BEA WebLogic Platform™

Glossary

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BEA WebLogic Platform Glossary

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Glossary

This glossary defines terms that are used in the documentation for BEA WebLogic Platform. Terms displayed in blue, other than URLs, are defined in this glossary.

<image map>

A

abort

To terminate a transaction in such a way that the values assigned to all protected resources, such as database records, are unchanged from the beginning of the transaction.

access control

Set of restrictions on the ability of principals (human or software entities) to use software resources. These restrictions are enforced in order to prevent unauthorized use of such resources.

access control information (ACI)

Information about the initiator of a resource access request. The ACI is used to make a decision about enforcing access control.

access control list (ACL)

Data structure used to authorize or prohibit the use of resources, such as network services, by principals. Each entry in an ACL contains a set of permissions associated with a particular principal.

The WebLogic Server implementation of ACLs is based on the `java.security.acl` package.

In a WebLogic Integration environment, the use of different types of resources is granted to different types of principals:

In a WebLogic Integration environment, use of different types of resources is granted to different types of principals:

- Human users of WebLogic Integration can be authorized to access three types of resources: Java Server Pages (JSPs) for administrative and configuration purposes; administration consoles; and the JDBC connection pool.
- Trading partners can be authorized to access the transport servlet and the WebLogic Server JDBC connection pool.
- WebLogic Integration is authorized to access the transport servlet.

See also authentication, realm, permission, and principal.

ACID properties

Essential characteristics of transaction processing systems:

- **Atomicity:** All changes that a transaction makes to a database are made permanent; otherwise, all changes are rolled back.
- **Consistency:** A successful transaction transforms a database from a previous valid state to a new valid state.
- **Isolation:** Changes that a transaction makes to a database are not visible to other operations until the transaction completes its work.
- **Durability:** Changes that a transaction makes to a database survive future system or media failures.

See also transaction.

ACL

See access control list (ACL).

action

Basic unit of work performed during business process management functions (which are supported by WebLogic Integration). Actions define workflow and task behavior, and can be defined as parts of tasks, decisions, and events. WebLogic Integration provides numerous actions.

See also scenario action.

ActiveX controls

Components that use Component Object Model (COM) technologies to provide interoperability with other COM services and components.

See also Component Object Model (COM).

ad

Promotional message presented in any of various formats: a piece of HTML text, an image (GIF, JPG, PNG), or a Shockwave movie.

Ads work with ad placeholders, mechanisms that query the content management system for ads and display the results in a JSP. A Business Analyst uses the BEA E-Business Control Center to define queries for an ad placeholder and a Business Engineer (BE) creates a placeholder tag in the location in which the Business Analyst wants to display ads. A Business Analyst can also create a campaign scenario that places additional queries in an ad placeholder.

See also E-Business Control Center^{TM}, Business Analyst (BA), and Business Engineer (BE).

ad identifier

Unique name for an ad, which includes a relative path. The specific content of an ad identifier can vary from one content management system to another.

See also ad and content management system.

adapter

Software component that provides an interface between an enterprise information system and an integration server.

adjudication

Method for resolving inconsistent authorization decisions.

administration console

HTML interface used by an administrator to configure and monitor an application built with BEA software.

See also WebLogic Integration B2B Console and WebLogic Server Administration Console.

Advanced Program to Program Communications (APPC)

Software protocol that makes possible high-speed communications, over SNA, among programs on different computers, including portables, workstations, and midrange and host computers. This protocol is open and published. Also known as LU 6.2.

See also Systems Network Architecture (SNA).

Advisor

Feature of the Personalization Server that ties together the services and components in the Personalization Server to deliver personalized content to a Web site visitor. It does this by matching content to information contained in the user profile. Specifically, it gathers information from the user profile with the User Management component, submits that information to the Rules service, and queries the document management system that the Content Management component uses. Developers determine whether the Advisor displays the results of the query with a JSP or a Java servlet.

The Advisor includes a JSP tag library and an API that EJB developers can use to access the underlying EJB stateless session bean.

See also developer, Enterprise JavaBeans (EJB), application programming interface (API), user profile, and Web application (Webapp).

anonymous

Type of principal that accesses a resource in a WebLogic Server environment without being authenticated.

Apache XML Parser

Third-party parser, provided by the Apache Software Foundation, that implements the W3C XML, DOM, and SAX standards.

API

See application programming interface (API).

APPC

See Advanced Program to Program Communications (APPC).

applet

Client-side Java program, usually embedded in an HTML page and viewed with a Java-enabled Web browser.

application

One or more software programs, used collectively by an end user to perform computing tasks.

application adapter

Software component that provides an interface between an enterprise information system and an integration server. An application adapter represents a system-level interface to the functionality in the application.

application component

1) Server-side component, such as an EJB, JSP, or servlet, that is deployed, managed, and executed on an application server.

2)Component made available to a Web client by an application server and then executed on the Web client tier, such as a Java applet and a DHTML page.

See also application server.

application integration

J2EE Connector Architecture standards-based integration broker developed by BEA Systems, Inc., as part of WebLogic Integration, for interenterprise and intraenterprise integration.

application programming interface (API)

1) Application-level environment, including functions, for supporting a particular system software product.

2)Set of code that enables a developer to initiate and complete client/server requests within an application.

3)Set of calling conventions that define how to invoke a service. A set of well-defined programming interfaces (entry points, calling parameters, and return values) through which one software program utilizes the services of another.

application server

1) Server that supports the sharing and processing of both application logic and connections to back-end resources. Resources include databases, ERP applications, and traditional mainframe applications. Application servers also provide tools for developing user interfaces and for deploying an application to the platform of the Web. BEA WebLogic Server is a Java Application Server.

2)In a WebLogic Workshop environment—Server designed to help developers isolate the business logic in their projects (usually through components) and develop three-tier applications. Many application servers also offer features such as transaction management, clustering and failover, and load balancing.

3)In a WebLogic Workshop environment—Java Application Server, which complies with the Java 2 Enterprise Edition (J2EE) platform.

See also enterprise resource planning (ERP).

application view

Business-level interface to the functionality in an application. An application view is configured for a single business purpose, and contains only services related to that business purpose. Additionally, an application view represents both events and services that support a business purpose, allowing the business user to interact with the application view for all communication with an application.

asynchronous

Characteristic of events that occur at different times such that the relationship between the times when those events occur is unpredictable.

In distributed application architectures such as Web services, clients invoke methods (or send messages to) servers and servers respond. If a client is blocked from performing other work while waiting for a server to respond, the interaction is described as synchronous because the client is synchronized with the server.

If an interaction is designed such that a client can continue performing other work while the server prepares its response, and the server can notify the client when the response is ready, the interaction is described as asynchronous.

An asynchronous architecture is useful in event-driven scenarios, in which an event can arrive at any time and the receiver can handle it whenever it arrives.

attachment

Information that is sent with a business message.

attribute

1) Identifiable association between an object and a value.

2)(CORBA) When OMG IDL is being used, refers to the part of an OMG IDL interface that is similar to a public class field or data member. The compiler maps an OMG IDL attribute to accessor and modifier methods in either the C++ or Java programming language. For example, an interface ball might include the attribute color. The idltojava compiler generates a C++ or Java programming language method to get the color, and, unless the attribute is read-only, generates a method to set the color. CORBA attributes correspond closely to JavaBeans properties.

authentication

1) Process used by a server to verify the identity of a principal, which may be a user or a computer. Authentication may be performed through one-way authorization or two-way client/server authorization.

2)Technology that guarantees the source of information to a recipient.

See also access control list (ACL) and secure sockets layer (SSL).

authorization

Process of determining which services may be accessed by a particular entity (a user or a process) and then giving permission to that entity to access those services.

In a WebLogic Integration environment, trading partner authorization is a role-based security feature whereby a trading partner is allowed to send and receive certain types of messages, as defined by the trading partner's subscription in a specific conversation. Trading partners are authorized to access the transport servlet and the JDBC pool.

In addition, the WebLogic Integration software is authorized to access the transport servlet in order to send messages to trading partners.

Human users can be authorized to access JSPs and, indirectly, the JDBC pool. A WebLogic Server access control list (ACL) can be configured selectively to allow or deny a user access to a resource.

B

B2B

See B2B e-commerce.

B2B e-commerce

Practice whereby companies buy and sell to each other directly, that is, *business-to-business* (B2B), through electronic transactions.

B2B integration

WebLogic Integration feature that supports integration of applications among enterprises, including supply-chain integration.

See also B2B e-commerce.

B2B plug-in

WebLogic Integration Studio component that extends business process management (BPM) for use with B2B integration.

B2C

Business-to-consumer

B2C integration

Process of exposing information within an enterprise to people or entities, known and unknown, that exist outside the enterprise.

BEA E-Business Control Center™

See E-Business Control Center^{TM}.

BEA WebLogic Integration

See WebLogic Integration.

BEA WebLogic Personalization Server

See WebLogic Personalization Server.

BEA WebLogic Portal

See WebLogic Portal.

BEA WebLogic Server

See WebLogic Server.

bean-managed transaction

Transaction in which an Enterprise JavaBean (EJB) controls the transaction boundaries. In a bean-managed transaction, controls can be specified using JTA. The EJB code manages the transaction, which can begin in one method and end in another.

See also container-managed transaction, Enterprise JavaBeans (EJB), Java Transaction API (JTA), and transaction.

big endian

Binary format in which the most significant byte has the lowest address. This format is used on IBM 370 systems and most RISC designs.

binary data

1) File format for data encoded as a sequence of bits, but not necessarily consisting of a sequence of printable characters (text).

2)Executable machine code.

bind

1) To associate a name with an application object or a naming context object.

2)To connect a client application to an application object.

BizTalk™

Industry initiative to define the BizTalk Framework, a set of guidelines for publishing XML schemas and using XML messages. Started by Microsoft, it is supported by a wide range of organizations, including technology vendors (such as SAP, CommerceOne, and Ariba) and technology users (such as BASDA). BizTalk is not a standards body, but a community of standards users.

See also `http://www.biztalk.org`.

BPM

See business process management (BPM).

branching

Mechanism that enables you to cause Webflow to direct to different destination nodes, based on the value of the object returned from successful execution of the input processor or pipeline.

See also input processor, node, pipeline, and Webflow.

browser client

Trading partner that uses a Web browser to communicate with other trading partners.

BTP

See business transaction protocol (BTP).

buffering

Practice of adding a buffer to a method of your service to ensure that the service returns to the client immediately. This mechanism eliminates the need for the client to wait for the server to process other requests. Incoming calls to a buffered method are queued so that the server is not overwhelmed with requests.

Bulk Loader

1) In a WebLogic Integration environment—Utility that exports repository data to an XML file, imports XML data into the repository, and deletes data from the repository. Can also be used to migrate repository data from one environment

to another; for example, from one supported database to another. The Bulk Loader supports several JDBC databases.

2)In a WebLogic Portal environment—Command-line application that loads document metadata into the reference implementation database from a directory and file structure. The BulkLoader parses the document base and loads all the document metadata so that the Content Management component can search for documents. The BulkLoader supports all document types, not only HTML documents.

Business Analyst (BA)

Nontechnical staff member who is responsible for conceiving an effective model for an e-business. Usually collaborates with a Business Engineer (BE), who provides technical expertise. A Business Analyst develops strategy and goals for individual campaigns, and uses the BEA E-Business Control Center to run and evaluate campaigns.

See also E-Business Control Center™ and Business Engineer (BE).

business document

XML part of the payload of a business message.

Business Engineer (BE)

Staff member who combines the skills of a Business Analyst and Developer. A BE may:

- Manage the operations of an entire Web site or major pieces of it.
- Coordinate major and minor change processes.
- Actively participate in monitoring both overall business effectiveness and system performance.
- Be responsible for major, structural updates to an e-business Web site for management of user profiles, user permissions, and so on.
- Perform behind-the-scenes programming tasks that keep a Web site functioning.

See also Business Analyst (BA) and developer.

business logic

1) Principles and instructions used by the Commerce services to perform a function specific to your business, such as calculating taxes or the amount of a payment.

2)Principles and instructions used by the WebLogic Personalization Server to perform a function specific to your business, such as matching users and groups with appropriate content on an e-commerce site.

business message

Basic unit of communication between trading partners in a conversation. A multipart MIME message, it consists of business documents, attachments, and message headers.

business operation

Method of adding user-defined operations in WebLogic Integration by invoking EJBs or calling Java classes.

business process management (BPM)

WebLogic Integration automation tool that enables you to define and monitor workflows.

business process

See workflow.

business protocol

Set of rules that governs the electronic exchange of business information between enterprises across a network. A business protocol specifies the structure of business messages, the method for processing the messages, and the method for routing them to the appropriate recipients. WebLogic Integration trading partners can use the RosettaNet business protocol to send and receive business messages.

business protocol definition

Set of logic plug-ins that implements a business protocol.

business service

Interface to a conversation definition. A trading partner offers a business service to other trading partners who may want to interact with it.

business transaction protocol (BTP)

Standard that provides an open and well-defined method for managing long-running, complex transactions common in B2B e-commerce. BTP is an XML-based vocabulary protocol for representing and seamlessly managing complex, multistep B2B transactions over the Internet. BTP enables trading partners to manage complex XML message exchanges as long-running, loosely coupled conversations.

business-to-business (B2B) e-commerce

See B2B e-commerce.

business-to-business (B2B) integration

See B2B integration.

business-to-consumer integration

See B2C integration.

bytecode

Compiled format for Java programs that can be run (interpreted) on any computer with a Java virtual machine (JVM).

See also Java virtual machine (JVM).

C

cab

Compressed file used to load classes and other files required to run an applet in a single hypertext transfer protocol (HTTP) request. Can be used only with applets running under Microsoft Internet Explorer, version 4.0 or later.

See also JAR file, applet, and hypertext transfer protocol (HTTP).

callback

Method defined on the client that can be called by your service. Callbacks make it possible to support an asynchronous two-way exchange between a client and a service. For example, if a service performs a time-consuming operation, the service can immediately acknowledge the client's request with a simple return value, then later use the callback to return the full result of the operation. A callback must participate in a conversation.

callback handler

Method run by your service when it receives a corresponding callback. It is defined by the control that includes the callback. For example, the timer control provides the onTimeout method as a callback handler. You have the option of adding code that will run when the timer fires.

caller principal

Principal that is associated with an application component instance during a method invocation. For example, an EJB instance can call the `getCallerPrincipal` method to get the principal associated with the current security context.

See also Enterprise JavaBeans (EJB) and principal.

campaign

Named group of scenarios that work together to achieve strategic business goals. A campaign coordinates multiple Personalization, Commerce, and Campaign services to create and track marketing goals on an e-commerce Web site.

See also scenario.

campaign discount

Reduction in the price charged for a product item, an order, or the shipping cost associated with an order conditionally targeted to a subset of the entire user population. The BEA E-Business Control Center allows you to define the discounts that you might later decide to offer to your online customers.

See also E-Business Control Center^{TM}.

campaign end criteria

Goal for a campaign. When the goal is satisfied, the campaign can end, even if the goal is fulfilled before the scheduled end date. This goal is specified in the BEA E-Business Control Center.

See also E-Business Control Center^{TM}.

Campaign services

Set of services provided by WebLogic Portal that enable Business Analysts and Business Engineers to create and track marketing goals on an e-commerce Web site. Campaigns are set up and managed using the E-Business Control Center.

See also E-Business Control Center^{TM}, Business Analyst (BA), and Business Engineer (BE).

campaign sponsor

Organization that commissions a campaign. Is often the organization that owns and operates the e-business Web site (or a subset of that organization).

In the BEA E-Business Control Center, the sponsor can be used as a criterion for campaign searches, as well as for reporting and analysis.

You can specify a campaign sponsor by using the BEA E-Business Control Center.

See also E-Business Control Center^{TM}.

campaign state

State of a campaign: *active* or *deactive*.

When a campaign is saved, it is in an *active* state. In other words, the campaign is ready to run between the specified start and stop times, and when the appropriate conditions are met.

When you disqualify an active campaign from running, or when you stop a running campaign before it reaches either the specified stop date or its goals, the campaign is in a *deactive* state. In the campaign list of the E-Business Control Center (shown in the Control Center's Explorer window) deactivated campaigns are displayed in a lighter color than other items in the list.

See also E-Business Control Center^{TM}.

Catalog Manager service

Single point of access to several product catalog services: Category Manager service, Product Item Manager service, Custom Data Manager service, and Catalog Query Manager service.

See also product catalog and service.

Catalog Query Manager service

Service that queries the Commerce services product catalog. It defines two types of catalog searches: keyword searches and attribute-based searches. A keyword search is a simple search on a number of keywords, whereas an attribute-based search allows a complex Boolean expression on any of the item attributes to be evaluated.

See also product catalog and service.

Category Manager service

Service that manages the hierarchical structure of the Commerce services product catalog. It defines a complex interface for creating and modifying the hierarchy and for mapping items into categories.

See also product catalog and service.

CD-ROM

See compact disc-read only memory (CD-ROM).

certificate

Digital statement that associates a particular public key with a name or other attributes. It is digitally signed by a certificate authority (CA). By trusting that authority to sign only true statements, you can trust that the public key belongs to the person named in the certificate.

