

The ideal blade solution to replace your rack server



## IBM BladeCenter JS22 Express blade



BladeCenter JS22 Express blade server

Built on the promise of the IBM BladeCenter® family of products—easy-to-use, integrated platforms with a high degree of deployment flexibility, scalability and manageability—the BladeCenter JS22 Express is a premier SMB (Small and Medium Business) blade for 64-bit applications. It represents one of the most cost-efficient solutions for UNIX®, i and Linux® deployments available in the market. Further enhanced by its ability to be installed in the same chassis with other BladeCenter LS, HS and JS blade servers, the JS22 Express can deliver the rapid return on investment that small businesses demand.

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### Highlights

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- **For consolidating UNIX, i or Linux servers into a centralized BladeCenter infrastructure**
- **For business performance applications like smaller database, OLTP and Business Intelligence**
- **For HPC workloads such as weather forecasting, seismic processing, molecular dynamics and computational fluid dynamics**

The JS22 Express blade has been pre-configured and tested by IBM and is based on proven technology. Utilizing a 4.0 GHz 64-bit POWER6™ processor core and available in a 4-core configuration, it is designed to deliver outstanding performance at compelling



prices. With faster and more reliable double data rate 2 (DDR2) memory options and Serial Attached SCSI (SAS) disk subsystem, the BladeCenter JS22 Express is designed for increased uptime and enhanced performance. Along with built-in support for PowerVM™ Editions for advanced virtualization, the JS22 Express offers an ideal blade server solution for diverse needs from HPC, x86 Infrastructure consolidation and business performance applications like smaller databases, OLTP and Business Intelligence. Delivering outstanding deployment flexibility, the JS22 Express may be installed in the BladeCenter S, BladeCenter H or BladeCenter HT chassis to help optimize current and future investments.

The BladeCenter JS22 Express is a blade optimized for real-world solutions that impact the bottom line. Combining AIX® and Linux support with the high-speed BladeCenter H chassis, the JS22 Express delivers leadership SIMD acceleration for data-intensive or floating-point-intensive applications as well as HPC workloads such as weather forecasting, seismic processing, molecular dynamics and computational fluid dynamics. When combined with BladeCenter S chassis, it becomes



*BladeCenter S chassis*

an ideal solution for deploying blades in an office and distributed enterprise environment and is the perfect alternative to traditional rack servers.

With i support, small and medium clients can consolidate their System i™ and Intel® processor-based servers into a single chassis, leveraging the management, space and power savings provided by IBM BladeCenter solutions. Large or small enterprises can now consolidate their older i5/OS® applications into a centralized BladeCenter environment with a choice of BladeCenter chassis to fit their needs.

For managing a growing Web application infrastructure, the JS22 Express delivers exceptional performance and reliability features for Web serving environments with applications such as IBM WebSphere® on AIX. Combining the virtualization capabilities of the built-in PowerVM Editions with the density of BladeCenter chassis, the JS22 Express blade server can help to deliver one of the most cost-effective, rack-dense Web farm solutions in the industry. The JS22 Express also helps end the debate of price versus performance when migrating from rack-based to blade servers or consolidating older UNIX or Linux servers into a centralized BladeCenter infrastructure.

With virtualization support built-in, the JS22 Express serves as one of the most cost-efficient server consolidation solutions available.

Simplify. Cut costs. Boost productivity. Go green. They're all priorities for IT, and they're all driving organizations to

rethink their server strategies and become more receptive to new ways to use IT. Blades are the next-generation solution, promising improvements across the board. The IBM BladeCenter innovative, open design offers a true

alternative to today's sprawling racks and overheated server rooms. So toss your cables and take the leap. Migrate to the blade solution that uses less energy and gives more choices and control. You have nothing to lose but complexity. IBM BladeCenter is the right choice. Open. Easy. Green.

| Feature  | Benefits   |
|--|--|
| <b>Highly efficient and flexible design of IBM BladeCenter</b>                               | <ul style="list-style-type: none"> <li>• Densely pack more servers in a smaller space</li> <li>• Tailor system to meet varied business requirements with a choice of BladeCenter chassis</li> <li>• Lower acquisition cost and energy consumption versus traditional 1U or 2U rack servers</li> <li>• Integrate networking switch infrastructure for improved cabling and data center maintenance</li> <li>• Deploy in virtually any office environment for quiet, secure and contaminant-reduced operation</li> </ul> |
| <b>Pioneering EnergyScale technology and Systems Director Active Energy Manager software</b> | <ul style="list-style-type: none"> <li>• Generate less heat by managing application utilization and server energy consumption</li> <li>• Use less energy to cool the system</li> </ul>   |
| <b>Industry-leading PowerVM virtualization technology</b>                                    | <ul style="list-style-type: none"> <li>• Reduce infrastructure costs by doing more with fewer servers</li> <li>• Simplify IT operations to leverage storage, network and computing resources to control costs and be more responsive</li> </ul>  |
| <b>Innovative reliability features and systems management</b>                                | <ul style="list-style-type: none"> <li>• Expedite hardware repairs and reduce service time</li> <li>• Enable scheduled maintenance with proactive monitoring of critical system components to help reduce unplanned failures</li> </ul>  |
| <b>Choice of AIX, IBM i or Linux operating systems</b>                                       | <ul style="list-style-type: none"> <li>• Standardize on a single platform that runs the large and varied portfolio of applications that support your business</li> <li>• Take advantage of the power of IBM's industry-leading UNIX operating system, AIX</li> <li>• Utilize the Linux for Power™ operating system to access the breadth of open-source applications</li> <li>• Exploit the simplicity of the integrated IBM i operating system</li> </ul>   |

