MC1	A3DR
Essential Package	7382	AC1 MC1	A3E2
Enhanced Package	7382	AC1 MC1	A3E3
Elite Package	7382	AC1 MC1	A3E4
Essential Package	7382	AC1 MC1	A3E5
Enhanced Package	7382	AC1 MC1	A3E6
Elite Package	7382	AC1 MC1	A3E7
2nd CPU FAN	7382	AC1 MC1	A3F4
14 pin to 16 pin interposer cable for fixed PSU	7382	AC1 MC1	A3F7

The following are features already announced for the 7382 machine type:

Description	MT	Model	Feature
7382-AC1	7382	AC1	
7382-MC1	7382	MC1	
Addl Intel Xeon Processor E5-2403 4C 1.8GHz 10MB 80W Upgrade Kit	7382	AC1 MC1	A2RF
Addl Intel Xeon Processor E5-2407 4C 2.2GHz 10MB 80W Upgrade Kit	7382	AC1 MC1	A2RG
Addl Intel Xeon Processor E5-2420 6C 1.9GHz 15MB 95W Upgrade Kit	7382	AC1 MC1	A2RH
Addl Intel Xeon Processor E5-2430 6C 2.2GHz 15MB 95W Upgrade Kit	7382	AC1 MC1	A2RJ
Addl Intel Xeon Processor E5-2440 6C 2.4GHz 15MB 95W Upgrade Kit	7382	AC1 MC1	A2RK
Addl Intel Xeon Processor E5-2430L 6C 2.0GHz 15MB 60W Upgrade Kit	7382	AC1 MC1	A2RL
Addl Intel Xeon Processor E5-2450L 8C 1.8GHz 20MB 70W Upgrade Kit	7382	AC1 MC1	A2RM
Addl Intel Xeon Processor E5-2450 8C 2.1GHz 20MB 95W Upgrade Kit	7382	AC1 MC1	A2RN
Addl Intel Xeon Processor E5-2470 8C 2.3GHz 20MB 95W Upgrade Kit	7382	AC1 MC1	A2RP
IBM System x3300 Simple-Swap SATA Kit 4x3.5"	7382	AC1 MC1	A2SB
IBM System x3300 2nd 2.5" HS Upgrade Kit	7382	AC1 MC1	A2SF
Redundant System FAN	7382	AC1 MC1	A2SJ
Tower to Rack Kit	7382	AC1 MC1	A2SK

The following are features already announced for the 3331 machine type:

Description	MT	Model	Feature
Addl Intel Xeon Processor E5-2403 4C 1.8GHz 10MB 80W Upgrade Kit	3331	HC1	A2RF
Addl Intel Xeon Processor E5-2407 4C 2.2GHz 10MB 80W Upgrade Kit	3331	HC1	A2RG
Addl Intel Xeon Processor E5-2420 6C 1.9GHz 15MB 95W Upgrade Kit	3331	HC1	A2RH
Addl Intel Xeon Processor E5-2430 6C 2.2GHz 15MB 95W Upgrade Kit	3331	HC1	A2RJ
Addl Intel Xeon Processor E5-2440 6C 2.4GHz 15MB 95W Upgrade Kit	3331	HC1	A2RK
Addl Intel Xeon Processor E5-2430L 6C 2.0GHz 15MB 60W Upgrade Kit	3331	HC1	A2RL
Addl Intel Xeon Processor E5-2450L 8C 1.8GHz 20MB 70W Upgrade Kit	3331	HC1	A2RM
Addl Intel Xeon Processor E5-2450 8C 2.1GHz 20MB 95W Upgrade Kit	3331	HC1	A2RN
Addl Intel Xeon Processor E5-2470 8C 2.3GHz 20MB 95W Upgrade Kit	3331	HC1	A2RP
IBM System x3300 Simple-Swap SATA Kit 4x3.5"	3331	HC1	A2SB
IBM System x3300 2nd 2.5" HS Upgrade Kit	3331	HC1	A2SF
Redundant System FAN	3331	HC1	A2SJ
Tower to Rack Kit	3331	HC1	A2SK
IBM System x3300 3.5" HS Kit for HW/SW RAID	3331	HC1	A3E0

The following feature numbers are automatically added to the 5372-SWX HIPO order whenever one of the hardware system units are configured in an order.

HIPO feature number	Description
4289	7382-AC1 Routing Code
4290	7382-MC1 Routing Code

Model conversions

None

Feature conversions

None

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM , you may link directly to Business Partner information for this announcement. A PartnerWorld® ID and password are required (use IBM ID).

https://www.ibm.com/partnerworld/mem/sla.jsp?num=112-130

Publications

The following publications and CD-ROMs are shipped with the x3300 M4 servers:

- The *System x3300 M4 Installation and Service Guide* contains an introduction to the computer, installation and setup, installing options, reference information, and problem determination. The installation and service guide has easy-to-use text and pictorials to enable you to quickly set up the System x3300 M4 server.
- Publications CD

Note: Software versions, features, and functions shipped with these systems may change as new releases become available or may be discontinued at any time.

The *x3300 M4 Installation and Service Guide*

http://publib14.boulder.ibm.com/infocenter/systems

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When you buy IBM System x technology, include the support services you need -- to help keep both your hardware and software working for you, day after day, at peak performance. It's your first step toward helping to protect your investment and sustain high levels of system availability. We offer service-level and response-time options to fit your business needs. And we'll help you get started with a core support package that includes:

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For more information, visit

http://www.ibm.com/servers/eserver/xseries/services.html

Technical information

Specified operating environment

Physical specifications

The x3300 M4

Note: US, LA, CAN x=U Brazil x=P Argentina x=T EMEA x=G

	7382-A2x	7382-B2x	7382-C2x
Processor	Xeon 4C E5-2403	Xeon 4C E5-2407	Xeon 6C E5-2420
Internal speed	1.8 GHz	2.2 GHz	1.9 GHz
External speed	6.4 GTS	6.4 GTS	7.2 GTS
Number standard	1	1	1
Maximum	2	2	2
L3 cache (full-speed)	10 MB	10 MB	15 MB
Memory (PC3-10600-DDR3-1333	2 GB ECC 1 x 2 GB 2Gb, 1Rx8, 1.35V No Chipkill	4 GB ECC 1 x 4 GB 4Gb,1Rx4, 1.35V Chipkill	4 GB ECC 1 x 4 GB 4Gb,1Rx4 1.35V ChipKill
DIMM sockets standard	6	6	6
DIMM sockets maximum	12	12	12
Capacity	384 GB[10]	384 GB[10]	384 GB[10]
Video	SVGA	SVGA	SVGA
memory	16 MB	16 MB	16 MB
SAS/SATA RAID controller	C105	C105	H1110
Channels	8	8	4
Connector internal	2	2	1
Connector external	0	0	0
HDD	open-bay	open bay	open bay
Support	3.5-inch HDD	3.5-inch HDD	3.5-inch HDD
Total bays	10	10	10
5.25-in	2	2	2
Hot-swap	8	8	8
Internal capacity	8.0 TB[7]	8.0 TB[7]	8.0 TB[7]
Bays available	6	6	6
5.25 in	2	2	2
Hot-swap	0[7]	4[7]	4[7]
Simple-swap	4	0	0
Total PCI slots	6	6	6[13]
PCI-E 3.0 x16	1	1	1
PCI-E 3.0 x8	3	3	3[14]
PCI-E Gen2 x4	1	1	1[15]
PCI-E Gen2 x8	1	1	1
Slots available	5	5	5
PCI-E Gen3 x8	2	2	2
PCI-E Gen3 x16	1	1	1
PCI-E Gen2 x4	1	1	1
PCI-E Gen2 x8	1	1	1
Integrated management	Standard[11]	Standard[11]	Standard[11]
Ethernet controllers	4x1GB standard	4x1GB standard	4x1GB standard
Half-height SATA DVD	1	1	1
Power supply	460 W[12]	460 W[12]	460 W[12]
Number standard	1	1	1
Hot-swap	No	No	No
Redundant power	None	None	None

	7382-D2x	7382-D4x	7382-F2x
Processor	Xeon 6C E5-2430	Xeon 6C E5-2430	Xeon 6C E5-2440
Internal speed	2.2 GHz	2.2 GHz	2.4 GHz
External speed	7.2 GTS	7.2 GTS	7.2 GTS
Number standard	1	1	1

Maximum	2	2	2
L3 cache (full-speed)	15 MB	15 MB	15 MB
Memory (PC3-10600-	4 GB ECC	4 GB ECC	4 GB ECC
VL9 DDR3 1333 MHz	1 x 4 GB	1 x 4 GB	1 x 4 GB
	4Gb,1Rx4, 1.35V ChipKill	4Gb,1Rx4, 1.35V ChipKill	4Gb,1Rx4, 1.35V ChipKill
DIMM sockets standard	6	6	6
DIMM sockets maximum	12	12	12
Capacity	384 GB[10]	384 GB[10]	384 GB[10]
Video	SVGA	SVGA	SVGA
memory	16 MB	16 MB	16 MB
SAS/SATA RAID controller	H1110	M1115	M1115
Channels	4	8	8
Connector internal	1	2	2
Connector external	0	0	0
HDD	open-bay	open bay	open bay
Support	3.5-inch HDD	2.5-inch HDD	2.5-inch HDD
Total bays	10	18	18
5.25-in	2	2	2
Hot-swap	8 x LFF	16	16
Internal capacity	8.0 TB[7]	8.0 TB[7]	8.0 TB[7]
Bays available	6	10	10
5.25 in	2	2	2
Hot-swap	4[7]	8[7]	8[7]
Total PCI slots	6	6	6[13]
PCI-E 3.0 x16	1	1	1
PCI-E 3.0 x8	3	3	3[14]
PCI-E Gen2 x4	1	1	1[15]
PCI-E Gen2 x8	1	1	1
Slots available	5	5	5
PCI-E 3.0 x8	2	2	2
PCI-E 3.0 x16	1	1	1
PCI-E Gen2 x4	1	1	1
PCI-E Gen2 x8	1	1	1
Integrated management	Standard[11]	Standard[11]	Standard[11]
Ethernet controllers	4x1GB standard	4x1GB standard	4x1GB standard
Half-height SATA DVD	1	1	1
Power supply	550 W[12]	550 W[12]	550 W[12]
Number standard	1	1	1
Hot-swap	Yes	Yes	Yes
Redundant power	Optional	Optional	Optional
	7382-EAU	7382-EBU	7382-ECU
Processor	Xeon 4C E5-2407	Xeon 6C E5-2420	Xeon 6C E5-2440
Internal speed	2.2 GHz	1.9 GHz	2.4 GHz
External speed	6.4 GTS	7.2 GTS	7.2 GTS
Number standard	1	1	1
Maximum	2	2	2
L3 cache (full-speed)	10 MB	15 MB	15 MB
Memory (PC3-10600-	8 GB ECC	8 GB ECC	8 GB ECC
DDR3 1333 MHz	1 x 8 GB	1 x 8 GB	1 x 8 GB
	2Rx4, 1.35V No Chipkill	8Gb, 2Rx4, 1.35V Chipkill	8Gb, 2Rx4, 1.35V Chipkill
DIMM sockets	6	6	6
DIMM sockets maximum	12	12	12
Capacity	384 GB[10]	384 GB[10]	384 GB[10]
Video	SVGA	SVGA	SVGA
memory	16 MB	16 MB	16 MB
SAS/SATA RAID controller	M1115	M1115	M1115
Channels	8	8	8
Connector internal	2	2	2
Connector external	0	0	0
HDD	open-bay	open bay	open bay
Support	3.5-inch HDD	3.5-inch HDD	2.5-inch HDD
Total bays	10	10	18
5.25-in	2	2	2
Hot-swap	8 x LFF	8	16

Internal capacity	8.0 TB[7]	8.0 TB[7]	8.0 TB[7]
Bays available	6	6	10
5.25 in	2	2	2
Hot-swap	4[7]	4[7]	8[7]
Total PCI slots	6	6	6[13]
PCI-E 3.0 x16	1	1	1
PCI-E 3.0 x8	3	3	3[14]
PCI-E Gen2 x4	1	1	1[15]
PCI-E Gen2 x8	1	1	1
Slots available	5	5	5
PCI-E 3.0 x8	2	2	2
PCI-E 3.0 x16	1	1	1
PCI-E Gen2 x4	1	1	1
PCI-E Gen2 x8	1	1	1
Integrated management	Standard[11]	Standard[11]	Standard[11]
Ethernet controllers	4x1GB standard	4x1GB standard	4x1GB standard
Half-height SATA DVD	1	1	1
Power supply	460 W[12]	550 W[12]	550 W[12]
Number standard	1	1	2
Hot-swap	No	Yes	Yes
Redundant power	None	Optional	Standard

[7]2.5-inch Drive bays provide 8.0 TB using 8x 1 TB SFF SAS HDD options, this can be doubled to 16 TB with optional 8x 2.5-inch HDD upgrade. (Special bid models support up to sixteen 2.5-inch bays with an additional 8 TB of HDD capacity for a total of 16 TB).