See also certificate authority (CA) and certificate authentication (CA).

certificate authentication (CA)

Method of providing a confident identification of a client by a server through the use of digital certificates. Certificate authentication is generally preferred over password authentication because it is based on what the user has (a private key), as well as what the user knows (a password that protects the private key).

See also authentication, certificate authority (CA), and certificate.

certificate authenticator

Standard interface defined in WebLogic Server to map digital certificates to WebLogic Server users. After verifying an incoming certificate, the certificate authenticator maps the incoming trading partner associated with the certificate to the corresponding WebLogic Server user, based on the certificate.

certificate authority (CA)

Well-known and trusted entity that issues public key certificates. A certificate authority attests to a user's real-world identity, much as a notary public does.

See also certificate and certificate authentication (CA).

certification authority

Well-known and trusted organization, such as VeriSign, that issues digital certificates for the purpose of authenticating a certificate holder's identity to another party.

chaining

Process that causes a Webflow to move from one processor node (that is, an input processor or pipeline) to another processor node. This mechanism relieves you of the need to use processor nodes between presentation nodes. In a chaining arrangement, the result state of one successfully executed processor node is another processor node.

See also input processor, node, pipeline, and Webflow.

check out

Interactive process whereby a customer confirms items to be purchased, and provides payment and shipping information. The Commerce services then validate the customer information, post the credit card transaction, and log shipping and tax payment requirements. The checkout process invokes the Registering Users and Managing Customer services and the Managing Purchases and Processing Orders services.

See also Managing Purchases and Processing Orders services and Registering Customers and Managing Customer services.

CICS

See Customer Information Control System (CICS).

cipher

In cryptography, a coding system used to create encrypted messages.

See also cipher, cipher suite, cipher text, and secure sockets layer (SSL).

cipher suite

Secure sockets layer (SSL) encryption method. Includes three types of algorithms that can be used to protect the integrity of a communication: the key exchange algorithm, the symmetric encryption algorithm, and the secure hash algorithm.

See also cipher and secure sockets layer (SSL).

cipher text

In cryptography, text that is encrypted.

class

Category of objects used in object-oriented programming. A class defines the implementation of a particular kind of object. A class definition defines instances and class variables and methods, and specifies the interfaces and class implementations and the immediate superclass of the class. If the superclass is not explicitly specified, it is implicitly assumed to be Object.

See also object-oriented programming (OOP) and class library.

class library

A set of client programming tools called classes. These tools can be used in a Java or C++ program, or in a Java applet that can be embedded in a Web page.

See also class.

CLASSPATH

List of paths for the file system directories or Java archive files to be searched by a Java Virtual Machine (JVM) at run time, in order to locate the executable class files required at that time. The list may be supplied through an operating system environment variable (`CLASSPATH`) or a command-line switch (`-classpath`) sent to the virtual machine. Application server containers, such as servlet engines and EJB containers, may contain additional levels of classpath information.

See also class and class library.

clickthrough

Act of clicking an ad. The number of clickthroughs can be used as one criterion to determine whether the goal of a campaign has been met.

client

1) Program that performs the following steps:

- Collects requests for services from users through a user interface.
- Transmits those requests to servers.
- Receives the servers' responses and passes them to the users.

If a client is located on a machine that belongs to the domain to which the target servers also belong, then the client is called a *native client*. If the client is located on a machine outside that domain, then the client is called a *remote client* or a *Workstation client*.

2)(CORBA) Code that invokes an operation on a distributed object.

client, Web service

Entity that makes a request to a Web service to return data. Can be written in any language and run on any platform, as long as it communicates in the manner expected by the Web service. Most Web services expect to receive requests over an Internet protocol, such as HTTP, and they expect those requests to be XML messages formatted according to the SOAP specification.

client connector interface (CCI)

Interface that allows a J2EE-based application to connect to back-end systems and access them. The CCI manages the flow of data between a client application and its back-end system. It does not have any visibility into the activities, with the adapter, of the container or the application server.

client/network

Network in which heterogeneous clients make requests over various protocols for many different services on the network and the requests are fulfilled transparently by a high-performance, intelligent intermediate server or cluster of servers, such as the pure-Java WebLogic Server.

See also client/server and Web service.

client/server

Network architecture in which computer processing is distributed among clients (desktop PCs) and a server or servers (central computer).

See also client/network.

CLOB

Character Large Objects

cluster

Group of servers that work together to provide an application platform that is more powerful and reliable than a single server. A cluster appears to its clients as a single server but it is, in fact, a group of servers acting as one. If properly designed and configured, a cluster can provide both availability and scalability. New processes and machines can be added to a cluster, dynamically, to handle increased load without shutting down the cluster. Individual servers can be removed from the cluster periodically so that maintenance can be done without affecting cluster performance.

See also server.

clusterable stub

Clusterable stub is a wrapper that delegates its calls to a service instance. It has intelligence about how to deal with load balancing and failover situations, in which a service might be handled transparently by another server. You generate clusterable stubs by setting the `-clusterable` flags for RMIC or similar EJB deployment descriptor properties.

See also failover, load balancing, and stub.

COBOL Copybook Importer

Entity that reads a COBOL Copybook and generates a message format reflecting the data structure of the COBOL Copybook.

code page

In this documentation, the character encoding of the field data.

CODE tag

1) Full package name of the classes for an applet.

2)One of the attributes of the HTML applet tag.

See also applet and package name.

CODEBASE tag

Base URL for locating an applet's classes on the server host. To get the complete URL for an applet, combine the CODEBASE with the applet's CODE name.

See also applet, CODE tag, and uniform resource locator (URL).

collaboration agreement

Definition of the interactions that trading partners agree to carry out, along with a specification for the methods through which these interactions are conducted. This specification includes details about transport, messaging, security constraints, and bindings to a process specification.

collaborative workflow

Workflow used by trading partners to implement a role while conducting business with the B2B integration component of WebLogic Integration.

CollaboratorMBean

MBean interface that represents trading partners in a run-time environment. WebLogic Integration management applications can use CollaboratorMBean objects to monitor trading partners.

COM

See Component Object Model (COM).

COM view

Representation of an object that conforms to the Component Object Model (COM) standards, including implementations of all necessary interfaces.

See also Component Object Model (COM)

Commerce services

Development kit for a Web application that displays product descriptions and manages customer orders. It includes a set of JSP templates, database schemas, Java components, and configuration files.

See also JSP template and Web application (Webapp).

commit

1) To complete a transaction so that changes are recorded and stable. Protected resources are released.

2)Declaration or process of making a transaction's updates and messages visible to other transactions. When a transaction commits, all its effects become public and durable. After commitment, the effects of a transaction cannot be reversed automatically.

See also transaction.

Common Client Interface (CCI)

Defines a standard client API for application components and enables application components and Enterprise Application Integration (EAI) frameworks to drive EIS) using a common client API. The J2EE Connector Architecture defines a CCI for EIS access.

See also application programming interface (API), Enterprise Information System (EIS), and J2EE Connector Architecture.

common object request broker architecture (CORBA)

Standard from the Object Management Group (OMG) for communicating between distributed objects. CORBA uses IDLs (interface definition language) and ORBs (object request brokers), and communicates with IIOP (Internet InterOperability Protocol).

See also interface definition language (IDL), Internet Interoperability Protocol (IIOP), and object request broker (ORB).

compact disc-read only memory (CD-ROM)

Disk from which data is read optically by laser and on which data cannot be modified except under special conditions.

component

Part of an application.

Component Object Model (COM)

Collection of services that enables software components to interoperate in a networked environment.

See also COM view.

condition

Criterion for determining the conditions under which an ad will be displayed, when a discount will be offered, or when an e-mail will be sent. In the BEA E-Business Control Center, text describing the selected conditions appears in the Action portion of the respective New Action window.

See also E-Business Control Center^{TM}.

configurable entity

1) Interface that describes an object with arbitrary properties that can be set at run time.

2)Generic name of the base entity EJB implementation of that interface.

configuration

Set of hardware, hardware options, software, and software setup on a computer or on a network.

See also configuration set and configure.

configuration set

Name or number used to reference a particular configuration in a configuration partition. Each configuration set describes the services to be used when the configuration is active.

See also configuration and configure.

configure

To customize hardware and software for a computer or for a network.

See also configuration and configuration set.

Confirmed_Delivery_to_Destination

Quality of Service (QoS) option that verifies receipt of a message by all recipient trading partners. Delivery can be made more reliable by use of options such as Retry Attempts and Durability (Persistent option).

Confirmed_Delivery_to_Destination can also provide additional information to the sender and administrators, including delivery status from recipients, complete message tracking for administrators, and confirmation from the B2B integration component of WebLogic Integration upon completion of delivery. Availability depends on the business protocol that is used.

Confirmed_Delivery_to_Hub

Default Quality of Service (QoS) option that verifies receipt of a message by the B2B integration component of WebLogic Integration. This option is often used when system performance is an issue. It does not provide delivery status from recipients, nor does it provide message tracking. Because the selection process for trading partners is performed after confirmation reaches the sender, no information about potential recipients is available. Availability depends on the business protocol that is used.

connection

Provides connectivity to a resource manager and enables an application client to connect to a resource manager, perform transactions, and access services provided by that resource manager. A connection can be either transactional or nontransactional. Examples include a database connection and an SAP R/3 connection.

See also resource manager.

connection port

In Webflow, a small graphical device on the edge of a node that marks the point at which an event or exception is connected to that node. In some cases, it may be helpful to move the node's connection port.

See also node and Webflow.

constructor

In a WebLogic Server environment—Pseudomethod used to create an object. In Java, constructors are instance methods with the same names as their classes. Java constructors are invoked using the `new` keyword.

See also class, instance, Java, metadata interface, and object.

container

Part of an application server, such as WebLogic Server, that provides deployment and run-time support for application components. A container allows you to monitor and manage supported components as well as the service(s) that monitor and manage the components. A container can be any of the following:

- Connector container that hosts resource adapters

- Web container that hosts JSP, servlets, and static HTML pages
- EJB container that hosts EJB components
- Application client container that hosts standalone application clients

See also Enterprise JavaBeans (EJB), Java Server Pages (JSP), and servlet.

container-managed transaction

Transaction in which an Enterprise JavaBean container controls the transaction boundaries. In a container-managed transaction, controls are specified in the deployment descriptor. When a bean method is invoked, the container manages the transaction, which begins and ends in the same method. An entity bean must use container-managed transactions.

See also bean-managed transaction and transaction.

content management system

System that manages a collection of content objects (articles, documents, images, and so forth), including metadata about the content. Content management systems, such those marketed by Interwoven and Documentum, usually provide services such as retrieval of content and content authoring services. Content authoring services may include services for creating, editing, and versioning content objects, and workflow services

See also metadata.

Content Manager

Key WebLogic Personalization Server component that provides access to content via both JSP tags and EJBs. The JSP tags provide a developer with an enumeration of content objects by querying the content database directly using a search expression syntax. The content management tools are designed to be used with the rules manager and rules services, user profiles, and property set manager to create personalized content delivery on an e-commerce site. The primary interface to the functionality of the content management component is the `ContentManager` session bean.

See also Enterprise JavaBeans (EJB), JSP tag, property set management, and user profile.

content selector

Mechanism that queries, under a set of conditions, the content management system for documents. In the BEA E-Business Control Center, a Business Analyst specifies the conditions that trigger a content selector to run a query. A Business

Analyst also uses the BEA E-Business Control Center to construct the query that the content selector runs. A Business Engineer creates a content-selector JSP tag where the Business Analyst wants to display documents.

See also E-Business Control Center^{TM}, Business Analyst (BA), and Business Engineer (BE).

control

Component used in a Web service so that a service can communicate with other kinds of applications and components. For example, a database control enables a Web service to request data from a database. A service control makes it easy for one Web service to call another.

conversation

1) In a WebLogic Integration environment—In a WebLogic Integration environment—In a WebLogic Integration environment—Series of message exchanges between trading partners. A conversation is defined by a collaboration agreement. The choreography of message exchanges is determined by the conversation definition, which is part of a collaboration agreement between the trading partners.

2)In a WebLogic Workshop environment—In a WebLogic Workshop environment—Sequence of interactions that may occur between a client and a Web service. A single instance of a Web service conversation has state associated with it that persists for the lifetime of the conversation. At a minimum, this state includes a *conversation ID,* which is used to correlate messages entering and leaving the service with a specific conversation instance. Thus, for example, if you are processing 1000 credit checks for 1000 people, WebLogic Workshop automatically keeps a unique conversation open for each, and it correlates messages coming in and out with the appropriate conversation.

conversation coordinator

Service that manages conversation life cycles, according to the rules of the corresponding business protocols, and supports long-living, durable conversations that span multiple organizational boundaries. The conversation coordinator generates conversation IDs; registers trading partners in a conversation; delivers business and system messages to clients; maintains status information about conversations; and provides the conversational context for execution of the business protocol.

conversation definition

Collection of values that specifies the parameters of a conversation.

conversation initiator

Trading partner that initiates and terminates a conversation.

conversation life cycle

Period during which messages are exchanged between trading partners.

conversation participant

Trading partner that receives and processes business messages.

conversation termination

Intelligent and controlled cessation of message exchanges performed as part of a B2B integration or business process management (BPM) function, both of which are supported by WebLogic Integration:

- For BPM clients, a conversation is terminated when the conversation initiator reaches a done state, as defined by the conversation termination property (Success or Failure) for the done node. A conversation participant can end its own participation in a conversation, but only conversation initiator workflows can terminate a conversation.
- For B2B integration clients, conversation termination is initiated by the `Conversation.terminate()` operation, which is performed by the conversation initiator. As a result of this operation, each conversation participant receives a `ConversationHandler.onTerminate()` message.

ConversationHandler

Interface that enables a trading partner to send and receive business messages in conversations. A conversation handler must be registered for one or more conversation types in order for the associated trading partner to participate in conversations.

ConversationMBean

MBean interface that represents a conversation. WebLogic Integration management applications use ConversationMBean objects to monitor conversations in a run-time environment.

copybook

Common piece of source code designed to be copied into many source programs; used mainly in IBM DOS mainframe programming. In mainframe DOS (for example, DOS/VS and DOS/VSE), the copybook was stored as a *book* in a source library. A library comprising *books*, the name of each of which began with a letter prefix designating a programming language (for example, `A.name` for Assembler, `C.name` for COBOL) because DOS did not support multiple or private libraries. This term is used mainly by COBOL programmers, but it is supported by most mainframe languages. The IBM OS series did not use the term *copybook*; instead, it referred to such files as *libraries* implemented as *partitioned data sets* or PDSs. A copybook is functionally equivalent to a C or C++ `include` file.

CORBA

See common object request broker architecture (CORBA).

correlation

Capability provided automatically, by WebLogic Workshop, to Web services. If a Web service has many simultaneous clients, it must keep track of which responses go to which clients in response to requests. This includes callbacks: when events occur in the Web service that must be passed on to clients via callbacks, WebLogic Workshop's correlation capability routes the callback messages automatically.

Correlation ID

Quality of Service (QoS) option that contains the message identification string. It can be used to correlate different business messages within an application. Availability depends on the business protocol that is used.

credential

Data entity that contains or references security information that can authenticate a principal to additional services. A principal acquires a credential upon authentication or from another principal that allows its credential to be used: the latter is termed principal delegation. A credential may be a password, an X509 digital certificate or a certificate chain, or any other token that validates a user.

See also realm and user.

Custom Data Manager service

Service that defines an interface for giving persistence to custom attributes of product items. (Custom attributes are attributes not defined in the `ProductItem` interface.)

See also service.

Custom Security providers

Security components written by security vendors and application developers. Custom security providers are implementations of the Security Service Provider Interfaces (SSPIs).

See also Security Service Provider Interfaces (SSPIs) and WebLogic Server security providers.

Customer Information Control System (CICS)

IBM-licensed program that enables transactions entered at remote terminals to be processed concurrently by user-written application programs.

customer profile

Collection of information that is gathered, saved, and updated as customers visit your Web site, or from other offline sources. Customer profiles are unique to each customer and can contain a variety of information, from product preferences to the demographic data customers provide on a form page. Each piece of information stored in a customer profile (or any combination of that information) can be used to create a customer segment.

See also customer segment.

Customer Profile service

Implementation of business logic and presentation logic through which customers modify their user profiles.

See also business logic, service, user profile.

customer segment

Grouping of customers based on common characteristics gathered from their customer profiles, such as product preferences or age.

See also customer profile.

D

daemon

Program that runs automatically and continuously in the background.

DASD

See Direct Access Storage Device (DASD).

data integration

WebLogic Integration component that translates XML files to nonXML format, and vice versa.

data integration plug-in

WebLogic Integration Studio component that extends business process management (BPM) functionality for use with data integration functionality.

data privacy

SSL-based security feature in WebLogic Integration that provides link-level encryption of messages in communications between trading partners. Human users do not have data privacy (SSL) when their names and passwords are used for identification. A digital certificate is required to provide data privacy.

data transformation

In a WebLogic Integration environment—Mapping of data provided in one XML format to another XML format. For example, data transformation is performed when a RosettaNet document is mapped to an ebXML document.

data translation

In a WebLogic Integration environment—Process of converting binary data to or from XML.

data universal numbering system (DUNS)

Standard for assigning nine-digit strings, as internationally-recognized identifiers, to companies that engage in global electronic commerce transactions. Business identifiers are assigned to trading partners for external use by some business protocols; they differ from internal WebLogic Integration trading partner names. Implementations of the RosettaNet business protocol must use DUNS numbers.

database

Collection of interrelated or independent data items stored together without redundancy to serve one or more applications.

database management system (DBMS)

Program or set of programs that enables users to structure and manipulate the data in the tables of a database. Use of a DMBS ensures data privacy and integrity, and the ability to recover data in a multiuser environment.

