

## webMethods EntireX

# **EntireX Glossary**

Version 9.5 SP1

November 2013

# webMethods EntireX

This document applies to webMethods EntireX Version 9.5 SP1.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

Copyright © 1997-2013 Software AG, Darmstadt, Germany and/or Software AG USA, Inc., Reston, VA, USA, and/or its subsidiaries and/or its affiliates and/or their licensors..

The name Software AG and all Software AG product names are either trademarks or registered trademarks of Software AG and/or Software AG USA, Inc. and/or its subsidiaries and/or its affiliates and/or their licensors. Other company and product names mentioned herein may be trademarks of their respective owners.

Detailed information on trademarks and patents owned by Software AG and/or its subsidiaries is located at http://documentation.softwareag.com/legal/.

Use of this software is subject to adherence to Software AG's licensing conditions and terms. These terms are part of the product documentation, located at http://documentation.softwareag.com/legal/ and/or in the root installation directory of the licensed product(s).

This software may include portions of third-party products. For third-party copyright notices and license terms, please refer to "License Texts, Copyright Notices and Disclaimers of Third-Party Products". This document is part of the product documentation, located at http://documentation.softwareag.com/legal/ and/or in the root installation directory of the licensed product(s).

Document ID: EXX-GLOSSARY-95SP1-20140628

## **Table of Contents**

EntireX Glossary	1
A	1
В	2
C	5
D	6
E	7
F	12
Н	12
I	13
J	16
L	16
M	. 17
N	18
P	. 19
Q	21
R	. 21
S	23
T	26
U	27
V	28
W	28
X	. 30
Z	. 32
Numbers	. 32

## **EntireX Glossary**

### A

Accounting Accounting in EntireX refers to the handling of accounting records for EntireX Broker that can be used for several purposes, including application chargeback (for apportioning EntireX resource consumption); performance measurement and trend analysis. ACI ACI-based programming is the base technology of EntireX. It uses a traditional Application Programming Interface (API) approach for conducting client/server and peer-to-peer dialog between distributed processes. ACI Binary Field An ACI binary field is a field that is transmitted in the ACI binary data section of an ACI request or reply. It has an associated 2-byte identifier and is transmitted as binary data. **ACI Control Block** The fields contained in the control block of the EntireX Advanced Communication Interface (ACI) define the Broker functions to be performed. **ACI** Reply An ACI reply is a PDU that is transmitted between the broker kernel and a stub. It consists of an optional transport header, an SPFX (stub prefix) and various other sections. An ACI request is a protocol data unit (PDU) that is transmitted **ACI** Request between a stub and the broker kernel. It consists of an optional transport header, an SPFX (stub prefix) and various other sections. **ACI Server** An ACI server is a customer-written server program that uses ACI commands to call ACI services. **ACI** Service An ACI service is a customer-written service contained in or called by an ACI server.

ACI String Field An ACI string field is a field of the form keyword=value that is

transmitted in the ACI string data section of an ACI request or reply.

It is transmitted in the single-byte character set of the stub.

ADALNK is an Adabas module used by Entire Net-Work, which is

an alternative transport method to TCP/IP.

Advanced Communication

Interface

See ACI.

Attach Manager See Remote Attach Manager.

Attach Server An attach server is a server that registers with the EntireX Broker,

can offer any of a range of services but never actually receives a request for a client application. When client requests cannot be satisfied due to busy or unavailable servers, the Broker notifies the attach server which starts another instance of the required service.

Attribute File The Broker attribute file contains a series of parameters (attributes)

that control the availability and characteristics of clients and servers, publishers and subscribers as well as of the Broker itself. You can customize the Broker environment by modifying the attribute set-

tings.

Authentication Authentication is the process by which the security system verifies

that a client is actually who they claim to be. Authentication is performed at the user point of entry, which avoids the need for multiple sign-ons to the different security systems. The result of the authentication is propagated for use in the authorization process on the server side without the need to pass the user's password at execution

time, even in an encrypted form.

Authorization Authorization is the process whereby a client's access rights to a

specific service are verified. If you are using the System Authorization Facility (SAF) option, the authorization rules are stored in the

server's native security system.