3.5-inch Drive bays provide 12 TB as standard using 4x 3 TB LFF SAS/SATA HDD options. This can be doubled to 24 TB with optional 4x 3.5-inch HDD upgrade.

For the latest information on supported HDD options, visit

http://www-03.ibm.com/systems/info/x86servers/serverproven/compat/us/

[10]Twelve DIMM slots that enable you to deploy up to 384 GB of DDR3 SDRAM Registered DIMM memory, with 12 slots populated with 32 GB DIMMs optional, maximum 192 GB using 16 GB DIMMS optional, 2 GB or 4 GB memory standard.

[11]These systems contain an integrated management module that provides a set of monitoring and alert features. Refer to the Description section for details.

[12]The 460-watt power supply is designed to support all systems. Some models come with an HS redundant 550-watt power supply.

[13]Five PCI-e slots from processor 1. When the second processor is fitted, this adds another PCIe slot, giving a total of six.

[14]One PCIe 3.0 x8 slots and one PCIe Gen2 x8 slots operate at electrical x4.

[15]The PCIe Gen2 x8 slot can optionally be changed to a PCI-X slot via interposer card.

SATA DVD drive characteristics[16]

- Formatted capacity: 650 MB
- Average access time including latency: Less than 85 ms
- Sustained data transfer rate: 3,000 to 7,200 KBps
- Burst data transfer rate
  - ATA PIO mode 4: 16.6 MBps
  - ATA Multiword DMA Mode 2: 16.6 MBps
- Technology: Full constant angular velocity (CAV)

[16]Actual playback speed varies and is often less than maximum.

Video subsystem

- Matrox G200eR2 Video Graphics Controller
- Integrated on planar and connected to the PCI bus
- SVGA compatible video controller (Matrox G200eR2)
- DDR3-528MHz SDRAM video memory controller.
- Video memory is not expandable in this system

Supported video mode capabilities for the SVGA PCI controller

Resolution Vertical	Refresh Rate	Color Depth
1600 x 1200	60, 75,	8, 16, 24
1680 x 1050	60,	8, 16, 24
1440 x 900	60	8, 16, 24
1280 x 1024	60, 75	8, 16, 24
1024 x 768	60, 75, 85	8, 16, 24
800 x 600	60, 72, 75, 85	8, 16, 24
640 x 400	60, 72, 75, 85	8, 16, 24

Notes :

- The grayed ones are supported only if the monitor contains this resolution in his EDID.
- The connector is a 15-pin D-shell; a video cable of 1.8 meters is the maximum supported length.

Dimensions

- Tower:
  - Width: 175.8 mm (6.92 in); 235 mm (9.25 in) with tower
  - Depth: 678.4 mm (26.71 in)
  - Height: 437.7 mm (17.23 in)
  - Weight: 22.0 kg (48.46 lb) (minimum configuration)
  - Weight: 29.7 kg (65.42 lb) (maximum configuration)
- Rack
  - Width: 422.9 mm (16.65 in)
  - Depth: 625.0 mm (24.61 in)
  - Height: 175.8 mm (6.92 in)
  - Weight: 20.5 kg (45.15 lb) (minimum configuration)
  - Weight: 28.2 kg (62.11 lb) (maximum configuration)

Electrical

Models with 460 W power supplies:

- 100 to 127 nominal V ac; 50 - 60 Hz; 6.4 A
- 200 to 240 nominal V ac; 50 - 60 Hz; 3.2 A
- Input kilovolt-amperes (kVA) (approximately):
  - Minimum configuration: 0.10 kVA
  - Maximum configuration: 0.64 kVA

Models with 550 W power supplies:

- 100 to 127 nominal V ac; 50 - 60 Hz; 6.5 A
- 200 to 240 nominal V ac; 50 - 60 Hz; 3.3 A

- Input kilovolt-amperes (kVA) (approximately):
  - Minimum configuration: 0.11 kVA
  - Maximum configuration: 0.66 kVA

Models with 750 W power supplies:

- 100 to 127 nominal V ac; 50 - 60 Hz; 8.9 A
- 200 to 240 nominal V ac; 50 - 60 Hz; 4.5 A
- Input kilovolt-amperes (kVA) (approximately):
  - Minimum configuration: 0.12 kVA
  - Maximum configuration: 0.90 kVA
- Btu output: ship configuration - 392.3 Btu/hr (115 watts ac)
- Btu output: full configuration - 2900.2 Btu/hr (850 watts ac)
- Acoustical noise emission levels:
  - 5.5 bels (idling)
  - 6.0 bels (operating)

Note: The noise emission level stated is the declared (upper limit) sound power level, in bels, for a random sample of machines. All measurements made in accordance with ISO 7779 and reported in conformance with ISO 9296.

These servers are intended for use as floor-standing servers and are tested and designed to operate in a horizontal position. These servers can also be used as a rack model with the optional rack install kit.

Standards

These systems support or comply with the following standards:

- Multiprocessor Specification (MPS) 1.4
- Peripheral Component Interconnect (PCI) specification 2.2
- Peripheral Component Interconnect (PCI-X) specification v2.1
- PCI-Express specification 1.0
- Hardware-enabled to meet the International Organization for Standardization (ISO) 9241, Part 3

Equipment approvals and safety

- FCC - Verified to comply with Part 15 of the FCC Rules, Class A
- Canada ICES-003, issue 4, Class A
- UL/IEC 60950-1
- CSA C22.2 No. 60950-1-07
- NOM-019[16]
- Argentina IEC60950-1

[16]This server model is certified by the respective UL and NOM agencies.

Standards

Reference information:

PCI Table slots

Slot Number	Configuration 1 (One CPU Installed)	Configuration 2 (Two CPU Installed)
1	N/A	Gen 3 PCIe x8 (x8 link)

2	Gen 3 PCIe x8 (x8 link)	Gen 3 PCIe x8 (x8 link)
3	Gen 3 PCIe x4 (x4 link)	Gen 3 PCIe x4 (x4 link)
4	Gen 3 PCIe x16 (x8 link)	Gen 3 PCIe x16 (x8 link)
5	Gen 2 PCIe x4 (x1 link)	Gen 2 PCIe x4 (x1 link)
6	Gen 2 PCIe x8 (x4 link)	Gen 2 PCIe x8 (x4 link)

Operating environment

- Environment temperature:
  - Server on: 5°C to 40°C (41°F to 104°F); altitude: 0 to 915 m (3,117 ft)
  - Server on: 10°C to 32°C (50°F to 90°F); altitude: 915 m (3,000 ft) to 2,134 m (7,000 ft)
  - Server on: 10°C to 28°C (50°F to 83°F); altitude: 2,134 m (7,000 ft) to 3,050 m (10,000 ft)
  - Server off: 5°C to 45°C (412°F to 113°F)
  - Shipping: -40°C to 60°C (-40°F to 140°F) Altitude: 10,700 m (35,105 ft)
  - Relative humidity: 5% - 100%
  - Maximum dew point: 29°C (84.2°F)
- Humidity:
  - Server on: 20% to 80% , Max. Dew Point 21°C, Max. rate of change 5°C/hr
  - Server off: 8% to 80%,, Max. Dew Point 27°C
- Maximum altitude: 2,134 m (7,000 ft)

Hardware requirements

For attended installation of an operating system, this server requires a compatible:

- Keyboard
- Mouse
- HDD
- Display (C117, T115, T117 or equivalent)

Unattended or remote installation may be performed without requiring some or all of these components. Review your unattended software installation program information for specific hardware configuration requirements.

For service, the server requires a compatible:

- Keyboard
- Mouse
- HDD
- Display

When having the unit serviced, plan to have these components attached to your server either directly or indirectly using a console switch.

Software requirements

Programming requirements

The following network operating systems are supported in the x3300 M4 servers:

- Microsoft
  - Windows Server 2008, (32 bit and EM64T)

  - Windows Server 2008, R2
  - Windows Small Business Server 2008 (Premium and Standard
- VMware
  - VMware ESX Server 4.1
  - VMware ESXi Server 4.1
  - VMware vSphere 5
  - VMware ESXi 5.0
- Linux
  - SUSE Linux™ Enterprise Server 10 for AMD64/EM64T
  - SUSE Linux Enterprise Server 10 with Xen for AMD64/EM64T
  - SUSE Linux Enterprise Server 10 for x86 SP4
  - SUSE Linux Enterprise Server 11 SP1 for x86-64
  - SUSE Linux Enterprise Server 11 for AMD64/EM64T
  - SUSE Linux Enterprise Server 11 64-bit (includes KVM)
  - Red Hat Enterprise Linux 5 Server Edition
  - Red Hat Enterprise Linux 5 x64 Edition includes KVM
  - Red Hat Enterprise Linux 5.7 SE x64
  - Red Hat Enterprise Linux 5 Server with Xen x64 Edition
  - Red Hat Enterprise Linux 6 Server Edition
  - Red Hat Enterprise Linux 6 Server x64 Edition includes KVM
  - Red Hat Enterprise Linux 6.1 SE x64

Note: Certification is planned for these operating systems. For additional information on support, certification, and versions on network operating systems, visit

http://www.ibm.com/support/

Compatibility

The System x3300 M4 server systems contain licensed system programs that include set configuration, set features, and test programs. System BIOS is loaded from a "flash" EEPROM into system memory. This BIOS provides instructions and interfaces designed to support the standard features of the x3300 M4 server and to maintain compatibility with many current software programs.

To view detailed information on the Internet about IBM and non-IBM devices, adapters, software, and network operating systems supported with x3300 servers, visit

http://www-03.ibm.com/systems/info/x86servers/serverproven/compat/us/

Contact your IBM representative, IBM Business Partner, or refer to the *IBM Sales Manual* for information on the compatibility of hardware and software for x3300 servers. The *Sales Manual* is updated periodically as new features and options are announced that support these servers.

Limitations

- The System x3300 M4 servers support 384 GB[6] of system memory when you add a 32 GB memory RDIMMs in each of 12 DIMM slots. All supported system memory is addressable through direct memory access (DMA). The x3300 M4 server supports 2 GB, 4 GB, 8 GB, 16 GB, and 32 GB memory synchronized with processor FSB bandwidth. DIMMs must be installed in matched pairs. Refer to the Planning information section for supported memory options.
- Mixing microprocessors of different speeds or cache size is not supported.

- Use the version of ServerGuide shipped with the system, or a later version, to load software and drivers. Earlier versions of ServerGuide may not be compatible with the server.

x3300 M4 is shipped standard with one processor which only has 6 DIMM sockets attached.

Refer to the Software requirements section for operating system limitations.

Solid-state memory cells have an intrinsic, finite number of write cycles that each cell can incur. As a result, each solid-state device has a maximum amount of write cycles to which it can be subjected, documented as TBW (Total Bytes Written). IBM is not responsible for replacement of hardware that has reached the maximum guaranteed number of write cycles. This limit may be revealed as the device failing to communicate to system generated commands or become incapable of being written to.