See also database.

datatype

Programming classification indicating the type of data in a variable. Some commonly used datatypes are various forms of integers, character, and Boolean. Most programming languages require that the datatype must be declared for data objects or fields. Datatypes are dependent upon the programming language used.

dbKona

In a WebLogic Server environment—Set of high-level Java objects that may be used with any JDBC driver for database access.

See also JDBC.

DBMS

See database management system (DBMS).

decision

The business process management (BPM) term for a workflow component that contains a condition to be evaluated when a transition occurs. The result of the evaluation (true or false) determines the appropriate dependent node to which flow control then passes.

See also workflow.

decoder

Component that processes the protocol-specific message headers, identifies the sending trading partner, enlists the sending trading partner in a conversation, prepares a reply for the sender, and forwards the message to the scheduling service.

decryption

Process of taking cipher text (encrypted data) and a cryptographic key and producing plain text (the original unencrypted data).

See also encryption.

default

Value of a variable used by a program if a value is not supplied by the user.

deferred synchronous message delivery

Message delivery method whereby control is returned to the application once a message is sent. A message token is returned to the application, which the application can access later to check the status of message delivery. After the token is accessed, the application waits for a specified time or until one of the following events occur: acknowledgments are received from all potential destinations; the message times out; or the conversation in which the message was sent terminates.

delegation

Authorization, by principal A, for principal B to use principal A's identity or privilege, sometimes with restrictions.

delimiter

Sequence of bytes that denotes the end of a field or group of data.

delivery channel

Specification for delivering business messages to one trading partner. Each trading partner has a delivery channel for each business protocol supported by the trading partner.

Denial of Service (DoS) attack

Security attack in which an user or organization is deprived of the services of a resource they would normally expect to have. For example, an enterprise Web site may be forced to cease operation, thus forcing the enterprise to spend a lot of time and money.

deployment

1) Process of placing an application in a distributed environment and making it available for use. This process may include tasks such as the installation, configuration, and administration of various parts of the application.

2)In a WebLogic Workshop environment—Process of moving a Web service from a development environment to a production environment. Because WebLogic Workshop's run-time software is integrated with WebLogic Server, it is simple to deploy WebLogic Workshop Web services: just copy the target JWS file (and any supporting files) to the production server.

deployment descriptor

XML file that supplies an EJB server with the information it requires to configure run-time properties for EJBs. It also enables a system administrator to define permissions on an EJB and to configure resources used by an EJB. Deployment descriptors conform to a Document Type Definition (DTD) provided by Sun Microsystems, Inc. JavaSoft.

See also Document Type Definition (DTD), Enterprise JavaBeans (EJB), and XML.

descriptor

XML file that specifies the deployment requirements of a Campaign services Web application. A descriptor consists of property phrases and value phrases.

To add a new MIME type for ad placeholders, you must modify the deployment descriptor for your WebLogic Personalization Server Web application. You can use a text editor to modify the deployment descriptor.

developer

Generic name for the role played by any technical expert in an organization who creates and/or maintains Web applications by writing code. In the Java 2 Platform Enterprise Edition (J2EE) Specification, developers are referred to as *Application Component Providers*.

Developers have special access privileges that may not be shared by individuals in other organizational roles.

Numerous areas of expertise divide developers into various categories: Java/EJB developers, HTML/JSP developers, application assembler/deployers, and system administrators.

digital certificate

Digital equivalent of an ID card that is used by WebLogic Integration, with a public key encryption system, to authenticate trading partners. A digital certificate contains the owner's public key, which has been digitally signed by a certification authority.

digital signature

SString of bits used to protect the security of data being exchanged by two entities by verifying the identities of those entities. Specifically, this string is used to verify that the data came from the sending entity of record and was not modified in transit.

A digital signature is computed from an entity's signed data and private key. It can be trusted only to the extent that the public key used to verify it can be trusted.

Direct Access Storage Device (DASD)

Set of one or more disks or disk drives on a mainframe machine.

direct programming model

Model used for lookup process designed to produce a replica-aware stub that may be handled by different service providers each time it is executed upon. The direct model is appropriate for use with stateless objects.

See also indirect programming model, stateless object, replica-aware stub, and targeted programming model.

discount priority

Relative importance of a discount, specified by a value in the range of 1-20 (with 1 being the highest). In the event that two similar discounts apply to a given item, the priority associated with each discount helps resolve the conflict.

The BEA E-Business Control Center does not detect situations in which multiple discounts are assigned the same priority. If two discounts have the same priority, one of the discounts is selected at random.

See also E-Business Control Center^{TM}.

discount value

Percentage or dollar amount of a discount. All discount values can be specified in one of three formats: as a percentage off the price, an amount off the price, or a fixed price.

display priority

Relative likelihood that a group of ads will be displayed, relative to ads in other groups that have the potential to be displayed in the same placeholder at the same time. Default ad groups automatically have a lower priority than campaign ad groups.

The BEA E-Business Control Center does not detect situations in which multiple ads are assigned the same priority. If two ad queries have the same priority, both have the same chance of being run in a placeholder.

See also E-Business Control Center^{TM}.

distributed application

AApplication that is divided into two or more parts (such as a client and a server), residing on different computers that communicate through a network. Web applications are, by nature, distributed applications.

See also Web application (Webapp).

distributed computing

Application design and implementation strategy that divides an application into units that are executed on different computers and communicate through a network. For example, an application can be divided into three distributed units: a user interface unit, a processing unit, and a storage unit.

distributed object

Object that can be located anywhere on a network. Distributed objects are packaged as independent pieces of code that can be accessed by remote clients via method invocations. The language and compiler used to create distributed objects are totally transparent to the clients. Clients do not need to know the location in which the distributed object resides or the operating system on which it runs.

distributed object model (DOM)

Abstraction that describes the way applications are partitioned, that is, how the logic is divided between the tiers (multitier or two-tier) that support it.

See also multitier and two-tier.

Distributed Program Link (DPL)

CICS concept roughly equivalent to the concept of a Java remote method invocation.

See also Customer Information Control System (CICS).

distributed transaction

Transaction involving multiple transaction managers. In a distributed transaction environment, a client application may send requests to several servers resulting in resource updates at multiple resource managers. To complete a transaction, the transaction manager for each participant (client, servers, and resource managers) must be polled to coordinate the commit process for each participant within its domain.

See also transaction, transaction manager, and resource manager.

distributed transaction processing (DTP)

Form of processing in which multiple application programs update multiple resources (such as databases) in a coordinated manner. Programs and resources can reside on one or more computers across a network.

DLL

See dynamic link library (DLL).

DMS

See document management system (DMS).

document

File that is stored in a content management system and displayed on a Web site. Examples include HTML files, image files, and files that must be viewed with a browser plug-in.

See also content management system.

document definition

Schema, such as a Document Type Definition (DTD), that specifies the prerequisites for a valid document. WebLogic Integration document definitions are provided in XML DTDs. Each document definition includes two attributes: System ID (a DTD system identifier); and URL, which specifies the location of the document definition.

document exchange

Definition of the method through which a document is exchanged. A document exchange defines a business protocol and some run-time parameters.

document management system (DMS)

System that manages a collection of documents. It usually provides services such as document retrieval and document authoring services, including creation, editing, versioning, and workflow.

document reference implementation

Default, out-of-the-box document management solution of the WebLogic Personalization Server. This implementation uses the BulkLoader utility to load content metadata into the database and the content schema into an XML file. It is one of many possible implementations of the WebLogic Personalization Server Document Management Service Provider Interface (SPI) that you can use to integrate third-party document management systems into WebLogic Personalization Server.

Document Type Definition (DTD)

File that defines the format (grammar and syntax) to be used for associated messages or files written in either XML or SGML. Specifically, a DTD file defines how the markup tags in an XML or SGML document should be interpreted by the application that is presenting that document, so that the document is displayed or printed as intended. The definition conforms to the rules of the

Standard Generalized Markup Language (SGML). DTDs are part of the W3C XML specification.

See also schema.

DOM

See distributed object model (DOM).

domain

Collection of servers, services, interfaces, machines, and associated resource managers defined by a single configuration file.

See also resource manager.

done

The business process management (BPM) term for a workflow component that marks an entire workflow as complete. No further processing for any task occurs after this term is issued.

DPL

See Distributed Program Link (DPL).

DTD

See Document Type Definition (DTD).

DUNS

See data universal numbering system (DUNS).

Durability

Quality of Service (QoS) option that specifies whether a durable message store is used to guarantee message delivery in case of node failures. The options are namespace (default) and Persistent. Availability depends on the business protocol that is used.

Dynamic Data Exchange (DDE)

Form of communication available on Microsoft Windows platforms that allows applications to exchange information through a series of messages. Two applications sending and responding to DDE messages are said to have a DDE conversation.

dynamic datatype

Datatype for which the memory size is not known when the code is compiled; a the memory size of a dynamic datatype is known only when the code is executed.

dynamic link library (DLL)

Library of executable functions or data that can be used by a Windows application. Use of a DLL in a Java program implies that the Java program contains native code. The DLLs used in WebLogic Server are published by database vendors for two-tier native drivers.

dynamic role association

Ability to provide late bindings of roles to principals based on the context and target of the business request.

E

E-Business Control Center™

Tool that facilitates the creation and maintenance of a personalized Web site. The BEA E-Business Control Center includes an intuitive graphical user interface that guides users through a variety of tasks.

ebXML

See electronic business XML (ebXML).

ECMAScript

Standardized language that combines JavaScript and JScript. JavaScript was developed by Netscape Communications; JScript, by Microsoft Corporation. ECMAScript was created by a standards body called the European Computer Manufacturers Association (ECMA).

EDI

See Electronic Data Interchange (EDI).

EDI VAN

See Electronic Data Interchange Value-Added Network (EDI VAN).

EIS

See Enterprise Information System (EIS).

EJB

See Enterprise JavaBeans (EJB).

electronic business XML (ebXML)

Set of specifications for a modular framework supporting the electronic exchange of business data. Developed for global usage through a joint initiative of the United Nations (UN/CEFACT) and OASIS.

Electronic Data Interchange (EDI)

Industry standard for the format of business messages used in e-commerce, and for the legal terms governing the use of such messages.

Electronic Data Interchange Value-Added Network (EDI VAN)

Third-party intermediary that routes EDI messages between trading partners.

encoder

Component that transforms a message, as necessary, to support the required business protocol, and then forwards the message to the transport service.

encoding

Conversion of architecture-specific data into a format that can be transmitted between different architectures, such as External Data Representation (XDR) encoding.

encryption

Process of algorithmically scrambling data to prevent (or hinder) unauthorized disclosure, while still preserving access to the original data by authorized users. To read an encrypted file, a recipient must have access to a secret key or password that enables the recipient to decrypt it. Unencrypted data is called plaintext; encrypted data is referred to as ciphertext.

encryption key pair

Encryption key pair consists of the public key used to encrypt information and a private key used to decipher the information.

end point

URL for a trading partner.

Enterprise Application Integration (EAI)

Unrestricted sharing of information by two or more enterprise applications. A set of technologies that allow the movement and exchange of information between processes within and between organizations. (Linthicum 2000, p. 354)

Enterprise Information System (EIS)

Software system that provides the information infrastructure for an enterprise. An EIS offers a set of services to its clients. These services are made available to clients via local and/or remote interfaces. Examples of an EIS include:

- Enterprise Resource Planning (ERP) system, such as SAP R/3 or PeopleSoft
- Mainframe transaction processing system, such as CICS
- Legacy database system, such as Oracle

Enterprise Information System (EIS) resource

Provides EIS-specific functionality to its clients. Examples of an EIS resource include:

- Record or set of records in a database system
- Business object in an Enterprise Resource Planning (ERP) system
- Transaction program in a transaction processing system

Enterprise JavaBeans (EJB)

Java API that defines a component architecture for multitier client/server systems. Specifically, the EJB specifies an architecture for the development and deployment of object-oriented, distributed, enterprise-level applications. Applications written using the EJB architecture are scalable, transactional, and secure.

See also Java 2 Enterprise Edition (J2EE).

enterprise resource planning (ERP)

Business management system that integrates all facets of the business, including planning, manufacturing, sales, and marketing.

entity bean

Enterprise JavaBean that represents a database record and includes methods that can be invoked on data in that record.

Entity Property Manager

Stateless session bean that handles the persistence of properties.

environment variable

Application-defined string, representing a parameter of the application, to which a user can assign a custom value and subsequently change that value, if necessary, without rewriting code that depends on the parameter in question. Environment variables become available when the host application is started.

ERP

See enterprise resource planning (ERP).

event

1) In a WebLogic Integration environment—An occurrence within a software system (generally an EIS). If an event is of interest to any external parties, it causes the generation of an event object that is delivered to those parties as an event notification.

2)In a WebLogic Portal environment—Customer behavior or system behavior:

- Customer behavior–For example, the BEA E-Business Control Center allows you to select from a number of predefined customer behaviors (events) to trigger scenario actions. Customer behaviors that are tracked range from viewing content to clicking through hyperlinks.
- System behavior–Event Service keeps track of a wider set of events such as campaign activity, session events, the firing of rules, and so forth. These logged events are available for deeper analysis by analytical tools.

See also E-Business Control Center^{TM} and scenario action.

event node

A business process management (BPM) term for a workflow. To execute an event node, the workflow waits for an XML message to trigger the event. When that trigger occurs, various sub-actions defined within the event node can be executed or workflow variables can be set.

event notification

One-way asynchronous notification of an event within a system (generally an EIS). An event notification is achieved by delivering an event object representing the event to a subscriber for that type of event.

event object

Data object that represents an event within a system (generally an EIS). Event objects generally contain data sufficient to describe the event and the context in which it occurred. Event objects are often referred to simply as events. This is because event objects are the only representation of an event possible after the event has passed, and therefore are the lasting outcome of an event. An event object has a type that is a name used to refer to all events with the same cause. An event object contains an XML document that contains the data for the event.

exception

Condition, often an error, that causes a program or microprocessor to branch to a different routine to handle the error. Java method for handling run-time errors.

exception walking

Process whereby Webflow searches for an alternate flow of execution in order to resolve missing transitions.

See also Webflow.

explicit properties

Properties stored in separate tables or separate databases, and are accessed through custom Entity PropertyManager implementations.

See also Entity Property Manager and implicit properties.

extended property

User-defined element, attribute, or text that can be associated with entities in the repository. For this release, extended properties can be associated with trading partners only, through the WebLogic Integration B2B Console, or the Bulk Loader utility. These properties provide application extensions to the standard predefined attributes of trading partners.

extensible markup language (XML)

Metalanguage (a language for describing languages) that you can use to define customized markup languages. It is composed of a subset of standardized general markup language (SGML).

XML facilitates the development of user-defined document types and the creation of programs that can use data from documents of such types. It is rapidly becoming a universal standard for defining, validating, and sharing data formats and documents.

Because XML is text-based (that is, it is not written in binary format), and it uses syntax rather than binary markers to organize data, it can be deployed across heterogeneous and potentially incompatible systems and platforms.

XML is a crucial component of the WebLogic Integration solution.

eXtensible Stylesheet Language (XSL)

Language for specifying the format of an XML document.

eXtensible Stylesheet Language Transformations (XSLT)

XML language designed for transforming one XML document into another. An XSLT document, or stylesheet, describes data transformations that are to be performed on nodes of an XML document. Using XSLT, an XML document can be transformed into a variety of text formats, such as XML, HTML, and PDF.

F

factory

1) Any distributed CORBA object that returns an object reference to other distributed CORBA objects. A factory is located in a server application.

2)Interface used by a client to obtain an object reference to a CORBA object. Object references to factories are obtained by the client using an object reference to a Factory Finder interface. The Factory Finder interface is advertised by the system and is made available to the client as part of client bootstrap processing.

See also common object request broker architecture (CORBA).

failover

Capability of a system to respond to the failure of a service invocation by redirecting the request for the service to an alternate provider, without requiring user intervention. In other words, the ability of a system to transfer control to a backup component when a fault occurs.

The types of services that can be invoked, through the failover capability, in spite of an initial invocation failure, include the service that performs lookups of service providers, the ability to recover in the event of a server failure, and the ability to find another instance of a service on a reachable server.

See also clusterable stub.

field

In a WebLogic Server environment:

1) Specified area of a record, used for a particular category of data;

2)Smallest unit of data within a segment to which you can refer;

3)Any designated portion of a segment;

4)Single item of data in a database table;

5)Portion of a window in which data is displayed.

In a WebLogic Integration environment: Sequence of bytes that is interpreted by an application as an atomic unit of data.

file-sharing client

Trading partner that uses FTP to communicate with other trading partners.

firewall

Software that monitors traffic between an internal network and the Internet, and that regulates the type of network traffic that can enter and leave the internal network.

FIX

Financial Information Exchange (FIX) protocol: a messaging standard developed specifically for real-time electronic securities transactions.

