Work smarter with IBM Mashup Center V2.0

At a glance

IBM® Mashup Center V2.0 empower users of all skill levels to assemble personal, enterprise, and Web information into tailored Web application within minutes. IBM Mashup Center V2 simplifies and speeds mashup creation by delivering new features that improve each step in the mashup development lifecycle from the unlocking of additional data sources, to creating widgets, to further easing the wiring and assembly of pages, to enhancing the security and management of the resulting mashups.

IBM Mashup Center introduces the following new features and benefits:

- Speeds and simplifies mashup creation with a new browser-based tool for simple widget creation, plus new and enhanced visualization widgets
- Leverages existing enterprise investments with new capabilities to mashup information from Microsoft® Sharepoint, WebSphere® MQ, Filenet P8, IBM Content Manager, and Web services secured by WS-Security
- Builds more secure, manageable mashups through features such as enhanced usage reports, content filtering, and sandboxing for untrusted widgets
- Increases the productivity of mashup developers and the flexibility of the resulting mashups by utilizing new transformation and customization functions

To order, contact your IBM representative, an IBM Business Partner, or the Americas Call Centers at: 800-IBM-CALL

Reference:

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IBM InfoSphere MashupHub: YE001
IBM Lotus® Mashups:  YE001
IBM Mashup Center:  YE001
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Overview

IBM Mashup Center V2.0 is an easy-to-use enterprise mashup platform, supporting rapid assembly of dynamic situational applications - with the management, security, and governance capabilities IT requires. IBM Mashup Center V2.0 continues to expand upon the productivity, security, and customization features inherent in Mashup Center, delivering the following new capabilities and benefits.

Simplify mashup creation

IBM Mashup Center is designed around the primary goal of making it fast and easy for users of all skill levels to create simple Web applications from existing information sources. To that end, Mashup Center V2.0 contains a set of new capabilities that further speed up the delivery of mashup applications and widgets

including a new browser-based tool for simple widget creation, new and enhanced visualization widgets, and a new feature called spaces that allows users to collaboratively build and share multi-page enterprise mashups to solve specific business needs.

Better address potential security challenges with secure mashups and content filtering

While enterprise mashups can deliver significant productivity benefits to organizations, IT shops often question how they can achieve those benefits without compromising security and while also maintaining a necessary balance between innovation and control. IBM Mashup Center can help organizations address these challenges by providing the tools they need to properly manage and secure their feeds, widgets, and mashup pages, including enhanced usage reports, content filtering, and sandboxing for untrusted widgets.

Better leverage existing enterprise investments

IBM Mashup Center V2.0 continues to deepen its support for turning existing investments into reusable and easily mashable assets. With V2.0, organizations can tap into enterprise content management repositories such as Microsoft Sharepoint, IBM FileNet® and Web Services via WS-Security, WebSphere MQ solutions, and RESTful Services. These new features help companies to maximize return on investment (ROI) on previous IT investments rapidly.

Take advantage of new transformation and customization capabilities

IBM Mashup Center V2.0 delivers new transformation and customization functions that increase the productivity of mashup developers and the flexibility of the resulting mashups. New features include expanded configuration options that support fine tuning of a mashup's user interface, new transformation functions to speed creation of data mashups, easier manipulation of nested data, and ability to generate JSON feeds.

Key prerequisites

Refer to the Hardware requirements and Software requirements sections for details.

Planned availability date

November 20, 2009: Electronic software delivery

December 4, 2009: Media and documentation

Description

Increase the ease and speed of building mashups and widgets

Build up a richer ecosystem of widgets by turning every user into a widget creator

IBM Mashup Center V2.0 includes a new browser-based, easy-to-use tool that lowers the technical skill level requirements for creating widgets further enabling both line of business and IT to rapidly create and customize mashup applications. This tool, called Widget Builder, empowers both Web developers and business users to build new widgets and share them with others in the community. This opens up widget creation to a broader set of users, helps organizations to build a richer ecosystem of widgets, resulting in a wider potential variety of mashups. Widget Builder's self-service capabilities include:

- **Simple wizards for creating new widgets.** Non-technical users can create new widgets by first selecting from a handful of wizards, such as "Create a widget from a Web site". Once a wizard is selected, users can step through it sequentially and get a dynamic preview of the widget as it is built. When the wizard is complete, users can automatically add the widget to a mashup page, to their palette, or to the catalog for use by others in the mashup ecosystem.
- **Widget editor for creating, modifying, and deploying client-side widgets.** With this new capability, Web developers can create new widgets from a blank canvas or from existing files (HTML, javascript, images, XML, CSS). Through this tool, the necessary files can be uploaded into the lightweight content store and even edited within a rich-text editor. Once a widget is complete, it can be downloaded to the desktop or added to a mashup page, catalog, or palette. The net result is fast creation and deployment of client-side widgets.
- **Pluggable wizard mechanism.** IT organizations and third parties can create their own wizards that plug into the Widget Builder. Administrators or end users can then add these wizards into their Widget Builder environment with just a few clicks.

Enhance collaboration and productivity by creating spaces for specific business needs

IBM Mashup Center V2.0 allows users to collaboratively build and share spaces, which are collections of pages assembled together to solve a specific business need. Each user has a personal space, which can contain information specific to that individual's unique job functions and interests. Users can also build and share spaces with their teammates, without requiring IT involvement. Finally, spaces can be saved as templates and published to the catalog, where other mashup creators can reuse them to jump start application creation.

Speed-up and simplify mashup creation with new and enhanced visualization widgets and simplified wiring capabilities

Mashup Center continues to increase the ease and speed of building mashups through:

- **New and enhanced widgets:** The sleek new drill-down widget supports visualization of hierarchical data sources. The charting widget has been enhanced to offer a more visual mechanism for selecting data to chart, more out-of-the-box styles, and a new chart type (stacked bar.) Likewise, the data viewer widget has been improved to support capabilities such as renaming columns, browsing the catalog for feeds, and specifying custom error messages for end users.
- **Wiring improvements:** The process of connecting or wiring widgets together is now even easier. First, support has been added for widgets to auto-wire, without any explicit user intervention. With auto-wiring, widgets dropped onto a page are automatically wired to matching widgets already on the page. Second, several of the Mashup Center widgets, such as timeline, data view, and charting, have been improved such that if the feeds driving those widgets contain parameters, users can dynamically wire to those parameters without needed a connector widget such as the URL Customizer.

Build more secure and manageable mashups

Better address potential security challenges with secure mashups and content filtering

A major benefit of Enterprise Mashups is the ability to quickly assemble information from different sources - including external Web sites - into a unified application. Unfortunately, information coming from third parties can't always be trusted, leaving open the possibility of unwelcome content or code infiltrating the mashup system. IBM Mashup Center helps organizations address this challenge by supporting the following new features:

- **Secure mashups:** With secure mashups, customers can configure their mashups such that code coming from untrusted sites can be isolated, reducing the risks

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associated with bringing in unknown code or content. Mashup Center's secure mashup technology is based upon the OpenAjax Hub 2.0.

- **Content filtering:** IBM Mashup Center now allows users to activate content filtering capabilities when accessing data from a user identified "untrusted" feed source. By turning this feature on, IBM Mashup Center will filter out those portions of the content that it recognizes as executable and could result in unintentional actions within the mashup.

More easily manage mashups and mashable assets through feed controls and policies

IBM Mashup Center provides IT the functions needed to properly govern and monitor the mashup system, including:

- **Usage reports and policy metrics:** A key aspect of administering and growing a healthy mashup system is to understand how users are exercising the system and what content is most popular and, therefore, most useful to the user community. Mashup Center V2 contains a new set of usage reports that visually graph and report on key metrics, such as total requests, unique user requests, new user requests, and percent change in these metrics over time. Also new is a policy report that shows how data access requests are affected by the policies defined within the Enterprise Mashups platform. These policy and usage reports are available from the catalog, and can be displayed on an individual asset basis, or for the entire system.
- **Tighter integration of enterprise security and control features:** Mashup Center V1.1 introduced a rich set of enterprise security and control features, such as allowing the user to set global policies to filter or mask the viewing of sensitive data, as well as IP address range blocking. In this release, these key security features have been integrated even more tightly into Mashup Center. Mashup Center also allows a user to implement a global policy that will identify and block incoming requests in two common circumstances indicating a likely denial-of-service attack. This can help users to protect desired access to its data, back-end enterprise resources, and Mashup Center itself.
- **Feed dependency identification:** A key part of managing an enterprise's mashup environment is to understand the dependencies, or how the various mashable assets are reused across the system. Mashup Center V2 includes a new capability within the catalog that shows, for the selected feed or data mashup, what other feeds might be dependent on the selected feed, and what feeds make up the selected feed. This new support enables feed and data mashup authors to assess impact in changes to feeds.

Better leverage existing enterprise systems

IBM Mashup Center V2.0 allows organizations to make better use of their existing assets and infrastructure, helping to increase the return on investment (ROI) on such assets.

New capabilities designed to promote faster integration and easier reuse

Support for accessing unstructured data sources, including Microsoft Sharepoint

IBM Mashup Center now provides connectivity to popular Enterprise Content Management Systems, including IBM Content Manager 8.x, IBM Filenet P8 4.x, and departmental content repositories such as Microsoft SharePoint. With this capability, organizations can create mashups that access and augment unstructured enterprise content and related meta data.

Enhanced relational support

The enterprise database (JDBC) feed generator has been enhanced to support SQL updates. This new feature allows users to more easily create interactive mashup applications that update back-end databases. Other new relational features include support for the IMS™ database as well as JDNI connectivity, which allows organizations to leverage existing database connection pools.

Access to published data on WebSphere MQ queues

For WebSphere MQ customers, Mashup Center now provides the ability to create mashups that combine published data on message queues with other information resources. The net result is that businesses can better track and analyze real-time messages in-context with information from personal, departmental, enterprise, or even appropriate Web sources.

Access to a wider range of enterprise Web services secured by WS-Security

Mashup Center now provides the ability to create feeds from Web Services that are locked down by industry standard WS-Security protocol. Mashup Applications can provide highly secure trusted information in context with information from personal, departmental, enterprise, or even appropriate external Web sources and services.

Federate mashup content to other IBM Mashup Center remote catalogs

With the new supported for federated content, mashable assets from one IBM Mashup Center catalog can be seamlessly moved to or imported from other remove catalogs. This feature increases the ease in sharing department's mashable assets across an enterprise.

Registering RESTful Services with XML and JSON formats

The Representational State Transfer (REST) Web services protocol is one of the most popular protocols available on the public internet. After all, REST is very easy to use, flexible, and platform independent. IBM Mashup Center can now consume and leverage the main formats of REST services (XML and JSON), dramatically broadening the number of information sources organizations can quickly mashup.

Enhance transformation and customization capabilities

Fine tune your mashup's look and feel with new configuration options

IBM Mashup Center V2 includes a richer set of capabilities for customizing the look and feel of mashup pages. These include:

- Tabbed navigation - As an alternative to the existing breadcrumb page navigation, Mashup Center now includes a more familiar tabbed style of navigation.
- Customize the styles without coding - Users can now quickly change the appearance of their mashups by choosing from a variety of out-of-the-box styles.
- Configurable page width - Users can now specify a fixed width for a page, or set the width to be fluid, which results in the page width dynamically expands to accommodate new widgets.

Deliver feeds in many formats, including JSON

In addition to generating ATOM, RSS, and XML feeds, IBM Mashup Center now supports the ability to generate JSON.

