WebSphere® software

IBM WebSphere Application Server, Version 6.0

Highlights

- ***Deploys powerful Web services through integrated support for key Web services, open standards and UDDI registries***
- ***Provides full J2EE 1.4 compatibility, including native, enterprise-ready JMS provider***
- ***Delivers an advanced, security-rich infrastructure, extensible through pluggable architecture***
- ***Enhances flexibility through broad, cross-platform support and multiple configuration options***
- ***Enhances developer productivity with an integrated, open standards-based development environment***
- ***Offers distributed workload and caching capabilities to intelligently optimize performance***
- ***Delivers a single, Web browser-based administration across all deployment options***
- ***Provides enhanced application availability with sophisticated clustering and load-balancing capabilities***
- ***Offers support for SDK for Java 2 Platform, Standard Edition, Version 1.4***

Today, building an on demand business that can extend your market reach and maximize your return on investment (ROI) means more than simply enabling Web content and applications. To participate in the next chapter of on demand business, it is vital to integrate applications with existing data stores and Web services that exist in heterogeneous environments, in multiple programming models and on different sides of firewalls.

IBM WebSphere® Application Server, Version 6.0 is a comprehensive Java™ 2 Platform, Enterprise Edition (J2EE) 1.4 and Web services technology-based application server that integrates enterprise data and transactions with today's on demand business world. Through a rich, application-deployment environment, you can build, manage and deploy dynamic on demand applications, manage high-transaction volumes and extend back-end business data and applications to the Web. IBM WebSphere Application Server Network Deployment offers advanced Web services that can operate across disparate application frameworks and business-to-business (B2B) applications, and provides virtually any-to-any connectivity with transaction management and application adaptivity.

With multiple configuration options, WebSphere Application Server supports a wide range of scenarios, from simple administration of a single server to a clustered, highly available, high-volume environment with edge-of-network services. These specialized configuration options give you the flexibility to respond to an ever-changing marketplace—without the cost of migrating to a different technology base.

A wide range of enhancements to support on demand business needs

As the foundation of the WebSphere platform and the core J2EE and Web services configuration, IBM WebSphere Application Server, Version 6.0 is optimized for ease of administration in a scalable, single-server deployment environment. This configuration is recommended for organizations that need to build and deploy message-oriented, stand-alone, departmental applications and Web services, but don't require failure bypass or workload distribution options. This configuration is also available with a restricted, development-only license to allow enterprises using third-party development tools to effectively build and test applications for WebSphere Application Server.

Advanced management and automated performance optimization make IBM WebSphere Application Server Network Deployment, Version 6.0 the next level in application serving, with features that include world-class clustering, caching and high availability, combined with extended Web services management capabilities. Enhanced features include:

- *Last-participant support*
- *Internationalization and work-area service*
- *Activity-session service*
- *Extended Java transaction application programming interface (API) (JTA) support*
- *Startup and WorkManager (asynchronous) beans*
- *Timer service (scheduler service)*
- *Object pools*
- *Dynamic query*
- *Web-service gateway-filter programming model (with migration support)*
- *Distributed map*
- *Application profiling*
- *Cscope service*

WebSphere Application Server, Version 6.0 also includes enhancements designed to increase time to value and reduce total cost of ownership:

- *Enterprise archive (EAR) files allow integrated test environments in IBM WebSphere Studio and IBM WebSphere Application Server Toolkit, and the number of templates have been increased.*
- *IBM WebSphere Rapid Deployment now provides an easy-to-use framework to help you quickly and easily deploy applications to WebSphere Application Server. WebSphere Rapid Deployment significantly helps reduce the complexity of building J2EE applications by automating the most common aspects of application construction, assembly and deployment.*
- *Service Data Objects (SDOs) address the problem of disparate models and APIs for data retrieval and representations. This data programming architecture (along with APIs) unifies data programming across data source types; provides robust support for common application patterns; and enables applications, tools and frameworks to more easily query, view, bind and update data on Java platforms. SDOs are designed to help you save time, money and resources.*

Leverage existing software assets

In today's business environment, it's more important than ever to take full advantage of your existing IT resources—from hardware to personnel. Through open standards and extensible connectivity features, WebSphere Application Server can greatly improve your ability to leverage these existing assets. It also helps increase productivity through its close interlock with IBM WebSphere Studio, a tightly integrated Java development environment based on open Eclipse workbench technology. Develop, test and deploy Java and Web services applications with easy access and minimal errors. The integrated development and deployment platform of WebSphere Application Server optimizes development resources through its ability to reuse CORBA, C++, Java and legacy assets.

