



IBM Web Application Pattern V2.0 offers expanded programming model support for virtual applications

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At a glance

IBM® Web Application Pattern V2.0 provides:

- Support for a broader set of programming models such as Java™ EE 6, OSGi, and JPA
- Support for custom plug-ins for use as part of virtual application deployments, providing more flexibility to use third-party software
- Virtual application patterns compatible for use with IBM Workload Deployer
- Streamlined and cost-effective capabilities to host and manage web applications
- Fully automated management of your web application as a single unit, including deployment, life cycle management, elastic scaling, and security
- Key components of a web application environment, including an application and the ability to plug into the Workload Deployer load balancer and its elastic cache

Overview

IBM Web Application Pattern V2.0, previously announced as IBM Workload Deployer Pattern for Web Applications V1.0 in Software Announcement [211-140](#), dated April 05, 2011, expands support for Java Platform, Enterprise Edition (Java EE) web applications with Java EE 6 compliance and provides broad programming model support, including Java EE 6, Open Services Gateway initiative (OSGi) applications, and Java Persistence API (JPA). This new support can promote business agility and provide choices to help you decrease cost, enhance your developer productivity, and grow your business.

You can use Web Application Pattern to deploy and manage web applications in a more cost-effective way while helping to maximize developer productivity. This can provide significant value for your data center or business by enabling you to spend less time administering your web applications and more time developing new solutions.

Each virtual application pattern, previously announced as workload patterns in Software Announcement [211-140](#), dated April 05, 2011, requires one of the IBM System Images, such as IBM Workload Deployer Image for x86 Systems V1.0, previously announced in Software Announcement [211-140](#), dated April 05, 2011, and IBM OS Image for AIX® Systems V1.0. These system images provide the foundation for virtual application patterns. Specifically, they provide the operating environment in which virtual application patterns run, including the operating system and infrastructure unique to IBM Workload Deployer. With IBM Workload Deployer V3.1, AIX operating system support for virtual applications is now provided using OS Image for AIX Systems.

IBM system images are required for a set of shared services that are deployed by IBM Workload Deployer in support of all virtual application patterns. These shared services include components, such as web proxy and load balancing.

IBM Web Application Pattern can provide significant value for your data center or business by helping you to:

- Reduce the deployment and configuration time for your web application environment
- Reduce risk by representing your infrastructure in code form (codifying) and preserving best practices for repeated, consistent deployments
- Spend less time administering your web applications and more time developing new solutions

Key prerequisites

Refer to the [Hardware requirements](#) and [Software requirements](#) sections for details.

Planned availability date

- November 18, 2011 (electronic)
- December 16, 2011 (media pack)

Description

IBM Web Application Pattern V2.0

IBM Web Application Pattern V2.0 broadens the support for programming models such as Java EE 6, OSGi, and JPA. Support for these programming models in IBM Web Application Pattern V2.0 enables reuse and rapid creation of applications and services that promote business agility.

Web Application Pattern can provide a way to deploy and manage web applications in a more cost-effective way, helping to enhance developer productivity. This cost-effectiveness is obtained in part through the removal of choice. While Web Application Pattern supports applications of all sizes and levels of importance, the removal of choice will preclude very customized applications from being able to run. The question of compatibility will normally come down to whether all of an application's required middleware componentry is included in Web Application Pattern. For example, Web Application Pattern only supports local Enterprise Java Beans (EJBs). It is typically the case that simpler web applications will fit this solution.

Web Application Pattern includes a dynamically scalable application server, which can grow to meet the resource needs of the applications hosted within it, based on processor consumption. Interaction with Web Application Pattern occurs through artifacts and policies. You simply provide artifacts such as .ear files and .ddl files and specify deployment and management policies, and you are ready to use your application. The deployable artifact describes the operational policy by which the application server should be managed.

Web Application Pattern allows connections to an existing database. Use of that external database component is as simple as providing connection information about the database. Additionally, it provides connectivity to an external directory server, messaging server, and legacy systems such as CICS® and IMS™.

In addition to the ability to dynamically scale the application server footprint in response to fluctuating processor consumption metrics, Web Application Pattern provides scalability by utilizing an elastic caching component. This caching component is a distributed in-memory cache, which is highly scalable and fast. Further, it can optimize the resource usage by deploying a scalable proxy component

as a service. This shared instance of proxy servers can balance the incoming workload traffic and route requests appropriately to respective application servers. The instances for proxy as well as caching component can be scaled up or down based on the requirement. Overall, Web Application Pattern provides an end-to-end deployment and management solution for web applications. This solution can provide a more cost-effective way of managing web applications due to reduced manual labor and increased consistency.