Authorization Rule An authorization rule is used to perform an access check for a par-

ticular Broker instance against an (authenticated) user ID and list of rules. Checks are performed on a UNIX or Windows Broker kernel, using standard EntireX Security on these platforms. Authorization rules can be stored within a repository. When an authorization call occurs, the security exit performs checks based on the values of Broker attributes AUTHORIZATIONDEFAULT and AUTHORIZATIONRULE.

В

**Broker** 

EntireX Broker controls communication among the distributed application components within your IT architecture. The Broker supports many types of communication models: synchronous and asynchronous, client/server, peer-to-peer, publish and subscribe. The Broker also handles RPC communication.

Broker ACI

See Advanced Communication Interface.

**Broker ActiveX Control** 

Broker ActiveX Control allows GUI application developers to use an ActiveX-based interface to access EntireX Broker. It can be used within ActiveX containers, such as Visual Basic, PowerBuilder, Delphi, Microsoft Excel, Microsoft Word.

**Broker Administration Tool** 

With the Broker Administation Tool you can manage Broker instances on your local Windows machine.

Broker Agent

A broker agent is a "dummy broker" that acts as a transport protocol converter or relay node for broker calls.

See also HTTP(S) Agent, SSL Agent, TCP Agent.

Broker Attribute File

The Broker attribute file contains a series of parameters (attributes) that control the availability and characteristics of clients and servers, publishers and subscribers as well as of the Broker itself. You can customize the Broker environment by modifying the attribute settings.

Broker Command Line Utility

Software AG provides two command-line utility programs for use with EntireX Broker. Both utility programs use command-line parameters that specify various options and information to be built into a request. These utility programs are ETBINFO and ETBCMD.

- The command-line utility ETBINFO queries the Broker for different types of information, generating an output text string with basic formatting. This text output can be further processed by script languages. ETBINFO uses data descriptions called profiles to control the type of data that is returned for a request. ETBINFO is useful for monitoring and administering EntireX Broker efficiently for example, how many users are to run concurrently and whether the number of specified message containers is large enough.
- The command-line utility ETBCMD allows you to take actions for example, purge a unit of work, stop a server, shut down a Broker - against EntireX Broker.

Broker HTTP(S) Agent

The Broker HTTP(S) Agent is a Java-based component that implements a Java servlet for servlet-enabled Web servers. It builds the

bridge between a Web server and EntireX Broker in the intranet. This component was formerly referred to as "Tunnel Servlet".

Broker Kernel

The role of the Broker kernel is to control communication among distributed application components. It supports many types of communication models (asynchronous and synchronous, conversational, request/reply, message-oriented and publish and subscribe) to support a wide variety of application integration requirements. The Broker kernel shields the communicating programs from platform and language-specific issues by mapping requests and replies to its interface programs, the ACI stubs.

Broker SSL Agent

The Broker SSL Agent is a gateway to the Broker whenever direct SSL or TLS communication with the Broker is not possible.

**Broker Stub** 

A Broker stub is a ready-made module/class delivered with EntireX to communicate with a Broker. It is platform-dependent, but application independent. A Broker Stub implements an API (application programming interface) that allows programs written in Java, C#, C, Natural, and IBM i ILE-enabled languages (C, COBOL, Natural, RPG) to access the EntireX Broker. A Broker stub can communicate with an EntireX Broker using either TCP/IP, SSL (and TLS), or Entire Net-Work. Stubs are required for RPC and message-based communication.

In earlier versions of EntireX, the term "stub" was also used to refer to application-dependent, Workbench-generated pieces of code for issuing and receiving remote procedure calls. These objects are now referred to as *interface objects*.

Broker TCP Agent

The Broker TCP Agent is a gateway to the Broker whenever direct TCP/IP communication with the Broker is not possible.

**EntireX Trace Utility** 

Formerly referred to as "EntireX Broker Trace Utility". The EntireX Trace Utility processes and analyzes a trace (or log) file of the EntireX broker kernel or broker stubs. Trace files from any broker version since 2.1 on all platforms can be used. The tool extracts from the trace file all logged broker calls and generates a CSV file (commaseparated values), where each line represents one broker call and the columns represent the most important parameters of the call. The CSV file can be used with other tools, such as Microsoft Excel.

