

IBM WebSphere News

20. Mai 2010



Agenda

- 1 WebSphere Application Server V7 New Functions
- 2 WebSphere Application Server Feature Packs
- 3 WebSphere MQ V7 New Functions
- 4 WebSphere MQ FTE V7 New Functions

Agenda

1 WebSphere Application Server V7 New Functions

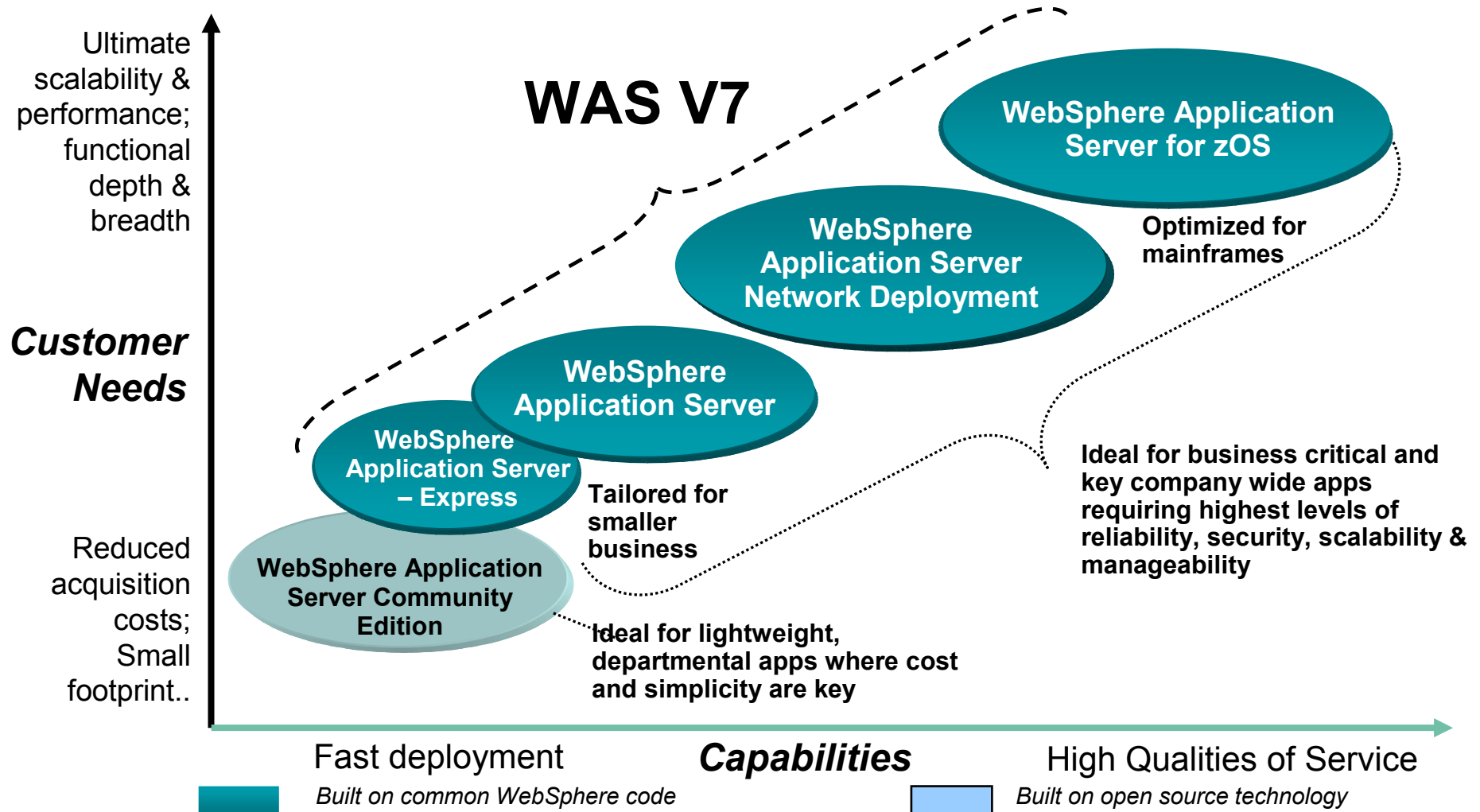
2 WebSphere Application Server Feature Packs