Application adapters that quickly and easily extend enterprise applications to on demand business can also help you leverage current resources. WebSphere Application Server is designed to reduce the risk, complexity and cost of using and deploying application adapters through its advanced support for J2EE Connector Architecture. Java Connector Architecture gives you a consistent way of connecting to and communicating with a wide range of enterprise systems and applications—without the need for advanced programming skills or extensive coding. Reuse and integrate disparate systems and applications, while allowing broad, cross-platform support and unparalleled connectivity and integration with a variety of back-end systems.

Rich J2EE implementations

WebSphere Application Server supports Java 2 Enterprise Edition (J2EE) Version 1.4 Software Development Kit (SDK) 1.4, which enables you to use Java technology to develop more demanding business applications with less time and effort. New functions within the core SDK 1.4 platform can help eliminate the need to write custom code, allowing developers to use a single technology to develop, test and deploy end-to-end enterprise applications and solutions.

In addition to SDK 1.4, WebSphere Application Server for J2EE 1.4 support helps simplify enterprise applications by basing them on standardized, modular components. Comprehensive services handle many details of application behavior automatically,with little complex programming required. J2EE, Version 1.4 and WebSphere Application Server offers simplified business integration through connectors and Java Message Service (JMS). WebSphere Application Server includes full implementations with robust enterprise Java technology implementations built-in and a comprehensive range of Java-based APIs and protocols. These include:

- *Compliance with Enterprise JavaBeans (EJB) 2.0*
- *Support for SDK1.4 across supported operating system platforms*
- *Improved Java security APIs in the distributed security model*
- *An expanded programming model to include more loosely coupled integration through asynchronous messaging*
- *The ability to work with JavaServer Pages (JSP) in XML*

Increase productivity with messaging integration

WebSphere Application Server enables dynamic application interaction through a native, high-performance JMS provider, based on market-leading IBM WebSphere MQ technology and support for J2EE 1.4, EJB 2.0. The JMS API increases productivity by defining a common set of messaging concepts and programming strategies. JMS further simplifies development by allowing loosely coupled, reliable, asynchronous interactions among J2EE components and legacy systems capable of messaging. EJB 2.0 message beans and container-managed messaging save valuable programming time and skill by allowing requests to be processed without requiring code to check for messages when they arrive. And developers can easily incorporate new behavior in a J2EE application with existing business events by adding a new message-driven bean to operate on specific business events.

Maximize ROI with Web services

WebSphere Application Server extends the J2EE 1.4 programming model by providing a comprehensive infrastructure to support the production-ready deployment of Web services-based applications. It allows you to build, publish and manage integration-ready application services that can be used by other internal or external organizations or platforms. Create new business opportunities and reduce costs by finding the least-expensive trading partners and sharing applications electronically with other organizations.

WebSphere Application Server supports key Web services open standards, including Simple Object Access Protocol (SOAP), Universal Description, Discovery and Integration (UDDI) and Web Services Description Language (WSDL), SOAP with attachments API for Java (SAAJ), Web Services Invocation Framework (WSIF), Java specification request (JSR), Web Services Security (WS-Security), XML Signature, XML Encryption and SOAP over JMS. It also helps give Web services developers a head start on interoperating across heterogeneous environments and enterprise boundaries through support for the June 2003 Board Approved Draft of WS-I Basic Profile (one of the first production-level application servers to do so).

Deploy and consume Web services with a variety of communications protocols, including SOAP and HTTP, JMS or Remote Method Invocation Internet Inter-ORB Protocol (RMI/IIOP), and administer virtually any Web service, whether developed with Java technology or Microsoft.NET.

WebSphere Application Server Network Deployment provides extended Web services support with a private IBM UDDI Registry and IBM Web services gateway. UDDI Registry — which acts as a directory of services to help users find information about Web services — is designed to enable developers to publish and test their internal on demand applications in a security-rich, private environment. Web services gateway helps reduce development costs by making selected services available to different divisions within an enterprise or to customers and trading partners who use different protocols or are outside the firewall. Using Web services gateways, developers and IT managers can safely externalize a Web service so users can invoke it from outside the firewall.