**Broker Tutorial** 

EntireX Broker is delivered with a Natural-based tutorial that can help you get started with the EntireX Broker by trying out some of its functions. The tutorial contains several example client and appropriate server programs. All programs can be displayed, edited and

executed. Help texts are available for each program to explain the purpose of the program and to indicate typical usage. The programs therefore illustrate the use and functionality of the EntireX Broker ACI.

C

C Wrapper EntireX C Wrapper provides access to RPC-based components from

C applications. It enables you to develop both client and server ap-

plications.

CCB Conversation control block. In the context of persistence in EntireX,

part of the UOW (unit of work).

CentraSite CentraSite is a jointly developed SOA repository from Fujitsu and

Software AG. CentraSite acts as a Web services and SOA asset management platform, holding all metadata assets, and offering re-

ports on usage.

Client Within EntireX Broker nomenclature, a client is an application issuing

Broker requests to get a service processed by a server.

CICS ECI RPC Server The EntireX CICS® ECI RPC Server allows standard RPC clients to

communicate with CICS programs running on IBM CICS® version 3.2 and higher. The CICS ECI RPC Server transforms the RPCs from the clients into messages to CICS ECI. The CICS ECI RPC Server acts on one side as an RPC server and on the other side as a client for CICS ECI. The CICS ECI RPC Server is a Java-based component that can run on a different host to the one where CICS is running. This allows it to operate with a zero footprint of EntireX on the CICS host.

CICS RPC Server The EntireX z/OS CICS® RPC Server allows standard RPC clients

to communicate with RPC servers on the operating system z/OS under CICS. It supports the programming languages COBOL and

PL/I.

Client Program A client program is a piece of software that issues a request and thus

initiates communication. A client program uses a Broker stub.

COBOL Wrapper EntireX COBOL Wrapper provides access to RPC-based components

from COBOL applications. It enables you to develop both client and

server applications.

Command and Information

Services

EntireX Broker provides two internal services: Command Service and Information Services that can be used administer and monitor the EntireX Broker. The command service allows you to issue a set

of Broker commands; the information services provide you with various statistics to better administer and tune your Broker. Because these services are implemented internally, nothing has to be started or configured. You can use these services immediately after starting EntireX Broker.

Command Line Utility

In order to configure and administer the Broker properly and efficiently, you need certain types of information, such as how many users are to run concurrently, whether the number of specified message containers is large enough. EntireX Broker has a command-line utility that allows you to query the Broker for different types of information. Basic formatting of the output is available, but the real purpose of this tool is for further processing of the information in script languages or elsewhere.

Command Logging

Command logging is a feature to assist in debugging Broker ACI applications. A command in this context represents one user request sent to the Broker and the related response of Broker.

Conversation

Within EntireX Broker nomenclature, a conversation is one message or a set of messages exchanged between one client and one server in EntireX Broker. All requests must specify the conversation ID generated when the client issues the first send command.

Correlation ID

Correlation ID is contained within the message descriptor. It is used in conjunction with the message ID to correlate a REQUEST and a REPLY. The correlation ID is used internally and is not directly exposed through the ACI. It is exposed indirectly; that is, the ACI field CONV-ID is used as the correlation ID when sending a REQUEST or a DATAGRAM.

**Custom Wrappers** 

The EntireX Custom Wrappers are user-configurable, template-based wrappers and need a Software AG IDL file, a template (e.g., client or server) and the Software AG IDL Compiler.

CVM File

A client-side server mapping file (CVM) enables the RPC server to correctly support special Natural syntax such as REDEFINE and other special situations. If one of these elements is used, the EntireX Workbench automatically extracts a CVM file in addition to the IDL (interface definition language), or a CVM file is generated by the Natural Wrapper for a server skeleton. The CVM file is used at runtime to marshal and unmarshal the RPC data stream.