3 WebSphere MQ V7 New Functions

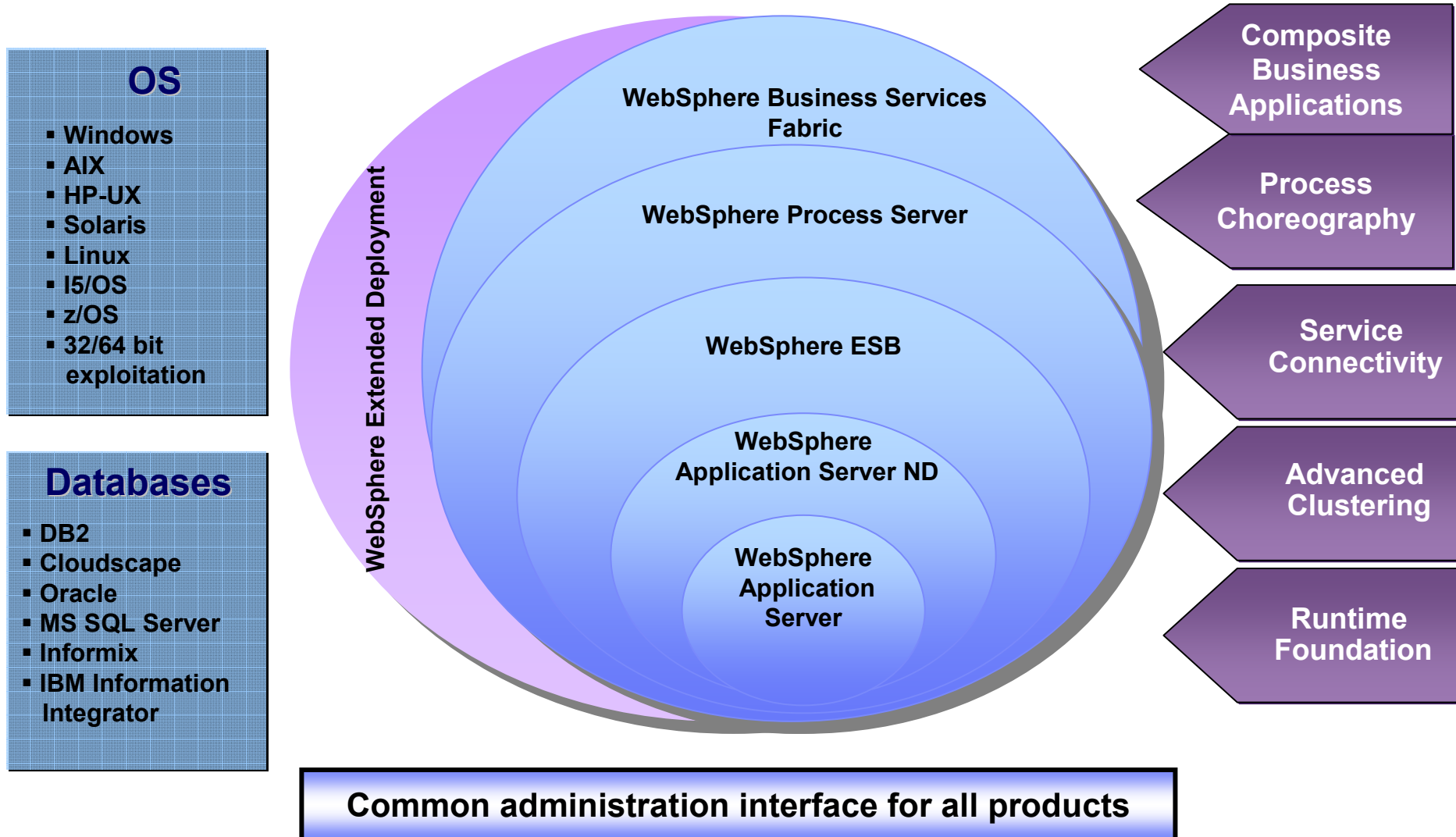
4 WebSphere MQ FTE V7 New Functions

IBM WebSphere Application Server Family

Your Choice of Innovative Performance Based Application Foundations

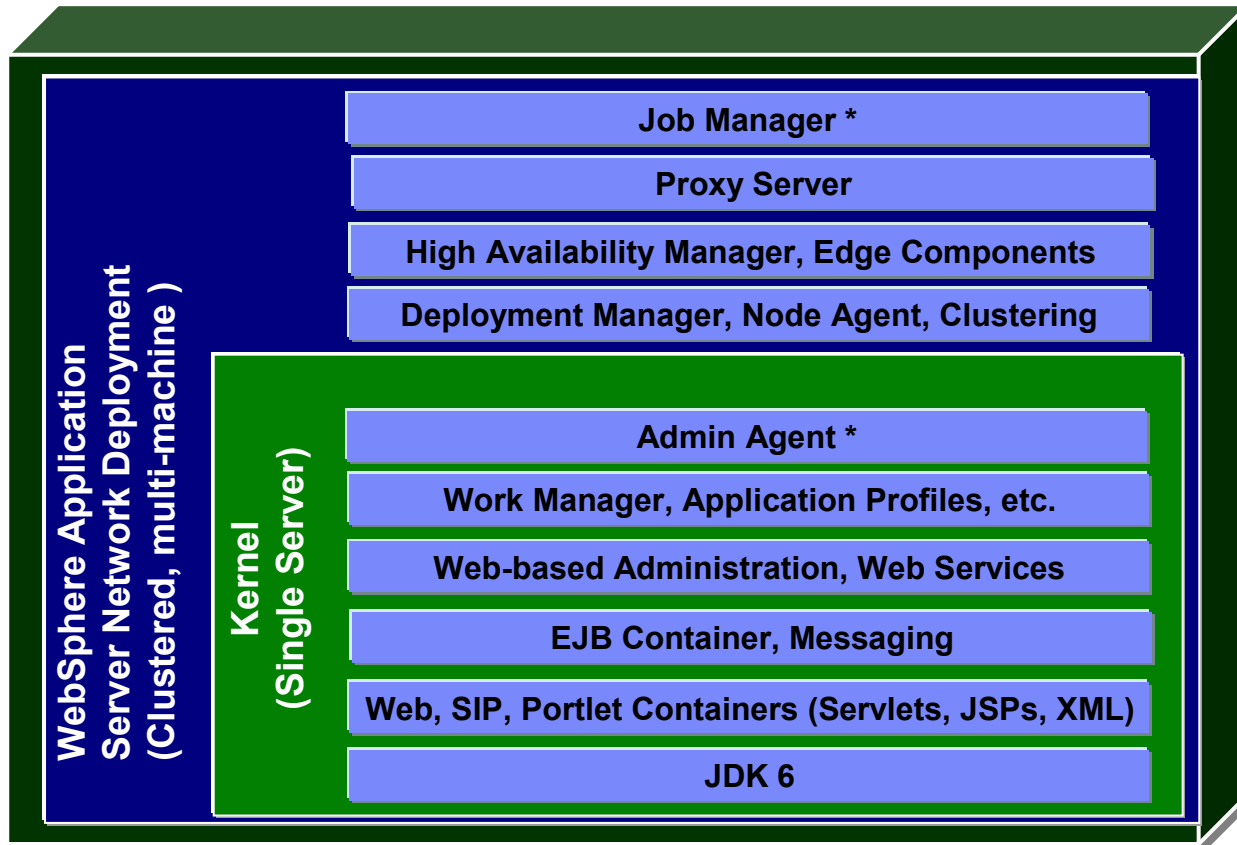


WebSphere Application Server stacked products



WAS v7 Components

Product install will continue to have the same look and feel as Version 6.x



- Plus.....
- Secure Proxy Server
- Application Client
- Thin client libraries
- IHS/plugin
- Install tools
- App development tools
- IBM Support Assistant
- ITCAM subset

