

IBM Flex System Manager Node is a high-performance component systems management appliance for IBM Flex System

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At a glance



IBM® Flex System is a new category of computing that integrates multiple server architectures, networking, storage, and system management capability into a single system.

Offerings in this announcement will include:

- IBM Flex System Enterprise Chassis
- IBM Flex System Manager Node
- IBM Flex System Compute Nodes
- IBM Flex System Scalable Network and Storage Switches

The IBM Flex System Manager Node plays an important role in managing the various components of the IBM Flex System.

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

Overview

IBM Flex System Manager is the next generation of smarter computing that integrates multiple server architectures, networking, storage, and system management capability into a single system that is easy to deploy and manage. IBM Flex System Manager has full, built-in virtualization support of servers, storage, and networking to speed provisioning and increase resiliency. In addition, it supports open industry standards such as operating systems, networking and storage fabrics, virtualization, and system management protocols, to easily fit within existing and future datacenter environments. IBM Flex System Manager is scalable and extendable with multigeneration upgrades to protect and maximize IT investments.

IBM Flex System gives forward-thinking companies a way to completely rethink deployment and management of their IT environments; it offers an opportunity to evolve to a more open, agile, and integrated computing system that is dynamically managed from a single vantage point to simultaneously maximize efficiency and innovation.

By doing this, companies can achieve the following benefits:

- Improve efficiency and utilization through integration
- Optimize heterogeneous environments by providing the right architecture for the right workload
- Increase speed and dexterity at the enterprise level
- Improve control through simplicity, automation, compliance, and security
- Improve economics with faster time-to-value through real-time scalability
- Deliver insights faster to gain a competitive advantage

Key prerequisites

An IBM Flex System Enterprise Chassis and a compute node that supports the IBM 8731 Flex System Manager Node.

Planned availability date

May 21, 2012

Description

IBM Flex System Manager Node is a systems management appliance that drives efficiency and cost-savings in the datacenter. It provides a preintegrated and virtualized management environment across servers, storage, and networking that is easily managed from a single pane of glass. A single focus point for seamless multichassis management provides an instant resource-oriented view of chassis and chassis resources for both IBM System x® servers and the IBM Power Systems™ family of servers. Reduce the number of interfaces, steps, and clicks it takes to manage IT resources. Intelligently manage and deploy workloads based on resource availability and predefined policies. Manage events and alerts to increase system availability and reduce downtime. Drive energy savings and help reduce operational costs.

The main features in IBM Flex System Manager Node are:

Monitoring and problem determination

- A real-time multichassis view of hardware components with overlays for additional information
- Automatic detection of issues in your environment by setting up events that trigger alerts and actions
- Identification of changes that may impact availability
- Server resource utilization by virtual machine or across a rack of systems

Hardware management

- Automated discovery of physical and virtual servers and interconnections, applications, and supported third-party networking and energy monitoring systems
- Inventory of hardware components
- Chassis and hardware component views

- Hardware properties
- Component names/hardware identification numbers
- Firmware levels
- Energy usage and power consumptions
- Utilization rates
- Temperature readings

Network management

- Management of network switches from a variety of vendors
- Discovery, inventory, and status monitoring of switches
- Graphical network topology views
- Support for KVM, pHyp, and VMware virtual switches and physical switches
- VLAN configuration of switches
- Integration with server management
- Per-virtual machine network usage and performance statistic to VMControl
- Logical views of servers and network devices grouped by subnet and VLAN

Storage management

- Storage can also be consolidated onto a Flex System Manager platform or users can virtualize the integrated enterprise storage with other multivendor storage systems within the existing environment, and then control all virtualized storage resources from the Flex platform.

Energy management

- Predictive analysis and reporting including energy use, thermal output, and server resource performance analysis
- Cost savings calculator to drive maximum cost reductions
- Energy thresholds to cap the amount of energy being used

Virtualization and workload management

- IT organizations can consolidate workloads onto Flex Systems Manager platform to gain integrated, flexible IT for superior economics, managed by a single point of management.
 - Consolidate physical infrastructure or applications onto fewer servers
 - Deploy new or existing workload onto Linux™, Windows™, or competitive platforms
 - Upgrade current rack or blade infrastructure to an integrated environment
 - Optimize the performance of applications by migrating them to Flex System Manager
 - Optimize or upgrade high-value, noninfrastructure workloads such as ERP, CRM, data warehousing, or analytics
 - Move into advanced stages of virtualization or a private cloud deployment
 - Rapidly deploy new workloads

Additional features:

- Resource-oriented chassis map provides instant graphical view of chassis resources including blades and I/O modules
 - Fly-over provides instant view of individual blade (node) status and inventory
 - Chassis map provides inventory view of chassis components, a view of active status requiring administrative attention, and a compliance view of blade (node) firmware