D

Data Compression Data compression within EntireX Broker allows you to exchange

smaller packet sizes between clients and servers. This helps to reduce response time during transmissions as well as improve the overall network throughput, especially with low-bandwidth connections.

DCOM Wrapper The EntireX DCOM Wrapper generates DCOM-enabled components

using RPC technology. This so-called "wrapping" makes it possible

to treat existing applications as ActiveX components.

Default Broker View The EntireX Default Broker View is part of the EntireX Workbench.

It displays the status of the EntireX Default Broker and the active

RPC Services registered to it.

Deferred Delivery A UOW (unit of work) can be created by the sender and accepted

by EntireX Broker even if the intended receiver is not registered or active. The Broker holds the UOW until the receiver registers or becomes active. The UOW can then be delivered. This process is re-

ferred to as deferred delivery.

Developer's Kit The EntireX Developer's Kit contains a wide range of tools and user

interfaces for devloping language-specific applications on supported

operating systems. It includes the following:

Eclipse Workbench

Visual Studio add-ins

all RPC servers

client and server examples for all relevant operating systems and

language environments

■ Trace Tool

DVIPA Dynamic virtual IP address (DVIPA) is a z/OS Communications

Server feature used to describe the automatic failover of TCP/IP

stack instances within a Sysplex cluster.

See *Setting up your EntireX Environment for Sysplex*.

Ε

Eclipse Plug-in A plug-in is a component that extends functionality of the platform

or other plug-ins. Eclipse employs plug-ins to provide all of its ad-

ditional functionality on top of the Rich Client Platform.

Eclipse Workbench The Eclipse Workbench is a platform for development tools and

provides the user interface structure for Eclipse. The Workbench is

responsible for the presentation and coordination of the user interface. Each workbench window contains one or more perspectives. A perspective contains views and editors. It controls what appears in certain menus and toolbars. Multiple workbench windows can exist on the desktop concurrently.

Encryption

Encryption is the process by which the information or data being sent back and forth between two computers (including the password submitted when logging on) is "encoded", shielding it from view by unauthorized persons.

With EntireX, the algorithms for encryption/decryption are in the security module for the Broker kernel.

Encryption/decryption takes place at every stage of communication: in the client, in the Broker and in the server. When Broker receives encrypted communication from a client, the Broker must decrypt it - if codepage translation is necessary - and encrypt it again before sending it on to a server.

**EntireX** 

webMethods EntireX is a secure, robust, high-performance communication infrastructure that uniquely combines message queuing capabilities with built-in support for synchronous request/reply and conversational communication. It manages interactions for tightly coupled XML-enabled and non-XML enabled systems in time-critical user applications. EntireX's powerful and easy-to-use wrapping technology and flexible programming interfaces turn existing application functions into business services or Web services. These features allow an organization to define an integration architecture for enhancing existing applications, linking up legacy applications with new standard software or adding new custom applications to the mix.

**EntireX Broker** 

EntireX Broker controls communication among the distributed application components within your IT architecture. The Broker supports many types of communication models: synchronous and asynchronous, client/server, peer-to-peer, publish and subscribe. The Broker also handles RPC communication.

EntireX Broker ACI

See Advanced Communication Interface

EntireX CICS® ECI RPC Server

The EntireX CICS® ECI RPC Server allows standard RPC clients to communicate with CICS programs running on IBM CICS® version 3.2 and higher. The CICS ECI RPC Server transforms the RPCs from the clients into messages to CICS ECI. The CICS ECI RPC Server acts on one side as an RPC server and on the other side as a client for CICS ECI. The CICS ECI RPC Server is a Java-based component that

can run on a different host to the one where CICS is running. This allows it to operate with a zero footprint of EntireX on the CICS host.

EntireX DCOM Wrapper

The EntireX DCOM Wrapper generates DCOM-enabled components using RPC technology. This so-called "wrapping" makes it possible to treat existing applications as ActiveX components.

EntireX Wrapper for Enterprise JavaBeans The EntireX Wrapper for Enterprise JavaBeans enables Java-based components to access an EntireX RPC server using Enterprise Java-Beans. This is accomplished by mapping RPC server libraries to EJB stateful session beans. A remote procedure call will be mapped to a method of the corresponding Enterprise JavaBeans. The Java-based components can use the logic implemented in the libraries of the existing RPC servers, or they can implement new logic on the application server side, using parts of the old logic.