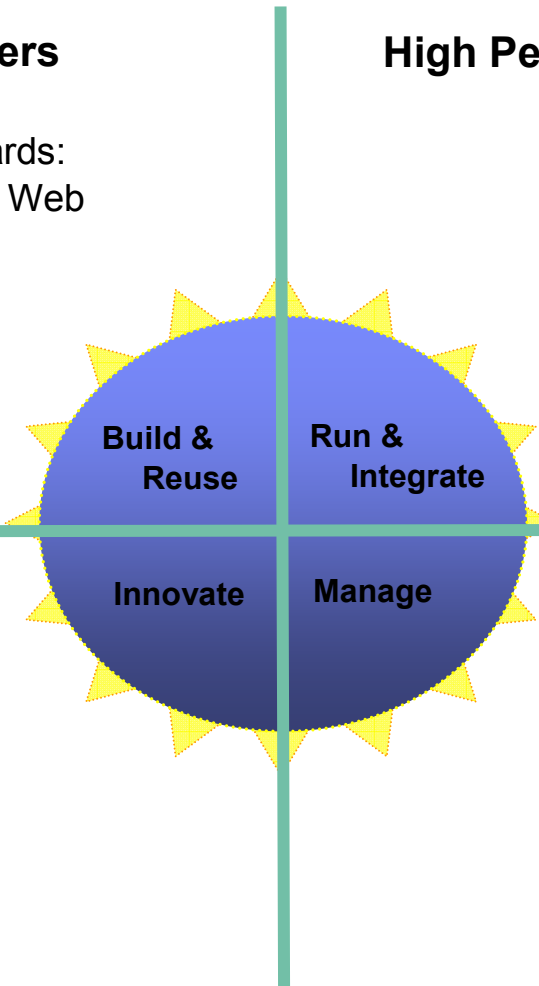
New in WAS Version 7.0

Simplification for Developers

- New and enhanced Standards: Java EE 5 certification, EJB3, Web Services, JDK 6
- New Rational Application Developer Support

High Performance Foundation for SOA

- Performance leadership
- New Runtime Provisioning
- New and Enhanced Security Features
- Application investment protection
- New Consolidated WebSphere and DataPower administration



Innovation that Matters

- Feature Pack Strategy
- Feature Pack for Web 2.0
- Feature Pack for SCA

Intelligent Management

- New Flexible Management: Job Manager, Admin Agent
- New WebSphere Business Level Applications
- New Centralized Installation Manager

Recommended fixes for WebSphere Application Server

Version 7.0			
Fix	Level	Released	Comments
Fix Pack 11	7.0.0.11	18 JUN 2010	The date is an estimated future release date. Future fix packs will be released every 12 weeks.
Fix Pack 9 <ul style="list-style-type: none"> • AIX • HP-UX • IBM i (i5/OS) • Linux • Solaris • Windows → Maintenance Download Wizard	7.0.0.9	29 MAR 2010	Readmes: Multi-platforms IBM i (i5/OS)
Release 7.0	7.0.0.0	26 SEP 2008	To download version V7.0 from Passport Advantage, follow download instructions . Information Center
Feature Packs		Released	Comments
Feature Pack for XML 1.0.0.5		28 APR 2010	Information Center
Feature Pack for Web 2.0		14 DEC 2007	Information Center

<http://www.ibm.com/support/docview.wss?rs=180&uid=swg27004980>

Lifecycle and latest fix packs

Latest fix packs for WebSphere Application Server

Product documentation

Abstract

A list of the latest available fix packs for IBM® WebSphere® Application Server releases (Base, Express, Network Deployment).

Fix packs for IBM HTTP Server V7.0, 6.1, and V6.0 are distributed with most corresponding WebSphere Application Server V7.0, 6.1, and V6.0 releases. For the latest IBM HTTP Server fix pack, also view the related information link below.

Content

Latest Fix Pack for WebSphere Application Server V7.0

→ [7.0.0.9](#)

Latest Fix Pack for WebSphere Application Server V6.1

→ [6.1.0.31](#)

Latest Fix Pack for WebSphere Application Server V6.0

→ [6.0.2.41](#)

Latest Fix Pack for WebSphere Application Server V5.1

→ [5.1.1.19](#)