- Actions that be taken on nodes include work with server related resources, show and install updates, submit service requests, and launch into the remote access tools
- Remote console
 - Open video sessions and mount media like DVDs with software updates to their blades from their local workstation
 - Remote Keyboard, Video, Mouse (KVM) connections
 - Remote Virtual Media connections (mount CD/DVD/ISO/USB media)
 - Power operations against servers (Power On/Off/Restart)
- Hardware inventory detection and creation
- Firmware compliance and updates
- Automatic detection of hardware failures
 - Provides alerts
 - Takes corrective action
 - Notifies IBM of problems to escalate problem determination
- Health status on all hardware devices is provided from a single chassis view such as energy usage, CPU utilization, LED indicators, and so on
- Administrative capabilities such as setting up users within profile groups, assigning security levels, security governance, and so on

IBM Flex System management devices

Flex System Manager Node

This is a high-performance, multiprocessor management appliance based on the IBM Flex System Compute Nodes. A functioning Flex System Manager Node system consists of at least two machine types. An IBM Flex System Enterprise Chassis, and one or more compute nodes. Flex System Manager Node is not compatible with previous BladeCenter® Chassis hardware BladeCenter H-R, BladeCenter S, BladeCenter E-R, and BladeCenter HT.

Flex System Manager Node includes a preloaded software stack. This software enables you to manage the hardware resources in up to four IBM Flex System Enterprise Chassis.

When a Flex System Manager Node is installed in IBM Flex System Enterprise Chassis, it is the main access point for chassis management for the chassis and chassis components. It provides information as obtained directly from a managed node rather than using the chassis management module as an intermediate aggregator.

The Flex System Manger Node features:

- Provides notifications through event action plans and notifications from the managed nodes.
- Configures the managed nodes and chassis management modules to send notifications to it.
- Collects inventory information from the managed nodes and chassis management modules in the chassis in its management domain.
- Displays inventory information and Vital Parts Data (VPD) for monitored components and a consolidated event log.
- Disables call-home from the chassis management modules that are configured to call home so that duplicate messages do not occur. When problems are indicated to be called home by the managed node, it collects Dynamic System Analysis (DSA) information from the managed node and chassis management module service data. If the DSA information cannot be obtained, service data from the service processor will be collected.
- High-density, scalable management node suited for high performance and virtualized environments.
- Supported in the IBM Flex System Enterprise Chassis only.

Accessibility by people with disabilities

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at

http://www.ibm.com/able/product_accessibility/index.html

Product positioning

IBM Flex System suits multiple delivery models from highly customizable hardware platforms to a fully integrated and optimized system.

- IBM Flex System Hardware "building blocks" are made up of individual components that can be mixed, matched, and fully customizable with optional management
- IBM Flex System Solutions consist of the chassis with integrated management appliance, IBM networking, and storage standard
- IBM Flex System Optimized offerings are preconfigured, highly customized systems focused on selected workloads or single-purpose such as IBM PureScale or IBM CloudBurst®

Statement of General Direction

- IBM plans to provide future upgrade offerings to enhance customer value in their new IBM PureFlex System investments as technology advancements are introduced. The availability details regarding these upgrade offerings will be made available in future announcements and communications.
- To enable efficient access to these optional future upgrade offerings, customers should enable delivery of their IBM PureFlex System inventory to IBM through Electronic Service Agent™.
- IBM intends to update IBM Flex System Manager by providing enhanced capabilities in the following areas: hardware provisioning; energy management; integrated security and security policy management; integrated fabric monitoring; and increased scalability of management.
- IBM further plans to introduce a new software product that would enhance the resiliency of IBM Flex System Manager.

IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM's sole discretion. Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.

Product number

The following are newly announced features on the specified models of the IBM xSeries® 8731 machine type:

Description	MT	Model	Feature
8731-AC1	8731	AC1	
UID Asset Tag Label	8731	AC1	0747
EMEA Long Leadtime Configurations	8731	AC1	1763

