

Extra capacity with classic S/390 strengths



IBM S/390 Multiprise 3000 Enterprise Server



New help for smaller e-businesses

The IBM® S/390® Multiprise® 3000 Enterprise Server is a series of three powerful, flexible e-business servers designed specifically to meet the needs of small-to-medium businesses and corporate departments. IBM has taken proven, high-end technology from the S/390 G5/G6 family of servers and incorporated it in a compact, lower-cost server. The result is a server that can provide superior price/performance, greater capacity for growing workloads and simplified operations as well as the traditional S/390 strengths for handling mission-critical applications.

The Multiprise 3000 servers feature the high-performance S/390 I/O and storage subsystems, providing the throughput required for e-business applications. There are 12 slots for parallel or ESCON® adapters, providing high-speed access to disk arrays, tape drives and other peripherals. In addition, Multiprise 3000 servers integrate 100/10 Mbps Ethernet for LAN integration and provide seven

Highlights

- **Classic S/390 strengths of availability, scalability, security, flexibility and lower total cost of ownership**
- **Incorporates many leading-edge S/390 Generation 5/6 family features and functions**
- **Three models offer the capacity required for growing e-businesses**
- **Advanced Cryptographic Coprocessor available for secure processing**
- **Integrated Facility for Linux on Multiprise 3000 feature to enable Linux applications**
- **Web-based documentation, education and service support**
- **Supported by IBM's unmatched enterprise expertise and services**

industry-standard slots for additional connectivity options. And Multiprise 3000 servers support current versions of IBM's leading enterprise operating systems: z/OS™, OS/390®, z/VM™, VM/ESA® and VSE/ESA™.

Extra capacity at no extra cost

Multiprise 3000 servers deliver this technology in a package that can provide significant cost savings. Compared to previous Multiprise models, the Multiprise 3000 servers offer extra capacity at no extra cost. That means a company planning to upgrade in order to handle the growth of existing mission-critical workloads will find that a Multiprise 3000 server also provides the capacity to run essential new e-business solutions, all at a very affordable price.

In addition to allowing an organization to build on existing assets and skills, rather than face the cost and complexity of a different platform, running new and existing applications on a single server simplifies system management and can

enhance overall performance. And the Multiprise 3000 family offers a simplified pricing model that covers hardware, operating system and middleware. The result can be an even lower total cost of ownership.

Integrated Facility for Linux (IFL) on Multiprise 3000 Feature

This feature is designed to enable the fast implementation of Linux® workload on S/390 with no impact on the model designation and sometimes with little or no impact on a customer's existing software bill. With the availability of the IBM Integrated Facility for Linux on Multiprise 3000 servers, all S/390 customers can use the advantages of Linux for S/390 solutions integrated with the existing business applications on S/390. This feature adds a G5 architected processor to the Multiprise 3000 model H30 or H50 and brings the total memory of the Multiprise 3000 system to 4 GB.

And, of course, S/390 Multiprise 3000 Enterprise Servers come with the additional advantage of IBM's unmatched enterprise experience, technology leadership and broad range of e-business services. From helping you determine exactly which solution you need through installation and on to ensuring your server is available when you need it, IBM and certified IBM Business Partners around the world are available.

Many organizations can benefit from the installation of an S/390 Multiprise 3000 Enterprise Server. It can help lower operating costs while providing the capacity and performance required for exciting new e-business applications. And it offers packages that can make it easier and faster to move from business to e-business. To learn more about the S/390 Multiprise 3000 Enterprise Servers, please contact your IBM marketing representative, IBM Business Partner or visit ibm.com/servers/eserver/zseries.