EntireX Java ACI

EntireX Java ACI is a Java class library that provides access to the EntireX Broker ACI for Java programmers. It covers the whole EntireX Broker ACI which enables you to write both client and server applications in Java. Any of these can then interact with each other and with other applications written in other languages on the same network using EntireX Broker. The EntireX Java ACI also contains the framework necessary for Java RPC requests.

EntireX Java Runtime

EntireX Java Runtime is a protocol that enables RPC-based communication between clients and servers in a Java environment.

EntireX Java RPC Server

The EntireX Java RPC Server is an RPC server which runs Java server interface objects generated from your IDL files. This server can register an Attach Service to start several services with the same server address on demand.

EntireX Java Wrapper

The EntireX Java Wrapper provides access to EntireX RPC-based components from Java applications. EntireX Java RPC enables users to develop both client and server applications written in Java. Java applets can also be used as EntireX RPC clients.

EntireX Micro Focus CO-BOL RPC Server

The EntireX Micro Focus COBOL RPC Server allows standard RPC clients to communicate with COBOL servers written with Micro Focus COBOL. It works together with the *COBOL Wrapper* and the *IDL Extractor for COBOL*.

EntireX Mini Runtime

The EntireX Mini Runtime is a set of components that may be used for the deployment of applications using the Broker ACI, the Broker RPC, and - under Windows only - DCOM Wrapper objects and the Broker ActiveX Control. Unlike the full EntireX Security, the Mini Runtime does not include Java capabilities.

EntireX .NET RPC Server The EntireX .NET RPC Server, together with the EntireX .NET

Wrapper, enables you to call .NET assemblies as servers.

EntireX .NET Wrapper The EntireX .NET Wrapper provides access to RPC servers for .NET

client applications and access to .NET servers for any RPC client. The .NET Wrapper generation tools of the Workbench take as input a Software AG IDL file, which describes the interface of the RPC, and generates C# classes that implement the methods and data types

of the interface.

EntireX RPC EntireX RPC enables programmers to develop client applications

which access RPC servers (for example CICS, Batch or IMS RPC Server) providing RPC services (for example COBOL batch programs, CICS transaction, Java methods etc.) on mainframe, UNIX, Linux and Windows platforms. EntireX RPC opens the door for various environments such as Web services/SOA, webMethods IS, Java,

.NET etc. to access EntireX-enabled RPC server environments.

EntireX RPC-ACI Bridge The RPC-ACI Bridge enables RPC-based client applications to be

used with ACI servers.

EntireX RPC Servers The EntireX RPC Servers (available under CICS, z/OS Batch, UNIX,

Windows and Java) execute servers on RPC client requests. Using EntireX RPC Wrapper technology of the *EntireX Workbench*, you can generate these servers together with integrated wrappers (server interface objects). The Workbench tool you choose to generate these servers depends on your environment, for example Java Wrapper,

COBOL Wrapper, C Wrapper, XML/SOAP Wrapper, etc.

EntireX Runtime EntireX Security consists of all the parts required to run applications

that were created or were enabled for distributed computing using EntireX technology (for example, ACI and RPC components, ActiveX

Control etc.).

EntireX Security EntireX Security provides protection for applications utilizing EntireX

Broker. Functionality includes authentication for distributed application components, authorization to start and execute services and encryption of the payload (Broker message). All user and resource definitions are managed through RACF, CA Top Secret and CA ACF2. EntireX Security comprises two separate components, one

for the Broker kernel and one for each Broker stub.

EntireX Support Tool The EntireX Support Tool provides information about the internal

versions of the EntireX modules (executables, shared libraries and

JAR files).

EntireX Workbench

The EntireX Workbench is implemented and delivered as of a set of Eclipse plug-ins. It provides the EntireX development-time user interface in a commonly used environment. Among other capabilities, EntireX Workbench provides various wrappers, IDL extractors, editors and testers for generating and testing interface objects to be used in RPC communication between existing RPC servers and RPC client applications.