Hungary CHW plant 9SH	8731	AC1	1764
Guad CHW plant 9KQ	8731	AC1	1765
ISTC CHW 9K2	8731	AC1	1766
RTP CHW 9NR	8731	AC1	1767
Offload Manufacturing to Guadalajara HVEC	8731	AC1	1768
Offload Manufacturing to RTP HVEC	8731	AC1	1769
Offload Manufacturing to ISTC	8731	AC1	1770
Routing for AP Foxconn	8731	AC1	1771
Capacity Scheduling Service	8731	AC1	1772
Custom SLA Scheduling Service	8731	AC1	1796
Custom Asset Tagging - Standard	8731	AC1	2200
Custom Asset Tagging - Enhanced	8731	AC1	2201
Custom Image Load - Server	8731	AC1	2204
Request for Global Trade Number (UPC or EAN)	8731	AC1	2207
Custom Labeling	8731	AC1	2220
Custom Palletization	8731	AC1	2221
Request for a new Vendor Logo Hardware	8731	AC1	2247
Request for an existing IBM Feature	8731	AC1	2248
Request for an existing Public RPQ	8731	AC1	2249
RAID Configuration	8731	AC1	2302
Rack 01	8731	AC1	3101
Rack 02	8731	AC1	3102
Rack 03	8731	AC1	3103
Rack 04	8731	AC1	3104
Rack 05	8731	AC1	3105
Rack 06	8731	AC1	3106
Rack 07	8731	AC1	3107
Rack 08	8731	AC1	3108
Rack 09	8731	AC1	3109
Rack 10	8731	AC1	3110
Rack 11	8731	AC1	3111
Rack 12	8731	AC1	3112
Rack 13	8731	AC1	3113
Rack 14	8731	AC1	3114
Rack 15	8731	AC1	3115
Rack 16	8731	AC1	3116
Rack 17	8731	AC1	3117
Rack 18	8731	AC1	3118
Rack 19	8731	AC1	3119
Rack 20	8731	AC1	3120
Rack 21	8731	AC1	3121
Rack 22	8731	AC1	3122
Rack 23	8731	AC1	3123
Rack 24	8731	AC1	3124
Rack 25	8731	AC1	3125
Rack 26	8731	AC1	3126
Rack 27	8731	AC1	3127
Rack 28	8731	AC1	3128
Rack 29	8731	AC1	3129
Rack 30	8731	AC1	3130
Rack 31	8731	AC1	3131
Rack 32	8731	AC1	3132
Rack 33	8731	AC1	3133
Rack 34	8731	AC1	3134
Rack 35	8731	AC1	3135
Rack 36	8731	AC1	3136
Rack 37	8731	AC1	3137
Rack 38	8731	AC1	3138
Rack 39	8731	AC1	3139
Rack 40	8731	AC1	3140
Rack 41	8731	AC1	3141
Rack 42	8731	AC1	3142
Rack 43	8731	AC1	3143
Rack 44	8731	AC1	3144
Rack 45	8731	AC1	3145
Rack 46	8731	AC1	3146
Rack 47	8731	AC1	3147
Rack 48	8731	AC1	3148
Rack 49	8731	AC1	3149
Rack 50	8731	AC1	3150
Rack 51	8731	AC1	3151
Rack 52	8731	AC1	3152
Rack 53	8731	AC1	3153
Rack 54	8731	AC1	3154

Rack 55	8731	AC1	3155
Rack 56	8731	AC1	3156
Rack 57	8731	AC1	3157
Rack 58	8731	AC1	3158
Rack 59	8731	AC1	3159
Rack 60	8731	AC1	3160
Rack 61	8731	AC1	3161
Rack 62	8731	AC1	3162
Rack 63	8731	AC1	3163
Rack 64	8731	AC1	3164
BladeCenter 01	8731	AC1	3301
BladeCenter 02	8731	AC1	3302
BladeCenter 03	8731	AC1	3303
BladeCenter 04	8731	AC1	3304
BladeCenter 05	8731	AC1	3305
BladeCenter 06	8731	AC1	3306
BladeCenter 07	8731	AC1	3307
BladeCenter 08	8731	AC1	3308
BladeCenter 09	8731	AC1	3309
BladeCenter 10	8731	AC1	3310
BladeCenter 11	8731	AC1	3311
BladeCenter 12	8731	AC1	3312
BladeCenter 13	8731	AC1	3313
BladeCenter 14	8731	AC1	3314
BladeCenter 15	8731	AC1	3315
BladeCenter 16	8731	AC1	3316
BladeCenter 17	8731	AC1	3317
BladeCenter 18	8731	AC1	3318
BladeCenter 19	8731	AC1	3319
BladeCenter 20	8731	AC1	3320
BladeCenter 21	8731	AC1	3321
BladeCenter 22	8731	AC1	3322
BladeCenter 23	8731	AC1	3323
BladeCenter 24	8731	AC1	3324
BladeCenter 25	8731	AC1	3325
BladeCenter 26	8731	AC1	3326
BladeCenter 27	8731	AC1	3327
BladeCenter 28	8731	AC1	3328
BladeCenter 29	8731	AC1	3329
BladeCenter 30	8731	AC1	3330
BladeCenter 31	8731	AC1	3331
BladeCenter 32	8731	AC1	3332
BladeCenter 33	8731	AC1	3333
BladeCenter 34	8731	AC1	3334
BladeCenter 35	8731	AC1	3335
BladeCenter 36	8731	AC1	3336
BladeCenter 37	8731	AC1	3337
BladeCenter 38	8731	AC1	3338
BladeCenter 39	8731	AC1	3339
BladeCenter 40	8731	AC1	3340
BladeCenter location 01	8731	AC1	3401
BladeCenter location 02	8731	AC1	3402
BladeCenter location 03	8731	AC1	3403
BladeCenter location 04	8731	AC1	3404
BladeCenter location 05	8731	AC1	3405
BladeCenter location 06	8731	AC1	3406
BladeCenter location 07	8731	AC1	3407
BladeCenter location 08	8731	AC1	3408
BladeCenter location 09	8731	AC1	3409
BladeCenter location 10	8731	AC1	3410
BladeCenter location 11	8731	AC1	3411
BladeCenter location 12	8731	AC1	3412
BladeCenter location 13	8731	AC1	3413
BladeCenter location 14	8731	AC1	3414
IBM 200GB SATA 1.8" MLC SSD	8731	AC1	5420
Select Storage devices - IBM-configured RAID	8731	AC1	5978
SOFS Solution Code MFG Instruction	8731	AC1	6124
SAP-BWA Solution Code MFG Instruction	8731	AC1	6125
InfoSphere-BWA Solution Code MFG Instruction	8731	AC1	6126
GMAS Solution Code MFG Instruction	8731	AC1	6127
IBW-SSD Solution Code MFG Instruction	8731	AC1	6128
Cloudburst Solution Code MFG Instruction	8731	AC1	6129
SONAS Solution Code MFG Instruction	8731	AC1	6130
Customer Solution Center Services	8731	AC1	7831