G

garbage collection (GC)

Function that reclaims memory from unused objects and variables while a Java program is being run. This function is usually executed automatically in the background, but it can also be requested at specified times by the programmer.

GC

See garbage collection (GC).

general protection fault (GPF)

Error condition in Windows programs that results from a program attempting to access an area of memory in use by another program.

global transaction

Transaction in which multiple servers or multiple resource manager interfaces are used to coordinate the transaction as an atomic unit of work. A global transaction may be composed of several local transactions that each access a single resource manager.

See also distributed transaction and ACID properties.

GlobalConversationMBean

MBean interface that represents a conversation definition. B2B integration management applications use GlobalConversationMBean objects to monitor conversations in a run-time environment.

GPF

See general protection fault (GPF).

graphical user interface (GUI)

High-level interface that provides windows with menus and graphical symbols, in which a user can perform tasks by making selections and providing information when prompted, instead of by typing a series of system commands. Examples include the BEA WebLogic Server Administration Console and the WebLogic Integration B2B Console, both of which enable an administrator to configure and control BEA applications through a Web browser.

See also administration console.

group

1) In a WebLogic Server environment—Set of users that share some characteristics. An ACL can assign permissions to a group. Because all permissions are positive in the WebLogic Server realm, giving a permission to a group is the same as giving the permission to each user who belongs to the group. In realms that support negative permissions, individual permissions override group permissions.

2)In a WebLogic Integration environment—Set of fields or groups that is treated as a single unit.

See also access control list (ACL), realm, and permission.

group choice

Group of fields or other groups, one of which is required. All the fields (or other groups) must be mutually exclusive in the terms of actual binary data they contain.

group portal

Particular view of a portal defined for a specific group of users. You can create multiple group portals within a single portal Web application. Group portals can share portal resources, such as layouts and portlets, but they can also be configured differently, if necessary, to satisfy the needs of each group.

group profile

Collection of users or other groups. A group profile also contains a set of attributes, and each user or subgroup within the profile can inherit these attributes.

See also User Management component and user profile.

GUI

See graphical user interface (GUI).

H

heuristic commit

Heuristic completion such that all updates related to the transaction are committed.

See also heuristic completion.

heuristic completion

Unilateral decision by a resource, during the completion stage of a distributed transaction, to commit or roll back updates. This type of decision can leave distributed data in an indeterminate state. Network failures or transaction timeouts are possible causes for heuristic completion. Also referred to as *heuristic decision*.

See also commit, distributed transaction, and rollback.

heuristic decision

See heuristic completion.

heuristic hazard

Result of a heuristic completion such that the resource manager does not know whether at least one of the updates related to the transaction was rolled back or committed.

See also heuristic completion.

heuristic mixed

Result of a heuristic completion such that some updates related to the transaction were rolled back and other updates were committed.

See also heuristic completion.

heuristic rollback

Result of a heuristic completion such that all updates related to the transaction were rolled back.

See also heuristic completion.

hierarchy

1) System of ranking items.

2)In a database, a tree of segments beginning with the root and proceeding downward to dependent segment types. No segment type can be dependent on more than one other segment type.

home interface

One of two interfaces for an enterprise bean, the home interface and the remote interface. The home interface defines zero or more methods for creating and removing an enterprise bean. For session beans, the home interface defines create and remove methods, while for entity beans, the home interface defines create, finder, and remove methods.

See also remote interface.

hop timestamp

Facility through which each message is time-stamped upon its arrival in the B2B integration component of WebLogic Integration. No input is required from the application. A timestamp can be useful for debugging and measuring performance. Availability depends on the business protocol that is used.

host

1) Computer that is attached to a network and provides services other than acting as a communication switch.

2)Primary or controlling computer in a data communication system.

hot deployment

Launching, or reconfiguring and relaunching, a Web application without restarting the Web application server.

See also Web application (Webapp) and Web application server.

HTML

See Hypertext Markup Language (HTML).

htmlKona

Java objects used by WebLogic Server for dynamically generating HTML pages or servlets.

HTTP

See hypertext transfer protocol (HTTP).

HTTP proxy

Intermediary that represents the Internet for outgoing HTTP requests and represents many IP destinations for incoming requests.

HTTP request

Form of request used by Campaign services to invoke the JSP URI specified by the relevant scenario action. It includes parameters that identify the scenario and the customer who triggered the scenario action. It is presented in HTTP format.

See also Campaign services and scenario action.

HTTP server (HTTPD)

Server that transfers data using the hypertext transfer protocol.

See also hypertext transfer protocol (HTTP).

HTTPD

See HTTP server (HTTPD).

Hypertext Markup Language (HTML)

Standard code used to specify the format of a file when the file is displayed in a browser.

hypertext transfer protocol (HTTP)

Part of the TCP protocol family, based on TCP/IP, used to fetch hypertext files from remote hosts. This protocol also defines the following related entities:

- HTTPD—Server that employs HTTP to transfer data.
- HTTPS—Hypertext transport protocol used to access a secure Web server.

See also transmission control protocol (TCP).

I

I18N

See internationalization (I18N).

IDE

See integrated development environment (IDE).

idempotent

A function, *f*, is considered idempotent if $f(f(x)) = x$. Computer science defines a procedure as idempotent if it produces the same result every time it is performed with the same arguments.

This property is especially useful when dealing with a retry of a replicated object. When a communication failure occurs during an attempt to invoke a remote method, it is not always possible to know whether the failure occurred before or after the method invoked was completed on the server. If the failure occurred after the method completed on the server, a retry results in the same method being called twice (even if it is called on two servers).

Such behavior can produce incorrect results unless the method being invoked is idempotent. If a method is idempotent, then the process of invoking it multiple times with the same arguments is equivalent to invoking it only once.

identity

Set of unique security attributes assigned to a principal. No two identities of principals may be identical. Principals may have several different kinds of identities, each of which must be unique.

IDL

See interface definition language (IDL).

IIOP

See Internet Interoperability Protocol (IIOP).

impl

See implementation.

implementation

Named object or class that defines the behavior for all operations and attributes of a supported interface. For example, `my_object` implements `my_impl`. Used with RMI to invoke a remote interface.

implicit properties

Properties stored in the WebLogic Personalization Server property tables that do not correspond to getter and setter methods.

See also explicit properties.

impressions

Number of people who have viewed an ad.

IMS

See Information Management System (IMS).

indirect programming model

Model used for a lookup that returns a replica-aware stub that is guaranteed to be handled by the same service provider each time it is executed upon. You should use this programming model for stateful objects.

See also direct programming model, replica-aware stub, stateful object, and targeted programming model.

Information Management System (IMS)

IBM's transaction processing monitor and hierarchical database product used for large commercial application systems on OS/390 or MVS/ESA platforms. Two main components are a hierarchical database manager and a queue-based transaction manager that routes requests from terminal to application programs.

infrastructure

Set of components (fundamental services) that support a higher-level set of components in a given computer system. The higher-level components are typically provide the function for which the whole system is used.

initiating principal

Security principal representing the end-user that interacts directly with an application. An end-user can authenticate the use of either a Web client or an application client.

See also principal.

input processor

Processor that validates customer data submitted through HTML forms, and stores such data in a pipeline session for subsequent use by a pipeline component.

See also pipeline component and pipeline session.

instance

Single realization of an abstraction or template, such as a class of objects or a computer process.

instance variable

Any item of data that is associated with a particular object. Each instance of a class has its own copy of the instance variables defined in the class.

instantiate

To create an instance by defining one variation of an object within a class, giving it a name, and putting it in a particular physical location.

instrumentation

1) Facilities that provide access to the attributes of managed resources, for the purpose of retrieving or modifying the values of these attributes.

2)Access to managed resources used by agents to respond to management requests.

integrated development environment (IDE)

A software environment that supports the task of programming in the context of an existing application. Examples include Borland's *JBuilder*, Sybase's *PowerJ*, and WebGain's *Visual Cafe*.

integration

Ability of applications to share information or to process independently by requesting services and satisfying service requests. In a well-integrated system, each part has a purpose, and the parts combine effectively to achieve the purpose of the overall system.

interaction specification

Static XML document that contains secondary metadata about a service. For a DBMS service adapter, for example, the interaction specification contains the SQL statement used to invoke a process on the database.

interface definition language (IDL)

Syntax for describing objects in a CORBA distributed object environment. Specifically, this language enables you to describe the services performed by the object and to define how data is passed to the object.

See also common object request broker architecture (CORBA).

International Standards Organization (ISO)

Multinational group that establishes and maintains standards for computer network communications and many other technologies.

internationalization (I18N)

Modification of software interfaces (parts of the software that are visible to an end-user) in order to change the natural language used for text displayed on the screen to one that is appropriate for the geographic location and culture of the target audience, without recompilation or the use of any binaries other than the originals. Frequently refers to linguistic customization of the JSPs used in HTML interfaces.

The term *I18N* refers to the 18 letters between the *i* and the *n* in the word *internationalization*.)

Internet

Worldwide computer network of smaller, distributed networks that communicate via the TCP/IP family of protocols.

See also intranet and transmission control protocol (TCP).

Internet Interoperability Protocol (IIOP)

Protocol used by CORBA clients to communicate with ORBs over the World Wide Web.

See also common object request broker architecture (CORBA) and object request broker (ORB).

Internet Protocol (IP)

One of several protocols in the TCP family. IP specifies the format of a packet (a piece of a message transmitted over a packet-switching network) and the addressing scheme for it.

See also transmission control protocol (TCP) and packet.

Internet Protocol Address (IP address)

Numeric value that uniquely identifies a node in a TCP/IP network. IP addresses are usually shown in dotted-decimal notation: a series of four decimal numbers (0-255) separated by periods, such as 123.205.23.99.

Internet Protocol multicast (IP multicast)

Delivery of data to distributed servers on the Multicast Backbone. A packet delivery service, supported by all operating systems and most routers, that is used by WebLogic Clusters.

See also Internet Protocol (IP).

interoperability

Ability of entities to exchange requests.

intranet

Private network that may be a LAN or a WAN, or that may be linked over the Internet.

See also Local Area Network (LAN), wide area network (WAN), and Internet.

invocation

Process of performing a method call on a distributed object, with or without knowledge of the object's location on the network. CORBA Static invocation, in which a client stub is used for the invocation and a server skeleton for the service being invoked, is used when the interface of the object is known at compile time. CORBA Dynamic invocation must be used if the interface is not known at compile time.

IP

See Internet Protocol (IP).

IP multicast

See Internet Protocol multicast (IP multicast).

ISO

See International Standards Organization (ISO).

J

J2EE

See Java 2 Enterprise Edition (J2EE) and JAAS.

J2EE Connector

Vendor-provided resource adapter used to integrate J2EE-compliant application servers with enterprise information systems (EIS).

See resource adapter, Java 2 Enterprise Edition (J2EE), and J2EE Connector Architecture.

J2EE Connector Architecture

Architecture for integrating J2EE-compliant application servers with enterprise information systems (EIS). This architecture comprises two parts: an EIS vendor-provided resource adapter and an application server, such as WebLogic Server, to which the resource adapter plugs in. This architecture defines a set of contracts, such as transactions, security, and connection management, that a resource adapter must support in order to plug in to an application server.

The J2EE Connector Architecture also defines a Common Client Interface (CCI) for EIS access. The CCI, in turn, defines a client API for interacting with heterogeneous EISs.

See also Java 2 Enterprise Edition (J2EE) and J2EE Connector.

J2ME

See Java 2 Platform, Micro Edition (J2ME).

JAAS

See Java Authentication and Authorization Service (JAAS).

.jar

See JAR file.

JAR file

File format, called Java Archive, used for aggregating many files into one. The format is a compressed (zip) file. It is useful for loading classes and other files required to run an applet in a single HTTP request.

JAR files are named with a `.jar` extension. They can be used only with applets running under Netscape 3.0 or later.

See also Java, applet, hypertext transfer protocol (HTTP), and cab.

Java

Object-oriented programming language, created by Sun Microsystems, Inc., that allows developers to *write once, run anywhere.*

Java 2 Enterprise Edition (J2EE)

Platform-independent, Java-centric environment for developing and deploying distributed, scalable, enterprise-level applications designed to run on networks, the Internet, and the Web. The J2EE platform consists of a set of services, APIs, and protocols that provide the functionality for developing multitiered, Web-based applications.

J2EE enables programmers to simplify their enterprise applications by basing them on standardized, modular components. In addition, J2EE provides, for those components, services that manage many details of application behavior automatically. As a result, an enterprise application developer is not required to write complex custom code for many common functions.

One of the main components of J2EE is EJB technology.

The WebLogic Portal suite is based on J2EE and EJB.

See also Enterprise JavaBeans (EJB).

Java 2 Platform, Micro Edition (J2ME)

Java platform technology developed for wireless consumer devices.

Java Authentication and Authorization Service (JAAS)

Java package that enables services to authenticate and enforce users' use of access controls.

Java Cryptography Extension (JCE)

Set of packages that provides a framework for encryption using strong ciphers, key generation and agreement, and Message Authentication Code algorithms.

Java database connectivity (JDBC)

JavaSoft specification for Java access to relational databases, published by Sun Microsystems, Inc. The current release is 2.0. For more information, see `http://java.sun.com/products/jdbc/index.html`.

See also Java Enterprise API.

Java Development Kit (JDK)

Software development kit, provided by JavaSoft, for writing applets and applications in Java.

See also Java virtual machine (JVM).

Java Enterprise API

JavaSoft collection of application programming interfaces that facilitate the development of cross-platform Java Enterprise software. BEA has implemented many Java Enterprise APIs (including WebLogic EJB, WebLogic HTTP Servlets, WebLogic JDBC, WebLogic JNDI, and WebLogic RMI) and is implementing more currently.

See also WebLogic Server EJB, WebLogic Server HTTP servlets, WebLogic Server jDriver, WebLogic Server JNDI, WebLogic Server RMI, and access control list (ACL).

Java heap memory

Area of memory designated for run-time use by a Java program.

Java Management Extensions (JMX)

Standard API for management applications published by Sun Microsystems, Inc. The WebLogic Integration administration API is based on the JMX API.

Java Message Service (JMS)

1) Standard API for accessing enterprise messaging systems. An enterprise messaging system, also referred to as Message-Oriented Middleware (MOM), provides a reliable, flexible service for the asynchronous exchange of critical business data and events throughout an enterprise.

2)JMS API adds to this a common API and provider framework that enables the development of portable, message-based applications in the Java programming language.

WebLogic Server JMS is an implementation of the Java JMS specification, version 1.0.2.

See also Message-Oriented Middleware (MOM).

Java Naming and Directory Interface (JNDI)

1) Standard Java API for looking up objects and resources by name.

2)JavaSoft specification for the process used by application servers to make named resources and file systems known and accessible to all kinds of users.

WebLogic JNDI is based on the JavaSoft JNDI.

See also Java Enterprise API and WebLogic Server JNDI.

Java Run-time Environment (JRE)

Self-contained Java environment that consists of only one element: the JVM. With a JRE installed, your users can run Java programs.

To make sure your users have the Java environment required for your application, publish a JRE (various types are available commercially), along with a zero-administration client (ZAC) application.

See also Java Development Kit (JDK), Java virtual machine (JVM), and zero-administration client (ZAC).

Java scriptlet

Scripting element containing a code fragment that is valid in the scripting language used in the Java Server Page (JSP) specification. The JSP specification defines the concept of a *valid scriptlet* for cases in which the language page attribute is *java*.

Java Security Manager

Security manager for the Java virtual machine (JVM). Works with the Java API to define security boundaries through the `java.lang.SecurityManager` class, enabling programmers to establish a custom security policy for their Java applications.

Java Server Pages (JSP)

J2EE component that extends the servlet class and supports rapid server-side development of HTML interfaces that can be comingled with Java.

Java servlet

Server-side Java program that displays output in a browser. It is usually executed in response to an HTTP request.

Java system property

Parameter, similar to an environment variable in a native program, that encapsulates information about the environment in which a Java program is run.

Properties used in BEA products conform to the class `java.util.Properties`, which defines the use of Java system properties.

Java Transaction API (JTA)

1) In a WebLogic Integration environment—API that enables applications and J2EE servers to access transactions.

2)In a WebLogic Server environment—High-level application transaction interface and a Java mapping to XA. Enables an application to control the boundaries of a user transaction.

The XA interface enables an external transaction manager to control the transaction boundaries for operations performed by multiple resource managers using the two-phase commit X/Open XA protocol.

The JTA is defined in the `javax.transaction` and `javax.transaction.XA` packages.

See also transaction, transaction manager, resource manager, and XA interface.

Java Transaction Service (JTS)

Service that serves one of the following functions:

1) Specifies the implementation of a transaction manager that supports JTA, and implements the Java mapping of the OMG Object Transaction Service (OTS) 1.1 specification at the level below the API.

2)Provides a way to maintain control of distributed transactions in order to protect them from sharing violations or other failures. JTS is used within WebLogic Platform for its transaction processing functionality, but WebLogic Platform does not export any of its JTS implementation as a public API.

See also Java Enterprise API.

Java virtual machine (JVM)

Java interpreter that includes a bytecode instruction set, a set of registers, a stack, a garbage-collected heap, and an area for storing methods. Java code is processed in the JVM on a particular platform (UNIX or Windows).

See also Java Development Kit (JDK).