[6]Twelve DIMM slots that enable you to deploy up to 384 GB of DDR3 SDRAM Registered DIMM memory, with 12 slots populated with 32 GB DIMMs optional, 2 GB or 4 GB memory standard.

User group requirements

This announcement satisfies or partially satisfies requirements from one or more of the worldwide user group communities. Groups include COMMON, COMMON Europe, Guide Share Europe (GSE), InterAction (Australia/New Zealand), Japan Guide Share (JGS), and SHARE Inc.

Planning information

Customer responsibilities

Customer setup

The x3300 M4 servers are designated as customer setup. Customer setup instructions are shipped with systems and options.

Bay configuration

The server contains 10 drive bays. The eight 3.5-inch hot-swap or simple-swap bays or the sixteen 2.5-inch hot-swap bays are located on the lower half of System x3300 tower models. These bays are ready for various supported hot-swap HDD drive option installation. The two bays on the top portion of tower models are designed primarily for removable media devices. One bay contains the DVD-ROM drive, while the remaining one 5.25-inch half-high bays can support tape backup or other devices.

SAS cabling considerations

The x3300 M4 system can contain two backplanes maximum. Each 3.5-inch backplane supports four drives, and each 2.5-inch backplane support eight drives. The second 2.5-inch backplane is enabled with expander.

The DVD is SATA attached.

External SAS attachment

In the configurations where an external SAS device attachment is required, a support SAS adapter is required.

External serial attachment

To attach an external serial cable RS-232, use the serial connector at the rear of the system.

Processor upgrades

The following processor upgrades are supported:

Supported memory options

The following memory options are supported:

- 2GB (2Gb, 1Rx8, 1.35V) PC3L-10600R ECC LP RDIMM (49Y1405)
- 4GB (2Gb, 1Rx4, 1.35V) PC3L-10600R ECC LP RDIMM (49Y1406)
- 4GB (2Gb, 2Rx8, 1.35V) PC3L-10600R ECC LP RDIMM (49Y1407)
- 8GB 2Rx4 2Gbit PC3L-10600R LP RDIMM 1.35V Capable (49Y1397)
- 16GB (4Gb,2Rx4,1.35V) PC3-10600 DDR3-1333 LP RDIMM (49Y1563)
- 2GB (2Gb,1Rx8,1.35V) DDR3-1333 LP UDIMM (49Y1403)
- 32 GB (1x32Gb, 4Rx4, 1.35V) PC 3L-10600 CL9 ECC DDR3 (90Y3105) DDR3 1333 MHz LP LR-DIMM (when available)
- 16GB (2Gb, 4Rx4, 1.35V) PC3L-8500R LP RDIMM (49Y1400)
- 4GB (1x4GB, 2Rx8, 1.5V) PC3-12800 CL11 ECC DDR3 1600MHz (90Y3178) LP RDIMM
- 16GB (1x16GB, 2Rx4, 1.5V) PC3-12800 CL11 ECC DDR3 1600MHz (00D4968) LP RDIMM

Power supply requirements

These models contain either one 460-watt or one 550-watt power supply, model dependent, which is a hot-swap capable supply. When not using redundancy, one hot-swap supply has enough power to supply a fully loaded box. If redundancy is required, you should install additional power supplies to ensure sufficient power will be available. A fault light illuminates when a power supplies fails.

Optional rack installations

These models are optionally installable as rack units and are designed so they can be installed in an industry-standard 19-inch rack cabinet such as the NetBAY42 or NetBAY25. The x3300 M4 server system requires a rack mount kit for rack installation. In addition, it can also be installed in the deeper NetBAY42 ER.

If you choose not to use an IBM rack, the cabinet must meet EIA-310-D standards for mounting flanges and hole clearances with front to rear mounting of 70 - 73 cm (27.5 - 28.5 in). The rack must provide sufficient room in front of the forward EIA flange to allow for bezel attachment. The standard for 310-D suggests 49 mm (1.9 in) clearance. It must also provide adequate room at the rear of the rack, behind the rear flange for cable management; the System x3300 M4 server requires approximately 16.6 cm (6.5 in) in this space.

The rack should include perforated front and rear doors and must not prevent the flow of cool air into or out of the rack. The weight handling capacity of the rack is 22.7 kg (50 lb). Finally, the rack must provide proper stabilization so that the rack does not become unstable when servers are pulled out of service.

Cable orders

Dual 10/100/1000 Mbps, full-duplex Ethernet PCI controllers, standard with the x3300 M4 server, are connected directly to independent RJ-45 connectors. The RJ-45 connectors provide a 10BaseT, 100Base-TX, or 1000Base-TX interface for connecting twisted-pair cable to the Ethernet network. Cabling is not included with the server. To connect the Ethernet controller to a repeater or switch, use a UTP cable with RJ-45 connectors at both ends. For 100/1000 Mbps operation, Category 5 cabling must be used. For 10 Mbps operation, Category 3, or better, cabling must be used.

There are no additional cabling requirements, other than for system power, keyboard, mouse, and monitor connections.

Installability

The System x3300 M4 server requires about 30 minutes for installation. Installation includes unpacking, setting up, and powering on the system. Additional time is required to install an operating system, additional adapters, or features.

Packaging

```
Product                Package Description                   Boxes

System x3300 M4        System Ship Group                       1

                         Contents:

                         System Unit

System x3300 M4        Country Kit Ship Group

                         Contents:

                         M/T 7382  x3300 M4 Ship Group

                         - Important Notices Flyer
                         - Warranty Flyer
                         - CD Documentation (Installation and Service Guide)
```

The system is shipped as a single package. The country kit carton is contained inside the top portion of the system unit carton.

Supplies

For users: IBM System x3300 M4 servers can be purchased through the dealers around the world.

Security, auditability, and control

Security and auditability features include:

- Power-on and remote-control password functions provide controls of who has access to the data and server setup program on the server.

It is a customer's responsibility to ensure that the server is secure to prevent sensitive data from being removed.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

IBM Electronic Services

IBM has transformed its delivery of hardware and software support services to help you achieve higher system availability. Electronic Services is a web-enabled solution that offers an exclusive, no-additional-charge enhancement to the service and support available for IBM servers. These services are designed to provide the opportunity for greater system availability with faster problem resolution and preemptive monitoring. Electronic Services comprises two separate, but complementary, elements: Electronic Services news page and Electronic Services Agent.

The Electronic Services news page is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. The news page enables you to gain easier access to IBM resources for assistance in resolving technical problems.

The Electronic Service Agent™ is no-additional-charge software that resides on your server. It monitors events and transmits system inventory information to IBM on a periodic, client-defined timetable. The Electronic Service Agent automatically reports hardware problems to IBM . Early knowledge about potential problems enables IBM to deliver proactive service that may result in higher system availability and performance. In addition, information collected through the Service Agent is made available to IBM service support representatives when they help answer your questions or diagnose problems. Installation and use of IBM Electronic Service Agent for problem reporting enables IBM to provide better support and service for your IBM server.

To learn how Electronic Services can work for you, visit

http://www.ibm.com/support/electronic

Terms and conditions

IBM Global Financing

Yes

To obtain copies of the IBM Statement of Limited Warranty, contact your reseller or IBM .

In the United States, call 800-IBM-SERV (426-7378), or write to:

Warranty Information
P.O. Box 12195
Research Triangle Park, NC 27709
Attn: Dept JDJA/B203

Warranty period

- System x3300 7382 - Three years
- Optional features - One year

Note: For configurations that support the RAID battery, the RAID battery will be warranted for one year effective on its "date of installation." All other product warranty terms for the machine remain unchanged.

An IBM part or feature installed during the initial installation of an IBM machine is subject to a full warranty effective on the date of installation of the machine. An IBM part or feature which replaces a previously installed part or feature assumes the remainder of the warranty period for the replaced part or feature. An IBM part or feature added to a machine without replacing a previously installed part or feature is subject to a full warranty effective on its date of installation. Unless specified otherwise, the warranty period, type of warranty service and service level of a part or feature is the same as the machine it is installed in.

Note: Solid-state memory cells have an intrinsic, finite number of write cycles that each cell can incur. As a result, each solid-state device has a maximum amount of write cycles to which it can be subjected, documented as TBW (Total Bytes Written). IBM is not responsible for replacement of hardware that has reached the maximum guaranteed number of write cycles. This limit may be revealed as the device failing to communicate to system generated commands or become incapable of being written to.

Warranty service

If required, IBM provides repair or exchange service, depending on the type of warranty service specified below for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM . You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts. Service levels are response-time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country- and location-specific information.

The type of service is Customer Replaceable Unit (for example, keyboard, mouse, speaker, memory, or hard disk drive) Service and On-site Service.

Customer Replaceable Unit (CRU) Service

IBM provides a replacement CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM at any time on your request. A CRU is designated as being either a Tier 1 (mandatory) or a Tier 2 (optional) CRU. Installation of Tier 1 CRUs, as specified in this announcement, is your responsibility. If IBM installs a Tier 1 CRU at your request, you will be charged for the installation. You may install a Tier 2 CRU yourself or request IBM to install it, at no additional charge, under the type of warranty service specified below, On-site Service.

Based upon availability, a CRU will be shipped for next-business-day (NBD) delivery. IBM specifies in the materials shipped with a replacement CRU whether a defective CRU must be returned to IBM . When return is required, return instructions and a container are shipped with the replacement CRU, and you may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

The following parts have been designated as Tier 1 CRUs:

- DDR3-1333 memory
- Hard disk drive
- Hot-swap power supply
- Optical drive
- CMOS battery
- Misc kit
- SAS cable
- Backplane signal Y cable
- Front IO module
- Simple-swap back plate
- Hot-swap SAS/SATA cage 8x2.5"
- Redundant power cage
- Power SMBUS Cable
- NVIDIA Quadro 600
- NVIDIA Quadro 2000
- Half-high SATA DVD-ROM
- Half-high SATA multi-burner
- 550 W redundant PSU
- 750 W high efficiency platinum AC power supply

- Backplane
- ServeRAID M1115 SAS/SATA Controller
- ServeRAID M5120
- ServeRAID H1110 SAS/SATA Controller
- Power converter from raptor to norton cable
- Dual port adapter
- ServeRAID M5110
- Backplane asm
- PCI-X interposer conversion riser card
- SSD
- Broadcom NetXtreme I Quad Port GbE Adapter
- Broadcom NetXtreme I Dual Port GbE Adapter
- Raptor CR2 backplane
- 460 W fixed PSU
- Emulex 10GbE Virtual Fabric Adapter III
- Fan asm
- Rear fan asm

The following parts have been designated as Tier 2 CRUs:

- Heatsink
- Planar
- CPU board
- Additional CPU Mech kit
- Intel Xeon Processor
- Redundant power kit

The following parts are designated as structural:

- Tower bezel kit
- Tower to rack kit
- Label GBM
- Chassis base
- Chassis top
- Chassis left
- Air duct
- Bezel blanks
- EMC shield kit
- SS EMC plate kit
- Filler
- Remote RAID battery holder
- Opt wheel USB
- Power cord
- Keyboards

Structural parts: Purchase and replacement of structural parts (components, such as chassis assembly, top cover, and bezel) is customer responsibility. If IBM acquires or installs a structural component at your request, you will be charged for the service.

On-site Service

This provides On-site Repair, 9 hours per day, Monday through Friday excluding holidays, NBD response. IBM or your reseller will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose. On-site Service is not available in all countries, and some countries have kilometer or mileage limitations from an IBM service center. In those locations where On-site Service is not available, the normal in-country service delivery is used.

Call IBM at 1-800-IBM-SERV (426-7378) to assist with problem isolation for hardware to determine if warranty service is required. Telephone support may be subject to additional charges, even during the limited warranty period.

Calls must be received by 5:00 p.m. local time in order to qualify for NBD service.

International Warranty Service (IWS)

IWS is available in selected countries or regions.

The warranty service type and the service level provided in the servicing country may be different from that provided in the country in which the machine was purchased.

Under IWS, warranty service will be provided with the prevailing warranty service type and service level available for the IWS-eligible machine type in the servicing country, and the warranty period observed will be that of the country in which the machine was purchased.