Integrated Solid State Striping	8731	AC1	7860
e1350 Special Bid Solution Component	8731	AC1	7929
Consolidate Shipment	8731	AC1	8031
e1350 Solution Component	8731	AC1	8034
Compute Node	8731	AC1	8036
Management Node	8731	AC1	8037
Storage Node	8731	AC1	8038
TAA Compliant Order	8731	AC1	8067
General Racking Solution	8731	AC1	8072
Integrate BladeCenter in Manufacturing	8731	AC1	8077
4GB (1x4GB, 1Rx4, 1.35V) PC3L-10600 CL9 ECC DDR3			
1333MHz LP RDIMM	8731	AC1	8941
Preload Specify	8731	AC1	9200
Red Hat Specify	8731	AC1	9202
Preload by Hardware Feature Specify	8731	AC1	9220
System x Cluster Upgrade	8731	AC1	A103
IBM Flex System Manager Node Label	8731	AC1	A1AP
IBM Flex System Manager Node with embedded 10Gb			
Virtual Fabric	8731	AC1	A1AQ
IBM Flex System Manager Node Backplane	8731	AC1	A1AU
IBM 1TB 7.2K 6Gbps NL SATA 2.5" SFF HS HDD	8731	AC1	A1AV
System Documentation and Software-US English	8731	AC1	A1AW
IBM Flex System Compute Node WW packaging -			
Standard	8731	AC1	A1BA
IBM Flex System x240 Compute Node Cover	8731	AC1	A1BJ
IBM Flex System x240 Compute Node CPU Filler	8731	AC1	A1BK
Intel Xeon Processor E5-2650 8C 2.0GHz 20MB Cache			
1600MHz 95W	8731	AC1	A1CW
IBM Flex System x240 Compute Node Air Baffle	8731	AC1	A248
IBM Flex System Manager Node Front Fascia	8731	AC1	A26L
IBM Flex System Compute Node Fabric Connector	8731	AC1	A26R
RFID Tag, AG/AP: 902-928Mhz	8731	AC1	A2EV
IBM Flex System Manager	8731	AC1	A2GZ
IBM Flex System Manager Advanced	8731	AC1	A2H0
IBM Flex System Manager Software Stack	8731	AC1	A2H4
PureFlex System Express® Indicator	8731	AC1	A2VS
PureFlex System Standard Indicator	8731	AC1	A2VT
PureFlex System Enterprise Indicator	8731	AC1	A2VU
Flex System Enterprise Chassis Advanced Indicator	8731	AC1	A2VV
PureFlex System Expansion Indicator	8731	AC1	A34H

Description SEO

IBM Flex System Manager Node 8731A1U

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
4279	8731-AC1 Routing Code

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=112-068>

Publications

The *Installation and Service Guide*, and *User's Guide* for IBM Flex System Manager Node solutions, in US English versions, are available from

<https://www-304.ibm.com/systems/support/>

Under "Product Support", select "System x", and under "Find a Product" select your product and "Documentation."

IBM Systems Information Center provide you with a single site where you can access product documentation for IBM systems hardware, operating systems, and server software. Through a consistent framework, you can efficiently find information and personalize your access. The IBM Systems information Centers are at

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

Services

Global Technology Services

IBM services include business consulting, outsourcing, hosting services, applications, and other technology management.

These services help you learn about, plan, install, manage, or optimize your IT infrastructure to be an on-demand business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for IBM and many non-IBM offerings. IBM is your one-stop shop for IT support needs.

For details on available services, contact your IBM representative or visit

<http://www.ibm.com/services/>

For details on available IBM Business Continuity and Recovery Services, contact your IBM representative or visit

<http://www.ibm.com/services/continuity>

For details on education offerings related to specific products, visit

<http://www.ibm.com/services/learning/index.html>

Select your country, and then select the product as the category.

System x , BladeCenter , and Flex System support services

Recommended core technical support

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 is 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 will help you get started with a core support package that includes:

- **Continuous system monitoring**
Electronic monitoring that helps speed up problem-solving with automated, early detection of potential problems and system errors.
- **Hardware maintenance**

World-class remote and on-site hardware problem determination and repair services.