JavaBeans

Java object that interacts with other Java objects in conformance with Sun Microsystems' definition of such interactions. JavaBeans are portable and platform independent.

See also Java Enterprise API.

Javadoc

1) Tool from Sun Microsystems, Inc. that generates API documentation in HTML format from comments in Java source code. The Java API Reference document, for example, is formatted by the Javadoc tool.

2)Generic term for documentation created with this tool.

See also application programming interface (API).

JCE

See Java Cryptography Extension (JCE).

JCL

See Job Control Language (JCL).

JDBC

See Java database connectivity (JDBC).

JDBC-ODBC bridge

Software component that provides general database connectivity through the ODBC client library. The bridge supports Java connectivity to any relational database. It was created as a joint project between Intersolve and JavaSoft.

See also open database connectivity (ODBC).

JDK

See Java Development Kit (JDK).

JIT

See just-in-time compiler (JIT).

JMS

See Java Message Service (JMS).

JMX

See Java Management Extensions (JMX).

JNDI

See Java Naming and Directory Interface (JNDI).

Job Control Language (JCL)

Language for defining jobs (units of work) on the MVS, OS/390, and VSE operating systems.

join

Workflow component that controls the transitions among business process management (BPM) events, tasks, and decisions, by linking those events, tasks, and decisions.

A join can be one of two types, AND or OR:

- If the join is an AND, all components linked by it must be satisfied before the successor to the join can be activated.
- If the join is an OR, only one of the components linked by that join must be satisfied in order to activate the successor to the join and continue the flow.

See also workflow.

Joy

User interface toolkit developed by BEA Systems, Inc. that takes XML documents as input, and creates an application's graphical user interface from the documents' content. Joy supports the construction of extensible and highly customizable user interfaces.

JRE

See Java Run-time Environment (JRE).

JSP

See Java Server Pages (JSP) and Java Transaction API (JTA).

JSP tag

String of characters, displayed between angle brackets (<*string*>), that provides markup instructions within a JSP element. Can be used with various scripting languages.

See also application programming interface (API).

JSP tag library

Set of tags grouped together to perform a specialized task collectively after being imported into any JSP.

See also Java Server Pages (JSP) and JSP tag.

JSP template

JSP that displays the features of the WebLogic Portal. You can modify these templates to meet your business needs and use them as a model for developing your own site.

JTA

See Java Transaction API (JTA).

JTS

See Java Transaction Service (JTS).

just-in-time compiler (JIT)

Compiler that stores generated machine code in memory and reuses it when possible. This practice sometimes results in improved performance for some Java applications.

If you are debugging, turn off the JIT so that the stack traces display line numbers in the code.

JVM

See Java virtual machine (JVM).

K

Keystore

WebLogic Server's implementation of a keystore. WebLogic Server also supports custom keystores, however, so you can write your own if you prefer to do so.

keystore

Database of private keys and certificates from trusted entities.

Each private key in a keystore is associated with a certificate chain that authenticates the corresponding public key.

keyword

String of characters used for either of the following purposes:

- To identify a parameter
- To form part of a command operand

L

L10N

See localization (L10N).

LAN

See Local Area Network (LAN).

large message support

WebLogic Integration feature that enables an administrator to request the storage of all messages above a certain size on disk rather than in memory (the default location). Unless otherwise specified, a message must be at least 3 kilobytes long to qualify for large message support.

LDAP

See Lightweight Directory Access Protocol (LDAP).

legacy application

Custom application that requires a large investment of time and money to be developed and is then used by the organization that develops it for a long time. One or more such applications may reside in a centralized environment. Most legacy applications run on mainframes, but applications written to run on minicomputers and some large UNIX systems may be considered legacy systems, as well. Also known as *stovepipe application.*

lifetime, Web service

Instance of a WebLogic Workshop Web service that exists in WebLogic Server for a period of time that is controlled by the Web service developer. This time period is determined by the following factors:

- If a Web service does not manage conversations, it may be created and destroyed each time it is invoked.
- If a Web service manages conversations, each conversation has a lifetime.
- If no interactions occur during a conversation within a specified timeout interval, the conversation instance is released.
- You can also specify, implicitly or explicitly, that a conversation should end when one or more particular methods or callbacks are invoked.

Lightweight Directory Access Protocol (LDAP)

Set of standard protocols for accessing and searching *directories* (that is, collections of information, such as phone numbers or billing addresses) that reside in a database or on a server. These directories may be physically distributed across multiple systems for access by many applications within an enterprise.

LDAP is based on the X.500 standard, but it is significantly simpler. Also, unlike X.500, LDAP supports TCP/IP, which is necessary for any type of Internet access.

Because it is closely coupled with the X.509 standard for certificates, LDAP provides an ideal way to publish certificates.

See also certificate and X.509.

literal

Basic representation of an integer, floating point, or character value. For example, 3.0 is a double-precision floating point literal, and "a" is a character literal.

little endian

Binary format in which bytes at lower addresses have lower significance. This format is used on Intel and VAX processors.

load balancing

Practice of distributing processing and communications activity evenly across a computer network so that no single device is overwhelmed. The work of answering client requests is moved in response to individual server load. Load balancing requires the ability to move both the identity and state of a provider from one host to another.

See also clusterable stub.

Local Area Network (LAN)

Set of interconnected workstations and personal computers spread over a relatively small geographical area.

See also wide area network (WAN).

local transaction

Transaction in which a single database or file is accessed and controlled by a single, local resource manager, functioning as a transaction participant.

See also distributed transaction.

localization (L10N)

Use, at run time, of locale-specific language and constructs (such as date formats) in conformance with the principles of internationalization. To make sure your software conforms with these principles, you must:

- Remove all hard-coded values for items such as text, numbers, and icons, from the source code.
- Replace the values removed in the previous step with resource bundles that provide appropriate versions for specific locales.

See also internationalization (I18N).

log file

File containing descriptions of the events that occur during an operation. Log files are updated frequently during an operation and are useful for reviewing system operations and errors.

log message

Notification of a particular occurrence that is recorded in a local log. BEA products generate four types of log messages, based on the level of severity of the occurrence being reported: fatal, error, warning, and info. Each log message is accompanied by a timestamp.

logging

See log message and system log message.

M

managed bean (MBean)

Java object (JavaBean) that, as part of the Instrumentation level in the JMX architecture, contains attributes for management operations. In WebLogic Integration, MBean classes are used to monitor run-time information. MBeans are registered with the MBean server that runs inside WebLogic Integration. When MBeans are created, their attributes are populated from the repository. At run time WebLogic Integration updates MBean attributes to reflect the state of the running system. MBeans are implemented as Standard MBeans; that is, each class implements its own MBean interface.

See also CollaboratorMBean, ConversationMBean, and GlobalConversationMBean.

managed environment

Defines an operational environment for a J2EE-based, multitier, Web-enabled application that accesses enterprise information systems (EIS). The application consists of one or more application components, such as EJBs, JSPs, and servlets, that are deployed on containers. These containers can be any of the following:

- Web containers that host JSP, servlets, and static HTML pages
- EJB containers that host EJB components
- Application client containers that host standalone application clients

Management Information Base (MIB)

System component that provides a complete definition of the classes that make up the system and the attributes associated with them. System Management Information Bases may comprise a generic MIB for the system and specific MIBs for each major component, such as Domains and Workstation.

Managing Purchases and Processing Orders services

Combination of the following Commerce services: shopping cart, shipping, payment, taxation, and order summary/confirmation.

See also Registering Customers and Managing Customer services and service.

man-in-the-middle attack

Security violation that occurs when an enemy inserts a machine into a network, captures all the messages exchanged by two parties, possibly modifies those messages, and then retransmits them.

MBean

See managed bean (MBean).

message

Formula used by WebLogic Server to send data across applications. Messages may contain statistical or status information about application processes or instructions for the recipient. Each message consists of two parts:

- Header, containing message ID data
- Body, containing user-defined information

See also business message, log message, system log message, and trigger item.

message catalog

Description of a collection of text messages indexed by a unique identifier.

message context

Information that enables recipients of a message to determine the structure and content of the message, as well as the conversation in which the message was sent. Specifically, the message context identifies the following: the relevant conversation, the message definition, the message parts, a content-type for each message part, and a document definition for each message part.

message definition

Specification of the business content, or payload of a business message. A message definition consists of ordered message parts, the contents of which may be binary or XML. An XML message part defines a business document and requires a document definition. A binary message part defines an attachment and requires no other information. *See* business documents and attachments for more information about payloads.

message delivery method

See deferred synchronous message delivery and synchronous message delivery.

message digest

Representation of text in the form of a single string of digits, created with a formula called a one-way hash function. Encrypting a message digest with a private key creates a digital signature, which is an electronic means of authentication.

message digest algorithm

Method of reducing a message of any length to a string of a fixed length, called the message digest or hash value. Message digest algorithms have the property that it is computationally infeasible to find a message that corresponds to a given message digest, or to find two different messages that produce the same message digest. Examples of message digest algorithms are MD5 and SHA-1.

message envelope

Container for a business message as it travels through the B2B integration feature of WebLogic Integration. As the business message enters, B2B integration creates a message envelope for each intended recipient. In addition to the business message, the message envelope contains high-level routing and processing information, such as URLs for the sender and the recipient.

message format

Description of a binary format produced by Format Builder.

message format language (MFL)

BEA's XML language that describes the native representation and hierarchy of binary data. MFL is an XML description of binary data.

message header

Part of a business message that contains attributes, such as information that identifies the sender and recipient, the conversation, and the Quality of Service (QoS).

message manipulator

Java class that implements the message manipulator interface `com.bea.b2b.wlpi.MessageManipulator` and that helps integrate B2B integration and business process management (BPM). A message manipulator uses BPM variables to create and process B2B integration business messages.

message token

Token that is returned to an application after the application sends a message. The token provides the following information: the message ID; the ID of the conversation in which the message was sent; whether the message was sent successfully; the amount of time that elapsed before all recipients sent acknowledgments, whether the Quality of Service (QoS) delivery option allows this information to be sent; the number of recipient destinations after the initial selection (RPC specifications applied); and the number of recipient destinations after the final selection.

message tracking

Feature that provides information about the status of a message as the message progresses through various predefined message-tracking locations in the B2B integration messaging system. WebLogic Integration administrators can use message-tracking information for debugging and identifying bottlenecks in the system. The availability of message-tracking locations depends on the configuration of the WebLogic Integration system, the Quality of Service (QoS) for the message, and the business protocol.

message-driven bean

EJBs that handle asynchronous messages received from JMS Message Queues. The message-driven bean selects an instance from a pool to process the message.

See also Enterprise JavaBeans (EJB), Java Message Service (JMS), and asynchronous.

Message-Oriented Middleware (MOM)

Client/server infrastructure that increases the interoperability, portability, and flexibility of an application by allowing the application to be distributed over multiple heterogeneous platforms.

metadata

Data used to indicate the purpose, meaning, or location of other data. Provides a means to query and match content with users by allowing a system such as the content management system to retrieve content, based on the metadata that describes the content.

Database schemas and XML DTDs are examples of metadata.

See also content management system.

metadata interface

Interface that accesses information about data; descriptive information about a particular object.

method

In object-oriented programming, a programmed procedure that is defined as part of a class and included in any object of that class. A class (and thus an object) can have more than one method. A method in an object can have access only to the data known to that object, which ensures data integrity among the set of objects in an application. A method can be reused in multiple objects.

See also class, object, and object-oriented programming (OOP).

MIB

See Management Information Base (MIB).

minimum purchase requirement

Minimum number of items a customer must purchase to receive the specified per-item discount.

MOM

See Message-Oriented Middleware (MOM).

multithreading

Ability of an operating system to execute different parts of an application, called threads, at the same time, allowing the application to perform multiple tasks simultaneously.

multitier

Networked environment or application that includes clients (one tier), all the network services to which they need access (one or more tiers), and brokers, application servers, and other kinds of resources suppliers (one or more tiers). Two-tier is commonly used to refer to a client-server environment or application.

See also client/network and two-tier.

N

name binding

Association of a name with an object reference. Name bindings are stored in a naming context.

See also bind.

name resolution

Process of converting a name to an object reference.

namespace

1) In a WebLogic Integration environment—Collection of strings that are used in XML documents as element types and attribute names. Each collection is identified by a URI reference.

2)In a WebLogic Portal environment—In a WebLogic Portal environment—Item that allows a used to divide a Webflow into a number of smaller, more manageable modules. For example, a pipeline component defined in one namespace can access a variable defined in another namespace, and then redirect the value of that variable to a JSP defined in yet a third namespace.

See also Webflow.

native method

Java mechanism for calling methods or functions in a language other than Java.

See also WebLogic Server jDriver.

node

Icon that represents a state in a Webflow mechanism. Depending on the node type (presentation or processor), there are a number of predefined events that may occur (such as a visitor clicking a link on a Web page). When a particular event happens, the Webflow decides which subsequent node to invoke to continue the flow. The invocation of a node to continue the flow is referred to as a transition.

See also presentation node, processor node, and Webflow.

nonmanaged environment

Defines an operational environment for a two-tier application. An application client directly uses a resource adapter to access the enterprise information system (EIS); the EIS defines the second tier for a two-tier application.

nonpersistent

Default Durability Quality of Service (QoS) option whereby a message is not stored anywhere in the WebLogic Integration system. A message sent with this option is not recoverable in the event of a whole or partial system failure that occurs while the message is enroute to its destination. Messages delivered with this option use fewer system resources and thus provide better throughput.

nonrepudiation

Mechanism that provides legal proof that a message was sent or received. Nonrepudiation of origin provides legal proof that a message was sent; it links a received message to the sender of the message. Nonrepudiation of receipt provides legal proof that a message was received; it links a processed message to the recipient of the message.

O

OASIS

See Organization for the Advancement of Structured Information Standards (OASIS).

object

Entity defined by its state, behavior, and identity. These attributes (also known as properties) are defined by an object's object system.

Object Linking and Embedding (OLE)

Document standard that supports object linking and embedding.

See also ActiveX controls.

Object Management Group (OMG)

International organization that establishes industry guidelines and object management specifications to provide a common framework for object-oriented application development. The OMG Common Object Request Broker Architecture specifies the CORBA object model, the model that reflects, as objects, the overall design of an application or system.

See also object request broker (ORB).

object reference

Identifier that uniquely specifies an instance of an object within a distributed ORB system.

See also instance and object.

object request broker (ORB)

Common interface used by the client in a CORBA application. The ORB directs the request to the appropriate server that contains the object and redirects the results back to the client.

See also common object request broker architecture (CORBA).

object-oriented programming (OOP)

Type of programming that merges data, information about its structure, and the functions to process the data into a single object. Relationships can be created between one object and another.

ODBC

See open database connectivity (ODBC).

OLE

See Object Linking and Embedding (OLE).

OLTP

See online transaction processing (OLTP).

online transaction processing (OLTP)

Method of assuring the integrity of each database transaction, usually through a process called a two-phase commit (2PC).

open database connectivity (ODBC)

Microsoft's standard mechanism for accessing relational databases.

See also Java database connectivity (JDBC) and JDBC-ODBC bridge.

open framework

Software infrastructure in which developers can easily remove and replace software components in a plug-and-play fashion.

open software distribution (OSD)

File format specification submitted to the W3C and used to facilitate automatic distribution of software over a network. OSD specifies the use of an XML-encoded manifest for a software distribution that details the component files and their dependencies.

See also extensible markup language (XML).

open system

System that implements specified common standards across different computer vendors. Implementing open system standards for communication allows computers from different vendors to communicate with each other.

Open Systems Interconnect Transaction Processing (OSI TP)

ISO standard (ISOIIEC 10026-2) for services and protocols that are used to establish dialogs and pass messages between clients and service routines on different computers. A software implementation of the ISOIIEC 10026-2 standard.

Open Systems Interconnection (OSI)

Consortium that facilitates communication among different types of computer systems.

ORB

See object request broker (ORB).

order discount

Discounts that can apply to a customer's entire order.

order limit

Restriction on the number of times, per order, that a discount can be received. Order limits can be placed on items that trigger the discount, or on items to which the discount is applied.

Organization for the Advancement of Structured Information Standards (OASIS)

International consortium dedicated to the rapid adoption of product- and platform-independent formats based on public standards, such as XML. OASIS operates a Web site that offers resources, and that functions as a repository for XML specifications, such as vocabularies, DTDs, schemas, and namespaces. You can visit this Web site at `www.xml.org`.

orphaned item

Item in a product catalog that is not associated with any category.

See also product catalog.

OSD

See open software distribution (OSD).

OSI

See Open Systems Interconnection (OSI).

OSI TP

See Open Systems Interconnect Transaction Processing (OSI TP).

overall limit (on discounts)

Limit on the number of orders to which a discount may be applied.

P

P3P

See Platform for Privacy Preferences Project (P3P).

package

Logical grouping of classes or interfaces in Java, declared by the package keyword on the first line of a `.java` file.

See also package name.

package name

Name of a logical grouping of classes or interfaces in Java, declared by the package keyword on the first line of a `.java` file. A fully qualified package name is a unique naming scheme (for example, `weblogic.jdbc.t3.Driver`) reflecting the hierarchy and location of the compiled class file. Compiled Java class files that are part of a named package must be placed in the CLASSPATH of the host VM in order to be accessed by the Java interpreter or other utilities. Package name forms the CODE value in an applet tag.