To determine the eligibility of your machine and to view a list of countries where service is available, visit

http://www-947.ibm.com/support/entry/portal/docdisplay?lndocid=GCOR-3FBJK2

For more information on IWS, refer to Services Announcement 601-034, dated September 25, 2001 .

Licensing

Programs included with this product are licensed under the terms and conditions of the License Agreements that are shipped with the system.

Maintenance services

ServicePac , ServiceSuite , ServiceElect, and ServiceElite

ServicePac® , ServiceSuite® , ServiceElect, and ServiceElite provide hardware warranty service upgrades, maintenance, and selected support services in one agreement.

Warranty service upgrade

During the warranty period, a warranty service upgrade provides an enhanced level of On-site Service for an additional charge. A warranty service upgrade must be purchased during the warranty period and is for a fixed term (duration). It is not refundable or transferable and may not be prorated. If required, IBM will provide the warranty service upgrade enhanced level of On-site Service acquired by the customer. Service levels are response-time objectives and are not guaranteed.

IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM . You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service

is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts.

CRUs will be provided as part of the machine's standard warranty CRU Service except that you may install a Tier 1 CRU yourself or request IBM installation, at no additional charge, under one of the On-site Service levels specified below.

IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose.

Maintenance service

If required, IBM provides repair or exchange service, depending on the type of maintenance service specified below for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM . You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts. Service levels are response-time objectives and are not guaranteed.

CRU Service

If your problem can be resolved with a CRU (for example, keyboard, mouse, speaker, memory, or hard disk drive), IBM will ship the CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM at any time on your request.

IBM specifies in the materials shipped with a replacement CRU whether a defective CRU must be returned to IBM . When return is required, return instructions and a container are shipped with the replacement CRU, and you may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

On-site Service

IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose.

Maintenance service (ICA)

Maintenance services are available for ICA legacy contracts.

Alternative service (warranty service upgrades)

During the warranty period, a warranty service upgrade provides an enhanced level of On-site Service for an additional charge. A warranty service upgrade must be purchased during the warranty period and is for a fixed term (duration). It is not refundable or transferable and may not be prorated. If required, IBM will provide the warranty service upgrade enhanced level of On-site Service acquired by the customer. Service levels are response-time objectives and are not guaranteed.

IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM . You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts.

A CRU will be provided as part of the machine's standard warranty CRU Service except that you may install a Tier 1 CRU yourself or request IBM to install it, at no additional charge, under the type of warranty service specified below, On-site Service.

IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose.

Maintenance service

If required, IBM provides repair or exchange service, depending on the type of maintenance service specified below for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM . You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts. Service levels are response-time objectives and are not guaranteed.

CRU Service

If your problem can be resolved with a CRU (for example, keyboard, mouse, speaker, memory, or hard disk drive), IBM will ship the CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM at any time on your request.

IBM specifies in the materials shipped with a replacement CRU whether a defective CRU must be returned to IBM . When return is required, return instructions and a container are shipped with the replacement CRU, and you may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

On-site Service

IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose.

Non-IBM parts support

Warranty service

IBM is now shipping machines with selected non-IBM parts that contain an IBM field replaceable unit (FRU) part number label. These parts are to be serviced during the IBM machine warranty period. IBM is covering the service on these selected non-IBM parts as an accommodation to its customers, and normal warranty service procedures for the IBM machine apply.

Warranty service upgrades and maintenance services

Under certain conditions, IBM Integrated Technology Services repairs selected non-IBM parts at no additional charge for machines that are covered under warranty service upgrades or maintenance services.

IBM Service provides hardware problem determination on non-IBM parts (for example, adapter cards, PCMCIA cards, disk drives, or memory) installed within IBM machines covered under warranty service upgrades or maintenance services and provides the labor to replace the failing parts at no additional charge.

If IBM has a Technical Service Agreement with the manufacturer of the failing part, or if the failing part is an accommodations part (a part with an IBM FRU label), IBM may also source and replace the failing part at no additional charge. For all other

non-IBM parts, customers are responsible for sourcing the parts. Installation labor is provided at no additional charge, if the machine is covered under a warranty service upgrade or a maintenance service.

IBM hourly service rate classification

One

Field-installable features

Yes

Model conversions

No

Machine installation

Customer setup. Customers are responsible for installation according to the instructions IBM provides with the machine.

Graduated program license charges apply

No

Licensed Machine Code

IBM Machine Code is licensed for use by a customer on the IBM machine for which it was provided by IBM under the terms and conditions of the IBM License Agreement for Machine Code, to enable the machine to function in accordance with its specifications, and only for the capacity authorized by IBM and acquired by the customer. You can obtain the agreement by contacting your IBM representative or visiting

http://www.ibm.com/servers/support/machine_warranties/machine_code.html

IBM may release changes to the Machine Code. IBM plans to make the Machine Code changes available for download from the IBM System x technical support website.

http://www-304.ibm.com/systems/support

If the machine does not function as warranted and your problem can be resolved through your application of downloadable Machine Code, you are responsible for downloading and installing these designated Machine Code changes as IBM specifies. If you would prefer, you may request IBM to install downloadable Machine Code changes; however, you may be charged for that service.

Educational allowance

None

Prices

For current prices, contact IBM at 888-Shop-IBM (746-7426) or visit

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

The following are features already announced for the 3331 machine type:

Description	Model Number	Feature Number	Initial/ MES/ Both/ Support
Addl Intel Xeon Processor E5-2403 4C 1.8GHz 10MB 80W Upgrade Kit	HC1	A2RF	MES
Addl Intel Xeon Processor E5-2407 4C 2.2GHz 10MB 80W Upgrade Kit	HC1	A2RG	MES
Addl Intel Xeon Processor E5-2420 6C 1.9GHz 15MB 95W Upgrade Kit	HC1	A2RH	MES
Addl Intel Xeon Processor E5-2430 6C 2.2GHz 15MB 95W Upgrade Kit	HC1	A2RJ	MES
Addl Intel Xeon Processor E5-2440 6C 2.4GHz 15MB 95W Upgrade Kit	HC1	A2RK	MES
Addl Intel Xeon Processor E5-2430L 6C 2.0GHz 15MB 60W Upgrade Kit	HC1	A2RL	MES
Addl Intel Xeon Processor E5-2450L 8C 1.8GHz 20MB 70W Upgrade Kit	HC1	A2RM	MES
Addl Intel Xeon Processor E5-2450 8C 2.1GHz 20MB 95W Upgrade Kit	HC1	A2RN	MES
Addl Intel Xeon Processor E5-2470 8C 2.3GHz 20MB 95W Upgrade Kit	HC1	A2RP	MES
IBM System x3300 Simple-Swap SATA Kit 4x3.5"	HC1	A2SB	MES
IBM System x3300 2nd 2.5" HS Upgrade Kit	HC1	A2SF	MES
Redundant System FAN	HC1	A2SJ	MES
Tower to Rack Kit	HC1	A2SK	MES
IBM System x3300 3.5" HS Kit for HW/SW RAID	HC1	A3E0	MES

The following are newly announced features on the specified models of the IBM xSeries 7382 machine type:

Description	Model Number	Feature Number	Initial/ MES/ Both/ Support	CSU
IBM System x3300 M4	AC1			Yes
IBM System x3300 M4	MC1			Yes
QLogic 10Gb SFP+ SR Optical Transceiver	AC1	0064	Initial	
	MC1		Initial	
Brocade 10Gb SFP+ SR Optical Transceiver	AC1	0069	Initial	
	MC1		Initial	
UID Asset Tag Label	AC1	0747	Initial	
	MC1		Initial	
24" SATA Cable	AC1	0870	Initial	
	MC1		Initial	
NetXtreme II 1000 Express G Ethernet Adapter- PCIe				

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                              AC1      1485          Initial
                              MC1                    Initial
Brocade 10Gb CNA for IBM System x
                              AC1      1637          Initial
                              MC1                    Initial
Emulex 4Gb FC Single-Port PCI-E HBA for IBM System
x
                              AC1      1698          Initial
                              MC1                    Initial
Emulex 4Gb FC Dual-Port PCI-E HBA for IBM System x
                              AC1      1699          Initial
                              MC1                    Initial
EMEA Long Leadtime Configurations
                              AC1      1763          Initial
                              MC1                    Initial
Hungary CHW plant 9SH
                              AC1      1764          Initial
                              MC1                    Initial
Guad CHW plant 9KQ
                              AC1      1765          Initial
                              MC1                    Initial
ISTC CHW 9K2
                              AC1      1766          Initial
                              MC1                    Initial
RTP CHW 9NR
                              AC1      1767          Initial
                              MC1                    Initial
Offload Manufacturing to Guadalajara HVEC
                              AC1      1768          Initial
                              MC1                    Initial
Offload Manufacturing to RTP HVEC
                              AC1      1769          Initial
                              MC1                    Initial
Offload Manufacturing to ISTC
                              AC1      1770          Initial
                              MC1                    Initial
Routing for AP Foxconn
                              AC1      1771          Initial
                              MC1                    Initial
Capacity Scheduling Service
                              AC1      1772          Initial
                              MC1                    Initial
Custom SLA Scheduling Service
                              AC1      1796          Initial
                              MC1                    Initial
Custom Asset Tagging - Standard
                              AC1      2200          Initial
                              MC1                    Initial
Custom Asset Tagging - Enhanced
                              AC1      2201          Initial
                              MC1                    Initial
Custom Image Load - Server
                              AC1      2204          Initial
                              MC1                    Initial
Custom Media Shipgroup
                              AC1      2206          Initial
                              MC1                    Initial
Request for Global Trade Number (UPC or EAN)
                              AC1      2207          Initial
                              MC1                    Initial
Custom Software/Firmware Setting - Standard
                              AC1      2208          Initial
                              MC1                    Initial
Custom Software/Firmware Setting - Enhanced
                              AC1      2209          Initial
                              MC1                    Initial
Custom RAID Configuration
                              AC1      2212          Initial
                              MC1                    Initial
Custom Labeling
                              AC1      2220          Initial
                              MC1                    Initial
Custom Palletization
                              AC1      2221          Initial
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                              MC1                   Initial
Request for a new Vendor Logo Hardware
                              AC1      2247         Initial
                              MC1                   Initial
Request for an existing IBM Feature
                              AC1      2248         Initial
                              MC1                   Initial
Request for an existing Public RPQ
                              AC1      2249         Initial
                              MC1                   Initial
RAID Configuration
                              AC1      2302         Initial
                              MC1                   Initial
Rack Installation >1U Component
                              AC1      2306         Initial
                              MC1                   Initial
Primary Array 12 HDDs
                              AC1      2400         Initial
                              MC1                   Initial
Primary Array 13 HDDs
                              AC1      2401         Initial
                              MC1                   Initial
Primary Array 14 HDDs
                              AC1      2402         Initial
                              MC1                   Initial
Primary Array 15 HDDs
                              AC1      2403         Initial
                              MC1                   Initial
Primary Array 16 HDDs
                              AC1      2404         Initial
                              MC1                   Initial
Secondary Array 9 HDDs
                              AC1      2405         Initial
                              MC1                   Initial
Secondary Array 10 HDDs
                              AC1      2406         Initial
                              MC1                   Initial
Secondary Array 11 HDDs
                              AC1      2407         Initial
                              MC1                   Initial
Secondary Array 12 HDDs
                              AC1      2408         Initial
                              MC1                   Initial
Secondary Array 13 HDDs
                              AC1      2409         Initial
                              MC1                   Initial
Secondary Array 14 HDDs
                              AC1      2410         Initial
                              MC1                   Initial
Enable selection of Solid State Drives for
Secondary Array
                              AC1      2498         Initial
                              MC1                   Initial
Enable selection of Solid State Drives for Primary
Array
                              AC1      2499         Initial
                              MC1                   Initial
PRO/1000 PF Server Adapter
                              AC1      2975         Initial
                              MC1                   Initial
NetXtreme II 1000 Express Dual Port Ethernet
Adapter
                              AC1      2995         Initial
                              MC1                   Initial
Rack 01
                              AC1      3101         Initial
                              MC1                   Initial
Rack 02
                              AC1      3102         Initial
                              MC1                   Initial
Rack 03
                              AC1      3103         Initial
                              MC1                   Initial
Rack 04
```

	AC1	3104	Initial
	MC1		Initial
Rack 05			
	AC1	3105	Initial
	MC1		Initial
Rack 06			
	AC1	3106	Initial
	MC1		Initial
Rack 07			
	AC1	3107	Initial
	MC1		Initial
Rack 08			
	AC1	3108	Initial
	MC1		Initial
Rack 09			
	AC1	3109	Initial
	MC1		Initial
Rack 10			
	AC1	3110	Initial
	MC1		Initial
Rack 11			
	AC1	3111	Initial
	MC1		Initial
Rack 12			
	AC1	3112	Initial
	MC1		Initial
Rack 13			
	AC1	3113	Initial
	MC1		Initial
Rack 14			
	AC1	3114	Initial
	MC1		Initial
Rack 15			
	AC1	3115	Initial
	MC1		Initial
Rack 16			
	AC1	3116	Initial
	MC1		Initial
Rack 17			
	AC1	3117	Initial
	MC1		Initial
Rack 18			
	AC1	3118	Initial
	MC1		Initial
Rack 19			
	AC1	3119	Initial
	MC1		Initial
Rack 20			
	AC1	3120	Initial
	MC1		Initial
Rack 21			
	AC1	3121	Initial
	MC1		Initial
Rack 22			
	AC1	3122	Initial
	MC1		Initial
Rack 23			
	AC1	3123	Initial
	MC1		Initial
Rack 24			
	AC1	3124	Initial
	MC1		Initial
Rack 25			
	AC1	3125	Initial
	MC1		Initial
Rack 26			
	AC1	3126	Initial
	MC1		Initial
Rack 27			
	AC1	3127	Initial
	MC1		Initial
Rack 28			
	AC1	3128	Initial
	MC1		Initial