IBM Workload Deployer Image for x86 Systems V1.0 and IBM OS Image for AIX Systems V1.0

IBM Workload Deployer Image for x86 Systems V1.0 or IBM OS Image for AIX Systems V1.0 provide the foundation for virtual application patterns, including the Web Application Pattern. They provide the operating environment in which workload patterns run, including the operating system and infrastructure unique to IBM Workload Deployer. Deployer Image for x86 Systems or OS Image for AIX Systems are required components for use of Web Application Pattern.

IBM Workload Deployer Image for x86 Systems V1.0 or IBM OS Image for AIX Systems V1.0 is also required for shared services components deployed by Workload Deployer. These services are shared across all virtual application patterns and are responsible for managing load balancing and other cross-cutting concerns.

Accessibility by people with disabilities

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at

http://www.ibm.com/able/product_accessibility/index.html

Reference information

- For more information about IBM Workload Deployer V3.1, refer to Hardware Announcement [111-202](#), dated October 04, 2011.
- For more information on IBM WebSphere® Application Server Hypervisor Edition V8.0, refer to Software Announcement [211-462](#), dated October 04, 2011.
- For more information about IBM Workload Deployer V3.0, refer to Hardware Announcement [111-073](#), dated April 05, 2011.
- For more information on Support Registration, refer to Software Announcement [211-136](#), dated April 05, 2011.
- For information on IBM WebSphere Cloudburst Appliance firmware V2.0, refer to Hardware Announcement [110-116](#), dated April 30, 2010.

Program number

Program name	Program number
IBM Web Application Pattern V2.0	5725-D57
IBM workload Deployer Image for x86 Systems V1.0	5725-D64
IBM OS Image for AIX Systems V1.0	5725-F60

Offering Information

Product information is available via the Offering Information website

<http://www.ibm.com/common/ssi>

Also, visit the Passport Advantage® website

<http://www.ibm.com/software/passportadvantage>

Publications

No publications are shipped with these programs.

IBM plans to publish the product documentation in an information center using the IBM Eclipse Help System framework.

Advantages of information centers are:

- Content is indexed by Google and other Internet search engines to help locate information more easily.
- Custom searches can be created that include only the information you need for a particular task or job role.

The IBM Workload Deployer Information Center is planned to be updated by November 18, 2011, at

<http://publib.boulder.ibm.com/infocenter/worlodep/v3r0m0/index.jsp>

Technical information

Specified operating environment

Hardware requirements

IBM Web Application Pattern V2.0 requires:

- IBM Workload Deployer V3.1

Current licenses for AIX purchased as part of the Power Systems™ hardware and PowerVM™ setup are required to use IBM WebSphere Application Server Hypervisor Edition V8.0 on AIX, IBM HTTP Server for WebSphere Application Server Hypervisor Edition V8.0 on AIX, and IBM OS Image for AIX Systems V1.0.

Software requirements

- Supported databases
 - Connect to DB2® for z/OS® V9.0, V9.1, or V10
For additional information on DB2 for z/OS V10, refer to
<http://www.ibm.com/software/data/db2/zos/>
Note: Connectivity to DB2 for z/OS requires entitlement for IBM DB2 Connect™ Unlimited Edition for System z®. For more information on DB2 Connect Unlimited Edition for System z, refer to
<http://www.ibm.com/software/data/db2/db2connect/edition-ue.html>
 - Connect to DB2 for Linux™, UNIX™, and Windows™. For supported levels and editions, refer to
http://www.ibm.com/support/docview.wss?uid=swg27021246#AIX_Databases_ww
 - Connect to Oracle Database 11g Standard or Enterprise Release 1 or 2.
Minimum levels supported are:
 - Release 1 - 11.1.0.7
 - Release 2 - 11.2.0.1.0

For additional information on Connect to Oracle Database 11g Standard or Enterprise, refer to

<http://www.oracle.com/us/products/database/index.html>

- Java Database Connectivity (JDBC) drivers
 - JDBC drivers for Oracle 11.1.0.7 at <http://www.oracle.com/technetwork/indexes/downloads/index.html>
 - JDBC drivers for Oracle 11.2.0.1.0 at <http://www.oracle.com/technetwork/indexes/downloads/index.html>
- Java Message Service (JMS)
 - Connect to IBM WebSphere MQ V6.0.2 or V7.0.
- LDAP servers
 - Connect to IBM Tivoli® Directory Server V6.0 and future releases, modification levels, and fix packs.
 - Connect to Microsoft™ Active Directory 2003 and future releases, modification levels, and fix packs.
- IBM CICS Transaction Gateway
 - Connect to IBM CICS Transaction Gateway for z/OS V7.0, V7.1, V7.2, or V8.0.
 - Connect to IBM CICS Transaction Gateway for Multiplatforms V7.0, V7.1, V7.2, or V8.0.
- IMS
 - Transaction Manager (TM) resource adapter on IMS 10, 11, and 12
 - Database (DB) resource adapter on IMS 11 and 12

The program's specifications and specified operating environment information may be found in documentation accompanying the program, if available, such as a readme file, or other information published by IBM, such as an announcement letter. Documentation and other program content may be supplied only in the English language.