- **Software technical support**

Access to help line calls for fast, accurate answers to your questions during installation and throughout ongoing operations.

For more information, visit

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

Technical information

Specified operating environment

Physical specifications - IBM Flex System Manager Node

8731-A1x

Processor	Intel Xeon™ E5-2650 8C 2.0 GHz (95W)
Internal speed	2.0 GHz
Maximum memory speed	1600 MHz
CPU Interconnect speed	8.0 GT/s
Number standard	1
L3 cache (full speed)	20 MB
Memory (LP ECC DDR3)	32 GB
DIMMs (Standard)	8 x 4 GB
Disk controller	SAS
HDD	
Hot-swap (2.5-in)	1 TB
Hot-swap (1.8-in)	400 GB (2 x 200 GB SSD)

Standards

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
- NOM-019
- Argentina IEC 60950-1

Operating environment

The IBM Flex System Manager Node products are designed to operate in a general business environment, such as a Class A or A1, temperature and humidity-controlled room.

- Temperature:
 - 10.0°C - 35.0°C (50°F - 95°F) (server on)
 - 0.0°C - 60.0°C (-32°F - 140°F) (server off)
- Relative humidity: 10% to 80%
- Maximum altitude: 3,048 m (10,000 ft) at 28°C. Decrease maximum altitude by 1,000 ft for every 1°C increase in ambient temperature up to 3,000 ft at 35°C ambient.
- Declared noise level: 5.7 bels (idling)

Power requirements

The IBM Flex System Manager ITE (Information Technology Element) does not have internal power and cooling. It receives power and cooling from the IBM Flex System

Enterprise Chassis (8731-A1x) Redundant power is available as an optional feature on the 8731-A1x.

Line cords are not supported on the IBM Flex System Manager ITE.

Hardware requirements

- Each IBM Flex System Manager Node must have access to a display, a keyboard, and a mouse. The keyboard and mouse are not supported by or attached to the FSM. They are attached to the IBM Flex System Enterprise Chassis.
- The IBM Flex System Manager Node requires a compute node and a Flex System Enterprise Chassis.
- The IBM Flex System Manager Node is a half-wide node; a maximum of 14 IBM Flex System Manager Nodes can be placed in the IBM Flex System Enterprise Chassis.
- Processor
 - The 8731 Flex System Manager Node contains one nonfeaturized processor.
- Memory
 - 8 x 4 GB memory required. System minimum and maximum is 32 GB.
- Storage devices
 - The Flex System Manager Node does not support removable media. Each 8731 contains two IBM 200 GB 1.8-inch SATA solid-state drives and one 1 TB 7.2K rpm 2.5-inch SATA disk drive. No other storage devices are supported.
- PCI expansion cards
 - None supported.
- System/USB/Ethernet ports
 - Serial over LAN (SOL) and cKVM (concurrent keyboard, video, mouse).
 - Five USB ports.
 - Two 1 Gb and two 10 Gb Ethernet ports.
- Software preinstallation -- Optionally select from the following software indicators, each of which has a maximum of four:
 - FSM Platform Software Bundle Pre-load Indicator
 - FSM Platform Virtualization Software Bundle Pre-load Indicator
 - FSM Platform High Availability Software Bundle Pre-load Indicator

Software requirements

None required.

Limitations

The IBM Flex System Manager Node supports four fully loaded chassis with up to 5,000 end points. An additional Flex System Manager Node is required for each group of one to four additional chassis under management.

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 it can be subjected to, documented as Total Bytes Written (TBW). 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 respond to system generated commands or become incapable of being written to. Additional information is available at

<http://www-03.ibm.com/systems/x/options/storage/solidstate/index.html>

Planning information

Cable orders

No cables required

Supplies

None

Security, auditability, and control

This offering uses the security and auditability features from standard IBM offerings and supported Linux distributions.

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

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

- Three years
- Optional features - One year

Note: For configurations that support the RAID battery, the RAID battery will be warranted for 1 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.

The following have been designated as consumables, supply items, or structural parts and therefore not covered by this warranty:

- Top cover and label
- Air baffle, Above DIMM
- Handle
- FSM facia assembly kit
- HDD cage assembly
- Rear bulkhead assembly

- Blank EMC Filler assembly
- 1.8-inch SSD filler

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 designated for your Machine.

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 or features have been designated as Tier 1 CRUs:

- Miscellaneous parts kit
- FSM label kit
- HDDs / SSDs
- USB Hypervisor
- Mezz Cards / adapters
- Cables
- Memory DIMMs
- Two 1.8-inch Cage or Interposer cards
- Demi backplane HDD/SSD
- ETE daughter card
- Periscope receptacle, 3x8 double ended
- Indicator panel, front
- 3.0 Volt battery

On-site Service

At IBM's discretion you will receive CRU service or IBM or your reseller will repair the failing machine at your location and verify its operation. If required, On-site Repair is provided, 9 hours per day, Monday through Friday excluding holidays,

NBD response. 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?Indocid=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 2 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 designated for your machine.

