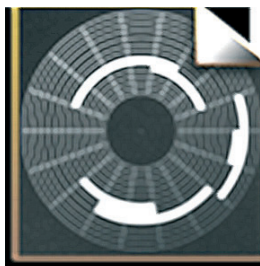


IBM WebSphere Application Server Hypervisor Edition



Highlights

- **Special editions of IBM WebSphere® Application Server V7.0 and V6.1 pre-configured to instantly run on VMware ESX or ESXi server virtualization environment**
- **Open virtualization format (OVF) standard support**
- **Virtual image (including operating system) supported and maintained by IBM**
- **Pre-loaded on [WebSphere CloudBurst Appliance](#) to easily deploy and manage SOA applications and services in a private cloud**
- **Fully utilize diverse developer skills with a comprehensive set of open standards-based programming models: Web 2.0, SIP, SCA, SDO, JPA**
- **Protects investment by allowing you to service-enable existing packaged and legacy applications, create new services and extend your business applications to the Web**
- **Run the same number of workloads on fewer servers by consolidating up to 30 percent of workloads utilizing EJB™ and Web services performance enhancing features**
- **Reduce cost associated with slow application response or lack of scalability for all sizes of workloads with advanced clustering, data replication services and unique workload distribution**
- **Reduce energy consumption via decreased footprint delivered through runtime provisioning**
- **Prevent costly security breach exposures with security domains that deliver granular and flexible control**
- **Dramatically reduce development time with integrated tooling and unique backwards compatibility features that eliminate recoding of existing Java applications**
- **Cut cost to individually administer geographically dispersed infrastructure with centralized management functions: e.g. view & monitor locations from a central site**

Today's dynamic business environments and economic uncertainty mean organizations must work smarter to remain competitive and respond to changing customer demands. Key to working smarter is business agility and cost optimization. Software applications are at the core of all businesses, from business critical and key company-wide applications to targeted departmental level apps that help solve some of the most immediate and tactical issues.

In order to ensure that these applications are performing at a level that enables your business to thrive, satisfy employees, customers, and partners, and deliver flexibility to adapt to market conditions, your software applications need the right foundation—one based on SMART SOA™ to deliver on business objectives while reducing cost across mainframe and distributed applications. With a SMART SOA application foundation, you will stand ready to address the changes ahead—whether modernizing applications to foster customer interaction, gaining quick insights to capitalize on dynamic opportunities, or rapidly introducing new capabilities. All the while keeping cost in control.

IBM WebSphere Application Server family provides developers and IT architects with an innovative, performance-based application

foundation for building, deploying and managing robust, agile and re-usable services and SOA applications of all types. And it intelligently and proactively manages that application infrastructure while optimizing costs.

WebSphere Application Server Hypervisor Edition offers all of the robust features of the WebSphere Application Server family—innovative foundation, high performance, simplified development and intelligent management. In addition, WebSphere Application Server Hypervisor Edition is optimized to run in server virtualization environments without customization to lower administration and maintenance costs and shorten development time.

Innovative foundation

WebSphere Application Server Hypervisor Edition provides you with a comprehensive set of open standards-based programming models: Web 2.0, Session Initiation Protocol (SIP), Service Component Architecture (SCA), Service Data Objects (SDO) and Java™ Persistence API (JPA). This allows you to deliver innovative new applications that meet the demands of customers and partners, extending your services to anyone anywhere in the world, and

allowing your organization to have immediate insight and interaction with customers, Business Partners and suppliers.

WebSphere Application Server Hypervisor Edition is built on the innovative virtual appliance model. A virtual appliance is a [virtual machine](#) image designed to run on a virtualization platform (such as VMware ESXi, Citrix Xen). Virtual appliances aim to eliminate the installation, configuration and maintenance costs associated with running complex stacks of software. A virtual appliance is not a virtual machine, but rather a software image containing a software stack designed to run inside a virtual machine. A virtual appliance represents a new way of rapidly deploying applications in server virtualization and cloud computing environments.