Planning information

Direct customer support

Installation and technical support is provided by Global Services. For more information call 800-IBM-4YOU (426-4968).

For technical support or assistance, contact your IBM representative, IBM Business Partner, or visit

<http://www.ibm.com/support>

Packaging

IBM Web Application Pattern V2.0

Web Application Pattern is preloaded on IBM Workload Deployer V3.1.

Web Application Pattern can also be downloaded at

<http://www.ibm.com/software/passportadvantage>

Web Application Pattern also contains:

- IBM International Program License Agreement
- License Information in multiple languages
 - Form number - L-AJOS-8LJMK5
- Proof of Entitlement

IBM Workload Deployer Image for x86 Systems V1.0

Deployer Image for x86 Systems is preloaded on IBM Workload Deployer V3.1.

Deployer Image for x86 Systems can also be downloaded at

<http://www.ibm.com/software/passportadvantage>

Deployer Image for x86 Systems also contains:

- IBM International Program License Agreement
- License Information in multiple languages
Form number - L-AJOS-8LJMH6
- Proof of Entitlement

IBM OS Image for AIX Systems V1.0

OS Image for AIX Systems is preloaded on IBM Workload Deployer V3.1.

OS Image for AIX Systems can also be downloaded at

<http://www.ibm.com/software/passportadvantage>

OS Image for AIX Systems also contains:

- IBM International Program License Agreement
- License Information in multiple languages
Form number - L-AJOS-8LJMLS
- Proof of Entitlement

The program License Information will be available for review on the IBM Software License Agreement website at

<http://www.ibm.com/software/sla/sladb.nsf>

This program, when downloaded from a website, contains the applicable IBM license agreement and License Information, if appropriate, and will be presented for acceptance at the time of installation of the program. For future reference, the license and License Information will be stored in a directory such as LICENSE.TXT.

Software Services

IBM Software Services has the breadth, depth, and reach to manage your services needs. You can leverage the deep technical skills of our lab-based, software services team and the business consulting, project management, and infrastructure expertise of our IBM Global Services team. Also, we extend our IBM Software Services reach through IBM Business Partners to provide an extensive portfolio of capabilities. Together, we provide the global reach, intellectual capital, industry insight, and technology leadership to support a wide range of critical business needs.

To learn more about IBM Software Services or to contact a Software Services sales specialist, visit

<http://www.ibm.com/software/sw-services/>

Ordering information

This product is only available via Passport Advantage. It is not available as shrinkwrap.

Product category: Application Integration Middleware

Product Identifier Description	Program number
IBM Web Application Pattern V2.0	5725-D57
IBM Workload Deployer Image for x86 Systems V1.0	5725-D64
IBM OS Image for AIX Systems V1.0	5725-F60

Charge metric

Program name	Program number	Charge unit description
IBM Web Application Pattern V2.0	5725-D57	Processor Value Unit
IBM Workload Deployer Image for x86 Systems V1.0	5725-D64	Processor Value Unit
IBM OS Image for AIX Systems V1.0	5725-F60	Processor Value Unit

Processor Value Unit (PVU)

PVU is a unit of measure by which the program can be licensed. The number of PVU entitlements required is based on the processor technology (defined within the PVU table by processor value, brand, type, and model number at the website below) and the number of processors made available to the program. IBM continues to define a processor, for the purpose of PVU-based licensing, to be each processor core on a chip. A dual-core processor chip, for example, has two processor cores. The PVU table can be found at

http://www.ibm.com/software/lotus/passportadvantage/pvu_licensing_for_customers.html

Licensee can deploy the program using either full capacity licensing or virtualization capacity (sub-capacity) licensing according to the Passport Advantage Sub-Capacity Licensing Terms (refer to the web page below). If using Full Capacity licensing, Licensee must obtain PVU entitlements sufficient to cover all activated processor cores¹ in the physical hardware environment made available to or managed by the program, except for those servers from which the program has been permanently removed. If using Virtualization Capacity licensing, Licensee must obtain entitlements sufficient to cover all activated processor cores made available to or managed by the program, as defined according to the Virtualization Capacity License Counting Rules at

http://www.ibm.com/software/lotus/passportadvantage/Counting_Software_licenses_using_specific_virtualization_technologies.html

¹ An activated processor core is a processor core that is available for use in a physical or virtual server, regardless of whether the capacity of the processor core can be or is limited through virtualization technologies, operating system commands, BIOS settings, or similar restrictions.