Speed-up the creation of data mashups with new transformation functions

The transform operator within the Data Mashup Builder allows users to structure and format their feeds in ways they choose - without coding. In V2.0, transform operator has been enhanced to include several new functions designed to speed creation of data mashups. These are:

- New string functions, including Substring, Substring before, Substring After, Tokenize, String Join, Uppercase, Lowercase, Length, toString
- New date functions, including extract date from date time, subtract from date, add to date
- New international numeric formats, including grouping size and separator, decimal separators, currency symbols and placement, fraction digits

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Better manage and deliver mashup applications through new developer-focused features

IBM Mashup Center V2.0 includes new capabilities that developers can take advantage of to ease the management of their mashup environment as well as speed creation of more robust mashups. These capabilities include:

- **Lightweight content store** - Underlying the Widget Builder is a new lightweight content store, which can be used to store any file needed with the mashup environment, such as HTML, images, and Javascript. The content store is exposed via a public API that can be used for create, read, update, and delete operations on the content, as well as for linking to the posted content. WebDav can be used to manage the files within the content store.
- **URL addressability and cross-page wiring** - The URL for a page can now contain state information and also pass events and parameters. As a result, developers can create wires across mashup pages, as well as initialize an entire page by firing the relevant events. In addition, mashup center pages can now be bookmarked, and they support the forward and backward buttons in the browser.
- **Global palette** - The enterprise mashups environment administrator is now able to configure a global palette to be included in business users' personal palettes. The next time business users log in after a global palette is applied, they will see the new widgets and any potential new categories merged into their personal palettes. If the mashup administrator changes the global palette (by enabling more widgets, or disabling some), then all users immediately see that updated palette.

Ease data manipulation with repeating and nested data

Manipulating nested, semi-structured data can be challenging. IBM Mashup Center introduces several features that simplify complex data manipulation, making data mashups easier and faster.

- Easily flatten nest structures to perform logical transformations. Flattening the complex structure simplifies it to be similar to that of the well known relational format.
- Intuitive interface identifying the repetitive data elements enables the users to quickly understand the nature of the data and the transformation result.
- New ability to be selective in which repeating element you wish to manipulate.
- Automatic determination of the iteration logic within transforming functions. IBM Mashup Center predicts the intentions of the users' desired result with transformation operations based on the data structure and user inputs making it easier to work with complex data.

Accessibility by people with disabilities

A US Section 508 Voluntary Product Accessibility Template (VPAT) can be requested via the IBM Web site

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

Section 508 of the U.S. Rehabilitation Act

IBM Lotus Mashups is capable as of December 4, 2009, when used in accordance with IBM's associated documentation, of satisfying the applicable requirements of Section 508 of the Rehabilitation Act, provided that any assistive technology used with the product properly interoperates with it. A U.S. Section 508 Voluntary Product Accessibility Template (VPAT), containing details on the products accessibility compliance, can be requested on the following Web site

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

Product positioning

Introducing the Mashup Accelerator for WebSphere Portal

The Mashup Accelerator is a new offering that wraps the IBM Mashup Center into a package designed for customers who already have or intend to purchase WebSphere Portal. Mashup Accelerator supports the creation of enterprise mashups - on the market-leading Portal server. With the Mashup Accelerator, all types of users - even those with limited technical skills - are empowered to create and share their own applications for specific business needs. Given the rich security and governance capabilities built into the underlying Portal framework, IT can feel secure in enabling self-service mashup creation by the line of business, while still maintaining the appropriate level of control. The net result is that organizations can shift the burden of application development to a wider set of users, helping to decrease the IT backlog and increase business agility.

With the Mashup Accelerator comes a lightweight mashup environment, which gives you the flexibility to create, share, and iterate on your mashup applications outside of the production WebSphere Portal environment. In essence, the Mashup Accelerator acts as a "Portal Incubator", where simple, new applications are created and vetted. When one or more of these mashups becomes highly utilized or mission critical, you can then choose to push that mashup into the Portal, where IT can then maintain it, control it, and expose it to a broader Portal audience.

IBM Mashup Center complements the IBM software portfolio

IBM Mashup Center is complementary to other core IBM offerings. Mashup Center:

- Consumes and mixes information feeds from other IBM products, including Information Server, Master Data Management (MDM) Server, Lotus Connections, and WebSphere sMash
- Consumes widgets delivered by other IBM products, such as Lotus Connections and Lotus Sametime®
- Publishes feeds and widgets that can be consumed by other IBM products, such as WebSphere Portal, IBM Enterprise Content Management, and WebSphere Business Process Management (BPM)
- Runs on WebSphere Application Server

Statement of direction

None.