IBM Software Support Lifecycle

Product name/comments	Version/ Rel./Mod.	PID/ License type/ Policy type ¹	General availability^{2/} End of marketing/ End of support	Last updated
WebSphere Application Server	7.0	5724-J08 IPLA E	GA: 17-Oct-2008,208-266 EOM: EOS:	04-Mar-2010
WebSphere Application Server → More information	6.1	5724-J08 IPLA E	GA: 30-Jun-2006,206-076 EOM: EOS:	10-Jun-2009
WebSphere Application Server → More information	6.0	5724-J08 IPLA E	GA: 31-Dec-2004,204-289 EOM: 20-Feb-2009,908-122 EOS: 30-Sep-2010,909-014	10-Jun-2009
WebSphere Application Server	5.1	5630-A36 IPLA S	GA: 16-Jan-2004,203-319 EOM: 23-Feb-2007,906-128 EOS: 26-Sep-2008,907-043	10-Jun-2009
WebSphere Application Server	5.0	5630-A36 IPLA S	GA: 03-Jan-2003,202-315 EOM: 14-Sep-2005,905-130 EOS: 30-Sep-2006,905-130	10-Jun-2009

IBM WebSphere Application Server V8.0 Alpha

The screenshot shows the IBM WebSphere Application Server V8.0 Alpha product page. The main content area includes an overview section, a list of key capabilities such as continued programming model productivity, enhanced security, and performance improvements, and a section for related programs. The right-hand sidebar contains sections for IBM WebSphere Education, Product information, Other early programs, and Related programs. The footer of the page includes a link to a consumability survey and navigation links for About IBM, Privacy, Contact, Terms of use, Accessibility, and IBM Feeds.

<https://www14.software.ibm.com/iwm/web/cc/earlyprograms/websphere/wssoa/index.shtml>

Fix Pack 7.0.0.3

- **zLinux support for zPMT/PMT/IF GUI**
- HSM utilization in WebSphere Application Server plug-in
- **VMM - Load DB drivers from outside of WebSphere Application Server binaries**
- Support for trusted proxies by Web server Plug-ins
- Improve Messaging Engine start time by batching WLM cluster joins
- Kerberos support

zLinux support for zPMT/IF GUI

- The profile management tool (PMT) can now be used to manage profiles on zLinux 31 bit and 64 bit environments
 - Capability will greatly simplify processes for stack products such as WebSphere Portal Server that have complicated command line invocations
- The installation factory build definition creation wizard can now be used in zLinux 31 bit and 64 bit environments
- The Integrated Installation Package wizard on zLinux 31 bit and 64 bit environments is now also available

Load JDBC driver using custom classpath

- When creating a database repository, WebSphere Application Server requires that the JDBC driver be in <was_home>/lib or be on the JVM classpath
- WebSphere Application Server connects to the database repository during security initialization before the data source is available
- Problems:
 - If the JDBC driver is not in the server classpath, then the database repository fails to initialize
 - Adding the JDBC driver to the JVM classpath can cause version conflicts with existing drivers in classpath

Custom classpath solution

- With fix pack 7.0.0.3, WebSphere Application Server will now load the JDBC driver for the database repository using a custom defined classpath
- This classpath is set in a WebSphere Application Server environment variable
 - **VMM_JDBC_CLASSPATH**
- If the variable is set, WebSphere Application Server will create a custom class loader with a modified classpath using the variable data
- The JDBC driver is then loaded using that custom class loader from the path specified
- Example:
 - **VMM_JDBC_CLASSPATH =**
C:\Progra~1\IBM\SQLLIB\java\db2jcc.jar;C:\Progra~1\IBM\SQLLIB\java\db2jcc_license_cu.jar;C:\Progra~1\IBM\SQLLIB\java\db2jcc_license_cisuz.jar
- If the JDBC driver is not found, then a `ClassNotFoundException` is logged
- If the environment variable is not defined, then WebSphere Application Server defaults to legacy behavior:
 - The JDBC driver is loaded from the JVM classpath

Fix Pack 7.0.0.5

- **SOAP over JMS TextMessage support**
- JAX-WS endpoint support for concurrent SOAP 1.1 and 1.2 bindings
- **Access to SOAP headers using JAX-WS handlers**
- New WS-Policy component implementation
- EJB 3.0 support for listener ports
- New web servers supported by web server plug-in
- **Inactivity monitoring for MQ JMS sessions**
- Configurable annotation scanning
- **User registry bridge for federated repositories**
- wsadmin script library additions