Reduce costs with simplified deployment and administration features

Deploy applications and transactions efficiently and effectively to increase productivity and reduce costs. WebSphere Application Server provides a central and open management interface to help you administer multiple applications and components from the same environment, while lowering the complexity of application and systems management. Agile setup options and administration features help you administer, deploy and manage applications with ease. With WebSphere Application Server Network Deployment, these capabilities are extended to help manage configurations that include large numbers of servers. And automated application-server management functions help enhance productivity and help reduce administrative costs. As your business needs change, WebSphere Application Server can help you quickly and easily move from one configuration to another by providing a single Web browser-based administration across all deployment options.

To let you effectively manage your operations and applications, WebSphere Application Server provides installation and administration capabilities through exposed Java Management eXtension (JMX) interfaces and an extended command-line interface. Support for JMX allows third-party products (like Tivoli® security software from IBM) to read and manage WebSphere software in a standard way.

Meet the changing demands of on demand business

Dependable system availability can help you avoid costly downtime and, in turn, build customer loyalty. But as volume increases, it becomes more difficult to maintain high levels of performance. WebSphere Application Server can help you handle unpredictable volumes—without degrading user experience. Its consistent, leading-edge performance and scalability help maintain high responsiveness to constantly changing environments. Leverage new levels of scalability, reliability and performance through expanded database support and enhanced security to help enable continuous operation of critical enterprise Java applications.

WebSphere Application Server Network Deployment distributes workloads across multiple servers through sophisticated load-balancing and clustering capabilities, including automatic failover capability, content-based routing to deliver more effective session management and enhanced, edge-based caching capabilities. The sophisticated load-balancing and edge-of-network components are designed to provide a scalable solution for load-balancing requests between HTTP-, FTP- or other TCP-based servers. Customer-defined rules and requirements can be incorporated to help the load balancer reroute requests intelligently. And custom advisors can be used to load balance requests based on specific application and platform criteria.

Instill confidence with security-rich applications

It's more important than ever that you provide your employees, trading partners and customers with the most advanced levels of security and superior performance. WebSphere Application Server offers a sophisticated security-rich infrastructure and extensive support of open standards-based Java specifications, including:

- *Java Authentication Authorization Services (JAAS). Authenticates new principals and manages privileged information for a principal.*
- *Java 2 security model. Helps secure system resources.*
- *Java Secure Socket Extension (JSSE). Helps secure communications channels based on transport-level security (TLS/SSL).*
- *Java Cryptographic Extension (JCE). Provides a framework for security encryption and message authentication.*
- *Java Cryptographic Architecture. Provides Java cryptographic extensibility, as with PKI integration.*
- *Common Secure Interoperability (CSIv2). Supports secure interoperability between application services.*

Sophisticated enterprise topologies and infrastructure can be implemented through WebSphere pluggable security architecture. These include:

- *Pluggable user registries to enable you to exploit Lightweight Directory Access Protocol (LDAP) or custom registries.*
- *Web single sign-on exclusively provided with WebSphere software or through integration with front-end, authentication endpoints with Trust Association Interceptor (TAI) technology.*
- *Highly secure access to enterprise information systems through a pluggable principal-and credential-mapping facility.*

A flexible on demand business infrastructure

IBM WebSphere Application Server, Version 6.0 provides flexible options and a smooth migration path to help you develop and maintain complete solutions. WebSphere Application Server is designed to meet you wherever you are on the on demand path, to help you reach your business objectives. Choose the level of capability best suited for today's needs and expand as your business needs change. Offerings include:

- *WebSphere Application Server - Express. An easy-to-use, cost-effective on-ramp to develop and deploy dynamic Web applications with basic on demand capabilities. Simplified packaging of WebSphere Application Server-Express moves beyond a JDK and Web container for servlets, JSP and XML to include EJB container, messaging, Web services, and an advanced work manager. It consists of:*

  – *A comprehensive J2EE, Version 1.4 programming model to support easier application migration.*
  – *IBM WebSphere Rapid Deployment, a framework that helps reduce the complexity of building J2EE applications by automating the most common and tedious aspects of application construction, assembly and deployment.*
  – *Simplified packaging with a single CD-ROM per platform and a launch pad that easily installs both run time and tools, enabling installation on the same or different machines and to support multitier installation scenarios.*
  – *IBM Business Solutions, integrated solution applications for typical business needs that work with your existing applications, server components and enterprise data.*