```
Rack 29
                        AC1     3129        Initial
                        MC1                 Initial
Rack 30
                        AC1     3130        Initial
                        MC1                 Initial
Rack 31
                        AC1     3131        Initial
                        MC1                 Initial
Rack 32
                        AC1     3132        Initial
                        MC1                 Initial
Rack 33
                        AC1     3133        Initial
                        MC1                 Initial
Rack 34
                        AC1     3134        Initial
                        MC1                 Initial
Rack 35
                        AC1     3135        Initial
                        MC1                 Initial
Rack 36
                        AC1     3136        Initial
                        MC1                 Initial
Rack 37
                        AC1     3137        Initial
                        MC1                 Initial
Rack 38
                        AC1     3138        Initial
                        MC1                 Initial
Rack 39
                        AC1     3139        Initial
                        MC1                 Initial
Rack 40
                        AC1     3140        Initial
                        MC1                 Initial
Rack 41
                        AC1     3141        Initial
                        MC1                 Initial
Rack 42
                        AC1     3142        Initial
                        MC1                 Initial
Rack 43
                        AC1     3143        Initial
                        MC1                 Initial
Rack 44
                        AC1     3144        Initial
                        MC1                 Initial
Rack 45
                        AC1     3145        Initial
                        MC1                 Initial
Rack 46
                        AC1     3146        Initial
                        MC1                 Initial
Rack 47
                        AC1     3147        Initial
                        MC1                 Initial
Rack 48
                        AC1     3148        Initial
                        MC1                 Initial
Rack 49
                        AC1     3149        Initial
                        MC1                 Initial
Rack 50
                        AC1     3150        Initial
                        MC1                 Initial
Rack 51
                        AC1     3151        Initial
                        MC1                 Initial
Rack 52
                        AC1     3152        Initial
                        MC1                 Initial
Rack 53
                        AC1     3153        Initial
```

	MC1		Initial
Rack 54			
	AC1	3154	Initial
	MC1		Initial
Rack 55			
	AC1	3155	Initial
	MC1		Initial
Rack 56			
	AC1	3156	Initial
	MC1		Initial
Rack 57			
	AC1	3157	Initial
	MC1		Initial
Rack 58			
	AC1	3158	Initial
	MC1		Initial
Rack 59			
	AC1	3159	Initial
	MC1		Initial
Rack 60			
	AC1	3160	Initial
	MC1		Initial
Rack 61			
	AC1	3161	Initial
	MC1		Initial
Rack 62			
	AC1	3162	Initial
	MC1		Initial
Rack 63			
	AC1	3163	Initial
	MC1		Initial
Rack 64			
	AC1	3164	Initial
	MC1		Initial
Rack location U01			
	AC1	3201	Initial
	MC1		Initial
Rack location U02			
	AC1	3202	Initial
	MC1		Initial
Rack location U03			
	AC1	3203	Initial
	MC1		Initial
Rack location U04			
	AC1	3204	Initial
	MC1		Initial
Rack location U05			
	AC1	3205	Initial
	MC1		Initial
Rack location U06			
	AC1	3206	Initial
	MC1		Initial
Rack location U07			
	AC1	3207	Initial
	MC1		Initial
Rack location U08			
	AC1	3208	Initial
	MC1		Initial
Rack location U09			
	AC1	3209	Initial
	MC1		Initial
Rack location U10			
	AC1	3210	Initial
	MC1		Initial
Rack location U11			
	AC1	3211	Initial
	MC1		Initial
Rack location U12			
	AC1	3212	Initial
	MC1		Initial
Rack location U13			
	AC1	3213	Initial
	MC1		Initial
Rack location U14			

```
                              AC1      3214          Initial
                              MC1                    Initial
Rack location U15
                              AC1      3215          Initial
                              MC1                    Initial
Rack location U16
                              AC1      3216          Initial
                              MC1                    Initial
Rack location U17
                              AC1      3217          Initial
                              MC1                    Initial
Rack location U18
                              AC1      3218          Initial
                              MC1                    Initial
Rack location U19
                              AC1      3219          Initial
                              MC1                    Initial
Rack location U20
                              AC1      3220          Initial
                              MC1                    Initial
Rack location U21
                              AC1      3221          Initial
                              MC1                    Initial
Rack location U22
                              AC1      3222          Initial
                              MC1                    Initial
Rack location U23
                              AC1      3223          Initial
                              MC1                    Initial
Rack location U24
                              AC1      3224          Initial
                              MC1                    Initial
Rack location U25
                              AC1      3225          Initial
                              MC1                    Initial
Rack location U26
                              AC1      3226          Initial
                              MC1                    Initial
Rack location U27
                              AC1      3227          Initial
                              MC1                    Initial
Rack location U28
                              AC1      3228          Initial
                              MC1                    Initial
Rack location U29
                              AC1      3229          Initial
                              MC1                    Initial
Rack location U30
                              AC1      3230          Initial
                              MC1                    Initial
Rack location U31
                              AC1      3231          Initial
                              MC1                    Initial
Rack location U32
                              AC1      3232          Initial
                              MC1                    Initial
Rack location U33
                              AC1      3233          Initial
                              MC1                    Initial
Rack location U34
                              AC1      3234          Initial
                              MC1                    Initial
Rack location U35
                              AC1      3235          Initial
                              MC1                    Initial
Rack location U36
                              AC1      3236          Initial
                              MC1                    Initial
Rack location U37
                              AC1      3237          Initial
                              MC1                    Initial
Rack location U38
                              AC1      3238          Initial
                              MC1                    Initial
```

```
Rack location U39
                              AC1      3239          Initial
                              MC1                    Initial
Rack location U40
                              AC1      3240          Initial
                              MC1                    Initial
Rack location U41
                              AC1      3241          Initial
                              MC1                    Initial
Rack location U42
                              AC1      3242          Initial
                              MC1                    Initial
Rack location U43
                              AC1      3243          Initial
                              MC1                    Initial
Rack location U44
                              AC1      3244          Initial
                              MC1                    Initial
Rack location U45
                              AC1      3245          Initial
                              MC1                    Initial
Rack location U46
                              AC1      3246          Initial
                              MC1                    Initial
Rack location U47
                              AC1      3247          Initial
                              MC1                    Initial
QLogic 4Gb FC Single-Port PCIe HBA for IBM System x
                              AC1      3567          Initial
                              MC1                    Initial
QLogic 4Gb FC Dual-Port PCIe HBA for IBM System x
                              AC1      3568          Initial
                              MC1                    Initial
QLogic 8Gb FC Single-port HBA for IBM System x
                              AC1      3578          Initial
                              MC1                    Initial
QLogic 8Gb FC Dual-port HBA for IBM System x
                              AC1      3579          Initial
                              MC1                    Initial
Emulex 8Gb FC Single-port HBA for IBM System x
                              AC1      3580          Initial
                              MC1                    Initial
Emulex 8Gb FC Dual-port HBA for IBM System x
                              AC1      3581          Initial
                              MC1                    Initial
Brocade 8Gb FC Single-port HBA for IBM System x
                              AC1      3589          Initial
                              MC1                    Initial
Brocade 8Gb FC Dual-port HBA for IBM System x
                              AC1      3591          Initial
                              MC1                    Initial
IBM 3M SAS Cable
                              AC1      3707          Initial
                              MC1                    Initial
IBM 1M SAS Cable
                              AC1      3708          Initial
                              MC1                    Initial
IBM Single Cable USB Conversion Option (UCO)
                              AC1      3757          Initial
                              MC1                    Initial
IBM 6Gb Performance Optimized HBA
                              AC1      3876          Initial
                              MC1
Brocade 4Gb FC Single-port HBA for IBM System x
                              AC1      3885          Initial
                              MC1                    Initial
Brocade 4Gb FC Dual-port HBA for IBM System x
                              AC1      3886          Initial
                              MC1                    Initial
Half-High SATA DVD-ROM
                              AC1      4154          Initial
                              MC1                    Initial
IBM HH Multiburner DVD
                              AC1      4155          Initial
```

```
                              MC1                    Initial
IBM Half High LTO Gen 5 Internal SAS Tape Drive
                              AC1      5345          Initial
                              MC1                    Initial
IBM Half High LTO Gen 3 SAS Tape Drive
                              AC1      5393          Initial
                              MC1                    Initial
IBM DDS Gen 6 USB Tape Drive
                              AC1      5395          Initial
                              MC1                    Initial
IBM Half-high LTO Gen 4 SAS Tape Drive
                              AC1      5397          Initial
                              MC1                    Initial
IBM RDX 320GB Cartridge
                              AC1      5708          Initial
                              MC1                    Initial
IBM RDX 500GB Cartridge
                              AC1      5709          Initial
                              MC1                    Initial
IBM DDS Generation 5 USB Tape Drive
                              AC1      5711          Initial
                              MC1                    Initial
QLogic 10Gb CNA for IBM System x
                              AC1      5751          Initial
                              MC1                    Initial
NetXtreme II 1000 Express Quad Port Ethernet
Adapter
                              AC1      5766          Initial
                              MC1                    Initial
Intel Ethernet Dual Port Server Adapter I340-T2 for
IBM System x
                              AC1      5767          Initial
                              MC1                    Initial
Intel Ethernet Quad Port Server Adapter I340-T4 for
IBM System x
                              AC1      5768          Initial
                              MC1                    Initial
Select Storage devices - no IBM-configured RAID
required
                              AC1      5977          Initial
                              MC1                    Initial
Select Storage devices - IBM-configured RAID
                              AC1      5978          Initial
                              MC1                    Initial
IBM 6Gb SAS HBA
                              AC1      5982          Initial
                              MC1                    Initial
1.5m, 10A/100-250V, C13 to IEC 320-C14 Rack Power
Cable
                              AC1      6201          Initial
                              MC1                    Initial
2.8m, 10A/100-250V, C13 to IEC 320-C20 Rack Power
Cable
                              AC1      6204          Initial
                              MC1                    Initial

Line cord - 4.3M, 10A/125V, C13 to NEMA 5-15P (US)
                              AC1      6207          Initial
                              MC1                    Initial

4.3m, 10A/100-250V, C13 to IEC 320-C14 Rack Power
Cable
                              AC1      6263          Initial
                              MC1                    Initial

