



i5/OS—the next generation IBM System i5 operating system



# **Highlights**

- Extends the reliability and simplicity for which the
   IBM® System i5™ family is
   known, allowing you to focus
   on achieving your business
   goals
- Integrates key functions such as database, networking, systems and storage management
- Enhanced Web capabilities are integrated into the system along with improved security and virus protection, so you can simplify and lower your cost of operations
- Supports, WebSphere®,
   Java™, Workplace™ and
   Domino®-based applications—
   all integrated into a single system—giving you the flexibility to
   choose the applications your
   business needs

### i5/OS-Integrated and reliable

When you rely on your IT infrastructure to support business-critical operations, you want to know that your systems are going to be available every time you need them. With confidence-inspiring availability and secure, scalable architecture, running i5/OS® on your System i5 installation can help you do more and worry less. Many key functions have been built into the system, adding greater capability, yet simplifying operation. You can quickly and easily deploy applications while seamlessly combining new and existing data. And with robust security and networking options, i5/OS enables secure, reliable connectivity to suppliers, partners, customers and employees.

i5/OS is fully integrated right out of the box so you have everything you need to run your business. The operating system comes with built in relational database, security, communication and networking capabilities, online help, Web enablement technologies, easy enterprise management, and much more. IBM fully tests all components working together, so you don't have to. Even better, you can control all of the components of i5/OS using a single command language or a simple unified graphical user interface (GUI).

i5/OS helps to further simplify your IT environment by supporting the option to run Linux, Windows® Server<sup>™1</sup> and AIX 5L<sup>™</sup> applications within a single, easy-to-manage system—so you can



use the applications that work best for you instead of sacrificing capability for compatibility. i5/OS features superior application workload management and logical partitioning (LPAR), so you can quickly deploy and manage the next generation of applications while maintaining your current business applications—all in a single, partitioned system.

#### Ease-of-use

Even the best IT solution is useless if you need an army of people to manage it. i5/OS is renowned for its ease-of-use and simple, powerful management features. A key component of this ease-of-use is the System i5 Navigator®. This graphical interface enables you to manage your System i5 environment with minimal skills and resources.

i5/OS includes EZ-Setup to help you simplify the setup of a new System i5 system. By answering a few simple questions, the system produces a list of tasks with wizards and set-by-set information for completing the system setup. EZ-Setup can help install and configure security settings, TCP/IP interfaces, Internet connections, Domino, operations console and Information Center.

Management Central-Pervasive allows System i5 network administrators to keep an eye on their systems while away from the office using an Internet capable cell phone, personal digital assistant (PDA) with a wireless modem, or a Web browser. They can monitor and manage the System i5 status, messages and performance.

#### Networking

i5/OS offers many integrated capabilities and functions that enable highly secure communications on your network, in either batch or interactive modes, allowing your System i5 platform to cooperate seamlessly with other systems and servers in your network. Of course, the System i5 family offers broad connectivity options using either the industry standard TCP/IP protocols or SNA. For example, i5/OS includes standard TCP/IP utilities such as Telnet, File Transfer Protocol (FTP), support for Domain Name system and many others.

If most of your file and print serving functions are based on your Microsoft® Windows® network, i5/OS can help you address the reliability and availability of those resources. The i5/OS NetServer capability enables your





System i5 to act as a file and print server for your end users. NetServer simply unites the i5/OS integrated file system (IFS) and System i5 print output queues into the Microsoft Network Neighborhood. And with NetServer, you get better control of resource visibility and user access. The only directories or printers that can be seen by end users are those set up as "shared" by an administrator or resource owner.

# Security

i5/OS offers five levels of security so that you can easily setup customized security according to the levels your business requires. Depending on the specific needs of your business and the applications and data on the system, you can choose anything from minimal security to enhanced security that enables the system to operate in environments requiring internationally recognized Common Criteria Evaluation Assurance Level 4.

In addition to password protection, i5/OS also helps you protect your system with a variety of other security features:

- i5/OS architecture makes it naturally virus resistant helping you to avoid all of the security patches and virus management tasks other operating systems require. Optional anti-virus software available from IBM ISVs and Business Partners makes iSeries unique object-based architecture even more virus-resistant.
- Secure Sockets Layer (SSL), an industry standard protocol allows your users secure access to applications and data on the System i5 installation using security transactions between the system and compatible client software.
- i5/OS can require digital certificates to establish credentials for remote access before allowing any contact with system resources.

- If you have a complex network, i5/OS
   can us Enterprise Identity Mapping
   (EIM) to consolidate user information
   into a single, manageable user
   registry.
- i5/OS offers Virtual Private
   Networking (VPN) capabilities to
   increase the security of private transactions over public networks.
- With IP filtering and Network Address
  Translation (NAT), i5/OS can help protect other, more vulnerable systems
  and internal networks from outside
  attack.