- *WebSphere Application Server. The core Web services J2EE 1.4 certified application server, enabling industry-leading and flexible deployment options.*
- *WebSphere Application Server for Developers. The functional equivalent of the core WebSphere Application Server configuration, providing an easy-to-use development environment to build and test on demand applications (licensed for development use only).*
- *WebSphere Application Server Network Deployment. A J2EE and Web-services Web-application server with advanced deployment services that include clustering, edge-of-network services and high availability for distributed configurations.*
- *WebSphere Application Server for z/OS. A J2EE and Web services application server specifically optimized for the IBM z/OS® operating system environment.*

These products offer a rich, Web-based application deployment or test environment with services that include enhanced capabilities to support transaction management of heterogeneous Web services. In addition, WebSphere Application Server is designed to provide leading-edge security-rich, performance, availability, connectivity and scalability features.

For more information

IBM WebSphere Application Server is the foundation of the IBM WebSphere software platform for on demand business — a set of integrated, award-winning on demand business solutions. No matter where you are in the on demand business cycle, the WebSphere software platform can allow you to grow at the speed your market demands. Building on this robust platform, you can integrate your current investments and leverage existing skills with a full range of server solutions from the WebSphere family of products.

To learn more about IBM WebSphere Application Server, visit:

ibm.com/software/websphere/appserv

To learn more about how the IBM WebSphere software platform can help you succeed in on demand business, contact your IBM representative, IBM Business Partner or visit:

ibm.com/websphere

To order IBM WebSphere Application Server, contact your IBM representative or IBM Business Partner, or call 1 800 IBM-CALL. Or visit:

ibm.com/shop

IBM WebSphere Application Server, Version 6.0 configurations

	WebSphere Application Server, Version 6.0	WebSphere Application Server Network Deployment, Version 6.0
Java programming model		
Support for JSP 1.2 and Java Servlets 2.3	x	x
Support for SDK for J2SE, Version 1.4 across supported operating system platforms, including IBM OS/400®, Linux®, UNIX® and Microsoft Windows®	x	x
Full J2EE 1.4 support	x	x
Full XML support	x	x
Web services		
Full Web services support	x	x
Support for private UDDI registries		x
Web services gateway		x
Database support and connectivity		
Java Database Connectivity (JDBC) and Connection Management for access to IBM DB2®, Structured Query Language (SQL) Server 2000, Oracle 9i, IBM Informix® and Sybase[1]	x	x
JDBC for access to DB2® Universal database™ (UDB) for IBM @server i5	x	x
Restricted DB2 license		x
Application development		
Sample applications[2]	x	x
Integrated on demand business applications		
IBM Telephone directory	x	x
IBM Welcome page	x	x
Web server support		
Embedded HTTP server	x	x
IBM HTTP server included[3]	x	x
Web server plug-ins	x	x
Security		
Basic authentication and authorization for highly secure access to Web resources	x	x
Enhanced authentication and authorization through Common Secure Interoperability (CSI), Version 2.0, single sign-on and support for LDAP	x	x
Advanced authentication and authorization, such as JAAS and Java crytology extension (JCE) for enhanced security	x	x

[1] *Not supported for IBM @server i5*

[2] *Samples integrated with the tool for quick-start development*

[3] *IBM HTTP Server included with IBM OS/400*

IBM WebSphere Application Server, Version 6.0 configurations (continued)

	WebSphere Application Server, Version 6.0	WebSphere Application Server Network Deployment, Version 6.0
Platform support		
Basic platform support for rapid implementation on Windows 2000, Windows 2003 and Windows XP, Linux and OS/400, IBM AIX® systems, Sun Solaris operating environment, HP-UX and UNIX	x	x
Application connectivity		
Full JMS technology-supported message-driven beans, including embedded JMS transport	x	x
Microsoft component object model architecture to EJB support for integration with ActiveX client and server resources[1]	x	x
Performance support		
Enhanced features for performance, including dynamic caching and IBM Tivoli performance viewer software as well as support for integration with third-party tools	x	x
Administration and workload management		
Web browser-based administration for remote administration across firewalls	x	x
Convenient administration through an embedded administrative console	x	
Intelligent workload distribution across a cluster		x
Failure bypass		x
Clustering support		x
Migration support		
Migration documentation	x	x
Migration tools and assistance	x	x