| Feature | Benefit |
|--|--|
| S/390 G5/G6 family technology | <ul style="list-style-type: none">• Greatly expands performance levels for existing and new e-business applications• Helps lower total cost of ownership |
| Three easily configured models | <ul style="list-style-type: none">• More room for growth across the family as a server or client |
| Integrated 100/10 Mbps PCI Ethernet | <ul style="list-style-type: none">• Connects directly to existing Ethernet LANs |
| Four PCI and three ISA slots | <ul style="list-style-type: none">• Permits use of many industry-standard peripherals• Greater flexibility for connectivity |
| Up to 56 ESCON and/or parallel channels | <ul style="list-style-type: none">• Permits high-performance attachment of disk, tape and other peripherals• Supports existing S/390 peripherals |
| Up to 4 gigabytes (GB) or main memory | <ul style="list-style-type: none">• Allows faster performance for many applications• Provides growth options for increased capacity |
| Up to 792 GB Internal RAID-5 storage | <ul style="list-style-type: none">• Provides high availability of critical information• Provides exceptional growth options for handling e-business volumes |
| Integrated Facility for Linux on Multiprise 3000 | <ul style="list-style-type: none">• Provides customers with a platform to enable exciting new Linux applications |

S/390 Multiprise 3000 Enterprise Servers at a glance

Hardware models and number of processors

- S/390 Architecture
- 7060-H30 (1-way)
- 7060-H50 (1-way)
- 7060-H70 (1-way)

Integrated Facility For Linux (IFL) on Multiprise 3000 hardware processor configurations

- 7060 - H30 with - 1 way + 1 way for IFL
- 7060 - H50 with - 1 way + 1 way for IFL

Integrated Facility For Linux on Multiprise 3000 hardware processor and optional Crypto feature configurations

- 7060 - H30 with Crypto Feature - 1 way + 1 way for IFL
- 7060 - H50 with Crypto Feature - 1 way + 1 way for IFL

Note: IFL on Multiprise 3000 has a separate G5 architected processor for running Linux workloads.

Channels

| | |
|------------|------------------------|
| Minimum | 0/0 (Parallel/ESCON) |
| Maximum | 56/56 (Parallel/ESCON) |
| Increments | 2 |

ESCON

17MB/sec Channel
ESCON CTC Native and Basic Mode
ESCON Multiple Image Facility (EMIF)
Wide Area Connections (RS-232, X.21, V.35 and MultiPort Model 2)

Parallel Channel

Ethernet PCI adapter
Token-Ring PCI adapter
Emulated 3174 / 3274 support in non-SNA DFT mode
General
Channel maximums can be decreased by use of integrated PCI/ISA adapters

Processor Storage

| | |
|------------|---|
| Minimum | 1GB |
| Maximum | Up to 4GB |
| General | Central and expanded storage are user definable |
| Exceptions | H30 Max 1GB H50 Max 2GB H70 Max 4GB |

Note: When the Integrated Facility for Linux (IFL) on Multiprise 3000 is enabled, all systems have 4 GB of Processor Storage. This memory can be divided across the LPARs according to customer processing needs.

| | |
|--------------------------------------|--|
| Multiprise 3000 upgradability | H30 upgrades to H50 H50 upgrades to H70 H30 upgrades to H70 H30 with the IFL on Multiprise 3000 upgrades to a H50 with the IFL on Multiprise 3000 |
|--------------------------------------|--|

Physical configuration

| | |
|------------------------|---|
| Base Frame | Maximum Weight (unpacked) 236kg (520lbs) Footprint: .54 sq. meters (5.69 sq. Ft.) Service clearance: 4.1 sq. meters (43.6 sq. Ft.) Input power: 1.32kVA Heat output: 1020 watts (3468 BTU/hr) |
| Expansion Frame | Maximum Weight (unpacked) 232kg (510lbs) Footprint .54 sq. meters (5.69 sq. ft.) Service clearance: 4.1 sq. meters (43.6 sq. ft.) Input power: 1.32kVA Heat output: 1020 watts (3468 BTU/hr) |
| General | There are up to two expansion frames available with the base frame. Conforms to EIA guidelines for frames Employs standard 24-inch cage enclosures |

Software

| | |
|-----------------|------------------------------------|
| z/OS | V1R1 and subsequent |
| OS/390 | OS/390 Releases 2.4 and subsequent |
| VM | VM/ESA V2.2 and subsequent |
| VSE | VSE/ESA V2R2 and subsequent |
| Linux for S/390 | All releases |

Note: All platforms are supported for native and LPAR execution. When the Integrated Facility for Linux on Multiprise 3000 feature is applied, only LPAR execution is supported.