SOAP/JMS transport options

- SOAP/JMS messages can now be transmitted in a JMS TextMessage
 - TextMessage support is new in 7.0.0.5
 - BytesMessage remains the default message type
- Potential use cases:
 - Compatibility with systems that only support TextMessage
 - Logging methods that require text-based message data
- BytesMessage is generally more efficient

Access to SOAP headers

- V7 includes methods to set and get SOAP headers using application code
 - Code example:
http://publib.boulder.ibm.com/infocenter/wasinfo/v7r0/index.jsp?topic=/com.ibm.websphere.nd.multiplatform.doc/info/ae/ae/rwbs_impsoapheadexmpjaxws.html
- V7.0.0.5 extends this capability to JAX-WS handlers as well
 - Uses MessageContext properties in the same way
 - Example: `MessageContext.get("jaxws.binding.soap.headers.outbound")`

MDB options with WebSphere MQ (before)

	EJB 2.1	EJB 3.0
V7	Listener ports and Activation specifications	Activation specifications
V6.1.0.23 + EJB 3.0 FEP	Listener ports	<u>No compatible option!</u>
V6.1.0.23	Listener ports	n/a (EJB 3.0 not supported)
V6.0	Listener ports	n/a (EJB 3.0 not supported)

MDB consumption options (7.0.0.5+)

	EJB 2.1	EJB 3.0
V7.0.0.5	Listener ports and Activation specifications	Listener ports (new!)
V6.1.0.25 + EJB 3.0 FEP	Listener ports	Listener ports (new!)
V6.1.0.23	Listener ports	n/a (EJB 3.0 not supported)
V6.0	Listener ports	n/a (EJB 3.0 not supported)

Default behavior for listener ports

- Listener port server sessions are long-lived
 - Created as needed, pooled and reused
 - Open until listener port is stopped
- Long-lived TCP connections may be terminated by a firewall
 - Connection errors may cause listener port to stop
- Workaround is to monitor and restart listener ports

New Option in 7.0.0.5

- Listener ports can be configured to terminate idle connections at specified intervals
 - Only necessary if a firewall is timing out idle connections between WebSphere Application Server and WebSphere MQ
 - Should be set to timeout idle connections before the firewall
 - Should be set high enough to not defeat the benefits of pooling
- Detailed information, including z/OS specifics:
 - <http://www.ibm.com/support/docview.wss?uid=swg1PK83875>

User registry bridge

- Adds read-only support for additional registry types to federated repositories
 - Local operating system (including SAF/RACF)
 - Custom repository
 - Repositories that implement `com.ibm.websphere.security.UserRegistry` interface
- Information Center link:
 - http://fred.raleigh.ibm.com:7080/help/topic/com.ibm.websphere.nd.multipatform.doc/info/ae/ae/cwim_userregbridge.html

Fix Pack 7.0.0.7

- Web services enhancements
- Service integration bus blocked message detection
- Proxy server support for custom session cookie names

3rd party JAX-WS provider support

- 3rd party JAX-WS providers can be used in place of the WebSphere Application Server provider
 - Deployed with application
 - Used when you want a single JAX-WS implementation across multiple application server products
- To enable:
 - Set parent-last class loading policy at the module level
 - Turn off Web services annotation scanning
 - Application level
 - DisableIBMJAXWSEngine: true in the modules manifest
 - Server level
 - com.ibm.websphere.webservices.DisableIBMJAXWSEngine
 - Detailed steps in the Information Center
 - http://fred.raleigh.ibm.com:7080/help/topic/com.ibm.websphere.nd.doc/info/ae/ae/twbs_thirdparty.html

3rd party JAX-WS provider support (limitations)

▪ Limitations

- A single application cannot use both the default JAX-WS provider and a third-party provider
- Any JARs provided by both the third-party provider and WebSphere Application Server must be removed from the application EAR
- Applications that use third-party providers are not recognized as service clients or providers, and cannot have policy sets attached
- Must rely on the third-party provider's support for quality of service features, including:
 - WS-Security
 - WSDM
 - WS-Transaction
 - WS-RM
 - JNDI lookup to retrieve service or port instance