IBM WebSphere Application Server, Version 6.0 at a glance

Hardware requirements with supported operating environments

Windows NT and Windows 2000

- An Intel® technology-based PC running Windows NT® Server, Version 4.0, Service Pack 6a; or Windows 2000 Server; or Windows 2000 Advanced Server with Service Pack 4
- Intel Pentium® processor at 500 MHz or faster
- CD-ROM drive
- Minimum of 596 MB available disk space for installation (including IBM Software Developer Kit)
- Minimum of 256-MB memory, 512-MB recommended
- Support for a communications adapter

AIX

- IBM RS/6000® or IBM RS/6000 SP™ running IBM AIX, Version 4.3.3 with the 4330-10 recommended maintenance package, IBM AIX, Version 5.1 with the 5100-02 recommended maintenance package or 5100-03 and APAR IY36884, or IBM AIX, Version 5.2
- IBM RS/6000 604e workstation at 375 MHz or faster
- CD-ROM drive
- Minimum of 512-MB available disk space for installation (including IBM Software Developer Kit)
- Minimum of 256-MB memory, 512-MB recommended
- Support for an appropriate network interface

Note: Hardware requirements are updated frequently. For the most current requirements, please visit: www-3.**ibm.com**/software/webservers/appserv/doc/latest/prereq.html.

IBM WebSphere Application Server, Version 6.0 at a glance (continued)

Hardware requirements with supported operating environments

HP-UX

- HP-UX 11i with Quality Pack level of June 2003 or later
- HP 9000 at 440 MHZ or faster
- CD-ROM drive
- Minimum of 800-MB available disk space for installation (including IBM Software Developer Kit)
- Minimum of 256-MB memory, 512-MB recommended
- Support for TCP/IP and an appropriate communications adapter

Red Hat Linux operating environment on Intel

- Linux Distribution Enterprise Linux 2.1 or UnitedLinux 1.0 with SP2a
- Intel x86 processor at 500 MHz or faster
- CD-ROM drive
- Minimum of 550-MB available disk space (including IBM Software Developer Kit)
- Minimum of 256-MB memory, 512-MB recommended
- Support for TCP/IP and an appropriate communications adapter

Red Hat Linux on IBM zSeries operating environment

- IBM @server zSeries® server running Linux distribution for zSeries UnitedLinux 1.0
- G5, G6 or higher processor
- CD-ROM drive
- Minimum of 602-MB available disk space for installation
- Minimum of 256-MB memory, 512-MB recommended

Red Hat Linux on IBM @server p5 operating environment

- IBM @server p5 running Linux distribution for @server p5 UnitedLinux 1.0

- @server p5 models that support Linux
- CD-ROM drive
- Minimum of 550-MB available disk space for installation
- Minimum of 256-MB memory, 512-MB recommended

Red Hat Linux on IBM @server i5 operating environment

- IBM @server i5 running Linux distribution for eserver i5 UnitedLinux 1.0
- @server i5 models that support LPAR with minimum of 450CPW in Linux partition
- Minimum 16-GB available disk space for the OS/400 partition and 2.5-GB minimum for the Linux partition
- CD-ROM drive
- Minimum of 256 MB of physical memory; 512-MB recommended for the OS/400 partition
- Minimum of 512-MB memory for the Linux partition

Solaris operating environment

- A workstation running Solaris operating environment, Version 8 at a maintenance level of July 2002
- Sparc workstation at 440 MHz or faster
- CD-ROM drive
- Minimum of 532-MB available disk space for installation (including IBM Software Developer Kit)
- Minimum of 256-MB memory, 512-MB recommended
- Support for TCP/IP and an appropriate communications adapter

Note: Hardware requirements are updated frequently. For the most current requirements, please visit: www-3.**ibm.com**/software/webservers/appserv/doc/latest/prereq.html.

IBM WebSphere Application Server, Version 6.0 at a glance (continued)

Software requirements with supported operating environments

Windows NT and Windows 2000

- Windows NT Server 4.0, Service Pack 6a; or Windows 2000; or Windows 2000 Advanced Server with Service Pack 4
- Netscape Navigator, Version 4.7.9 or Microsoft Internet Explorer, Version 5.5, Service Pack 2
- Web browser that supports HTML 4 and cascading style sheets (CSS)

AIX

- IBM AIX, Version 4.3.3 with the 4330-10 recommended maintenance package, IBM AIX, Version 5.1 with the 5100-04 recommended maintenance package, or IBM AIX, Version 5.2 with the 5100-04 recommended maintenance package
- Netscape Navigator, Version 4.7.9
- Web browser that supports HTML 4 and CSS