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-304.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.

Access to IBM Flex System fix downloads will be granted upon entitlement validation. The terms and conditions for fixes will be covered under the License Agreement for Machine Code, International Program License Agreement, International License Agreement for Non-Warranted Programs and/or other terms provided with the fix, as applicable.

Educational allowance

None

Prices

For current prices, contact IBM at 888-Shop-IBM (746-7426) or visit
<http://www-03.ibm.com/systems/x/>

Description	Model Number	Feature Number	Initial/ MES/ Both/ Support	CSU
IBM Flex System Manager	AC1			Yes
UID Asset Tag Label	AC1	0747	Initial	
EMEA Long Leadtime Configurations	AC1	1763	Initial	
Hungary CHW plant 9SH	AC1	1764	Initial	
Guad CHW plant 9KQ	AC1	1765	Initial	
ISTC CHW 9K2	AC1	1766	Initial	
RTP CHW 9NR	AC1	1767	Initial	
Offload Manufacturing to Guadalajara	AC1	HVEC 1768	Initial	
Offload Manufacturing to RTP	AC1	HVEC 1769	Initial	
Offload Manufacturing to ISTC	AC1	1770	Initial	
Routing for AP Foxconn	AC1	1771	Initial	
Capacity Scheduling Service	AC1	1772	Initial	
Custom SLA Scheduling Service	AC1	1796	Initial	
Custom Asset Tagging - Standard	AC1	2200	Initial	
Custom Asset Tagging - Enhanced	AC1	2201	Initial	
Custom Image Load - Server	AC1	2204	Initial	
Request for Global Trade Number (UPC or EAN)	AC1	2207	Initial	
Custom Labeling	AC1	2220	Initial	
Custom Palletization	AC1	2221	Initial	
Request for a new Vendor Logo	AC1	Hardware 2247	Initial	
Request for an existing IBM Feature	AC1	2248	Initial	
Request for an existing Public RPO	AC1	2249	Initial	
RAID Configuration	AC1	2302	Initial	
Rack 01	AC1	3101	Initial	
Rack 02	AC1	3102	Initial	
Rack 03	AC1	3103	Initial	
Rack 04	AC1	3104	Initial	
Rack 05	AC1	3105	Initial	

Rack 06			
Rack 07	AC1	3106	Initial
Rack 08	AC1	3107	Initial
Rack 09	AC1	3108	Initial
Rack 10	AC1	3109	Initial
Rack 11	AC1	3110	Initial
Rack 12	AC1	3111	Initial
Rack 13	AC1	3112	Initial
Rack 14	AC1	3113	Initial
Rack 15	AC1	3114	Initial
Rack 16	AC1	3115	Initial
Rack 17	AC1	3116	Initial
Rack 18	AC1	3117	Initial
Rack 19	AC1	3118	Initial
Rack 20	AC1	3119	Initial
Rack 21	AC1	3120	Initial
Rack 22	AC1	3121	Initial
Rack 23	AC1	3122	Initial
Rack 24	AC1	3123	Initial
Rack 25	AC1	3124	Initial
Rack 26	AC1	3125	Initial
Rack 27	AC1	3126	Initial
Rack 28	AC1	3127	Initial
Rack 29	AC1	3128	Initial
Rack 30	AC1	3129	Initial
Rack 31	AC1	3130	Initial
Rack 32	AC1	3131	Initial
Rack 33	AC1	3132	Initial
Rack 34	AC1	3133	Initial
Rack 35	AC1	3134	Initial
Rack 36	AC1	3135	Initial
Rack 37	AC1	3136	Initial
Rack 38	AC1	3137	Initial
Rack 39	AC1	3138	Initial
Rack 40	AC1	3139	Initial
Rack 41	AC1	3140	Initial
Rack 42	AC1	3141	Initial
	AC1	3142	Initial

Rack 43			
Rack 44	AC1	3143	Initial
Rack 45	AC1	3144	Initial
Rack 46	AC1	3145	Initial
Rack 47	AC1	3146	Initial
Rack 48	AC1	3147	Initial
Rack 49	AC1	3148	Initial
Rack 50	AC1	3149	Initial
Rack 51	AC1	3150	Initial
Rack 52	AC1	3151	Initial
Rack 53	AC1	3152	Initial
Rack 54	AC1	3153	Initial
Rack 55	AC1	3154	Initial
Rack 56	AC1	3155	Initial
Rack 57	AC1	3156	Initial
Rack 58	AC1	3157	Initial
Rack 59	AC1	3158	Initial
Rack 60	AC1	3159	Initial
Rack 61	AC1	3160	Initial
Rack 62	AC1	3161	Initial
Rack 63	AC1	3162	Initial
Rack 64	AC1	3163	Initial
BladeCenter 01	AC1	3164	Initial
BladeCenter 02	AC1	3301	Initial
BladeCenter 03	AC1	3302	Initial
BladeCenter 04	AC1	3303	Initial
BladeCenter 05	AC1	3304	Initial
BladeCenter 06	AC1	3305	Initial
BladeCenter 07	AC1	3306	Initial
BladeCenter 08	AC1	3307	Initial
BladeCenter 09	AC1	3308	Initial
BladeCenter 10	AC1	3309	Initial
BladeCenter 11	AC1	3310	Initial
BladeCenter 12	AC1	3311	Initial
BladeCenter 13	AC1	3312	Initial
BladeCenter 14	AC1	3313	Initial
BladeCenter 15	AC1	3314	Initial
	AC1	3315	Initial