Internal Disk (GB)

| | |
|---------|--|
| Minimum | 0/0/0 (Base Frame/1st Expansion Frame/2nd Expansion Frame/Total) |
| Maximum | 216/288/288/792 |
| General | The maximums represent the amount of usable SSA RAID 5 DASD |

S/390 Multiprise 3000 Enterprise Server - Features*Integrated Facility for Linux on Multiprise 3000*

Advanced Cryptographic coprocessor

- Integrated Coupling Migration Facility (ICMF)
- Asynchronous Data Mover Facility (ADMF)
- Triple DES Cryptographic Support

- S/390 Architecture
- IEEE-FP
- High Capacity Internal DASD (RAID5)

Clustered systems

- Integrated Coupling Migration Facility (ICMF)
- Internal Coupling (IC) Channel

- Coupling Facility Control Code
- VM/ESA support of OS/390 Parallel Sysplex® environment

Availability

- N+1 power supply technology
- Spare memory chips
- CICS® subsystem storage project
- Independent dual utility power feeds
- Remote operations support
- System Assist Processor Reassignment
- Dynamic I/O Reconfigurator Management (DRM)
- Dual Instruction/Execution unit for each Central Processor
- Concurrent CFCC Maintenance
- Concurrent Disk Maintenance
- Concurrent power and thermal maintenance
- Concurrent Hardware Management Console (HMC) and Support Element (SE) maintenance
- Concurrent Licensed Internal Code (LIC) maintenance for CP, SAP®, PR/SM™, LPAR, ICMF, channels, HMC, SE, Power/Thermal

- N+1 cooling
- Dynamic memory sparing
- Internal Battery Feature
- CICS subspace group facility
- Cancel I/O requests
- Console Integration

| | | |
|-------------|---|--|
| PR/SM | <ul style="list-style-type: none"> • Automatic Reconfiguration Facility (ARF) • Multiple 2GB central storage LPARs • Multiple 2 GB central storage LPARs • Enhanced Dynamic Reconfiguration Management | <ul style="list-style-type: none"> • Up to 15 LPARs • Logical CP Vary On/Off • Resource Capping |
| Performance | <ul style="list-style-type: none"> • Hiperbatch™ • Check sum assist • Data spaces • Asynchronous page out facility • Hardware-assisted data compression • Immediate-and-relative instruction • Compare-and-move extended • Dedicated move page processor • Performed Locked Operation for enhanced IP performance • Up to 4GB memory allocated between central and expanded storage • IEEE binary floating point support for advanced Domino and Java™ performance | <ul style="list-style-type: none"> • Scalar square root functions • DB2® sort assist • SIE assist • Hipersorting • Enhanced move page facility • Called space identification • Storage Parity (internal disk) |
| ESCON | <ul style="list-style-type: none"> • ESCON CTC native and basic mode • ESCON Multiple Image Facility (EMIF) | <ul style="list-style-type: none"> • ESCON 17MB/sec channel |



Copyright IBM Corporation 2001

IBM Corporation
Integrated Marketing Communications,
Server Group
Route 100
Somers, NY 10589

Produced in the United States of America
10-01

All Rights Reserved

References in this publication to IBM products or services do not imply that IBM intends to make them available in every country in which IBM operates. Consult your local IBM business contact for information on the products, features, and services available in your area.

IBM, the IBM logo, CICS, DB2, ESCON, Hiperbatch, Multiprise, OS/390, Parallel Sysplex, PR/SM, S/390, VM/ESA, VSE/ESA, z/OS and z/VM are trademarks or registered Trademarks of International Business Machines Corporation.

Java and all Java-related trademarks and logos are trademarks of SUN Microsystems, Inc., in the United States and other countries.

Linux is a registered trademark of Linus Torvalds.

UNIX is a registered trademark of The Open Group.

Microsoft and Windows NT are trademarks of Microsoft Corporation in the United States, other countries or both.

Other company product and service names maybe trademarks or service marks of others.

IBM hardware products are manufactured from new parts, or new and serviceable used parts. Regardless, our warranty terms apply.

Photographs shown are of engineering prototypes. Changes may be incorporated in production models.

This equipment is subject to all applicable FCC rules and will comply with them upon delivery.

Information concerning non-IBM products was obtained from the suppliers of those products. Questions concerning those products should be directed to those suppliers.

All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics may vary by customer.