2.8m, 10A/120V, C13 to NEMA 5-15P (US) Line Cord
                              AC1      6313          Initial
                              MC1                    Initial
Line cord - 2.8m, 10A/250V, C13 to NEMA 6-15P (US)
                              AC1      6372          Initial
                              MC1                    Initial
2.8m, 13A/120V, C13 to NEMA 5-15P (US) Line Cord
                              AC1      6401          Initial
                              MC1
```

```
Primary Array 2 HDDs
                            AC1      7008          Initial
                            MC1                    Initial
Primary Array 3 HDDs
                            AC1      7009          Initial
                            MC1                    Initial
Primary Array 4 HDDs
                            AC1      7010          Initial
                            MC1                    Initial
Primary Array 5 HDDs
                            AC1      7011          Initial
                            MC1                    Initial
Primary Array 6 HDDs
                            AC1      7012          Initial
                            MC1                    Initial
Primary Array 7 HDDs
                            AC1      7013          Initial
                            MC1                    Initial
Primary Array 8 HDDs
                            AC1      7014          Initial
                            MC1                    Initial
Secondary Array 2 HDDs
                            AC1      7015          Initial
                            MC1                    Initial
Secondary Array 3 HDDs
                            AC1      7016          Initial
                            MC1                    Initial
Secondary Array 4 HDDs
                            AC1      7017          Initial
                            MC1                    Initial
Secondary  Array 5 HDDs
                            AC1      7057          Initial
                            MC1                    Initial
Secondary Array 6 HDDs
                            AC1      7058          Initial
                            MC1                    Initial
Secondary Array 7 HDDs
                            AC1      7059          Initial
                            MC1                    Initial
Secondary Array 8 HDDs
                            AC1      7060          Initial
                            MC1                    Initial
China Warranty
                            AC1      7599          Initial
                            MC1                    Initial
Primary Array 9 HDDs
                            AC1      7664          Initial
                            MC1                    Initial
Grouped Product
                            AC1      7830          Initial
                            MC1                    Initial
Customer Solution Center Services
                            AC1      7831          Initial
                            MC1                    Initial
e1350 Special Bid Solution Component
                            AC1      7929          Initial
                            MC1                    Initial
No HDD Selected
                            AC1      8026          Initial
                            MC1                    Initial
Consolidate Shipment
                            AC1      8031          Initial
                            MC1                    Initial
e1350 Solution Component
                            AC1      8034          Initial
                            MC1                    Initial
Compute Node
                            AC1      8036          Initial
                            MC1                    Initial
Management Node
                            AC1      8037          Initial
                            MC1                    Initial
Storage Node
                            AC1      8038          Initial
```

```
                              MC1                   Initial
TAA Compliant Order
                              AC1      8067         Initial
                              MC1                   Initial
General Racking Solution
                              AC1      8072         Initial
                              MC1                   Initial
No SATA HDD Selected
                              AC1      8080         Initial
                              MC1                   Initial
No 2.5" SAS HDD Selected
                              AC1      8081         Initial
                              MC1                   Initial
No 3.5" SAS HDD Selected
                              AC1      8082         Initial
                              MC1                   Initial
No Pointing Device Selected
                              AC1      8084         Initial
                              MC1                   Initial
No Keyboard Selected
                              AC1      8085         Initial
                              MC1                   Initial
No Publications Selected
                              AC1      8086         Initial
                              MC1                   Initial
4GB (1x4GB, 2Rx8, 1.35V) PC3L-10600 CL9 ECC DDR3
1333MHz LP UDIMM
                              AC1      8648         Initial
                              MC1                   Initial

IBM Keyboard w/ Int. Pointing Device USB - US English 103P RoHS
                              AC1      A31J         Initial
                              MC1                   Initial
IBM Pref. Pro Keyboard USB - US English 103P RoHS
                              AC1      A32E         Initial
                              MC1


IBM 2 Button Optical Wheel Mouse - Black - USB
                              AC1      8912         Initial
                              MC1                   Initial
8GB (1x8GB, 2Rx4, 1.35V) PC3L-10600 CL9 ECC DDR3
1333MHz LP RDIMM
                              AC1      8923         Initial
                              MC1                   Initial
16GB (1x16GB, 4Rx4, 1.35V) PC3L-8500 CL7 ECC DDR3
1066MHz LP RDIMM
                              AC1      8939         Initial
                              MC1                   Initial
2GB (1x2GB, 1Rx8, 1.35V) PC3L-10600 CL9 ECC DDR3
1333MHz LP RDIMM
                              AC1      8940         Initial
                              MC1                   Initial
4GB (1x4GB, 1Rx4, 1.35V) PC3L-10600 CL9 ECC DDR3
1333MHz LP RDIMM
                              AC1      8941         Initial
                              MC1                   Initial
4GB (1x4GB, 2Rx8, 1.35V) PC3L-10600 CL9  ECC DDR3
1333MHz LP RDIMM
                              AC1      8942         Initial
                              MC1                   Initial
Integrate in manufacturing
                              AC1      8971         Initial
                              MC1                   Initial
Ship Uninstalled (Safety)
                              AC1      8972         Initial
                              MC1                   Initial
Hot Spare
                              AC1      9013         Initial
                              MC1                   Initial
Memory Sparing
                              AC1      9016         Initial
                              MC1                   Initial
Enable Memory Mirroring
```

```
                              AC1      9017          Initial
                              MC1                    Initial
Storage Subsystem ID 01
                              AC1      9170          Initial
                              MC1                    Initial
Storage Subsystem ID 02
                              AC1      9171          Initial
                              MC1                    Initial
Storage Subsystem ID 03
                              AC1      9172          Initial
                              MC1                    Initial
Storage Subsystem ID 04
                              AC1      9173          Initial
                              MC1                    Initial
Storage Subsystem ID 05
                              AC1      9174          Initial
                              MC1                    Initial
Storage Subsystem ID 06
                              AC1      9175          Initial
                              MC1                    Initial
Storage Subsystem ID 07
                              AC1      9176          Initial
                              MC1                    Initial
Storage Subsystem ID 08
                              AC1      9177          Initial
                              MC1                    Initial
Storage Subsystem ID 09
                              AC1      9178          Initial
                              MC1                    Initial
Storage Subsystem ID 10
                              AC1      9179          Initial
                              MC1                    Initial
Storage Subsystem ID 11
                              AC1      9180          Initial
                              MC1                    Initial
Storage Subsystem ID 12
                              AC1      9181          Initial
                              MC1                    Initial
Storage Subsystem ID 13
                              AC1      9182          Initial
                              MC1                    Initial
Storage Subsystem ID 14
                              AC1      9183          Initial
                              MC1                    Initial
Storage Subsystem ID 15
                              AC1      9184          Initial
                              MC1                    Initial
Storage Subsystem ID 16
                              AC1      9185          Initial
                              MC1                    Initial
Storage Subsystem ID 17
                              AC1      9186          Initial
                              MC1                    Initial
Storage Subsystem ID 18
                              AC1      9187          Initial
                              MC1                    Initial
Storage Subsystem ID 19
                              AC1      9188          Initial
                              MC1                    Initial
Storage Subsystem ID 20
                              AC1      9189          Initial
                              MC1                    Initial
Preload Specify
                              AC1      9200          Initial
                              MC1                    Initial
Windows Specify
                              MC1      9201          Initial
Red Hat Specify
                              AC1      9202          Initial
SuSE Specify
                              AC1      9203          Initial
Drop-in-the-Box Specify
                              AC1      9205          Initial
                              MC1                    Initial
```

```
No Preload Specify
                              AC1      9206          Initial
                              MC1                    Initial
VMWare Specify
                              AC1      9207          Initial
                              MC1                    Initial
Preload by Hardware Feature Specify
                              AC1      9220          Initial
                              MC1                    Initial
Internal split SAS cable
                              AC1      9265          Initial
                              MC1                    Initial
1 meter internal USB cable
                              AC1      9266          Initial
                              MC1                    Initial
Primary Array 10 HDDs
                              AC1      9714          Initial
                              MC1                    Initial
Primary Array 11 HDDs
                              AC1      9715          Initial
                              MC1                    Initial
2GB (1x2GB, 1Rx8, 1.35V) PC3L-10600 ECC DDR3
1333MHz LP UDIMM
                              AC1      A0QS          Initial
                              MC1                    Initial
Software Application (Not Preinstalled) Specify
                              AC1      A0UF          Initial
                              MC1                    Initial
NVIDIA Quadro 600
                              AC1      A13K          Initial
                              MC1                    Initial
Broadcom NetXtreme II Dual Port 10GBaseT Adapter
for IBM System x
                              AC1      A18Y          Initial
                              MC1                    Initial
IBM 1TB 7.2K 6Gbps NL SATA 2.5" SFF HS HDD
                              AC1      A1AV          Initial
                              MC1                    Initial
ServeRAID M5100 Series 512MB Cache/RAID 5 Upgrade
for IBM System x
                              AC1      A1J3          Initial
                              MC1                    Initial
ServeRAID M5100 Series 512MB Flash/RAID 5 Upgrade
for IBM System x
                              AC1      A1J4          Initial
                              MC1                    Initial
Mellanox ConnectX-2 Dual Port 10GbE Adapter for IBM
System x
                              AC1      A1M4          Initial
                              MC1                    Initial
IBM Integrated Management Module Advanced Upgrade
                              AC1      A1ML          Initial
                              MC1                    Initial
ServeRAID M1115 SAS/SATA Controller for IBM System
x
                              AC1      A1MZ          Initial
                              MC1                    Initial
IBM 250GB 7.2K 6Gbps NL SATA 2.5" SFF HS HDD
                              AC1      A1NX          Initial
                              MC1                    Initial
IBM 500GB 7.2K 6Gbps NL SATA 2.5" SFF HS HDD
                              AC1      A1NZ          Initial
                              MC1                    Initial
IBM 1TB 7.2K 6Gbps NL SAS 2.5" SFF HS HDD
                              AC1      A1P3          Initial
                              MC1                    Initial
16GB (1x16GB, 2Rx4, 1.35V) PC3L-10600 CL9 ECC DDR3
1333MHz LP RDIMM
                              AC1      A1QT          Initial
                              MC1                    Initial
NVIDIA Quadro 2000
                              AC1      A1QU          Initial
                              MC1                    Initial
IBM RDX 1TB Cartridge
```

```
                              AC1      A1VL          Initial
                              MC1                    Initial
ServeRAID M5120 SAS/SATA Controller for IBM System
x
                              AC1      A1WX          Initial
                              MC1                    Initial
ServeRAID M5100 Series 1GB Flash/RAID 5 Upgrade for
IBM System x
                              AC1      A1WY          Initial
                              MC1                    Initial
ServeRAID M1100 Series Zero Cache/RAID 5 Upgrade
for IBM System x
                              AC1      A1X1          Initial
                              MC1                    Initial
ServeRAID M5100 Series Zero Cache/RAID 5 Upgrade
for IBM System x
                              AC1      A1X2          Initial
                              MC1                    Initial
ServeRAID M5100 Series RAID 6 Upgrade for IBM
System x
                              AC1      A1X3          Initial
                              MC1                    Initial
3U bracket for low profile-internal-storage
adapters
                              AC1      A1X6          Initial
                              MC1                    Initial
ServeRAID M5100 Series 425mm Flash Power Module
Cable
                              AC1      A1X9          Initial
                              MC1                    Initial
ServeRAID H1110 SAS/SATA Controller for IBM System
x
                              AC1      A1XL          Initial
                              MC1                    Initial
ServeRAID M5100 Series Battery Kit for IBM System x
                              AC1      A22E          Initial
                              MC1                    Initial
IBM 1TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD
                              AC1      A22P          Initial
                              MC1                    Initial
IBM 3TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD
                              AC1      A22S          Initial
                              MC1                    Initial
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2HS HDD
                              AC1      A22T          Initial
                              MC1                    Initial
IBM 500GB 7.2K 6Gbps NL SATA 3.5" G2SS HDD
                              AC1      A22U          Initial
                              MC1                    Initial
IBM 3TB 7.2K 6Gbps NL SATA 3.5" G2SS HDD
                              AC1      A22V          Initial
                              MC1                    Initial
IBM 2TB 7.2K 6Gbps NL SATA 3.5" G2SS HDD
                              AC1      A22W          Initial
                              MC1                    Initial
IBM 1TB 7.2K 6Gbps NL SATA 3.5" G2SS HDD
                              AC1      A22X          Initial
                              MC1                    Initial
IBM 500GB 7.2K 6Gbps NL SATA 3.5" G2HS HDD
                              AC1      A22Y          Initial
                              MC1                    Initial
4GB (1x4GB, 2Rx8, 1.5V) PC3-12800 CL11 ECC DDR3
1600MHz LP RDIMM
                              AC1      A24L          Initial
                              MC1                    Initial
IBM 1TB 7.2K 6Gbps NL SAS 3.5" G2HS HDD
                              AC1      A26M          Initial
                              MC1                    Initial
IBM 900GB 10K 6Gbps SAS 2.5" SFF HS HDD
                              AC1      A282          Initial
                              MC1                    Initial
IBM 300GB 15K 6Gbps SAS 2.5" SFF HS HDD
                              AC1      A283          Initial
                              MC1                    Initial
```