Accelerated JAX-B serialization

- JAX-B marshalling and unmarshalling can be accelerated in V7.0.0.7
- Controlled using a JVM custom property
 - `com.ibm.xml.xlsp.jaxb.opti.level`
 - Set on the application server level
 - Values
 - 0: Optimization methods are not enabled
 - 1: Only unmarshalling optimization methods are enabled (default)
 - 2: Only marshalling optimization methods are enabled
 - 3: Both unmarshalling and marshalling optimization methods are enabled
- Information Center
 - http://fred.raleigh.ibm.com:7080/help/topic/com.ibm.websphere.nd.doc/info/ae/ae/xrun_jvm.html

extendedDocumentRoot support for variables

- extendedDocumentRoot
 - Optional attribute in *ibm-web-ext.xmi*
 - Defines additional location where JSPs or static files exist outside the application
- Fix pack 7 adds support for WebSphere Application Server variables
 - Variables will be expanded to path names when used in value of extendedDocumentRoot

Data source failover for Oracle

- Data source can maintain a list of alternate database servers
 - On connection failure, throws a `staleConnectionException`
 - Subsequent requests sent to alternate server
 - Requests cycle through list, restarting at primary server
- Does not address data synchronization between database servers
- Supported only for non-XA Oracle data sources
 - Similar support is already available for DB2
- Programming model unchanged
 - Applications must retry on `staleConnectionException`

Data source failover for Oracle

- Enabled using custom data source property
 - *datasourceFailoverServers*
 - List of connection URLs
 - Example: `URL=jdbc:oracle:thin:@server1.ibm.com:1521:test1;URL=jdbc:oracle:thin:@server2.ibm.com:1521:test1`
- Database servers must use the same security credentials
 - A single security alias is used across requests

Fix Pack 7.0.0.9

- **Web container enhancements**
- Dynacache multi-cell support
- Commands for mapping VMM attributes to LDAP
- **Enhancements to properties file based configuration**
- Performance tuning script and templates

HTTPOnly attribute for session cookies

- HTTP cookies can contain an attribute called “HTTPOnly”
 - Tells browsers to allow the cookie to be accessed by HTTP only
 - Prevents access from other means, such as JavaScript
- Used as a security measure, can help mitigate the risk of cross-site scripting attacks
- Web container can dynamically add this attribute to a response header if it is not present
 - Custom property name: `com.ibm.ws.webcontainer.httpOnlyCookie`
 - Custom property value: comma-separated list of cookie names that should have this attribute set
 - Example: `com.ibm.ws.webcontainer.httpOnlyCookie=JSessionID`
 - Cookie names are case insensitive, comma separated

Support for multiple reads of HTTP POST data

- HTTP POST data can be read one of two ways
 - Read parameters using `HttpServletRequest.getParameter()`
 - Read the data as an input stream using `HttpServletRequest.getInputStream()`
- If both are called, second call will fail in prior releases
- Fix pack 9 adds support for these methods to be called in either order

Wildcard support in Servlet URL patterns

- Wildcards can now be used to specify Servlet URL patterns in a Web application configuration
 - Example pattern: `"/services/*"`
 - Servlet deployed in a Web module with the root `"myApp"`
 - Matching requests:
 - <http://servername/myApp/services/OldService>
 - <http://servername/myApp/services/NewService>

Properties file based configuration enhancements

- Properties file portability across cells
 - New parameter, PortablePropertiesFile for exporting files with portable IDs
 - Can be used to create identical systems from properties files
 - Example:
 - `AdminTask.extractConfigProperties('[-propertiesFileName server.props -configData Server=server1 -options [[PortablePropertiesFile true]]]')`
 - Information Center details:
 - http://fred.rtp.raleigh.ibm.com:7080/help/topic/com.ibm.websphere.nd.multiplatform.doc/info/ae/ae/xml_portable_prop.html
- Extract or modify properties for a WCCM object type
 - `extractConfigProperties()` now extracts all properties, not just the most important ones
 - Example and documentation:
 - http://fred.rtp.raleigh.ibm.com:7080/help/topic/com.ibm.websphere.nd.multiplatform.doc/info/ae/ae/xml_prop_wccm_object.html
- More object types can be modified with properties file based configuration
 - See Information Center for full list and syntax:
 - http://fred.rtp.raleigh.ibm.com:7080/help/topic/com.ibm.websphere.nd.multiplatform.doc/info/ae/ae/xml_config_prop.html

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