See also CLASSPATH and CODE tag.

packaged application

Any type of application that is purchased rather than developed. Such applications contain reusable business processes that represent best-of-breed business models, and do not require a full-scale development effort.

packet

Piece of a message transmitted over a packet-switching network. The packet contains the destination address in addition to the data.

parametric authorization

Ability to perform authorization decisions on protected resources taking the context and target of the business request into account.

parser

Program that divides source code (programming language code) into components that can be translated into object code (machine language code).

See also Apache XML Parser.

partner interface process (PIP)

One of a set of RosettaNet protocols that specify the choreography of messages. A PIP is the RosettaNet equivalent of a conversation definition.

party

Entity that binds a role in a conversation definition to a trading partner in a collaboration agreement.

payload

Business content of a business message, consisting of one or more business documents and attachments.

Payment service

Implementation of business logic and presentation logic that specifies how the Commerce services authorize, settle, and transfer payments.

See also service.

per-item discounts

Discounts that apply to individual items in a product catalog. For per-item discounts, minimum purchase requirements can be specified.

permission

Defines access to a system resource. To allow access to a WebLogic Server resource, the corresponding permission must be explicitly granted to the principal attempting access.

Ability to carry out certain operations on certain objects, as defined in an access control list. Permissions may be positive (explicitly allowing certain operations on certain objects), or negative (explicitly disallowing certain operations on certain objects). In a WebLogic Server environment, all permissions are positive; to disallow an operation, you must exclude a principal from the ACL that authorizes the operation.

See also realm, access control list (ACL) and principal.

persistence

Process that saves information or state, in a resource such as a file or database, that would otherwise be transient.

Persistent

Durability Quality of Service (QoS) option whereby a message is stored at, and forwarded from multiple locations between its source and destination, during the course of its delivery, as a safeguard in case of machine failures. This process is called persisting a message. An application can direct the system to persist messages on a per-message or per-conversation basis. However, the B2B integration component of WebLogic Integration must be recoverable in order for the message to persist. Persistence is achieved at the expense of system throughput. A persistent message travels more slowly and consumes more resources than a message that is namespace.

persistent object

Object that exists independently of the process within which its object reference is created.

See also object reference and Transport Layer Security (TLS).

personalization

Customization method used by Web content developers to tailor an application to a particular individual or group, based on profile criteria or other variables.

See also Advisor.

personalization advisor

See Advisor.

Personalization Server

See WebLogic Server Remote.

PIP

See partner interface process (PIP).

pipeline

Mechanism for binding a sequence of services into a single named service. The Commerce services, for example, use pipelines to manage the processing of business data. Generally, pipelines control the flow of business logic that is executed resulting from Webflow. Pipelines are represented as pipeline nodes in the Webflow and Pipeline editors, both of which are available from the BEA E-Business Control Center.

See also E-Business Control Center^{TM}, input processor, service, Webflow, and Webflow and Pipeline editors.

pipeline component

Discrete unit of server-side business logic used for such tasks as calculating tax payments or committing an order. Using the Webflow and Pipeline editors available in the E-Business Control Center, you can specify a sequence of pipeline components to form a pipeline.

See also E-Business Control Center^{TM}, pipeline, and Webflow and Pipeline editors.

pipeline namespace file

XML file that configures one or more pipelines. Pipeline namespace files are edited using the Webflow and Pipeline editors, available from the E-Business Control Center.

See also pipeline and Webflow and Pipeline editors.

pipeline session

Storage location for information about the current session (such as the current shopping cart) or more transient data (such as error messages about a customer's most recent input).

See also Shopping Cart Management service.

PKCSI

See Public-Key Cryptography Standards (PKCS-1).

placeholder

Predefined locations in which ads may appear. Placeholders are embedded in Web pages by Business Engineers (or other technical resources). Placeholders answer the question, "Where, on my Web site, should this message be conveyed?" Placeholders should have descriptive names that allow for quick identification.

See also Business Engineer (BE).

platform

Combination of system hardware and software that supports an application.

Platform for Privacy Preferences Project (P3P)

Emerging industry standard that is designed to provide an automated way to compare consumers' privacy preferences with the privacy practices of the Web sites they visit. It lets Web sites express their privacy practices in a format that can be retrieved automatically and interpreted easily.

plug-in

Software module that adds functionality to a larger application.

See also B2B plug-in.

port

1) To transfer a program from one hardware or software environment to another by rewriting sections of the code that are machine dependent, and then

recompiling the program on the new environment. For example, modifying an application so that it runs on a different version of WebLogic Server.

2)Endpoint to a logical connection in a TCP/IP network. A port number identifies the type of the relevant port.

port number

Entity on a TCP/IP host that identifies a logical communications channel and distinguishes one connection from another. A TCP/IP server *listens* for incoming connection requests at a designated port. A TCP/IP client initiates a connection with the server by specifying the host's IP address and the server's designated port number.

portal

Feature-rich Web site that provides a single point of access to enterprise data and applications, presenting a unified and personalized view of that information to employees, customers, and business partners.

See also portlet.

portlet

1) From a Web site visitor's perspective: Specialized content area that occupies a small window of a portal page. A portlet may contain, for example, travel itineraries, business news, local weather, and sports scores. A visitor can customize the content, appearance, and position of a portlet, subject to privileges set by the portal administrator. The visitor can also edit, maximize, minimize, or float the portlet window.

2)From a server-application perspective: Component, implemented as a JSP, that defines static and dynamic content for a specific subject (weather, business news, and so on) in a portal page. The portlet JSP generates HTML by accessing data entities or content adapters on the server.

WebLogic Portal provides tools for creating portals and portlets.

See also application programming interface (API) and portal.

presentation node

Icon that represents states in which a Webflow presents or displays something to a person interacting with the Web application. A Webflow must always start and end with a presentation node.

See also node and processor node.

principal

1) In a WebLogic Server environment—Entity subject to authentication by a mechanism deployed in an enterprise. A principal is identified using a principal name and authenticated using authentication data. The content and format of the principal name and the authentication data depend upon the authentication mechanism.

An access control list is often used to define the set of permissions within a realm. Both users and groups are of type `Principal`. Except in certain special cases, an ACL must always have at least one principal owner, who holds authority for managing the ACL.

2)In a WebLogic Integration environment—Entity that requires access to the WebLogic Integration system. Principals include trading partners, human users, and B2B integration.

See also realm, user, permission, access control list (ACL), and group.

private key

Encryption/decryption key known only to the party or parties that exchange secure messages.

private process

Business process conducted within a business organization. The definitions and designs for a private process are specific to the organization and are not visible outside it. A private process can interface with process engines and with back-end business systems.

process engine

See WebLogic Integration Studio.

processor node

Icon that represents states in which the Webflow invokes more specialized components to handle activities like form validation, or back-end business logic that drives the site's presentation. The processor nodes available for use are:

- Input processors
- Pipelines

See also node and presentation node.

product catalog

Collection of the following Commerce services features:

- A database schema based on the Dublin Core Open Standard
- A bulk loader program called DBLoader
- Browser-based administration screens
- JSP templates
- An Application Programming Interface (API)

See also application programming interface (API).

Product Item Manager

Service that creates, gets, updates, and deletes items within the Commerce services product catalog.

property

Mechanism for storing metadata using name/value pairs. All properties include the following information: property name, data type and selection mode—which specifies whether a property is single-valued (that is, it has a single default value) or multilevel (that is, it has a collection of default values)—and value ranges for defining default values.

property set

Collection of metadata that describes a logical grouping of properties. Property sets allow properties to be conveniently grouped, and allow multiple properties with the same name to be defined.

property set management

WebLogic Portal component that you can use to name properties and group them into *property sets*, which you can also name. *Properties* represent the attributes of an object. For example, *backgroundColor* is a property of an HTML page.

When you create a property, you specify the type of attribute value (for example, text, integer, date/time), whether it defines multiple or single values, whether it restricts values to a certain set, and a default value. You can create property sets based on the following types: User/Group, Session, and Request.

You can apply named properties and property sets to users and groups, HTTP sessions and HTTP requests (wrapped by a ConfigurableEntity component), or content that is accessible from the Content Manager. However, property sets do not manage content; the document loader utility, or a third-party content management tool, manages content metadata.

For example, developers want visitors to be able to specify different background colors for each of their portals. By creating portal A and portal B property sets, the property backgroundColor can exist for both portal A and portal B. While the two backgroundColor properties have the same name, they could have the same or different definitions.

protocol

1) Set of rules that govern the format and timing of messages sent and received over a communication link. TCP/IP is an example of a network protocol.

2)Set of rules that are followed by two systems for the purpose of communicating and exchanging information.

provisioning

The process of sending files from point A to point B, usually from a server to a client. The server might implement the J2EE platform, and the client, the J2ME platform.

proxy

To transfer data processing tasks to another program or device.

See also proxy server.

proxy server

Server that sends requests to another server for processing. WebLogic Server supports proxying of HTTP requests with its HTTPProxyServlet. You can proxy to an instance of WebLogic Server from Netscape and Microsoft Internet Information Server (IIS) through WebLogic Server's Netscape Server Application Programming Interface (NSAPI) and Internet Server API (ISAPI) plug-ins. The use of a proxy server is invisible to the end user.

See also hypertext transfer protocol (HTTP) and proxy.

public key

Value provided by a certificate authority that, combined with a private key, can be used to encrypt and decrypt messages.

public key algorithm

Algorithm for encrypting or decrypting data with a public or private key. A private key is typically used to encrypt a message digest; in such an application, the public key algorithm is called a message digest encryption algorithm. A public key is typically used to encrypt a content-encryption key, or session key; in such an application, the public key algorithm called a key-encryption algorithm. An example of a public key algorithm is RSA.

public key encryption

Technique in which a pair of asymmetric keys—a public key and a private key—is used for encryption and decryption. The public key is made public by distributing it widely. The private key is never distributed; it is always kept secret.

public key security

Extension of public key encryption technology developed for protection of a WebLogic Server environment. Public key encryption is used, in this extension, to establish end-to-end digital signing and data privacy between WebLogic Server and application clients. It complies with the PKCS-7 standard.

public process

Business process conducted between trading partners. A public process is part of a formal contract between trading partners that specifies the content and semantics of message interchanges between them. When the RosettaNet business protocol is used, the business process is a partner interface process (PIP). For all business protocols, a public process is implemented by means of collaborative workflows.

Public-Key Cryptography Standard 7 (PKCS-7)

One of a set of Public-Key Cryptography Standards developed by RSA Laboratories in cooperation with an informal consortium, originally including Apple, Microsoft, Digital Equipment Corporation, Lotus, Sun and MIT. PKCS-7 defines a general syntax for messages that include cryptographic enhancements such as digital signatures and encryption.

WebLogic Server public key security complies with the PKCS-7 standard.

Public-Key Cryptography Standards (PKCS-1)

One of a set of Public-Key Cryptography Standards developed by RSA Laboratories for the implementation of encrypted data transmission.

See also secure sockets layer (SSL) and RSA.

Q

QoS

See Quality of Service (QoS).

QPA

See Query for Price and Availability (QPA).

Quality of Service (QoS)

Class of options used by WebLogic Integration to define levels of reliability in message deliveries performed as part of B2B integration activities. QoS provides options for reliable delivery of messages in the event of network-link and node failures.The WebLogic Integration options improve reliability by using a persistent data store that enables WebLogic Integration to recover B2B integration operations in case of node failures.

Query for Price and Availability (QPA)

Message that is broadcast to one or more supplier trading partners, who respond to the buyer trading partner with quotes.

queue

Simple data structure for managing the time-staged delivery of requests to servers. Queued elements may be sorted in some order of priority. Clients insert items in the queue and servers remove items from the queue, as soon as possible, in batch, or periodically.

R

ra.xml

XML file that describes the configuration and deployment properties for a resource adapter as described in the J2EE Connector Architecture Specification by Sun Microsystems.

See also Document Type Definition (DTD).

RAR

See Resource Adapter Archive (RAR).

RDBMS

See Relational Database Management System (RDBMS).

realm

1) In a WebLogic Server environment—Domain for a set of security attributes. The realm organizes security information and defines its range of operations. A realm has its own idea of principals and permissions. Particular security

domains are reflected in Java as realm instances. A realm determines how a user is authenticated and retrieves access to WebLogic resources.

2)In a WebLogic Integration environment—Domain for a set of security features that provide access to ACLs, names of principals, and related security services. A realm provides a context in which the range of security operations and other security-related information governing WebLogic Integration users is defined. It determines how users are authenticated. The security features available for WebLogic Integration are built on the security functionality provided by WebLogic Server.

3)In a WebLogic Portal environment—Interface to a datastore that provides access to user and group information, and provides authentication services.

See also credential, group, user, permission, principal, and access control list (ACL).

record

1) Input or output data entered in fields. Each field contains an item of information relevant to the record. A set of records constitutes a file.

2)Special data structure used in some programming languages. The record data structure is a combination of other data objects, such as integers, numbers, and strings.

recover

Request from a coordinator or a participant to complete an identified transaction.

recovery

Process of restoring Process of restoring a transaction system, after a failure, to its most recently committed and consistent state.

In distributed systems, recovery may require the resynchronization of several distributed components. Once a system has been recovered, processing can resume, and transactions that were aborted as a result of the failure can be resubmitted.

reference

Group or field that relies on a prior definition to determine its name, type, and termination attributes.

reference implementation

See document reference implementation.

Registering Customers and Managing Customer services

Collection of registration, login, and customer-profile Commerce services. It also includes a set of JSPs through which customers can check the status and history of their orders, and a set of APIs that developers can use to create other services.

See also API and application programming interface (API).

registration

Request by a trading partner to receive business messages for a given role in a conversation definition. Registration requests are sent to WebLogic Integration and require the trading partner to have a subscription.

Registration and Login service

Implementation of business logic and presentation logic through which Web site visitors create a user profile and authenticate with the WebLogic Portal.

See also service.

Relational Database Management System (RDBMS)

System for management of a relational database.

reliability

Extent to which a system (or part of a system) produces the correct output on repeated trials (without unintended side effects), while meeting the performance specification.

reliable messaging

Process of delivering messages with various Quality of Service (QoS) options that guarantee the safe arrival of those messages at their destinations, even when machine failures occur. When reliable messaging is used, the following functionality is available: confirmation of receipt of messages; message logging and tracking; correlation of messages; retry attempts; and a choice of message delivery methods.

remote interface

One of two interfaces for an enterprise bean, the home interface and remote interface. The remote interface defines the business methods callable by a client.

See also home interface.

remote method invocation (RMI)

Method that enables an application to invoke methods on objects stored in any remote JVM as if those objects resided on a local system. WebLogic Server RMI is an implementation of the JavaSoft specification.

See also Java Enterprise API and Java virtual machine (JVM).

remote procedure call (RPC)

Database procedure that is stored on the database and can be executed by name. A client with the proper permissions can request that the procedure be executed and the result returned to the client.

replica handler

Software component responsible for load balancing and failover for a replica-aware stub. The replica handler maintains a list of available replicas and chooses a replica for execution when a remote invocation is made on the replica-aware stub.

To choose one of WebLogic Server's built-in replica handlers, set various flags for RMI and EJB compilation; these flags determine how the replica handler treats service characteristics such as failures and retries, and server affinity.

See also remote method invocation (RMI), replica-aware stub, and stub.

replica-aware stub

Wrapper that delegates its calls to a service instance. It has intelligence about how to deal with load-balancing and failover situations in which a service might be handled transparently by another server. A replica-aware stub uses a component called the replica handler to encapsulate such behavior.

To generate a replica-aware stub, set the `-replicaAware` flags for RMIC or a similar EJB deployment descriptor property.

See also replica handler, remote method invocation (RMI), and stub.

repository

1) In a WebLogic Server environment—Database in which specific types of information are stored. The primary store is a relational database accessed through JDBC. BEA repositories can be configured and accessed through HTML interfaces called consoles. Other utilities allow users to update and process repository data.

2)In a WebLogic Integration environment—Database in which the following types of information are stored: trading partners, conversations, document definitions, XML schemas, and XSLT mappings. The primary store is a relational database accessed through JDBC. The repository can be configured and accessed through an HTML interface, the WebLogic Integration B2B Console. The Bulk Loader utility supports the updating and processing of repository data, and the deletion of data.

repository directory

Directory that contains shared resources such as images and portlet JSPs. You specify the repository directory during Java servlet registration.

See also Java servlet and portlet.

resource adapter

SSystem-level software driver used by either an application server (such as WebLogic Server) or an application client to connect to an enterprise information system (EIS). A resource adapter serves as a *J2EE connector*. The WebLogic J2EE Connector Architecture supports resource adapters developed by EIS vendors and third-party application developers that can be deployed in any application server supporting the Sun Microsystems J2EE Platform Specification, version 1.3. Resource adapters contain the Java components and, if necessary, the native components required to interact with the EIS.

See also J2EE Connector and J2EE Connector Architecture.

Resource Adapter Archive (RAR)

Compressed file (in `.zip` format) used to load classes and other files required to run a resource adapter.

See also resource adapter.

resource manager

Interface and associated software that provides access to a collection of information and processes, such as a database management system. Resource managers provide transaction capabilities and permanence of actions; they are the entities accessed and controlled within a global transaction.

