IBM

WebSphere Product Center
Version 5.0.1

Architecture and Components Overview

Note!
> Before using this information and the product it supports, read the information in "Notices" at the end of this document.

Architecture Overview

WebSphere Product Center™ is a complete, easy-to-use solution that is accessible through a familiar web browser interface. It is built on an open API and based entirely on proven, leading technologies including Java and XML. WebSphere Product Center is written using 100% Java and is J2EE Compliant.

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WebSphere Product Center Process Architecture

Client using Web Browser   Client using Web Browser   Client using Web Browser

Admin

Workflow Manager

Scheduler

Web Server

Application Server

RDBMS Engine

Disks

Event Processor

Queue Manager
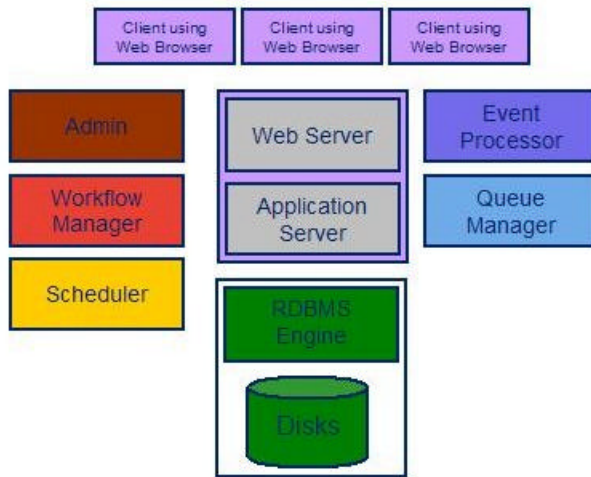
WebSphere Product Center is a standard J2EE application ...

... with some additional services

Admin service: Used to start/stop other services, as well as maintain a heartbeat function with other services. Required on all machines where one or more services are to be run.

Workflow manager service: Responsible for moving entries in collaboration steps and monitoring for alerts/escalations in workflow

Scheduler service: Runs scheduled jobs such as imports, exports and reports

Event processor service: Monitors events and takes action. Lean service with minimal system requirements.

Queue manager service: Responsible for the inflow/outflow of messages and files.

Product Components

Each component of the WebSphere Product Center™ is based on a role-based modularized design, which allows a user to easily interpret their role in the product information management cycle. The following are the main components of WebSphere Product Center:

- Product Manager
- Data Model Manager
- Collaboration Manager
- System Administration
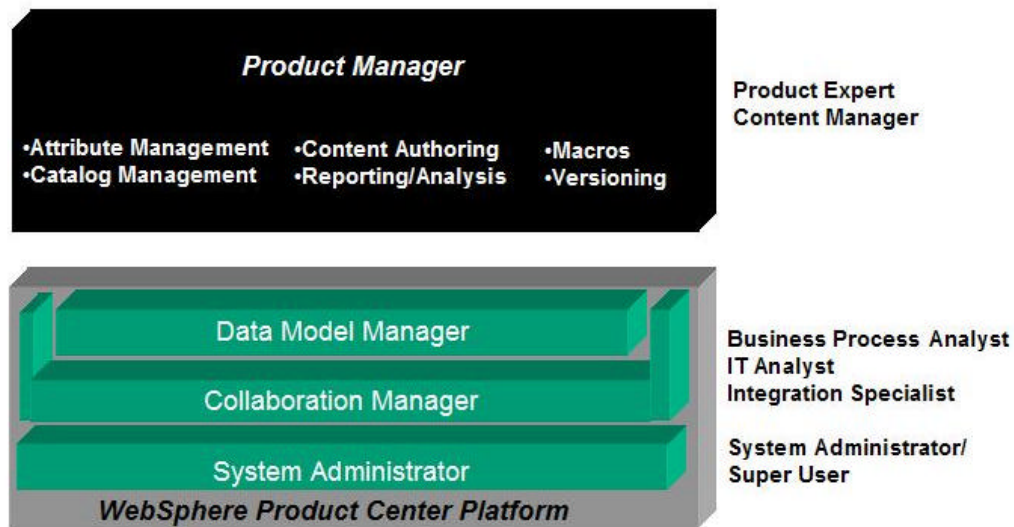
The Product Manager allows you to centralize, manage, and ultimately deliver relevant, unique, and consistent product information anywhere, at any time.