Notes:

- Some programs may require licenses for the program and what is being managed. In that case, the following applies. In addition to the entitlements required for the program directly, licensee must obtain PVU entitlements for this program sufficient to cover the processor cores managed by the program.

- Some programs may be licensed on a managed basis only. In that case, the following applies. Instead of the entitlements required for the program directly, licensee must obtain PVU entitlements for this program sufficient to cover the processor cores managed by the program.
- A few programs on an exception basis may be licensed on a referenced basis. In that case, the following applies. Rather than obtaining entitlements for the activated processor cores available to the program, licensee must obtain PVU entitlements for this program sufficient to cover the environment made available to the referenced program as if the program itself were executing everywhere the referenced program was executing, independent of the basis on which the referenced program is licensed.

Product description	Product number
IBM Web Application Pattern V2.0	5725-D57
IBM workload Deployer Image for x86 Systems V1.0	5725-D64
IBM OS Image for AIX Systems V1.0	5725-F60

Passport Advantage

Description	Part number
IBM Web Application Pattern V2.0	
Per processor Value Unit (5725-D57)	
License + Software S&S 12 months	D0JI1LL
Annual Software S&S Renewal 12 months	E0C4CLL
Software S&S reinstatement 12 months	D0JI2LL
IBM workload Deployer Image for x86 Systems V1.0	
Per processor Value Unit (5725-D64)	
License + Software S&S 12 months	D0J5SLL
Annual Software S&S Renewal 12 months	E0BYBLL
Software S&S reinstatement 12 months	D0J5TLL
IBM OS Image for AIX Systems V1.0	
Per processor Value Unit (5725-F60)	
License + Software S&S 12 months	D0LWXLL
Annual Software S&S Renewal 12 months	E0D2VLL
Software S&S reinstatement 12 months	D0LWYLL

Passport Advantage customer: Media pack entitlement details

Customers with active maintenance or subscription for the products listed are entitled to receive the corresponding media pack.

Media packs description	Part number
IBM Web Application Pattern V2.0 Multilingual DVD Media Pack	BA130ML
IBM workload Deployer Image for x86 Systems V1.0 Multilingual DVD Media Pack	BA11GML

Processor Value Unit (PVU) sub-capacity licensing

This software product is eligible for sub-capacity licensing. Customers must accept the terms of the IBM International Passport Advantage Agreement Attachment for Sub-Capacity Licensing Terms (Attachment), and must obtain PVU Proofs of Entitlement (PoEs) for the maximum processor core capacity available to an eligible sub-capacity product when deployed in an eligible virtualization environment. This is also referred to as *sub-capacity* or *virtualization capacity licensing*.

Customers must use the IBM License Metric Tool unless they meet the exceptions described in the Attachment.

For information regarding PVU sub-capacity licensing, including terms and IBM License Metric Tool ordering information, visit

<http://www.ibm.com/software/lotus/passportadvantage/subcaplicensing.html>

Terms and conditions

The information provided in this announcement letter is for reference and convenience purposes only. The terms and conditions that govern any transaction with IBM are contained in the applicable contract documents such as the IBM International Program License Agreement, IBM International Passport Advantage Agreement, and the IBM Agreement for Acquisition of Software Maintenance.

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These programs are licensed under the IBM Program License Agreement (IPLA) and the associated Agreement for Acquisition of Software Maintenance, which provide for support with ongoing access to releases and versions of the program. IBM includes one year of Software Subscription and Support (also referred to as Software Maintenance) with the initial license acquisition of each program acquired. The initial period of Software Subscription and Support can be extended by the purchase of a renewal option, if available. These programs have a one-time license charge for use of the program and an annual renewable charge for the enhanced support that includes telephone assistance (voice support for defects during normal business hours), as well as access to updates, releases, and versions of the program as long as support is in effect.