All statements regarding IBM's plans, directions, and intent are subject to change or withdrawal without notice.

Reference information

Refer to Software Announcement 208-385, dated November 18, 2008.

Availability of national languages

Product description	Language	GA date
IBM InfoSphere MashupHub V2.0.0	Multilingual (French, Korean, Chinese – Simplified, Spanish, Portuguese-Brazilian,	December 4, 2009

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                               German,
                               Japanese,
                               Chinese -
                               Traditional,
                               English,
                               Italian)
         IBM Lotus Mashup V2.0.0      Multilingual    December 4, 2009
                               (French,
                               Korean,
                               Chinese -
                               Simplified,
                               Spanish,
                               Portuguese-Brazilian,
                               German,
                               Japanese,
                               Chinese -
                               Traditional,
                               English,
                               Italian)
         IBM Mashup Center V2.0.0     Multilingual    December 4, 2009
                               (French,
                               Korean,
                               Chinese -
                               Simplified,
                               Spanish,
                               Portuguese-Brazilian,
                               German,
                               Japanese,
                               Chinese -
                               Traditional,
                               English,
                               Italian)
```

Program number

```
     Program    VRM                         Program name
     number

     5724-V06   2.0.0                        IBM InfoSphere MashupHub
     5724-U69   2.0.0                        IBM Lotus Mashups
     5724-V33   2.0.0                        IBM Mashup Center
```

Education support

IBM training provides education to support many IBM offerings. Descriptions of courses for IT professionals and managers are on the IBM training Web site

http://www.ibm.com/services/learning/

Call IBM training at 800-IBM-TEACH (426-8322) for catalogs, schedules, and enrollments.

IBM Software Services for Lotus Education provides education to support many Lotus offerings. For a complete list of offerings visit the Web site at:

http://www.ibm.com/software/lotus/training

Technical Skills Software Workshop

No-fee technical skills training workshops (English only) for this product are offered to customers and business partners to gain hands-on skills for installing, configuring, operating, and supporting this product. The workshops are ideal for customers and business partners who are in the process of evaluating, or have already purchased it. Workshops are modeled to be 50 to 70% hands-on labs and are continually updated to current product release.

Workshops are delivered in multiple formats: traditional classroom, self-paced (self-study), and instructor led e-learning. All formats have the same content.

Traditional classroom workshops are scheduled and delivered in-person worldwide at IBM and non-IBM locations throughout the year.

Self-paced/self-study workshops enable the student to view the workshop presentations and execute the labs on their own schedule with no travel required. The presentations have speaker notes and allow the student full control to navigate the information. Students reserve a one week period to run the labs on a remote, supported, live environment. Support is provided through a monitored forum.

Note: A fast Internet connection is required.

Offering Information

Product information is available via the Offering Information Web site

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

Also, visit the Passport Advantage® Web site

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

Publications

No publications are shipped with these products.

The IBM Publications Center

http://www.ibm.com/shop/publications/order

The Publications Center is a worldwide central repository for IBM product publications and marketing material with a catalog of 70,000 items. Extensive search facilities are provided. Payment options for orders are via credit card (in the U.S.) or customer number for 20 countries. A large number of publications are available online in various file formats, and they can all be downloaded by all countries.

Technical information

Specified operating environment

Hardware requirements
- Microsoft Windows® Server 2003 x86-32, Enterprise with Service Pack 1 (SP1)
- Intel® Pentium® processor at 1 GHz, or faster
- Intel EM64T or AMD Opteron processor
- Minimum 2 GB physical memory; 1 GB recommended
- CD-ROM drive

Software requirements
Web browsers

- Firefox 3.0 and 3.5
- Microsoft Internet Explorer 6.0 SP3, 7 and 8
- Safari 4.0 (on Mac only)

Operating systems

- Microsoft Windows Server 2003 x86-32, Enterprise with Service Pack 1

- Microsoft Windows Server 2003 x86-32, Enterprise with Service Pack 2
- Red Hat Enterprise Linux® (RHEL) V5.0 with update 1

Database (user customizations and preferences)

- DB2® Enterprise Server Edition V9.5 and V9.7
- Microsoft SQL Server Enterprise Edition 2005
- Oracle 11.1.0.6.0
  - Enterprise Edition 10g
  - Standard Edition 10g

Application Servers

- Websphere Application Server V7.0.0.5

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

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 (also referred to as Software Maintenance) 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.