HP-UX

- HP-UX 11i with Quality Pack level of June 2003
- Netscape Navigator, Version 4.7.9
- Web browser that supports HTML 4 and CSS

Red Hat Linux operating environment on Intel

- Red Hat Linux Advanced Server 2.1, SuSE 7.3 or SLES 7.0, based on kernel 2.4
- Red Hat 8.0
- UnitedLinux 1.0
- Connectiva Linux Enterprise Edition, powered by UnitedLinux 1.0
- SCO Linux Server 4.0, powered by UnitedLinux 1.0
- SuSE SLES 8.0, powered by UnitedLinux 1.0
- Netscape Navigator, Version 4.7.9
- Web browser that supports HTML 4 and CSS

Red Hat Linux on zSeries operating environment

- @server zSeries server running Linux distribution SuSE SLES 7.0 or Red Hat Linux 7.2 , based on kernel 2.4
- Netscape Navigator 4.79
- Web browser that supports HTML 4 and CSS

Solaris operating environment

- Solaris operating environment, Version 8 or Version 9 at a maintenance level of July 2003
- Netscape Navigator, Version 4.7.9
- Web browser that supports HTML 4 and CSS

Supported HTTP servers

- Apache Server, Version 1.3.26 for AIX, Solaris operating environment, Windows NT, Windows 2000, Red Hat Linux on Intel and Red Hat Linux on zSeries
- Web Server Enterprise Edition 6.0.4 for Solaris operating environment, Windows NT and Windows 2000
- Microsoft Internet Information Server, Version 4.0 for Windows NT
- Microsoft Internet Information Server, Version 5 for Windows 2000
- IBM Lotus® Domino® Enterprise Server, Release 5.5 and Release 5.6 for AIX, Solaris and Windows NT operating environments
- IBM HTTP Server, Version 1.3.26 or Version 2.0 for AIX, Solaris, Windows NT, Windows 2000 and Red Hat Linux on Intel and Red Hat Linux on zSeries operating environments

Note: Software requirements are updated frequently. For the most current requirements, please visit: www-3.**ibm.com**/software/webservers/appserv/doc/latest/prereq.html.

IBM WebSphere Application Server for @server i5 at a glance

Hardware requirements

Systems hosting applications using enterprise beans:

- IBM AS/400e™ server 170 with processor feature 2385
- IBM AS/400e server 720 with processor feature 2062
- @server i5 270 with processor feature 2252
- @server i5 820 with processor feature 2396
- Minimum of 1 GB recommended

Systems hosting applications using servlets and JavaServer Pages components only:

- @server i5 270 with processor feature 2250
- @server i5 820 with processor feature 2395
- Minimum of 750-MB memory recommended

For either system:

- CD-ROM drive
- Minimum of 750-MB available disk space for installation
- Support for TCP/IP and an appropriate communications adapter

Note: These requirements represent the recommended minimum requirements. Deployments that must support many users or require shorter response times may require additional resources. Use the IBM AS/400 Workload Estimator for help with sizing all system configurations. Visit: http://as400service.**ibm.com**/estimator.

Software requirements

- IBM OS/400, Version 5.1 or higher
- IBM Developer Kit for Java, Version 1.3
- IBM OS/400 QShell Interpreter
- IBM OS/400 TCP/IP Connectivity Utilities for @server i5
- IBM OS/400 Directory Services

Supported HTTP servers

- IBM HTTP Server (powered by Apache)
- Lotus Domino for @server i5 HTTP Server
- IBM OS/400 Digital Certificate Manager
- WebSphere MQ Classes for Java and JMS, Version 5.3 for @server i5
- WebSphere MQ, Version 5.3 for eserver i5s
- Apache HTTP Server and the IBM WebSphere Application Server Cryptographic Access Provider for secure sockets layer (SSL) protocol

Note: For advanced data mapping to database tables in container-managed, persistent entity beans, IBM WebSphere Studio Application Developer is required.

Note: Hardware and software requirements change frequently. For the most current hardware and software requirements for supported operating environments for WebSphere Application Server for @server i5, please visit: http://publib.boulder.**ibm.com**/iseries/v5r2/websphere/ic2924/index.htm?info/rzaiz/50/install/iicprrqi.htm

For the most current hardware and software requirements for supported operating environments for WebSphere Application Server Network Deployment for @server i5, please visit: http://publib.boulder.**ibm.com**/iseries/v5r2/websphere/ic2924/index.htm?info/rzaiz/50/install/ndiicprrq.htm

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