License Information form numbers

Program name	LI number
IBM Web Application Pattern V2.0	L-AJOS-8LJMK5
IBM workload Deployer Image for x86 Systems V1.0	L-AJOS-8LJMH6
IBM OS Image for AIX Systems V1.0	L-AJOS-8LJMLS

The program's License Information will be available for review on the IBM Software License Agreement website

<http://www.ibm.com/software/sla/sladb.nsf>

Limited warranty applies

Yes

Limited warranty

IBM warrants that when the program is used in the specified operating environment, it will conform to its specifications. The warranty applies only to the unmodified portion of the program. IBM does not warrant uninterrupted or error-free operation of the program or that IBM will correct all program defects. You are responsible for the results obtained from the use of the program.

IBM provides you with access to IBM databases containing information on known program defects, defect corrections, restrictions, and bypasses at no additional charge. For further information, consult the IBM Software Support Handbook found at

<http://www.ibm.com/support/handbook>

IBM will maintain this information for at least one year after the original licensee acquires the program (warranty period).

Program technical support

Technical support of a program product version or release will be available for a minimum of five years from the general availability date, as long as your Software Subscription and Support (also referred to as Software Maintenance) is in effect. This technical support allows you to obtain assistance (via telephone or electronic means) from IBM for product-specific, task-oriented questions regarding the installation and operation of the program product. Software Subscription and Support also provides you with access to updates (modifications or fixes), releases, and versions of the program. You will be notified, via announcement letter, of discontinuance of support with 12 months' notice. If you require additional technical support from IBM, including an extension of support beyond the discontinuance date, contact your IBM representative or IBM Business Partner. This extension may be available for a fee.

IBM Workload Deployer Image for x86 Systems Technical Support

IBM will provide support for Deployer Image for x86 Systems product under the following conditions:

- IBM Workload Deployer Image for x86 Systems is used in conjunction with an IBM virtual application pattern.
- IBM may ask customers to move up to the latest IBM Workload Deployer Image for x86 Systems support level. Customers with active Passport Advantage subscription and support are entitled to this upgrade.

OS Image for AIX Systems Technical Support

Customer is required to have a separate entitlement for AIX on the hardware on which OS Image for AIX Systems is being used.

IBM will provide support for OS Image for AIX Systems product under the following conditions:

- OS Image for AIX Systems is used in conjunction with an IBM virtual application pattern.
- IBM may ask customers to move up to the latest OS Image for AIX Systems support level. Customers with active Passport Advantage subscription and support are entitled to this upgrade.

Money-back guarantee

If for any reason you are dissatisfied with the program and you are the original licensee, you may obtain a refund of the amount you paid for it, if within 30 days of your invoice date you return the program and its PoE to the party from whom you obtained it. If you downloaded the program, you may contact the party from whom you acquired it for instructions on how to obtain the refund.

For clarification, note that (1) for programs acquired under the IBM International Passport Advantage offering, this term applies only to your first acquisition of the program and (2) for programs acquired under any of IBM's On/Off Capacity on Demand (On/Off CoD) software offerings, this term does not apply since these offerings apply to programs already acquired and in use by you.

Volume orders (IVO)

No

Passport Advantage applies

Yes, and through the Passport Advantage website at

<http://www.ibm.com/software/passportadvantage>

Usage restrictions

Yes. For information, refer to the License Information document that is available on the IBM Software License Agreement website

<http://www.ibm.com/software/sla/sladb.nsf>

Software Subscription and Support applies

Yes. Software Subscription and Support (also referred to as Software Maintenance) is included with licenses purchased through Passport Advantage and Passport Advantage Express®. Product upgrades and Technical Support are provided by the Software Subscription and Support offering as described in the Agreements. Product upgrades provide the latest versions and releases to entitled software and Technical Support provides voice and electronic access to IBM support organizations, worldwide.

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While your Software Subscription and Support is in effect, IBM provides you assistance for your routine, short duration installation and usage (how-to) questions, and code-related questions. IBM provides assistance via telephone and, if available, electronic access, only to your information systems (IS) technical support personnel during the normal business hours (published prime shift hours) of your IBM support center. (This assistance is not available to your end users.) IBM provides Severity 1 assistance 24 hours a day, 7 days a week. For additional details, consult your IBM Software Support Handbook at

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IBM Operational Support Services -- SoftwareXcel

No

Other support

Passport Advantage

System i Software Maintenance applies

No

Variable charges apply

No

Educational allowance available

Not applicable.

Prices

For additional information and current prices, contact your local IBM representative.

Business Partner information

If you are an IBM Business Partner -- Distributor for Workstation Software acquiring products from IBM, you may link to Passport Advantage Online for resellers where you can obtain Business Partner pricing information. An IBM ID and password are required.

<https://www.ibm.com/software/howtobuy/passportadvantage/paoreseller>

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<http://www-03.ibm.com/financing/us/index.html>

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