IBM includes one year of Software Subscription and Support (also referred to as Software Maintenance) with each program license acquired. The initial period of Software Subscription and Support (also referred to as Software Maintenance) can be extended by the purchase of a renewal option, if available.

Packaging

IBM Mashup Center, InfoSphere MashupHub, and IBM Lotus Mashups will be distributed via a media package and electronic software distribution (ESD).

IBM Mashup Center, InfoSphere MashupHub, and IBM Lotus Mashups media package are distributed in one package with the following:

- IBM Mashup Center, InfoSphere MashupHub, and IBM Lotus Mashups product CDs.
- Softcopy product documentation including README files are included on the product CDs.

The License Information form number for IBM Mashup Center, InfoSphere MashupHub and IBM Lotus Mashups is L-RKAR-7V3NTQ.

Security, auditability, and control

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

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 information

Licensed function title	Product group	Product category
IBM InfoSphere MashupHub	IBM DataGuide	DATAGUIDE
IBM Lotus Mashups	Mashup Maker	Lotus Mashups
IBM Mashup Center	Mashup Maker	Mashup Center

Program name	PID number	Charge unit description
IBM InfoSphere MashupHub	5724-V06	Per 20 Authorized Users
IBM InfoSphere MashupHub	5724-V06	Per Processor Value Unit (PVU)
IBM Lotus Mashups	5724-U69	Per Processor Value Unit (PVU)
IBM Lotus Mashups	5724-U69	Per 20 Authorized Users
IBM Mashup Center	5724-V33	Per Processor Value Unit (PVU)
IBM Mashup Center	5724-V33	Per 20 Authorized Users

Charge metrics definitions

Processor Value Unit (PVU)

Processor Value Unit (PVU) is a unit of measure by which this software product can be licensed. PVU entitlements are based on processor technology (defined within the PVU table* by processor vendor, brand, type and model number). IBM continues to define a processor, for purposes of PVU-based licensing, to be each processor core on a chip. Each software product has a unique price per PVU. To determine the total cost of deploying an individual software product in a specific hardware environment, you must take the following steps:

1. For each processor core in the hardware environment on which the software product is to be licensed, determine the PVU requirement based on its processor technology per the PVU table*.
2. Add the PVU requirements for all processor cores in the hardware environment.
3. Multiply the software product's price per PVU by the total number of PVUs required as determined in step 2 above.

PVU entitlements are specific to a software product and may not be exchanged, interchanged, or aggregated with PVU entitlements of another software product.

Unless you have deployed eligible sub-capacity products according to the sub-capacity* terms, you must obtain PVU Proof of Entitlements (PoEs) for the maximum number of activated** physical processor cores in the hardware environment made

available to or managed by the software product. This is also referred to as full capacity licensing.

** Activated processor cores are physical processor cores that are available for use in a server. They include processor cores:

- That are activated (available for use) when the server is shipped by the manufacturer
- That are activated subsequently through activation codes purchased from the server manufacturer by the customer
- Whose capacity can be limited by the customer through Virtualization technologies, Operating System commands and BIOS settings.

* For information regarding PVU and sub-capacity licensing, including the latest PVU table, visit

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

Passport Advantage program licenses

IBM InfoSphere MashupHub

Part description	Part number
IBM InfoSphere MashupHub	
IBM InfoSphere MashupHub 20 AU Annual SW S&S Renewal	E0565LL
IBM InfoSphere MashupHub 20 AU License & SW S&S 12 Mo	D04NTLL
IBM InfoSphere MashupHub 20 AU SW S&S Reinstate 12 Mo	D04NULL
IBM InfoSphere MashupHub PVU Annual SW S&S Renewal	E0564LL
IBM InfoSphere MashupHub PVU License & SW S&S	D04NRLL
IBM InfoSphere MashupHub PVU SW S&S Reinstate 12 Mo	D04NSLL

IBM Lotus Mashups

Part description	Part number
IBM Lotus Mashups	
IBM Lotus Mashups 20 Authorized Users License & Software Subscription and	D04NGLL
IBM Lotus Mashups 20 Authorized Users Software Subscription and Support An	E0562LL
IBM Lotus Mashups 20 Authorized Users Software Subscription and Support Re	D04NHLL
IBM Lotus Mashups Processor Value Unit (PVU) License & Software Subscripti	D04NELL
IBM Lotus Mashups Processor Value Unit (PVU) Software Subscription and Sup	D04NFLL
IBM Lotus Mashups Processor Value Unit (PVU) Software Subscription and Sup	E0561LL

IBM Mashup Center

Part description	Part number
IBM Mashup Center	
IBM Mashup Center 20 Authorized Users License & Software Subscription and	D04N6LL
IBM Mashup Center 20 Authorized Users Software Subscription and Support An	E0560LL
IBM Mashup Center 20 Authorized Users Software Subscription and Support Re	D04N7LL
IBM Mashup Center Processor Value Unit (PVU) License & Software Subscripti	D04N4LL
IBM Mashup Center Processor Value Unit (PVU) Software Subscription and Sup	E055ZLL
IBM Mashup Center Processor Value Unit (PVU) Software Subscription and Sup	D04N5LL

Passport Advantage supply

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Program name/description                                      Part
                                                             number

IBM InfoSphere MashupHub V2.0.0
IBM InfoSphere Mashuphub V2.0 Multiplatform       BB12VML
 Multilingual Media Pack
IBM Lotus Mashup V2.0.0
IBM Lotus Mashups V2.0 Multiplatform Multilingual Media  BS066ML
 Pack
IBM Mashup Center V2.0.0
IBM Mashup Center V2.0 Multiplatform Multilingual Media  BS065ML
 Pack
```