BladeCenter 16			
	AC1	3316	Initial
BladeCenter 17			
	AC1	3317	Initial
BladeCenter 18			
	AC1	3318	Initial
BladeCenter 19			
	AC1	3319	Initial
BladeCenter 20			
	AC1	3320	Initial
BladeCenter 21			
	AC1	3321	Initial
BladeCenter 22			
	AC1	3322	Initial
BladeCenter 23			
	AC1	3323	Initial
BladeCenter 24			
	AC1	3324	Initial
BladeCenter 25			
	AC1	3325	Initial
BladeCenter 26			
	AC1	3326	Initial
BladeCenter 27			
	AC1	3327	Initial
BladeCenter 28			
	AC1	3328	Initial
BladeCenter 29			
	AC1	3329	Initial
BladeCenter 30			
	AC1	3330	Initial
BladeCenter 31			
	AC1	3331	Initial
BladeCenter 32			
	AC1	3332	Initial
BladeCenter 33			
	AC1	3333	Initial
BladeCenter 34			
	AC1	3334	Initial
BladeCenter 35			
	AC1	3335	Initial
BladeCenter 36			
	AC1	3336	Initial
BladeCenter 37			
	AC1	3337	Initial
BladeCenter 38			
	AC1	3338	Initial
BladeCenter 39			
	AC1	3339	Initial
BladeCenter 40			
	AC1	3340	Initial
BladeCenter location 01			
	AC1	3401	Initial
BladeCenter location 02			
	AC1	3402	Initial
BladeCenter location 03			
	AC1	3403	Initial
BladeCenter location 04			
	AC1	3404	Initial
BladeCenter location 05			
	AC1	3405	Initial
BladeCenter location 06			
	AC1	3406	Initial
BladeCenter location 07			
	AC1	3407	Initial
BladeCenter location 08			
	AC1	3408	Initial
BladeCenter location 09			
	AC1	3409	Initial
BladeCenter location 10			
	AC1	3410	Initial
BladeCenter location 11			
	AC1	3411	Initial
BladeCenter location 12			
	AC1	3412	Initial

BladeCenter location 13			
	AC1	3413	Initial
BladeCenter location 14			
	AC1	3414	Initial
IBM 200GB SATA 1.8" MLC SSD			
	AC1	5420	Initial
Select Storage devices - IBM-configured RAID			
	AC1	5978	Initial
SOFS Solution Code MFG Instruction			
	AC1	6124	Initial
SAP-BWA Solution Code MFG Instruction			
	AC1	6125	Initial
InfoSphere-BWA Solution Code MFG Instruction			
	AC1	6126	Initial
GMAS Solution Code MFG Instruction			
	AC1	6127	Initial
IBW-SSD Solution Code MFG Instruction			
	AC1	6128	Initial
Cloudburst Solution Code MFG Instruction			
	AC1	6129	Initial
SONAS Solution Code MFG Instruction			
	AC1	6130	Initial
Customer Solution Center Services			
	AC1	7831	Initial
Integrated Solid State Striping			
	AC1	7860	Initial
e1350 Special Bid Solution Component			
	AC1	7929	Initial
Consolidate Shipment			
	AC1	8031	Initial
e1350 Solution Component			
	AC1	8034	Initial
Compute Node			
	AC1	8036	Initial
Management Node			
	AC1	8037	Initial
Storage Node			
	AC1	8038	Initial
TAA Compliant Order			
	AC1	8067	Initial
General Racking Solution			
	AC1	8072	Initial
Integrate BladeCenter in Manufacturing			
	AC1	8077	Initial
4GB (1x4GB, 1Rx4, 1.35V) PC3L-10600 CL9 ECC DDR3 1333MHZ LP RDIMM			
	AC1	8941	Initial
Preload Specify			
	AC1	9200	Initial
Red Hat Specify			
	AC1	9202	Initial
Preload by Hardware Feature Specify			
	AC1	9220	Initial
System x Cluster Upgrade			
	AC1	A103	Initial
IBM Flex System Manager Node Label			
	AC1	A1AP	Initial
IBM Flex System Manager Node with embedded 10Gb Virtual Fabric			
	AC1	A1AQ	Initial
IBM Flex System Manager Node Backplane			
	AC1	A1AU	Initial
IBM 1TB 7.2K 6Gbps NL SATA 2.5" SFF HS HDD			
	AC1	A1AV	Initial
System Documentation and Software-US English			
	AC1	A1AW	Initial
IBM Flex System Compute Node WW packaging - Standard			
	AC1	A1BA	Initial
IBM Flex System x240 Compute Node Cover			
	AC1	A1BJ	Initial
IBM Flex System x240 Compute Node CPU Filler			