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**IBM BladeCenter JS22 Express at a glance**

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| <b>Form factor</b>                           | Single-wide blade server for BladeCenter S, BladeCenter H, or BladeCenter HT chassis   |
| <b>Processor cores</b>                       | Four 64-bit 4.0 GHz POWER6 with Altivec™ SIMD and Hardware Decimal Floating-Point acceleration   |
| <b>Level 2 (L2) cache</b>                    | 4 MB per processor core; 4-way set associative   |
| <b>Memory (std/max)</b>                      | Base offering: 2 GB (2 x 1 GB); Express offering: 4 GB (2 x 2 GB), up to 32 GB maximum per blade, four DIMM slots, ECC Chipkill DDR2 SDRAM running at 667 MHz (1, 2, 4 GB DIMMs) 533 MHz (8 GB DIMMs)                |
| <b>Internal disk storage</b>                 | One 73 or 146 GB 2.5" Serial Attached SCSI (SAS) 10K rpm non-hot-swappable disk drive standard on Express offering; No disk drive required on base offering  |
| <b>Networking</b>                            | Integrated Virtual Ethernet adapter (IVE) Dual Gigabit and support for optional dual gigabit Ethernet daughter card  |
| <b>I/O upgrade</b>                           | Integrated PCI Express connector for high-speed daughter cards, integrated connector for legacy daughter cards   |
| <b>Optional connectivity</b>                 | 1 Gbps Ethernet Expansion Card, 4 Gbps Fibre Channel, 4X InfiniBand®, SAS Expansion Card   |
| <b>PowerVM Standard Edition (built-in)</b>   | Virtual LAN, POWER Hypervisor™, Micro-Partitioning, Virtual I/O Server with Integrated Virtualization Manager, Shared Dedicated Capacity, PowerVM Lx86 (formerly known as System p™ Application Virtual Environment) |
| <b>PowerVM Enterprise Edition (optional)</b> | All the features of PowerVM Standard Edition plus Live Partition Mobility  |
| <b>Systems management</b>                    | Integrated systems management processor, IBM Systems Director Active Energy Manager, light path diagnostics, Predictive Failure Analysis®, Cluster Systems Management (CSM), Serial Over LAN, IPMI-compliant         |

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## IBM BladeCenter JS22 Express at a glance

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|---------------------------|---|
| <b>RAS features</b>       | IBM Chipkill™ ECC, bit-steering memory and cache<br>Processor Instruction Retry<br>Service processor with fault monitoring<br>Hot-swappable disk bays (in BladeCenter S chassis)<br>Hot-plug power supplies and cooling fans (on chassis)<br>Dynamic Processor Deallocation<br>Dynamic deallocation of logical partitions and PCI bus slots<br>Extended error handling on PCI-X slots<br>Redundant power supplies and cooling fans (on chassis) |
| <b>Operating systems</b>  | AIX V5.3 or later<br>IBM i 6.1 or later<br>SUSE Linux Enterprise Server 10 for POWER (SLES10 SP2) or later; Red Hat Enterprise Linux 4.6 for POWER (RHEL4.6) or later; RHEL5.1 or later   |
| <b>High availability</b>  | IBM PowerHA family  |
| <b>System dimensions</b>  | JS22 Express blade: 9.65 in (245 mm) H x 1.14 in (29 mm) W x 17.55 in (445 mm) D;<br>weight: 9.6 lb (4.35 kg) <sup>2</sup><br>BladeCenter H chassis: 15.75 in (400 mm) H x 17.5 in (444 mm) W x 28.0 in (711 mm) D;<br>weight: 350 lb (159 kg) <sup>2</sup><br>BladeCenter S chassis: 12.0 in (306 mm) H x 17.5 in (444 mm) W x 28.3 in (733 mm) D;<br>weight: 240 lb (108.9 kg) <sup>2</sup>   |
| <b>Warranty (limited)</b> | 9 hours per day, Monday through Friday (excluding holidays), next-business-day for three years at no additional cost; on-site for selected components; CRU (customer replaceable unit) for all other units (varies by country). Warranty service upgrades and maintenance are available.  |



## For more information

To learn more about the IBM BladeCenter JS22 Express blade server, please contact your IBM marketing representative or IBM Business Partner, or visit the following Web sites:

- [ibm.com/systems/bladecenter/power-based.html](http://ibm.com/systems/bladecenter/power-based.html)
- [ibm.com/servers/aix](http://ibm.com/servers/aix)
- [ibm.com/systems/i/os/i5os/](http://ibm.com/systems/i/os/i5os/)
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When referring to storage capacity, total TB equals total GB divided by 1000; accessible capacity may be less.

<sup>1</sup> Some of the IBM BladeCenter functions may not be supported by the IBM i operating system. These are identified at [ibm.com/systems/power/hardware/blades/ibmi.html](http://ibm.com/systems/power/hardware/blades/ibmi.html).

<sup>2</sup> Weight will vary when disks, adapters and peripherals are installed.

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