```
4GB (1x4GB, 1Rx4, 1.5V) PC3-12800 CL11 ECC DDR3
1600MHz LP RDIMM
                              AC1      A28Z          Initial
                              MC1                    Initial
8GB (1x8GB, 2Rx4, 1.5V) PC3-12800 CL11 ECC DDR3
1600MHz LP RDIMM
                              AC1      A292          Initial
                              MC1                    Initial
Label KC
                              AC1      A2CM          Initial
                              MC1                    Initial
Intel x520 Dual Port 10GbE SFP+ Adapter for IBM
System x
                              AC1      A2EC          Initial
                              MC1                    Initial
Intel X540-T2 Dual Port 10GBaseT Adapter for IBM
System x
                              AC1
                              MC1      A2ED          Initial
IBM 200GB SATA 2.5" MLC HS SSD
                              AC1      A2FN          Initial
                              MC1                    Initial
IBM Blank USB Memory Key for VMWare ESXi Downloads
                              AC1      A2G0          Initial
                              MC1                    Initial
Intel Ethernet Adapter Powerville - 4 port upgrade
                              AC1      A2GT          Initial
                              MC1                    Initial
Configuration ID 01
                              AC1      A2HP          Initial
                              MC1                    Initial
Configuration ID 02
                              AC1      A2HQ          Initial
                              MC1                    Initial
Configuration ID 03
                              AC1      A2HR          Initial
                              MC1                    Initial
Configuration ID 04
                              AC1      A2HS          Initial
                              MC1                    Initial
Configuration ID 05
                              AC1      A2HT          Initial
                              MC1                    Initial
Configuration ID 06
                              AC1      A2HU          Initial
                              MC1                    Initial
Configuration ID 07
                              AC1      A2HV          Initial
                              MC1                    Initial
Configuration ID 08
                              AC1      A2HW          Initial
                              MC1                    Initial
Configuration ID 09
                              AC1      A2HX          Initial
                              MC1                    Initial
Configuration ID 10
                              AC1      A2HY          Initial
                              MC1                    Initial
Configuration ID 11
                              AC1      A2HZ          Initial
                              MC1                    Initial
Configuration ID 12
                              AC1      A2J0          Initial
                              MC1                    Initial
Configuration ID 13
                              AC1      A2J1          Initial
                              MC1                    Initial
Configuration ID 14
                              AC1      A2J2          Initial
                              MC1                    Initial
Configuration ID 15
                              AC1      A2J3          Initial
                              MC1                    Initial
Configuration ID 16
```

```
                          AC1      A2J4          Initial
                          MC1                    Initial
Configuration ID 17
                          AC1      A2J5          Initial
                          MC1                    Initial
Configuration ID 18
                          AC1      A2J6          Initial
                          MC1                    Initial
Configuration ID 19
                          AC1      A2J7          Initial
                          MC1                    Initial
Configuration ID 20
                          AC1      A2J8          Initial
                          MC1                    Initial
Configuration ID 21
                          AC1      A2J9          Initial
                          MC1                    Initial
Configuration ID 22
                          AC1      A2JA          Initial
                          MC1                    Initial
Configuration ID 23
                          AC1      A2JB          Initial
                          MC1                    Initial
Configuration ID 24
                          AC1      A2JC          Initial
                          MC1                    Initial
Configuration ID 25
                          AC1      A2JD          Initial
                          MC1                    Initial
Configuration ID 26
                          AC1      A2JE          Initial
                          MC1                    Initial
Configuration ID 27
                          AC1      A2JF          Initial
                          MC1                    Initial
Configuration ID 28
                          AC1      A2JG          Initial
                          MC1                    Initial
Configuration ID 29
                          AC1      A2JH          Initial
                          MC1                    Initial
Configuration ID 30
                          AC1      A2JJ          Initial
                          MC1                    Initial
Configuration ID 31
                          AC1      A2JK          Initial
                          MC1                    Initial
Configuration ID 32
                          AC1      A2JL          Initial
                          MC1                    Initial
Configuration ID 33
                          AC1      A2JM          Initial
                          MC1                    Initial
Configuration ID 34
                          AC1      A2JN          Initial
                          MC1                    Initial
Configuration ID 35
                          AC1      A2JP          Initial
                          MC1                    Initial
Configuration ID 36
                          AC1      A2JQ          Initial
                          MC1                    Initial
Configuration ID 37
                          AC1      A2JR          Initial
                          MC1                    Initial
Configuration ID 38
                          AC1      A2JS          Initial
                          MC1                    Initial
Configuration ID 39
                          AC1      A2JT          Initial
                          MC1                    Initial
Configuration ID 40
                          AC1      A2JU          Initial
                          MC1                    Initial
```

```
Configuration ID 41
                            AC1      A2JV          Initial
                            MC1                    Initial
Configuration ID 42
                            AC1      A2JW          Initial
                            MC1                    Initial
Controller 01
                            AC1      A2JX          Initial
                            MC1                    Initial
Controller 02
                            AC1      A2JY          Initial
                            MC1                    Initial
Controller 03
                            AC1      A2JZ          Initial
                            MC1                    Initial
Controller 04
                            AC1      A2K0          Initial
                            MC1                    Initial
Controller 05
                            AC1      A2K1          Initial
                            MC1                    Initial
Primary Array - RAID 0
                            AC1      A2K6          Initial
                            MC1                    Initial
Primary Array - RAID 1
                            AC1      A2K7          Initial
                            MC1                    Initial
Primary Array - RAID 1E
                            AC1      A2K8          Initial
                            MC1                    Initial
Primary Array - RAID 5
                            AC1      A2K9          Initial
                            MC1                    Initial
Primary Array - RAID 6
                            AC1      A2KA          Initial
                            MC1                    Initial
Primary Array - RAID 10
                            AC1      A2KB          Initial
                            MC1                    Initial
Secondary Array - RAID 0
                            AC1      A2KF          Initial
                            MC1                    Initial
Secondary Array - RAID 1
                            AC1      A2KG          Initial
                            MC1                    Initial
Secondary Array - RAID 1E
                            AC1      A2KH          Initial
                            MC1                    Initial
Secondary Array - RAID 5
                            AC1      A2KJ          Initial
                            MC1                    Initial
Secondary Array - RAID 6
                            AC1      A2KK          Initial
                            MC1                    Initial
Secondary Array - RAID 10
                            AC1      A2KL          Initial
                            MC1                    Initial
ServeRAID M5100 Series SSD Performance Key for IBM
System x
                            AC1      A2MC          Initial
                            MC1                    Initial
ServeRAID M5100 Series SSD Caching Enabler for IBM
System x
                            AC1      A2MD          Initial
                            MC1                    Initial
IBM 3TB 7.2K 6Gbps NL SAS 3.5" G2HS HDD
                            AC1      A2R2          Initial
                            MC1                    Initial
Intel Xeon Processor E5-2403 4C 1.8GHz 10MB Cache
1066MHz 80W
                            AC1      A2R4          Initial
                            MC1                    Initial
Intel Xeon Processor E5-2407 4C 2.2GHz 10MB Cache
1066MHz 80W
```

```
                              AC1      A2R5          Initial
                              MC1                    Initial
Intel Xeon Processor E5-2420 6C 1.9GHz 15MB Cache
1333MHz 95W
                              AC1      A2R6          Initial
                              MC1                    Initial
Intel Xeon Processor E5-2430 6C 2.2GHz 15MB Cache
1333MHz 95W
                              AC1      A2R7          Initial
                              MC1                    Initial
Intel Xeon Processor E5-2440 6C 2.4GHz 15MB Cache
1333MHz 95W
                              AC1      A2R8          Initial
                              MC1                    Initial
Intel Pentium Processor 1403 2C 2.6GHz 5MB Cache
1066MHz 80W
                              AC1      A2R9          Initial
                              MC1                    Initial
Intel Pentium Processor 1407 2C 2.8GHz 5MB Cache
1066MHz 80W
                              AC1      A2RA          Initial
                              MC1                    Initial
Intel Xeon Processor E5-2430L 6C 2.0GHz 15MB Cache
1333MHz 60W
                              AC1      A2RB          Initial
                              MC1                    Initial
Intel Xeon Processor E5-2450L 8C 1.8GHz 20MB Cache
1600MHz 70W
                              AC1      A2RC          Initial
                              MC1                    Initial
Intel Xeon Processor E5-2450 8C 2.1GHz 20MB Cache
1600MHz 95W
                              AC1      A2RD          Initial
                              MC1                    Initial
Intel Xeon Processor E5-2470 8C 2.3GHz 20MB Cache
1600MHz 95W
                              AC1      A2RE          Initial
                              MC1                    Initial
IBM System x3300 L5 Chassis base
                              AC1      A2S7          Initial
                              MC1                    Initial
IBM 460W Fixed PSU
                              AC1      A2S8          Initial
                              MC1                    Initial
IBM 550W Redundant PSU
                              AC1      A2S9          Initial
                              MC1                    Initial
IBM 750W Redundant PSU
                              AC1      A2SA          Initial
                              MC1                    Initial
IBM System x3300 3.5" HS Kit for HW/SW RAID
                              AC1      A2SC          Initial
                              MC1                    Initial
IBM System x3300 1st 2.5" HS Kit
                              AC1      A2SE          Initial
                              MC1                    Initial
Redundant Power Kit
                              AC1      A2SG          Initial
                              MC1                    Initial
PCI-X Riser Kit
                              AC1      A2SH          Initial
                              MC1                    Initial
3.5" Bracket for 2nd HDD Cage
                              AC1      A2SL          Initial
                              MC1                    Initial
Backplane signal Y cable for Norton(3.5")
                              AC1      A2SM          Initial
                              MC1                    Initial
BIOS GBM
                              AC1      A2SN          Initial
                              MC1                    Initial
Backplane signal Y cable for Raptor(2.5")
                              AC1      A2SP          Initial
                              MC1                    Initial
```

HDD BP POWER 16 to 14 (RAID management Y cable)
AC1 A2SQ Initial
MC1 Initial
3.5" HS HDD Filler
AC1 A2SR Initial
MC1 Initial
2.5" HS HDD Filler
AC1 A2SS Initial
MC1 Initial
PWR cage Filler
AC1 A2ST Initial
MC1 Initial
Agency Label
AC1 A2SU Initial
MC1 Initial
Label GBM
AC1 A2SV Initial
MC1 Initial
IBM System x3300 Planar
AC1 A2SW Initial
MC1 Initial
IBM System x3300 Packaging - Tower model
AC1 A2SX Initial
MC1 Initial
IBM System x3300 Packaging - Tower to Rack model
AC1 A2SY Initial
MC1 Initial

System Documentation and Software-US English
AC1 A2TC Initial
MC1 Initial
IBM 2TB 7.2K 6Gbps NL SAS 3.5" G2HS HDD
AC1 A2U0 Initial
MC1 Initial
Emulex Dual Port 10GbE SFP+ VFA III for IBM System x
AC1 A2U1 Initial
MC1 Initial
Emulex VFA III FCoE/iSCSI License for IBM System x (FoD)
AC1 A2U2 Initial
MC1 Initial
IBM 256GB SATA 2.5" MLC HS Entry SSD
AC1 A2U3 Initial
MC1 Initial
IBM 128GB SATA 2.5" MLC HS Entry SSD
AC1 A2U4 Initial
MC1 Initial
16GB (1x16GB, 2Rx4, 1.5V) PC3-12800 CL11 ECC DDR3 1600MHz LP RDIMM
AC1 A2U5 Initial
MC1 Initial
IBM RDX 3 Internal USB Drive
AC1 A2U7 Initial
MC1 Initial
Emulex Dual Port 10GbE SFP+ Integrated VFA III for IBM System x
MC1 A2UN Initial
Broadcom NetXtreme I Quad Port GbE Adapter for IBM System x
AC1 A2V3 Initial
MC1 Initial
Broadcom NetXtreme I Dual Port GbE Adapter for IBM System x
AC1 A2V4 Initial
MC1 Initial
8-Pack ServeRAID C105 Controller Enabler for IBM System x
AC1 A2V7 Initial
MC1 Initial
ServeRAID C105 for IBM System x
AC1 A2VA Initial
MC1 Initial