See also transaction.

resource principal

Security principal under whose security context a connection to an enterprise information system (EIS) instance is established.

See also principal and Enterprise Information System (EIS).

restricted trading partner

Trading partner that runs a license-restricted version of B2B integration.

Retry Attempts

Quality of Service (QoS) option whereby B2B integration attempts to resend a message a specified number of times at any delivery point in order to mask intermittent network failures. B2B integration waits for a predefined interval before attempting to resend a message. Availability of this option depends on the business protocol that is being used.

RMI

See remote method invocation (RMI).

RNIF

See RosettaNet Implementation Framework (RNIF).

role

OIn a WebLogic Server environment—Organizational identity defined by a set of allowable actions for an authorized principal.

In a WebLogic Integration environment—Definition of activities associated with either B2B integration or business process management (BPM) functionality:

- For B2B integration functionality—Defines set of activities associated with activities such as buying and selling, that can be performed by a trading partner during a conversation. A role is defined in terms of the documents that can be sent or received by a trading partner in the conversation. Each conversation has two or more roles, and each role is defined by a collaborative workflow.
- For business process management (BPM) functionality—Area of responsibility, ability, or authorization level that is shared by a group of users. A user can belong to one or more roles.

Role Based Access Control (RBAC)

Class of security mechanisms that mediate access to resources through organizational identities called roles.

roll back

To terminate a transaction in such a way that all resources updated within a transaction revert to their original state.

rollback

Event that ends a transaction and nullifies or undoes all changes to resources that were specified during that transaction.

RosettaNet

1) Nonprofit consortium of high-technology companies whose purpose is to define and standardize business interfaces for e-commerce.

2)Business and transport protocol specified by the RosettaNet consortium.

RosettaNet Implementation Framework (RNIF)

Guidelines for creating interoperable software application components that execute PIPs.

RPC

See remote procedure call (RPC).

RSA

Public-key encryption algorithm for encrypting data transmissions. RSA is a product of RSA Security, Inc. and is one of the algorithms used by SSL to encrypt transmissions between Web servers and browsers.

See also secure sockets layer (SSL) and encryption.

rule set

XML file that contains WebLogic Personalization Server rules. All rules are one of the following two types: ContentSelector or Classifier. Each rule set may have zero or more rules. Rule sets use properties from a property set to evaluate user and group profiles.

See also property set, Rules Manager, and XML.

Rules Manager

Set of components that provide edit-time and run-time services for delivering personalized content to end users who are browsing a Web site. These personalization components use business rules to match users and groups with appropriate content.

The Rules Management Framework in WebLogic Personalization Server provides editing, deploying, and run-time capabilities for providing personalized content based on externalized rules. This component includes two major parts: an edit-time GUI that allows Business Analysts to define and deploy business rules, and a run-time service for evaluating defined business rules.

The Rules Manager EJB is a scalable, stateless J2EE entry point into the underlying BEA Rules Engine. It provides the run-time services necessary to execute the business rules defined in the E-Business Control Center.

See also rule set, user profile, and XML.

S

scalability

Ability to apply a software solution to problems of different sizes. Ideally, a single solution should work well for a range of problems, from the simple to the extremely complex. In practice, however, problems of relatively little complexity can be solved by relatively simple solutions.

scenario

Primary building block of campaigns. A scenario is composed of one or more scenario actions, all of which take place if the criteria for them are met: specifically, if a particular event occurs or if a customer is part of a specified customer segment.

See also campaign and scenario action.

scenario action

Component of scenarios. (A scenario is made up of one or more actions.) The action can be an ad, which queries the content management system for an ad, a piece of e-mail, or a discount. It may also show an ad in a placeholder.

See also ad, scenario, and placeholder.

scheduling service

WebLogic Integration feature (related to B2B integration functionality) that helps ensure proper routing, queuing, and sequencing of messages.

schema

Document that defines valid content for an XML document. A schema definition is more specific than a DTD, and provides much finer-grained control over content.

See also Document Type Definition (DTD) and extensible markup language (XML).

secure sockets layer (SSL)

Internet transport-level technology developed by Netscape to provide data privacy between applications, supporting the use of authentication and data encryption, based on the use of public key technology.

- In a WebLogic Server environment—Security services support X.509 certificates and access control lists (ACLs) to authenticate participants and manage access to network services.
- In a WebLogic Integration environment—Two-way SSL requires digital certificates from both communicating applications.

See also access control list (ACL), Public-Key Cryptography Standards (PKCS-1), encryption, RSA, authentication, and cipher suite.

security

Set of mechanisms available to prevent corruption or theft of data.

See also authentication, authorization, data privacy, and secure sockets layer (SSL).

security attributes

Characteristics of a subject (whether a user or other principal) that form the basis of the system policies governing that subject.

See also authentication and principal.

security policy

1) Definition of the type of protection that must be provided for a given system. Many types of security policies, such as access control and auditing, are available.

2)Set of rights or permissions granted to a principal based on the context of a request.

security principal

Entity (such as a user or an application) that is known to, and can be authenticated by, the security mechanisms for an application or system.

security provider

Code that provides security services (such as authentication, authorization, auditing, or PKI) to WebLogic Server. A security provider can be supplied by BEA Systems or written by customers.

security realm

Logical grouping of Users, Groups, and ACLs. Used to protect WebLogic Server resources when WebLogic Server 7.0 Compatibility Mode security is being used.

Security Service Provider Interfaces (SSPIs)

Set of Java packages that allows security services provided by multiple vendors to be integrated with the WebLogic Server security service.

serialize

To encode an object into a bytestream so it is ready to be passed from one JVM to another.

See also Java virtual machine (JVM).

server

Application that answers and fulfills a client request. Examples of servers include a DBMS server that provides connectivity to a relational database and an HTTP server that provides HTML pages and services HTTP requests.

See also HTTP server (HTTPD), hypertext transfer protocol (HTTP), and Web service.

server profile

Information needed by a client to connect to a server.

server-side code

Java code that runs in a server's JVM instead of in a client's JVM. Examples include a Java-Servlet-API (HTTP) servlet, a WebLogic Server startup class, an EJBean, and a WebLogic Remote class.

See also hypertext transfer protocol (HTTP), Java virtual machine (JVM), WebLogic Server Remote, and servlet.

service

1) In a Weblogic Integration environment—Named business function within an Enterprise Information System (EIS), implemented in terms of interactions provided by the adapter for the EIS. Services provide a two-way synchronous or asynchronous communication mechanism to an EIS.

2)In a WebLogic Portal environment—Data processing and storage, data interchange, or data presentation provided by a Web application. For example, a service called Shipping may perform three functions: it records the shipping information related to a customer's order; it calculates shipping costs; and it tracks the shipping status of the order.

See also Enterprise Information System (EIS).

service control

Feature that facilitates communicate with another Web service from within your Web service. You can create a service control from the WSDL for any target service.

service provider interface

Program that contains objects that provide and manage connectivity to the Enterprise Information System (EIS), establish transaction demarcation, and provide a framework for event listening and request transmission. All J2EE Connector Architecture-compliant adapters must provide an implementation for such interfaces in the `javax.resource.spi` package.

servlet

Server-side Java applet that is usually executed in response to an HTTP request and produces its output in a browser. It extends the functionality of a Web server by generating dynamic content and making it possible for users to interact with Web clients using a request-response paradigm.

See also server-side code.

session bean

1) In a WebLogic Server environment—Transient EJB instance that serves a single client. Session beans tend to implement procedural logic.

2)In a WebLogic Portal environment—Nonpersistent, server-side object that implements business logic. A session bean can be thought of as a logical extension of the client that runs on the server. A session bean is not shared by multiple clients.

See also Enterprise JavaBeans (EJB).

set-based discount

Single discount based on customers having specified sets of products in their shopping carts.

shape

See Studio shape or XML shape.

Shipping service

Implementation of business logic and presentation logic that records the shipping information related to a customer's order, calculates shipping costs, and tracks the shipping status of an order.

See also service.

Shopping Cart Management service

Implementation of business logic and presentation logic in the Commerce services that shows customers the items they have selected for purchase. Customers can start the payment process from the shopping cart.

Simple Object Access Protocol (SOAP)

Set of sStandard rules for formatting an XML message so that it can be interpreted by different Web services. It provides a means by which applications can communicate with each other over the Internet, independent of platform. Unlike OMG's IIOP, SOAP piggybacks a DOM onto HTTP (port 80) in order to penetrate server firewalls, which are usually configured to accept port 80 and port 21 (FTP) requests. SOAP relies on XML to define the format of the information and then adds the necessary HTTP headers to send it.

See also Internet Interoperability Protocol (IIOP), distributed object model (DOM), hypertext transfer protocol (HTTP), and extensible markup language (XML).

skeleton

Server-side representation of a remote object that takes serialized requests from a stub, deserializes and unpacks it, and submits it as a method call to be invoked on the object's implementation. The server-side skeleton is responsible for deserializing and unpacking the request from its companion client-side stub.

See also server-side code and implementation.

SNA

See Systems Network Architecture (SNA).

SOAP

See Simple Object Access Protocol (SOAP).

socket

Endpoint of communication to which a name may be bound. The logical end point of a TCP/IP connection. An application accesses a TCP/IP connection through a socket.

splitting preference

WebLogic Portal option available in the JSP templates provided with the Commerce services. By using this option, customers can determine whether they want to have individual items they have purchased shipped to them as soon as those items are available (even if multiple shipments are required), or to have shipment of all items postponed until all items are can be shipped together. After a customer confirms a choice between these approaches, a pipeline commits that choice to the database.

See also JSP template and pipeline.

SQL

See Structured Query Language (SQL).

SSL

See secure sockets layer (SSL).

SSPI

See Security Service Provider Interfaces (SSPIs).

stack trace

File in which Java exceptions can be logged for debugging later.

stand-alone discount

Lower than usual prices that are offered to everyone shopping at a particular Web site, instead of being either restricted to selected customers, based on their behavior, or controlled by campaigns. For example, when a Web site's policy is *give everyone 10% off books*, that Web site is implementing a stand-alone discount.

Stand-alone discounts are available in all versions of the E-Business Control Center.

See also BEA E-Business Control Center™.

start

First component of a workflow, which specifies the workflow's triggering properties. The first shape after the start node is the first active component in the workflow.

stateful object

Object in which application data is stored. Its state may change from one method execution to another. In a clustered environment, both load balancing and failover require stateful objects, because when a server hosting a stateful service fails or balances, the state of the service must accompany the object as it moves to another host.

stateful session bean

Java bean that maintains a *conversational state* on behalf of a specific client. When a conversational state is maintained in a bean, multiple clients can access the bean on separate occasions, and use the information accumulated during the previous occasions, including the last.

Just as you *pick up where you left off* when continuing a conversation with a coworker from one day to the next, a client and a bean can continue a conversation from one session to the next, when the bean being used is a stateful session bean (that is, when the bean is one that can maintain conversational state).

Therefore a stateful session bean is useful for managing a process through multiple interactions.

stateless object

Object that saves no application data; it is idempotent. Each operation on the object is independent of all other operations. (Do not confuse this general concept of *stateless* with the specific definition used in reference to a session EJB.)

See also idempotent.

stateless session bean

1) In a WebLogic Server environment—Java bean that does not maintain a client-specific state between calls. It can be used by any client. It can be used to provide access to services that do not depend on the context of a session.

2)In a WebLogic Portal environment—Session bean with no conversational state. All instances of stateless session beans are identical.

static

Java programming language keyword that defines a variable as a class variable. Classes maintain one copy of class variables regardless of how many instances exist of that class. This keyword can also be used to define a method as a class method. Class methods are invoked by the class instead of a specific instance, and can only operate on class variables.

Structured Query Language (SQL)

Semi-standard language used to manage the tables and records in relational databases. Specifically, you can use SQL statements or queries to create, manipulate, query, update, and delete tables and records. For more information, visit `http://www.sql.org`.

stub

Client-side representation of a remote object that is used to invoke methods on the implementation of the remote object. Defines the interface to the remote object implementation of an object. The stub is responsible for packaging the client request, serializing it, and shipping it to the companion skeleton on the server side.

See also implementation and skeleton.

Studio shape

Graphical representation, in the WebLogic Integration Studio drawing area, of a workflow node.

stylesheet

XSLT document that describes data transformations (or mappings) to be performed on an XML document. A stylesheet specifies which nodes of an XML document are to be manipulated (using XPath), and which manipulations are to be performed.

Subject

Container for related information about a single entity, such as a person. Such information includes the Subject’s identities, as well as security-related attributes associated with it (such as passwords and cryptographic keys). Subjects may potentially have multiple identities. The Subject does not represent any of these identities; instead, it is a container for them. Each identity is represented as a Principal within the Subject.

In WebLogic Server security providers, the Subject contains a Principal for the user (WLSUser Principal) and a Principal for each group of which the user is a member (WLSGroups Principals). Custom Security providers may store identities differently.

subscription

Permission for a trading partner to participate in a particular role in a specific conversation definition. To send business messages for a role in a conversation, a trading partner must have a subscription to that role. To subscribe, a trading partner must specify its own name, the name and version of the desired conversation, and the role to which the trading partner is subscribing.

supply chain

Sequence of processes for producing, shipping, and distributing products.

SWIFT

Society for Worldwide Interbank Financial Telecommunications (SWIFT) is the industry-owned cooperative that supplies secure global messaging services and interface software to approximately 7,000 financial institutions in more than 190 countries.

See also: `http://www.swift.com`

Swing

Graphical user interface (GUI) component kit, part of the Java Foundation Classes (JFC) integrated into the Java 2 platform, Standard Edition (J2SE). Swing simplifies deployment of applications by providing a complete set of user-interface elements written entirely in the Java programming language. Swing components permit a customizable look and feel without relying on a specific windowing system.

synchronous

Attribute of a method that returns a value. The term is derived from the fact that a caller to a synchronous method must wait for the called method to return: the caller is *synchronized* with the method.

See also asynchronous.

synchronous message delivery

Message delivery method whereby B2B integration returns control to the application once the outcome of a message transmission is known. Control is returned to the application after any of the following events occur: acknowledgments are received from all potential destinations; the message times out; or a conversation in which the message was sent terminates.

system contract

Mechanism by which connection requests are passed between entities. To achieve a standard system-level pluggability between application servers, such as WebLogic Server and enterprise information systems (EIS), the Connector Architecture defines a standard set of system-level contracts between an application server and an EIS. The EIS side of these system-level contracts is implemented in a resource adapter.

system error handler

Business process management (BPM) error handler available to every workflow template definition. Unless overridden by a workflow template definition, BPM invokes the system error handler whenever an exception occurs. When called, the system error handler rolls back the specified transaction and throws an exception to the client application.

system log message

Message placed in the local log to record WebLogic Integration activity. An example is a message indicating the inability to deliver a trigger item because B2B integration has terminated.

systematic collaboration

Type of cooperative work among multiple trading partners in which all participants are aware of all other participants from the beginning of the business relationships. In such an arrangement, the business relationship is ongoing and process changes occur infrequently.

Systems Network Architecture (SNA)

IBM network protocol used to connect peer-to-peer networks, workstations, and mainframes.

T

tag library

Collection of custom tags available to a JSP author.

target

Only recipient in a call chain that is not the originator of the call.

target items

Items to which a discount should be applied.

target object

Recipient of a business request message.

targeted programming model

Model used for performing lookups with the goal of getting a stub for a singular, stateful object, such as a file system that is represented in the cluster-wide JNDI tree. Such a stub cannot do failover or load balancing because the service itself is unique.

See also direct programming model and indirect programming model.

task

One of a series of discrete activities that make up a workflow. Tasks are performed automatically by WebLogic Server or by a workflow user. Task behavior is determined by various task properties and by the task actions that define the processing to be performed as certain task events occur.

task event

Execution, during the life cycle of a task, of an action programmed by a workflow analyst. B2B integration supports four task events: Created, Activated, Executed, and Marked Done.

Taxation service

Implementation of business logic and presentation logic that interfaces with TAXWARE to calculate the taxes due for a customer's order.

See also service.

TCP

See transaction manager.

Tengah

Tengah is the former name of various products and APIs that are now referred to collectively as *BEA WebLogic Server*. All entities with names that formerly included *Tengah,* such as the Tengah Server, are now called *WebLogic Server.* Method names and class names that include the word *tengah* have been retained, unchanged, for backward compatibility.

thread

Part of a program that can execute independently of other parts of the program.

See also multithreading.

time to live (TTL)

Length of time an item is cached.

Timeout

Quality of Service (QoS) option that specifies the length of time that a sender waits for acknowledgment of a message before the message times out. After a timeout occurs, the message, acknowledgment processing, and retries are abandoned. Availability of this option depends on the business protocol being used.

token

See message token.

trading partner

Business entity that is authorized to send and receive business messages in a conversation. The configuration for a trading partner includes multiple delivery channels.

transaction

In a Weblogic Server environment:

- Logical construct through which applications perform work on shared resources, such as databases. The work done on behalf of the transaction conforms to the four ACID properties: atomicity, consistency, isolation, and durability.
- Complete unit of work that transforms a database from one consistent state to another. In distributed transaction processing, a transaction can include multiple units of work performed on one or more systems.
- In a WebLogic Integration environment—Atomic unit of work that modifies data. The code for a transaction encloses one or more program statements, all of which either complete or roll back. Transactions enable multiple users to access the same data concurrently.