➲ **Product Manager**

WebSphere Product Center™ enables you to enhance, automate, and extend your product information management processes. As a result, you can accelerate time to market and provide customers easier access to product content across multiple touch points, while reducing costs, automating tasks, and increasing operational efficiency.

With the Product Manager, the following functions are available:

- Attribute management
- Catalog management
- Content authoring
- Reporting/Analysis
- Macros
- Versioning

WebSphere Product Center Platform

The WebSphere Product Center Platform is the architectural foundation, overseeing overall solution functionality and providing connectivity to internal and external systems.

➲ Data Model Manager

The Data Model Manager provides tools to customize and standardize a structured data model for information that is imported into or exported from WebSphere Product Center™.

A structured data model can be created to enforce business rules for separate files, catalogs, and information published to separate marketplaces.

Apply inheritance rules to a data model to reduce the need to duplicate item information for similar items. Thus, a single item is able to obtain an attribute value from a separate category or from another item.

Application security is managed through user roles and permissions, enabling users to view the information relevant to them. Also provided, are alert services that, for example, can notify users when information is published or errors are discovered.

➲ Collaboration Manager

Collaboration Manager component is used to gather, manage and publish information. Collaboration Manager also controls the import and export of data with a standardized structure. Through Collaboration Manager, the product information reaches multiple touch points and can be published to varying destinations.

Manage a business process through the definition of a workflow. Create a workflow process, containing multiple instances that are viewable through the definition display and based on the status, an alert can be sent to notify that an approval is needed before it is escalated to the next step in the workflow.

The Document Store is the area within WebSphere Product Center™ where every incoming and every outgoing file is stored. From the document store, you can view generated and stored files from a central location.

➲ System Administrator

Audit and performance monitoring tools are an integral component of any enterprise system.

The system administration tools provide the capability to effectively diagnose the current system's health, thus increasing system uptime and minimizing support costs.

System administrators can audit system log files, monitor various system processes, analyze application performance and control system services using the graphical interface.

Product Interfaces

➲ Import Console

The Import component aggregates a company's internal and external content sources into the WebSphere Product Center application. Once the information is centrally stored, the information can then be managed effectively.

- Multiple file formats (delimited, XML etc.)
- Multiple data protocols (FTP, SOAP over HTTP)
- Multiple data types (items, images, taxonomies)
- Connectors to internal systems and external trading partners are also provided (Connectors to EAI integration platforms such as WebSphere Business Integration and WebMethods)

➲ Export Console

The Export component eases the generation of export files into any format, which reduces the complexity in managing syndication across multiple customers and exchanges. The following features are offered:

- Export in any format (XML, CSV, tab-delimited etc.)

- Export to various destinations

➲ Web Services

WebSphere Product Center supports Web Services interface. Additional details can be provided upon request.

Technical information

Recommendations for hardware requirements are supplied for guidance only. This section lists the minimum hardware requirements for WebSphere Product Center. However, the actual requirements for your system may be greater, depending on the complexity of your specific WebSphere Product Center environment, throughput, and data object size. The following information is for the WebSphere Product Center system only. If you run other applications on the same system, make appropriate adjustments.

Hardware and software requirements

This section outlines the hardware and software requirements for the following platform:

Operating System	Application Server	Database Server
AIX 5L 5.1 (32 & 64 bit)	WebSphere Application Server 5.0.2.4	IBM DB2 II Version 8.1 Advanced Edition, Fix Pack 5 OR IBM DB2 Version 8.1 Universal Database Enterprise Server, Fix Pack 5
Red Hat Enterprise Linux ES 2.1	WebLogic Server 7.0	Oracle 9.2.0.5 Enterprise Edition

- **Hardware**: Recommendations for hardware requirements are supplied for guidance only. This section lists the minimum hardware requirements for WebSphere Product Center. However, the actual requirements for your system may be greater, depending on the complexity of your specific WebSphere Product Center environment, throughput, and data object size. The following information is for the WebSphere Product Center system only. If you run other applications on the same system, make appropriate adjustments.