The core operating system is optimized for WebSphere Application Server following WebSphere tuning best practices, allowing for a uniquely valuable runtime environment. The WebSphere Application Server and its environment is automatically configured and tuned according to WebSphere best practices at first startup. WebSphere Application Server Hypervisor Edition is packaged as an Open Virtualization Format (OVF) compliant package allowing for rapid introduction into server virtualization environments running VMware ESX or ESXi.

WebSphere Application Server Hypervisor Edition follows in the tradition of the WebSphere Application Server family and is built to accommodate a flexible and changing customer environment. This single virtual image allows for quick deployment of application foundation topologies, and can be instantiated as any of the following profiles through a new configuration interface:

- *Deployment manager*
- *Cluster member*
- *Stand-alone sever*
- *Job manager*
- *Admin agent*
- *IHS*

This virtual image also allows customers to optionally configure feature packs on system startup. This a la carte model allows feature packs to be simply and rapidly tested in a customer environment. WebSphere Application Server Hypervisor Edition also brings simplified maintenance to WebSphere environments in the cloud. IBM maintains and updates the full open virtualization format (OVF) compliant image with each fix pack, including the core Novell SUSE Linux® Enterprise operating system.

High performance

WebSphere Application Server Hypervisor Edition provides a fast, secure, scalable and reliable environment that enables development and application efficiencies so that your business can do more with fewer resources. Built on the industry-leading performance of past versions, WebSphere Application Server Hypervisor Edition V7 further enhances performance by increasing data center efficiency through workload consolidation.

Performance-enhancing features can give you the potential to support the same or larger number of business services with fewer IT resources.

Existing workloads can be consolidated up to 30 percent by using these capabilities—saving you money and freeing up resources. You can reduce your energy consumption associated with your application foundation through a decreased footprint made possible through runtime provisioning.

Security enhancements strengthen your ability to address to avoid costly security breaches. Out-of-the-box security configurations and user registry, compliance with government standards, and stringent Web services security offer peace of mind. New security capabilities add deeper levels of management,

user governance and auditing to decrease system vulnerabilities while maximizing developer productivity. The benefits of these capabilities include:

- *WebSphere Security Domains deliver greater granularity, flexibility and control over users and infrastructure to increase administration efficiencies.*
- *Security auditing capabilities ensure security compliance to ease development.*
- *Broader implementation of Kerberos improves security interoperability with other applications and environments while increasing developer productivity.*

Simplified development

Developer-focused features simplify the development environment and increase developer productivity. WebSphere Application Server Hypervisor Edition V7 offers enhanced support for standards, emerging technology and a choice of development frameworks that simplifies programming models to increase developer productivity. And development time can be dramatically reduced with integrated tooling and unique backwards compatibility features that eliminate recoding of existing Java applications.

Intelligent management

WebSphere Application Server Hypervisor Edition V7 offers a simplified infrastructure, flexible and effective application control and runtime efficiency so you can respond to evolving business needs with infrastructure and application intelligence. New V7 intelligent management features include:

- *Runtime provisioning and Open Service Gateway initiative (OSGi) technology dynamically selects only the needed functions for memory and space reducing the application server footprint.*

- *Flexible management features improve efficiencies of administration and allow remote production resource management of WebSphere Application Server base and WebSphere Application Server-Express.*
- *New administration tools enable attention to the deepest level of security providing fine grained security management levels.*
- *New WebSphere business level applications (WBLA) expand the notion of “application” beyond Java EE 5 to significantly improve the management of multi-component applications, simplifying administrative tasks.*

- *Improved console command assistant, easier security configuration and database connectivity, wizards and a stand-alone thin administration client offer greater efficiency.*

WebSphere Application Server Hypervisor Edition is part of a powerful and comprehensive set of cloud computing and virtualization solutions for intelligently deploying and managing SOA applications, services and environments to achieve smarter business outcomes. These solutions deliver robustness and agility to enable applications to adapt to changing market conditions while lowering costs.