See also ACID properties.

transaction branch

Resource manager's internal unit of work in support of a distributed transaction. Each transaction identifier that the transaction manager provides to a resource manager identifies both a global transaction and a specific branch.

See also distributed transaction, resource manager, and transaction manager.

transaction manager

System software component that manages global transactions on behalf of application programs. A transaction manager coordinates commands from application programs to start and complete global transactions by communicating with all resource managers that are participating in those transactions. When resource managers fail during global transactions, transaction managers help resource managers decide whether to commit or roll back pending global transactions.

See also resource manager.

transient object

Object that exists only for the lifetime of the process within which it is created.

See also persistent object.

transmission control protocol (TCP)

Family of protocols that specify internet communications, allowing two hosts to establish a connection and exchange streams of data. TCP guarantees delivery of data and also guarantees that packets will be delivered in the same order in which they were sent.

See also Internet.

transport

Properties for a delivery channel's transport level.

Transport Layer Security (TLS)

Protocol based on SSL which is used as an Internet standard for providing encrypted and authenticated communications.

trigger item

Item that causes a discount to be offered.

triple A

Combination of authentication, authorization, and auditing services in a product.

trust model

Description of which components of a system and which entities outside it must be trusted, and the purposes for which they must be trusted, if the system is to remain secure.

trusted computing base (TCB)

Portion of a system that must function correctly in order for the system to remain secure. The TCB should be tamper-proof and its enforcement of policy should not be vulnerable to being circumvented.

TTL

See time to live (TTL).

tunneling

Method for transmitting data from one network through another network's connections.

See also hypertext transfer protocol (HTTP).

two-phase commit (2PC)

Method of coordinating a single transaction across more than one resource manager. 2PC guarantees data integrity by ensuring that transactional updates are committed in all of the participating databases, or are fully rolled back out of all the databases, reverting to the state prior to the start of the transaction.

two-tier

Client/server relationship in which the user interface runs on the client and the database is stored on the server. The actual application logic can run on either the client or the server.

See also client/server.

U

UDDI

See universal description, discovery, and integration (UDDI).

Unicode

16-bit character encoding scheme used to display, process, and exchange text written in most of the world's languages. In Java, *Strings* use Unicode by default.

See also Unicode Consortium.

unified profile type

Extension of the base user object that provides explicit assess to data that is not stored in the WebLogic Personalization Server database.

unified user profile (UUP)

Aggregation of user properties collected by the User Management services from the WebLogic Portal database tables and other data sources. For example, User Management services can combine user properties from the WebLogic Portal database with user properties from an LDAP server into a unified user profile. Developers and system users can ignore the different underlying data sources because the unified user profile provides a single location from which to find user information.

See also LDAP.

uniform resource locator (URL)

Character string used to identify and locate resources over the Internet. The current URL guidelines are available from the W3C.

See also hypertext transfer protocol (HTTP).

universal description, discovery, and integration (UDDI)

Specification for distributed Web-based information registries maintained by the World Wide Web Consortium (W3C). The specification defines a method for publishing and researching information about Web services. UDDI is defined primarily to support Web Services Description Language (WSDL). The main component of UDDI is the UDDI business registration, an XML file that describes a business entity and its Web services. Programs and programmers use the UDDI Business Registry to locate information about services.

See also: `http://www.uddi.org`.

URL

See uniform resource locator (URL).

user

Individual Principal. An individual's permissions (both negative and positive) override any permissions that are granted to a group of which the user is a member.

See also realm, permission, group, and principal.

User Management component

Set of JSP tags, EJBs, and tools that facilitate the creation and persistence of user and group profile properties. It provides access to user profile information within WebLogic Portal. The User Manager component also provides user authentication mechanisms and user-to-group associations.

User Processing service

See Registration and Login service.

user profile

Set of name/value attribute pairs that are associated with a user or a group.

See also User Management component.

UUP

See unified user profile (UUP).

V

value-added service

Logic added, by a trading partner, to the services provided by WebLogic Integration. Credit checking and shipping are examples of value-added services.

vendor client library

Native layer that translates function calls issued by a client into the protocol used by the database.

virtual machine (VM)

Self-contained operating environment that behaves as though it were a separate computer. Usually refers to the Java Virtual Machine (JVM).

See also Java virtual machine (JVM).

W

W3C

See World Wide Web Consortium (W3C).

WAN

See wide area network (WAN).

WAP

See Wireless Application Protocol (WAP).

WAP gateway

Bridge between a mobile network containing mobile clients and a computer network containing application servers. A WAP gateway typically includes a protocol gateway that translates requests from the WAP protocol stack to the World Wide Web protocol stack (HTTP and TCP/IP), and content encoders and decoders that translate Web content into compact encoded formats.

See also Wireless Application Protocol (WAP).

Web application (Webapp)

Groups of server-side Web resources that make up an interactive online application. The Web resources include Java servlets, JavaServer Pages (JSP), static documents (such as HTML documents), and applets that can be deployed in a client Web browser. Web applications must run in the context of a Web application server. WebLogic Portal is packaged as a Web application.

See also applet, Java servlet, application programming interface (API), and Web application server.

Web application server

Software that enables Web-based applications to exchange data with the back-end systems and databases used by e-businesses. BEA's Web application server is WebLogic Server.

See also Web application (Webapp) and Web service.

Web service

Code module through which one company offers online business functionality to another company or software program, usually through a network, such as the Internet. A code module that provides a Web service is language-independent, platform-independent, and self-describing.

The location of a Web service may be hard-coded in an application designed to use the service, or it may be identified by the service using UDDI (Universal Description, Discovery, and Integration). Because the service is self-describing, the application that invokes it can determine which functions are available and how to call them.

Web Services Description Language (WSDL)

An XML-based specification markup language used to describe a Web service so that the service can be called by diverse clients. A WSDL is necessary if two different online systems need to communicate without human intervention.

web.xml file

See deployment descriptor.

Webflow

Mechanism that controls the flow of a Web site. WebLogic Portal uses Webflow in various sample applications to determine which pages the application should display in a Web browser and which pieces of business logic it should execute.

One or more Webflow namespace files allow you to configure the Webflow for a particular Web application.

See also pipeline and Webflow namespace file.

Webflow and Pipeline editors

Graphical tools designed to help you visualize create, modify, and validate Webflows for your Web applications. The Webflow and Pipeline editors generate underlying Webflow namespace and pipeline namespace XML files, which you should never edit manually.

Both editors are available in the E-Business Control Center.

Webflow namespace file

XML file that configures the Webflow for a Web application, controlling the order in which your site's Web pages are displayed, and initiating the execution of the business logic that is associated with them.

To edit Webflow namespace files, use the Webflow and pipeline editors, available in the E-Business Control Center.

See also business logic, E-Business Control Center^{TM}, application programming interface (API), Webflow, and Webflow and Pipeline editors.

WebLogic Express

BEA product configuration for database application development in Java. WebLogic Express includes your choice of a two-tier WebLogic jDriver, security, HTTP servlet support, name and directory services, as well as WebLogic Server JDBC, a multitier implementation of the JDBC specification.

See also WebLogic Server jDriver, WebLogic Server jDriver, and JDBC.

WebLogic Home

Root directory for the WebLogic Server software. It contains directories for individual servers.

WebLogic Integration

Open, standards-based, software platform that delivers application server, application integration, business process management, and business-to-business integration functionality to an enterprise. WebLogic Integration runs on the EJB platform WebLogic Server and is implemented entirely in Java. Central to WebLogic Integration is XML, which provides an open data interchange format between loosely coupled participants. WebLogic Integration also leverages J2EE and workflow technologies (business process management) and supports leading e-commerce business protocols, such as RosettaNet, and ebXML MS.

WebLogic Integration B2B Console

HTML interface used by an administrator to configure and monitor the B2B integration functions of WebLogic Integration.

WebLogic Integration process engine

Run-time component of WebLogic Integration that monitors and controls business process management (BPM) workflows.

WebLogic Integration repository

See repository.

WebLogic Integration Studio

The business process management client application that is used to define and monitor workflows.

WebLogic JDBC

Pure Java, multitier implementation of the JDBC specification that is included in both the WebLogic Express and the WebLogic Server product packages.

See also WebLogic Server file services and Java database connectivity (JDBC).

WebLogic JHTML

Obsolete service of WebLogic Server that formerly supported the automatic generation of servlets from standard HTML pages that include Java code. JHTML has been replaced by JavaServer Pages (JSP).

See also Java Server Pages (JSP).

WebLogic Personalization Server

Development kit for a Web application that is designed to deliver customized content based on user profiles and business rules. It is provided with WebLogic Portal**.**

See also WebLogic Portal, user profile, and Web application (Webapp).

WebLogic Portal

Suite of components and templates that enables you to rapidly build portals, dynamic marketing campaigns, e-commerce solutions, and personalized content for your Web applications. Includes the features formerly licensed separately in WebLogic Personalization Server.

See also WebLogic Server Remote.

WebLogic Server

BEA's Web application server that provides services for building and running e-commerce applications using the Java language and the J2EE platform (from Sun Microsystems, Inc.).

Standards-based and written in pure Java, WebLogic Server enables you to assemble, deploy, and manage distributed Java applications. It manages application components and DBMS connections to ensure security, scalability, performance, and transaction integrity. It also provides support for distributed component services and enterprise database access, including Enterprise JavaBeans (EJB), RMI, distributed JavaBeans, and JDBC.

All the components of BEA WebLogic Platform—WebLogic Integration, WebLogic Portal, and WebLogic Workshop—run on WebLogic Server.

See also Web application server, Java Enterprise API, remote method invocation (RMI), and Java database connectivity (JDBC).

WebLogic Server Administration Console

HTML-based graphical user interface used by an administrator to configure and monitor WebLogic Server from a browser.

WebLogic Server Beans

Distributed server-side beans for WebLogic Server. An extension of the JavaSoft JavaBean component architecture, used for distributing JavaBeans and dramatically simplifying the process of assembling distributed applications.

See also JavaBeans and cluster.

WebLogic Server cluster

Replicated services shared among multiple instances of WebLogic Server acting in an interdependent way to support failsafe, high-availability operations for clients. A WebLogic Server cluster has a single, cluster-wide JNDI tree for client access to service objects.

See also Java Naming and Directory Interface (JNDI).

WebLogic Server COM

WebLogic Server bridge for accessing Microsoft COM objects from within WebLogic Server RMI.

See also WebLogic Server RMI and Component Object Model (COM).

WebLogic Server EJB

Component architecture for building distributed, object-oriented business applications in Java. The EJB architecture addresses the development, deployment, and run-time aspects of an enterprise application's life cycle.

An Enterprise JavaBean (EJB) encapsulates business logic inside a component framework that manages the details of security, transaction, and state management.

WebLogic Server EJB is an implementation of the JavaSoft specification for transactional components.

See also Java Enterprise API and Enterprise JavaBeans (EJB).

WebLogic Server events

Event management and notification service that works in a WebLogic Server environment.

WebLogic Server file services

File management facility for reading and writing files to an instance of WebLogic Server. WebLogic File services provides server-side read and write access for WebLogic clients using standard `java.io` methods.

WebLogic Server HTTP servlets

Feature delivered with WebLogic Server that provides support for HTTP servlets that conform to the JavaSoft Java Servlet API. It is included with the built-in Web server provided with WebLogic Server.

See also servlet.

WebLogic Server jDriver

Two-tiered drivers consisting of the native, Type 2 WebLogic jDriver for Oracle and the all-Java, Type 4 WebLogic jDriver for Informix and WebLogic jDriver for Microsoft SQL Server.

See also Java database connectivity (JDBC).

WebLogic Server JNDI

Service that implements the JavaSoft JNDI standard, providing transparent bind and lookup of objects in a WebLogic Server or Cluster.

See also Java Naming and Directory Interface (JNDI).

WebLogic Server Remote

Feature that supports T3Servlets, a simple, efficient distributed computing model similar to RPC. This feature allows you to offload computation-intensive or privacy-sensitive tasks from clients to WebLogic Server.

See remote procedure call (RPC).

WebLogic Server RMI

BEA's implementation of the JavaSoft RMI specification that provides standards-based distributed object computing within the WebLogic Server framework.

See also remote method invocation (RMI).

WebLogic Server security providers

BEA's implementation of the Security Service Provider Interfaces (SSPIs) for WebLogic Server. These security providers add the following types of functionality to WebLogic Server: auditing, authentication, authorization, adjudication, role mapping, credential mapping, and keystore use.

WebLogic Server service advertisement protocol (WSAP)

Protocol for binding and unbinding objects in a replicated, cluster-wide JNDI tree. WSAP allows WebLogic Server instances to join and leave a cluster dynamically. It also tracks which services are available in the cluster, and it mediates conflicts for services offered at the same node in the cluster-wide JNDI tree.

See also JNDI, bind, and cluster.

weblogic-ra.xml

XML file that adds deployment information specific to WebLogic Server to the `ra.xml` file.

well-formed

Attribute of an XML document that conforms to XML syntax rules. For a document in use, syntax rules are typically enforced by an XML parser.

wide area network (WAN)

Set of many interconnected networks, usually spread over long geographical distances. Unlike a LAN, which is usually private and may not allow access to other networks, a WAN is usually publicly accessible. The largest WAN is the Internet.

See also Local Area Network (LAN).

Wireless Application Environment (WAE)

Framework for developing network-neutral, wireless applications for narrow-band devices.

See also Wireless Markup Language (WML) and WMLScript (WMLS).

Wireless Application Protocol (WAP)

Set of protocols developed by the WAP Forum that support the development of Internet and Web-based services for mobile phones and other mobile devices.

Wireless Markup Language (WML)

XML-based language designed to interface with microbrowsers used in WAP-enabled devices. The structure and tags of a WML document are defined in the Wireless Markup Language Specification.

See also Wireless Application Protocol (WAP) and extensible markup language (XML).

WLC

Name of the root element in the WebLogic Integration repository.

WLPS

See WebLogic Personalization Server.

WLS

See WebLogic Server.

WMLScript (WMLS)

Scripting tool for the WAP architecture; designed to overcome the limitations of narrowband communication and mobile clients.

See also Wireless Application Protocol (WAP).

workflow

Business process, such as order processing, that is automated in whole or in part. When a workflow is executed, information is passed to a particular participant at a particular time, according to a set of intelligent business rules that enable computers to perform most of the work, leaving humans to deal only with exceptions.

workflow expression

Calculation or evaluation performed by WebLogic Integration at run time. The syntax of workflow expressions is comparable to that of SQL.

workflow node

Component of a WebLogic Integration Studio workflow, consisting of starts, tasks, events, joins, decisions, and dones.

workflow template

Blueprint or prototype in the WebLogic Integration Studio in which various definitions of a workflow implementation (referred to as workflow template definitions) are combined to represent a workflow. The template maintains control over which organizations can use the definitions it contains.

Each workflow template has a meaningful name, such as *Order Processing* or *Billing*.

workflow template definition

Particular version of a workflow template, distinguished by the dates on which it becomes effective and expires. At run time, WebLogic Integration starts an instance (or session) of a workflow template definition by selecting the most effective (that is, the current and active) definition.

World Wide Web Consortium (W3C)

International organization that establishes standards for client and server protocols in order to facilitate Internet-based communications and commerce.

WSDL

See Web Services Description Language (WSDL).

X

X.509

Standard that specifies the format of certificates; widely used specification for digital certificates. By using a standard format you can securely associate a name with a public key, and thus obtain strong authentication.

See also certificate.

XA interface

Bidirectional interface between a transaction manager and resource managers. It is defined by the JTA. This interface enables a transaction manager to control transaction boundaries for operations performed by multiple resource managers using the two-phase commit X/Open XA protocol.

See also Java Transaction API (JTA), resource manager, and transaction manager.

XML

See extensible markup language (XML).

XML map

XML shape that correlates the data in an XML message to the parameters and return values of a Java method in your Web service. By using an XML map, you can avoid being tied to a particular XML shape. As a result, you increase your choice of methods for implementing code in your Web service.

XML schema

File that specifies the structure, content, and semantics of XML documents. Replaces the XML DTD.

See also schema.

XML service

One of several Apache XML services provided for WebLogic Integration. These services include the Apache XML Parser, DOM implementation, and the XSLT style sheet processor.

XML shape

Structure and organization of an XML document, including its hierarchy and order of elements.

XML vocabulary

Set of XML tags that define the elements that may be included in a DTD. An XML vocabulary can be developed for a particular industry or business function.

XPath

XML path language. XPath models a message-context XML document as a tree of nodes and then addresses the nodes of the XML document. The XPath language includes a standalone subset that can be used to test whether a node matches a pattern.

See also interaction specification and business service.

XSL

See eXtensible Stylesheet Language (XSL).

XSL Transformations (XSLT)

Specification, from the World Wide Web Consortium (W3C), for transforming XML documents from one document definition format to another. Available at `www.w3c.org`.

XSLT

See eXtensible Stylesheet Language Transformations (XSLT).

Y

(No terms begin with the letter "Y.")

Z

ZAC

See zero-administration client (ZAC).

zero-administration client (ZAC)

BEA's implementation of the HTTP Distribution and Replication Protocol specification published by the World Wide Web Consortium. This specification defines how to automate the distribution and maintenance of application software.