  Additional server hardware requirements:

  1. Additional CPUs may be required based on capacity requirements

  2. Additional memory may be required based on capacity requirements

  3. Additional servers for added capacity and/or redundancy

  4. Multi-server installations require network attached shared storage

- **Software**: The software requirements for WebSphere Product Center depend on which of the elements of the product components are being used and whether singly or in combination on a particular server. Dedicated servers are recommended for the database.

	Software	Hardware
WebSphere Application Server/DB2 on AIX **Note**: This is the primary platform used for WebSphere Product Center		
Application Server	WebSphere Application Server Network Deployment 5.0.2.4 AIX 5L 5.1 (32 & 64 bit) IBM HTTP Server 2.0 JDK 1.3.1	Processor: An IBM eServer pSeries or RS/6000 system with at least 4-way symmetric multiprocessing (SMP) and a minimum processor speed of 1.45 GHz RAM: 4 GB Disk space: 72 GB; for high availability, a minimum of 2 hard disks, each with 72 GB capacity per system
Database Server	IBM DB2 II Version 8.1 Advanced Edition, Fix Pack 5 OR IBM DB2 Universal Database 8.1 Enterprise Server Edition, Fix Pack 5 AIX 5L 5.1 (32 & 64 bit) Other required software (based on needed function) • IBM Java Development Kit Version 1.3.1 (Available as part of IBM's WebSphere Application Server Network Deployment Version 5.0.2) • WebSphere MQ Series Version 5.3 • WebSphere Business Integration Adapter for WebSphere MQ Version 2.5.0 • WebSphere Business Integration Adapter Framework Version 2.4.0	Processor: An IBM eServer pSeries or RS/6000 system with at least 4-way symmetric multiprocessing (SMP) and a minimum processor speed of 1.45 GHz RAM: 8GB Disk Space: Minimum 100-200GB RAID5 or RAID10 disk array. **Note**: Actual required size to be determined by load requirements.

WebLogic/Oracle requirements on Red Hat Enterprise Linux		
	Software	Hardware
Application Server	WebLogic Server 7.0 Apache HTTP Server 2.0 JDK 1.3.1 Red Hat Enterprise Linux ES 2.1	Processor: An IBM eServer xSeries and Intel-based system (or equivalent) with at least 2-way symmetric multiprocessing (SMP) and a minimum processor speed of 2.8 GHz RAM: 4 GB Disk space: 72 GB; for high availability, a minimum of 2 hard disks, each with 72 GB capacity per system
Database Server	Oracle 9.2.0.5 Enterprise Edition Red Hat Enterprise Linux ES 2.1	Processor: An IBM eServer xSeries and Intel-based system (or equivalent) with at least 4-way symmetric multiprocessing (SMP) and a minimum processor speed of 2.8 GHz RAM: 8GB Disk Space: Minimum 100-200GB RAID5 or RAID10 disk array, exact recommended size TBD by WPC DB Sizing Spreadsheet.

Client access to WebSphere Product Center

The following represents the minimum client hardware requirements for client access to WebSphere Product Center:

Client requirements		
	Hardware	Software
Microsoft Windows	Processor: Intel-based system with a Pentium 3 processor and a minimum processor speed of 750 MHz Memory: 256 MB	Microsoft Windows 2000 Professional Service Pack 3 OR Microsoft Windows XP Professional Service Pack 1 Browser: Microsoft Internet Explorer Version 6.0 Service Pack 1

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Programming interface information

Programming interface information, if provided, is intended to help you create application software using this program.

General-use programming interfaces allow you to write application software that obtain the services of this program's tools.

However, this information may also contain diagnosis, modification, and tuning information. Diagnosis, modification and tuning information is provided to help you debug your application software.

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