WebSphere Application Server Hypervisor Edition

Features	Benefits
Pre-configured integrated virtual image, including Novell SUSE Linux enterprise operating system	<ul style="list-style-type: none">• No WebSphere Application Server installation required• No need to purchase and install operating system• Maintained and supported by IBM
Open virtualization format (OVF) standard support	<ul style="list-style-type: none">• Instantly run in a hypervisor
VMware ESX, ESXi support	<ul style="list-style-type: none">• Utilize on the leading hypervisor for industry standard x86 servers
Support for V7 and V6.1 versions of WebSphere Application Server	<ul style="list-style-type: none">• Freedom of choice

WebSphere Application Server family

Features

Benefits

Full Java EE 5 support and Enterprise Java Beans 3.0 including:

Utilize all the benefits of the Java programming model and standards

- Java SE, Version 5 and 6
- Java Persistence API (JPA)
- Session Initiation Protocol
- JAX-WS 2.1
- JAXB 2.1
- stAX 1.0
- JSR 109 1.2

Portlet specification 2.0, Java Specification Requests
SAAJ 1.3 for enhancements in support of SOAP 1.2

Integration with IBM Rational® Application Developer assembly and deploy module for WebSphere software, built on Eclipse
Rational Application Developer for WebSphere software (separately priced), trial included. Rational Application Developer is integrated with Rational Software Architect for WebSphere
WebSphere business-level applications, expanding the notion of “application” beyond Java EE 5

Seamless integration with best of breed Rational software development tools

Rapid Java development and deployment kit (JDK™) 6.0, Java Platform, Standard Edition 6 (Java SE 6.0)

Utilize all the benefits of the Java programming model and standards

- Web 2.0 to SOA connectivity, Web services support:
- OASIS WS-Reliable Messaging
- OASIS WS-Secure Conversion
- OASIS WS-Trust
- OASIS WS-Transaction
- OASIS WS-Security Policy
- OASIS Kerberos Token Profile
- W3C WS-Policy
- W3C WS-Addressing Metadata
- W3C SOAP 1.2
- W3C MTOM and XOP
- WS-Metadata Exchange
- Interoperability with vendors such as Microsoft®

Take advantage of the latest Web 2.0 and Web services standards

AJAX development kit, messaging

Easily create interactive Web applications

WebSphere Application Server Feature Packs

Stay current with the latest features and enhancements

Large-scale transaction support

Easily scale as demand grows

WebSphere Application Server family

Features	Benefits
Runtime provisioning service	Dynamically selects only the needed functions to significantly reduce the application server footprint and start-up times
Flexible management	Greater control of geographically dispersed sites
Advanced security:	Reduce risk
<ul style="list-style-type: none">• WebSphere secure proxy• WebSphere security domains• New security auditing• Kerberos authentication and single sign-on• Common Criteria Assurance Level 4 certification	
Dynamic caching	Fast response time
Simple failover	Ensure applications are highly available
New administrative agent	Reduce administration overhead
Advanced clustering	<ul style="list-style-type: none">• Improve performance• Easily scale as demand grows
Enhanced performance features, including edge-of-network services	Improve performance
IBM HTTP Server for WebSphere (powered by Apache)	Integrated Web server
Migration assistance, documentation and tools	Easily move from another application server to WebSphere technology
Upgrade path from any WebSphere Application Server configuration, based on JEE compatibility	Ease of upgrade from previous versions
24x7 product support	<ul style="list-style-type: none">• Stay current with the latest features and enhancements• Receive technical support to address any problems that may arise

For more information

To learn more about IBM WebSphere Application Server Hypervisor Edition, please contact your IBM representative or IBM Business Partner, or visit the following Web site:
<http://www-01.ibm.com/software/websevers/appserv/hypervisor/>



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