Intel Xeon Processor E5-2650	AC1	A1BK	Initial	
1600MHz 95W				
IBM Flex System x240 Compute Node	AC1	A1CW	Initial	
IBM Flex System Manager Node	AC1	A248	Initial	
IBM Flex System Compute Node	AC1	A26L	Initial	
RFID Tag, AG/AP: 902-928Mhz	AC1	A26R	Initial	
IBM Flex System Manager	AC1	A2EV	Initial	
IBM Flex System Manager Advanced	AC1	A2GZ	Initial	
IBM Flex System Manager Software Stack	AC1	A2H0	Initial	
PureFlex System Express Indicator	AC1	A2H4	Initial	
PureFlex System Standard Indicator	AC1	A2VS	Initial	
PureFlex System Enterprise Indicator	AC1	A2VT	Initial	
Flex System Enterprise Chassis Advanced Indicator	AC1	A2VU	Initial	
PureFlex System Expansion Indicator	AC1	A2VV	Initial	
	AC1	A34H	Initial	
Description	SEO	Initial/ MES/ Both/ Support	CSU	
	Numbers			
IBM Flex System Manager Node	8731A1U	Both	Yes	

ServicePac information

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

ServicePac for Warranty and Maintenance

		SEO	MTM
8731	3 Year Onsite Repair 9x5 4 Hour Response	00X8492	67567ZJ
8731	3 Year Onsite Repair 24x7 4 Hour Response	00X8493	67567ZK
8731	3 Year Onsite Repair 24x7 2 Hour Response	00X8494	67567ZM
8731	4 Year Onsite Repair 9x5 Next Business Day	00X8495	67567ZN
8731	4 Year Onsite Repair 9x5 4 Hour Response	00X8496	67567ZP
8731	4 Year Onsite Repair 24x7 4 Hour Response	00X8497	67567ZQ
8731	4 Year Onsite Repair 24x7 2 Hour Response	00X8498	67567ZR
8731	5 Year Onsite Repair 9x5 Next Business Day	00X8499	67567ZS
8731	5 Year Onsite Repair 9x5 4 Hour Response	00X8500	67567ZT
8731	5 Year Onsite Repair 24x7 4 Hour Response	00X8501	67567ZU
8731	5 Year Onsite Repair 24x7 2 Hour Response	00X8502	67567ZV
8731	3 Year Onsite Repair 24x7 4 Hour Response with HDDR	00X8503	67567ZW
8731	4 Year Onsite Repair 24x7 4 Hour Response with HDDR	00X8504	67567ZX
8731	4 Year Onsite Repair 9x5 Next Business Day Response with HDDR	00X8505	67567ZY
8731	5 Year Onsite Repair 24x7 4 Hour Response with HDDR	00X8506	67567ZZ
8731	5 Year Onsite Repair 9x5 Next Business Day Response with HDDR	00X8507	6756800

ServicePac for Maintenance Agreement

		SEO	MTM
8731	1 Year Onsite Repair 9x5 Next Business Day	00X8508	6756MXN
8731	1 Year Onsite Repair 9x5 4 Hour Response	00X8509	6756MXP
8731	1 Year Onsite Repair 24x7 4 Hour Response	00X8510	6756MXQ
8731	1 Year Onsite Repair 24x7 2 Hour Response	00X8511	6756MXR
8731	2 Year Onsite Repair 9x5 Next Business Day	00X8512	6756MXS
8731	2 Year Onsite Repair 9x5 4 Hour Response	00X8513	6756MXT
8731	2 Year Onsite Repair 24x7 4 Hour Response	00X8514	6756MXU
8731	2 Year Onsite Repair 24x7 2 Hour Response	00X8515	6756MXV
8731	1 Year Onsite Repair 24x7 4 Hour Response with HDDR	00X8516	6756MXW
8731	2 Year Onsite Repair 24x7 4 Hour Response with HDDR	00X8517	6756MXX
8731	1 Year Onsite Repair 9x5 Next Business Day Response with HDDR	00X8518	6756MXY
8731	2 Year Onsite Repair 9x5 Next Business Day with HDDR	00X8519	6756MXZ

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).

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Internet: callserv@ca.ibm.com
Mail: IBM Teleweb Customer Support
ibm.com® Sales Execution Center, Americas North
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Markham, Ontario
Canada
L3R 2Z1

Reference: YE001

The Americas Call Centers, our national direct marketing organization, can add your name to the mailing list for catalogs of IBM products.

Note: Shipments will begin after the planned availability date.

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