```
IBM USB Memory Key for VMWare ESXi 5.0
                              AC1      A2VC          Initial
                              MC1                    Initial
Emulex 16Gb FC Single-port HBA for IBM System x
                              AC1      A2W5          Initial
                              MC1
Emulex 16Gb FC Dual-port HBA for IBM System x
                              AC1      A2W6          Initial
                              MC1
No Power Cord Validation
                              AC1      A2X0          Initial
                              MC1                    Initial
IBM 146GB 15K 6Gbps SAS 2.5" SFF G2HS HDD
                              AC1      A2XB          Initial
                              MC1                    Initial
IBM 300GB 10K 6Gbps SAS 2.5" SFF G2HS HDD
                              AC1      A2XC          Initial
                              MC1                    Initial
IBM 600GB 10K 6Gbps SAS 2.5" SFF G2HS HDD
                              AC1      A2XD          Initial
                              MC1                    Initial
IBM 500GB 7.2K 6Gbps NL SAS 2.5" SFF G2HS HDD
                              AC1      A2XE          Initial
                              MC1                    Initial
IBM 300GB 10K 6Gbps SAS 2.5" SFF G2HS SED
                              AC1      A2XF          Initial
                              MC1                    Initial
Brocade 16Gb FC Single-port HBA for IBM System x
                              AC1      A2XU          Initial
                              MC1
Brocade 16Gb FC Dual-port HBA for IBM System x
                              AC1      A2XV          Initial
                              MC1
IBM 146GB 15K 6Gbps SAS 2.5" SFF G2HS SED
                              AC1      A2ZK          Initial
                              MC1                    Initial
ServeRAID M5110 SAS/SATA Controller for IBM System
x
                              AC1      A347          Initial
                              MC1                    Initial
IBM USB Memory Key for VMware ESXi 5.0 Update1
                              AC1      A383          Initial
                              MC1                    Initial
Intel Xeon Processor E5-1410 4C 2.8GHz 10MB Cache
1333MHz 80W
                              AC1      A3AJ          Initial
                              MC1
IBM 550W Redundant PSU (Optional)
                              AC1      A3DQ          Initial
                              MC1                    Initial
IBM 750W Redundant PSU (Optional)
                              AC1      A3DR          Initial
                              MC1                    Initial


Essential Package
                              AC1      A3E2          Initial
                              MC1                    Initial
Enhanced Package
                              AC1      A3E3          Initial
                              MC1
Elite Package
                              AC1      A3E4          Initial
                              MC1                    Initial
Essential Package
                              AC1      A3E5          Initial
                              MC1                    Initial
Enhanced Package
                              AC1      A3E6          Initial
                              MC1                    Initial
Elite Package
                              AC1      A3E7          Initial
                              MC1                    Initial

2nd CPU FAN
```

	AC1	A3F4	Initial
	MC1		Initial
14 pin to 16 pin interposer cable for fixed PSU			
	AC1	A3F7	Initial
	MC1		Initial

The following are features already announced for the 7382 machine type:

Description	Model Number	Feature Number	Initial/ MES/ Both/ Support	CSU
AC1				
	AC1			Yes
MC1				
	MC1			Yes
Addl Intel Xeon Processor E5-2403 4C 1.8GHz 10MB 80W Upgrade Kit				
	AC1	A2RF	Initial	
	MC1		Initial	
Addl Intel Xeon Processor E5-2407 4C 2.2GHz 10MB 80W Upgrade Kit				
	AC1	A2RG	Initial	
	MC1		Initial	
Addl Intel Xeon Processor E5-2420 6C 1.9GHz 15MB 95W Upgrade Kit				
	AC1	A2RH	Initial	
	MC1		Initial	
Addl Intel Xeon Processor E5-2430 6C 2.2GHz 15MB 95W Upgrade Kit				
	AC1	A2RJ	Initial	
	MC1		Initial	
Addl Intel Xeon Processor E5-2440 6C 2.4GHz 15MB 95W Upgrade Kit				
	AC1	A2RK	Initial	
	MC1		Initial	
Addl Intel Xeon Processor E5-2430L 6C 2.0GHz 15MB 60W Upgrade Kit				
	AC1	A2RL	Initial	
	MC1		Initial	
Addl Intel Xeon Processor E5-2450L 8C 1.8GHz 20MB 70W Upgrade Kit				
	AC1	A2RM	Initial	
	MC1		Initial	
Addl Intel Xeon Processor E5-2450 8C 2.1GHz 20MB 95W Upgrade Kit				
	AC1	A2RN	Initial	
	MC1		Initial	
Addl Intel Xeon Processor E5-2470 8C 2.3GHz 20MB 95W Upgrade Kit				
	AC1	A2RP	Initial	
	MC1		Initial	
IBM System x3300 Simple-Swap SATA Kit 4x3.5"				
	AC1	A2SB	Initial	
	MC1		Initial	
IBM System x3300 2nd 2.5" HS Upgrade Kit				
	AC1	A2SF	Initial	
	MC1		Initial	
Redundant System FAN				
	AC1	A2SJ	Initial	
	MC1		Initial	
Tower to Rack Kit				
	AC1	A2SK	Initial	
	MC1		Initial	

Single Entity Offerings (SEO)

Description	SEO Number
System x3300 M4	7382A2U 7382B2U 7382C2U 7382D2U 7382D4U 7382F2U
System x3300 M4 Express	7382EAU 7382EBU 7382ECU

Option SEOs

Description	Part
IBM System x3300 3.5" HS Kit for HW/SW RAID	00D2591
Redundant System FAN	00D2593
Tower to Rack Kit	00D2594
IBM System x3300 Simple-Swap SATA Kit 4x3.5"	00D2590
IBM System x3300 2nd 2.5" HS Upgrade Kit	00D2592
Intel Xeon Processor E5-2403 4C 1.8GHz 10MB Cache 1066MHz 80W	00D2581
Intel Xeon Processor E5-2407 4C 2.2GHz 10MB Cache 1066MHz 80W	00D2582
Intel Xeon Processor E5-2420 6C 1.9GHz 15MB Cache 1333MHz 95W	00D2583
Intel Xeon Processor E5-2430 6C 2.2GHz 15MB Cache 1333MHz 95W	00D2584
Intel Xeon Processor E5-2440 6C 2.4GHz 15MB Cache 1333MHz 95W	00D2585
Intel Xeon Processor E5-2430L 6C 2.0GHz 15MB Cache 1333MHz 60W	00D2586
Intel Xeon Processor E5-2450L 8C 1.8GHz 20MB Cache 1600MHz 70W	00D2587
Intel Xeon Processor E5-2450 8C 2.1GHz 20MB Cache 1600MHz 95W	00D2588
Intel Xeon Processor E5-2470 8C 2.3GHz 20MB Cache 1600MHz 95W	00D2589

Maintenance charges

For additional information on maintenance and pricing, please contact your IBM Sales Representative or your IBM Business Partner, or call 1-800-IBM-CALL (1-800-426-2255).

For ServiceElect (ESA) maintenance service charges, contact IBM Global Services at 888-IBM-4343 (426-4343).

ServicePac for Warranty and Maintenance

Refer to the following IBM website for applicable ServicePac information

http://www-935.ibm.com/services/us/its/html/servicepac_americas.html

Machine	Service Description	ServicePac SEO	ServicePac MTM
7382	3 Year Onsite Repair 9x5 4 Hour Response	46Y1608	675684C
7382	3 Year Onsite Repair 24x7 4 Hour Response	46Y1609	675684D

7382	3 Year Onsite Repair 24x7 2 Hour Response	46Y1610	675684F
7382	4 Year Onsite Repair 9x5 Next Business Day	46Y1611	675684G
7382	4 Year Onsite Repair 9x5 4 Hour Response	46Y1612	675684H
7382	4 Year Onsite Repair 24x7 4 Hour Response	46Y1613	675684J
7382	4 Year Onsite Repair 24x7 2 Hour Response	46Y1614	675684K
7382	5 Year Onsite Repair 9x5 Next Business Day	46Y1615	675684M
7382	5 Year Onsite Repair 9x5 4 Hour Response	46Y1616	675684N
7382	5 Year Onsite Repair 24x7 4 Hour Response	46Y1617	675684P
7382	5 Year Onsite Repair 24x7 2 Hour Response	46Y1618	675684Q
7382	3 Year Onsite Repair 24x7 4 Hour Response with HDDR	46Y1619	675684R
7382	4 Year Onsite Repair 24x7 4 Hour Response with HDDR	46Y1620	675684S
7382	4 Year Onsite Repair 9x5 Next Business Day with HDDR	46Y1621	675684T
7382	5 Year Onsite Repair 24x7 4 Hour Response with HDDR	46Y1622	675684U
7382	5 Year Onsite Repair 9x5 Next Business Day Response	46Y1623	675684V

SERVICEPAC FOR Maintenance Agreement

7382	1 Year Onsite Repair 9x5 Next Business Day	46Y1624	6756F2A
7382	1 Year Onsite Repair 9x5 4 Hour Response	46Y1625	6756F2B
7382	1 Year Onsite Repair 24x7 4 Hour Response	46Y1626	6756F2C
7382	1 Year Onsite Repair 24x7 2 Hour Response	46Y1627	6756F3D
7382	2 Year Onsite Repair 9x5 Next Business Day	46Y1628	6756F2F
7382	2 Year Onsite Repair 9x5 4 Hour Response	46Y1629	6756F2G
7382	2 Year Onsite Repair 24x7 4 Hour Response	46Y1630	6756F2H
7382	2 Year Onsite Repair 24x7 2 Hour Response	46Y1631	6756F2J
7382	1 Year Onsite Repair 24x7 4 Hour Response with HDDR	46Y1632	6756F2K
7382	2 Year Onsite Repair 24x7 4 Hour Response with HDDR	46Y1633	6756F2M
7382	1 Year Onsite Repair 9x5 Next Business Day with HDDR	46Y1634	6756F2N
7382	2 Year Onsite Repair 9x5 Next Business Day with HDDR	46Y1635	6756F2P

SERVICEPAC FOR Essential Support: Warranty and Maintenance Option plus Remote Technical Support

7382	3 Year Essential Support 24x7 4 Hour Response	46Y1636	N/A

SERVICEPAC FOR Essential Support: Maintenance plus Remote Technical Support

7382	1 Year Essential Support 24x7 4 Hour Response	46Y1637	N/A
7382	1 Year Essential Support 9x5 Next Business Day Response	46Y1638	N/A

These ServicePac offerings are valid for models announced in the United States.

Refer to the following IBM website for applicable ServicePac information

https://www-304.ibm.com/sales/gss/download/spst/servicepac/extProductSelectorWWW.do

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