# Virtualization

Through advanced virtualization technologies, i5/OS can share its storage, Ethernet, and DVD resources with Linux® and AIX 5L partitions and integrated xSeries solutions. i5/OS consolidates storage allowing you to use your





existing storage resources, skills, and best practices. i5/OS integrates operations providing you with a single point of control. i5/OS streamlines communications enabling you to easily integrate applications between operating environments. By managing one pool of resources you can simplify your infrastructure to reduce costs and enable business growth.

#### **Application Development**

The System i5 family provides a broad set of application development tools and technologies that can add exceptional flexibility and value to your business. As your business evolves, you can adopt new and innovative solutions to meet your needs. i5/OS supports a wide variety of application development technologies including RPG, COBOL, CL, C, C++, SQL and Java with best of breed tools from IBM and Business Partners.

Java has also become a key application development environment for the System i5 platform. The Java virtual machine (JVM), which resides below the Machine Interface, enables fast interpretation and execution of Java code on System i5 platforms. Java is a complete computing environment, and is a de facto standard for program portability and programmer productivity. Java provides an object-oriented programming environment that is dramatically simpler than C++. The System i5 implementation of Java provides improved scalability compared to other Java platforms and synergy with the System i5 object-based architecture.

Aligned with the iSeries Developer Roadmap, these technologies can also be extended to Service Oriented Architecture (SOA) responding to competitive pressures and market opportunities. With SOA and i5/OS, you have the option of creating custom applications that can benefit from System i5 reliability and security while still utilizing readily available existing and new programming skills.

## **DB2 Universal Database (DB2 UDB)**

DB2® UDB for System i5 platforms offers state-of-the-art database functions with standards-based technology, while providing the maturity, stability, and ease-of-use that is the trademark of the System i5 family. DB2 UDB for System i5 is fully integrated into i5/OS so you don't have to worry about installation and compatibility issues.



DB2 UDB for System i5 can be used for both transaction processing and complex decision support applications. Advanced parallel processing and advanced query optimization techniques support queries of large decision-support databases for a variety of data-intensive applications.

DB2 UDB offers the flexibility to access data through System i5 applications, from Linux partitions, and through standard network interfaces like ODBC.

Regardless of the application you are running, DB2 can provide the data.

The system offers a host of features to help improve performance and reliability of your data-driven applications. DB2 UDB for System i5 offers object-relational technology that allows you to manage large, non-text objects within your database. DB2 UDB includes support for industry standard SQL and provides various extensions to improve performance of queries.

Online database maintenance can be performed *while* users are accessing and changing the database, maintaining availability and productivity. Object-level data recovery allows you to restore a

single file when necessary. This means that it is not necessary to restore the entire database to "fix" a single file. You can also "roll" forward and backward to recover database records, allowing database changes made after the last backup to be reapplied after a restore, or for recent changes to be reversed if the database needs to be returned to a specific state. These changes can even be applied to a specific user, time or job.



And, of course, as an integrated system component, you can control DB2 UDB for System i5 with the same GUI or command language that you use to manage the rest of your system.

# HTTP server, WebSphere, Domino and Workplace

The final piece of the puzzle for building your key business applications may be the enhanced Web capabilities—which allow your employees, suppliers and customers to access your applications through standard Web clients. i5/OS enables this capability with a built in HTTP server (powered by Apache) and access to the WebSphere family of products for Java technology-based Web application serving.

WebSphere Application Server— Express is included with i5/OS so you can use your System i5 applications and data with Web capabilities right away. Additional WebSphere products are available as options, including enhanced versions of the application server, WebSphere MQ, WebSphere Portal Express, WebSphere Commerce and more.

You can further enhance the capabilities of your i5/OS operating system with the addition of Lotus® Domino® software. Lotus Domino is middleware that makes it easier for you to productively perform unstructured work using a wealth of rapidly changing information and knowledge. It lets you add the "human touch" to the Web and to your business-to-business interactions through e-mail, instant messaging, and broad-based collaboration.

IBM Workplace for the System i5 family includes integration between IBM Workplace data and DB2 UDB databases. For administrators, Workplace for System i5 integrates with i5 systems management to provide a seamless capability to manage an entire i5 system implementation from a single consistent user interface. You can implement IBM Workplace on a single physical server with a single operating system image offering the scalability to support several hundred users.

All of these functions integrate seamlessly with i5/OS to provide the ease of management, high reliability, and tight security you expect from a System i5 environment.



#### For more information

Contact your IBM representative or IBM Business Partner, or visit:

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The System i5 homepage on the Internet is located at **ibm.com**/systems/i

¹ via an Integrated xSeries Adapter or Integrated xSeries Server