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.

IBM Mashup Center V2.0.0

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Entitled maintenance       Media packs description    Part
offerings description                                 number

IBM Mashup Center Per 20   IBM Mashup Center V2.0     BS065ML
 Authorized Users           Multiplatform Multilingual
                            Media Pack
IBM Mashup Center Per      IBM Mashup Center V2.0     BS065ML
 Processor Value Unit (PVU) Multiplatform Multilingual
                            Media Pack
```

IBM Lotus Mashup V2.0.0

```
Entitled maintenance       Media packs description    Part
offerings description                                 number

IBM Lotus Mashups Per 20   IBM Lotus Mashups V2.0    BS066ML
 Authorized Users           Multiplatform Multilingual
                            Media Pack
IBM Lotus Mashups Per      IBM Lotus Mashups V2.0    BS066ML
 Processor Value Unit (PVU) Multiplatform Multilingual
                            Media Pack
```

IBM InfoSphere MashupHub V2.0.0

```
Entitled maintenance       Media packs description    Part
offerings description                                 number

InfoSphere MashupHub per   IBM InfoSphere Mashuphub  BB12VML
 20 Authorized Users        V2.0 Multiplatform
                            Multilingual Media Pack

InfoSphere MashupHub per   IBM InfoSphere Mashuphub  BB12VML
 Processor Value Unit       V2.0 Multiplatform
                            Multilingual Media Pack
```

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.

Licensing

IBM International Program License Agreement including the License Information document and Proof of Entitlement (PoE) govern your use of the Program. PoEs are required for all authorized use.

Part number products only, offered outside of Passport Advantage, where applicable, are license only and do not include Software Maintenance.

This software license includes Software Subscription and Support (also referred to as Software Maintenance).

License Information form numbers

Program name	Program number	Form number
IBM InfoSphere MashupHub	5724-V06	L-RKAR-7V3NTQ
IBM Lotus Mashups	5724-U69	L-RKAR-7V3NTQ
IBM Mashup Center	5724-V33	L-RKAR-7V3NTQ

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IBM InfoSphere MashupHub:  Yes
IBM Lotus Mashups:  Yes
IBM Mashup Center:  Yes
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International Passport Agreement

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