

The ideal blade solution to replace your rack server



## IBM BladeCenter JS12 Express blade



BladeCenter JS12 Express blade server

---

### Highlights

---

- **For replacing traditional UNIX®, IBM i (formerly known as i5/OS®) and Linux® servers**
- **For small database and application serving**
- **For a complete business system with an integrated database and application server**

For the perfect alternative to a traditional AIX®, IBM i or Linux rack-mount and tower server, the IBM BladeCenter® JS12 Express blade server combined with a BladeCenter S chassis provides exceptional value and expandability in an attractively packaged and highly efficient design. And, specifically for an office environment, this combination can reside in your office quietly, securely and looking like it

belongs with an acoustic treatment for quiet operation, a set of security doors to protect vital data and servers, and optional dust filtering to expand IT into virtually any environment.

For small database and application serving, the BladeCenter JS12 Express blade server delivers great performance, expandability and capacity to satisfy the needs of clients looking for an easy-to-use, integrated platform with a high degree of deployment flexibility, scalability and manageability.

For a complete integrated business system, the IBM i Edition Express for BladeCenter S which features the JS12 blade allows the small or mid-sized company that seeks simplicity to avoid increased spending and staffing requirements while becoming more responsive to their customers, improving their productivity and keeping their data secure. The i Edition Express for BladeCenter S integrates features to



simplify an IT environment and delivers a complete, cost-effective business system that grows with your needs.

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 JS12 Express is an extremely affordable blade server with the capability to run AIX, IBM i or Linux applications—concurrently if desired. The JS12 Express broadens the application offerings available and increases the ways clients can put this power to work. Powered by the latest IBM processor technology, POWER6™, the JS12 Express provides outstanding price/performance in a commercial IT environment; superior reliability, availability and serviceability (RAS) characteristics; high energy efficiency; and outstanding built-in PowerVM™ virtualization to help achieve increased system utilization. The feature-rich, JS12 Express will bring significant benefits to clients who want a durable server solution for consolidating multiple applications and servers into a single BladeCenter chassis transitioning from traditional rack-mount or tower servers to highly efficient blades and implementing commercial applications across a range of operating systems.



*BladeCenter S chassis*

The JS12 Express blade server features advanced, innovative IBM technologies including the performance of POWER6 processors designed for reliability and speed; IBM EnergyScale™ firmware and IBM Systems Director Active Energy Manager™ software tools to measure energy use and direct policies toward the energy-efficient operation of the server; built-in PowerVM virtualization allowing operational and infrastructure efficiencies; mainframe-inspired RAS features architected to avoid, detect and recover from errors to achieve near-continuous availability; flexible packaging and operating system support to allow cost-effective and seamless growth; and security and

integrity functions built into the firmware and operating systems to protect critical applications and data.

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>

---

**IBM BladeCenter JS12 Express at a glance**

---

<b>Form factor</b>	Single-wide blade server for BladeCenter E, BladeCenter S, BladeCenter H, BladeCenter HT, or BladeCenter T chassis
<b>Processor cores</b>	Two 64-bit 3.8 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/Express offering: 4 GB (2 x 2 GB); Up to 64 GB maximum per blade, eight DIMM slots, ECC Chipkill™ DDR2 SDRAM running at 667 MHz (2, 4 GB DIMMs) 400 MHz (8 GB DIMMs)
<b>Internal disk storage</b>	Zero to two 73, 146 or 300 GB 2.5" Serial Attached SCSI (SAS) 10K rpm disk drives Integrated RAID-0 or -1 standard on blade server with support for disk mirroring
<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 expansion cards, integrated connector for legacy expansion cards
<b>Optional connectivity</b>	1 Gbps Ethernet Expansion Card, 4 Gbps Fibre Channel, 4X InfiniBand®, iSCSI Expansion Card, 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, Shared Processor Pool, PowerVM Lx86
<b>PowerVM Enterprise Edition (optional)</b>	All the features of PowerVM Standard Edition plus Live Partition Mobility and Active Memory Sharing
<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

---

## IBM BladeCenter JS12 Express at a glance

<b>RAS features</b>	IBM Chipkill ECC, bit-steering memory and cache Processor Instruction Retry Service processor with fault monitoring Hot-swappable disk bays (in BladeCenter S chassis) Hot-plug power supplies and cooling fans (on chassis) Dynamic Processor Deallocation Dynamic deallocation of logical partitions and PCI bus slots Extended error handling on PCI-X slots Redundant power supplies and cooling fans (on chassis)
<b>Operating systems</b>	AIX V5.3 or later IBM i 6.1 or later 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>	JS12 Express blade: 9.65 in (245 mm) H x 1.14 in (29 mm) W x 17.55 in (445 mm) D; weight: 9.6 lb (4.35 kg) <sup>2</sup> BladeCenter H chassis: 15.75 in (400 mm) H x 17.5 in (444 mm) W x 28.0 in (711 mm) D; weight: 350 lb (159 kg) <sup>2</sup> BladeCenter S chassis: 12.0 in (306 mm) H x 17.5 in (444 mm) W x 28.3 in (733 mm) D; 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 JS12 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/)
- [ibm.com/linux/power](http://ibm.com/linux/power)
- [ibm.com/systems/bladecenter/solutions](http://ibm.com/systems/bladecenter/solutions)
- [ibm.com/common/ssi](http://ibm.com/common/ssi)

This equipment is subject to FCC rules. It will comply with the appropriate FCC rules before final delivery to the buyer.

Information concerning non-IBM products was obtained from the suppliers of these products or other public sources. Questions on the capabilities of the non-IBM products should be addressed with the suppliers.

All performance information was determined in a controlled environment. Actual results may vary. Performance information is provided "AS IS" and no warranties or guarantees are expressed or implied by IBM. Buyers should consult other sources of information, including system benchmarks, to evaluate the performance of a system they are considering buying.

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/i/os/i5os/v6r1/blades/index.html](http://ibm.com/systems/i/os/i5os/v6r1/blades/index.html).

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

© Copyright IBM Corporation 2009

IBM Systems and Technology Group  
Route 100  
Somers, NY 10589

Produced in the United States of America  
April 2009  
All Rights Reserved

This document was developed for products and/or services offered in the United States. IBM may not offer the products, features or services discussed in this document in other countries.

The information may be subject to change without notice. Consult your local IBM business contact for information on the products, features and services available in your area.

All statements regarding IBM future directions and intent are subject to change or withdrawal without notice and represent goals and objectives only.

IBM, the IBM logo, [ibm.com](http://ibm.com) and BladeCenter are trademarks or registered trademarks of IBM Corporation in the United States, other countries or both. For a list of additional IBM trademarks visit [ibm.com/legal/copytrade.shtml](http://ibm.com/legal/copytrade.shtml).

The Power Architecture and Power.org wordmarks and the Power and Power.org logos and related marks are trademarks and service marks licensed by Power.org.

UNIX is a registered trademark of The Open Group in the United States, other countries or both.

Linux is a trademark of Linus Torvalds in the United States, other countries or both.

AltiVec is a trademark of Freescale Semiconductor, Inc.

InfiniBand is a trademark of the InfiniBand Trade Association.

Other company, product and service names may be trademarks or service marks of others.

IBM hardware products are manufactured from new parts, or new and used parts. In some cases, the hardware product may not be new and may have been previously installed. Regardless, our warranty terms apply.

Photographs show engineering and design models. Changes may be incorporated in production models.

Copying or downloading the images contained in this document is expressly prohibited without the written consent of IBM.



Recyclable, please recycle.

BLD03013-USEN-02