EntireX XML Adapters

EntireX XML Adapters provide access to a wide range of enterprise resources (ERP and CRM systems, database management systems, etc.) by exposing services from those systems as Web services. Using the EntireX XML/SOAP Wrapper, the Web services defined with EntireX XML Adapters can be made available to EntireX or Natural clients.

EntireX XML Mapping Editor

The EntireX XML Mapping Editor allows you to map XML document structures to IDL libraries, programs and parameters. The mappings can be defined for the request and response to the server application, or from the server to the client. The input for the XML Mapping Editor can be a Software AG IDL file and/or an IDL-XML mapping file (perhaps produced by a previous XML Mapping Editor session or by importing a WSDL file, XML Document or XML Schema). The output is an IDL-XML mapping file, other XML structure definitions (such as sample XML files), and perhaps a created or changed IDL file.

EntireX XML/SOAP RPC Server

With the XML/SOAP RPC Server you can process XML-based server calls from EntireX RPC clients/Natural RPC clients. The EntireX RPC client communicates with the XML-based server, using the XML/SOAP RPC Server.

EntireX XML/SOAP Runtime

The EntireX XML/SOAP Runtime enables XML-based clients to communicate with an EntireX/Natural RPC Server; and it enables EntireX RPC clients to communicate with applications that have an XML or SOAP interface (via XML/SOAP Runtime).

See EntireX XML/SOAP Listener.

EntireX XML/SOAP Listener The EntireX XML/SOAP Listener is part of the EntireX XML/SOAP

> Runtime. It plugs the generated AAR file, including XMM files, into Web servers and so enables the EntireX XML/SOAP Runtime to send and receive XML documents using HTTP/HTTPS to/from a Web server. This component was formerly referred to as "XML Servlet".

11 **EntireX Glossary** 

EntireX XML Servlet

EntireX XML to IDL Gener-

ators

XML to IDL Generators generate Software AG IDL files and related mapping files from DTD files, XML Schema files, XML files and

WSDL files.

EntireX XML/SOAP Wrap-

per

The EntireX XML/SOAP Wrapper enables XML-based communication to EntireX/Natural RPC servers and communication from EntireX/Natural RPC clients to XML-based servers.

ETBCMD The command-line utility ETBCMD allows you to take actions - for

example, purge a unit of work, stop a server, shut down a Broker -

against EntireX Broker.

ETBINFO The command-line utility ETBINFO queries the Broker for different

types of information, generating an output text string with basic formatting. This text output can be further processed by script languages. ETBINFO uses data descriptions called profiles to control the type of data that is returned for a request. ETBINFO is useful for monitoring and administering EntireX Broker efficiently - for example, how many users are to run concurrently and whether the

number of specified message containers is large enough.

Extractor An extractor is a tool contained in the EntireX Workbench to extract

an IDL file from a variety of sources, for example COBOL, Natural,

WSDL.

F

Failover Feature used to describe the control switch between redundant re-

sources in the event of a resource failure.

See also *High Availability in EntireX*.

Н

High Availability Under High Availability we understand an environment with engin-

eered redundancy which, if any one component fails, guarantees the integrity of the system as a whole. To achieve high availability,

EntireX uses existing third-party clustering technology.

See also *High Availability in EntireX*.

HiperSockets HiperSockets is an IBM technology for offering TCP/IP communica-

tions between partitions at in-memory speed.

See also Setting up your EntireX Environment for Sysplex.

ı

IAF The Integrated Authentication Framework (IAF) is a token-based

infrastructure that enables Software AG's enterprise single sign-on. In addition, it allows usage of a configurable authentication system (user database) with Software AG products across platforms. IAF

is part of the Software AG Security Infrastructure.

IDL Software AG IDL (Interface Definition Language) is a language that

lets a program or object (the client) written in one language communicate with another program written in another language (the server). An interface definition language works by requiring a program's interfaces to be described in an interface object or slight extension

of the program that is compiled into it.

Software AG IDL is used to define an interface between the client and the server. These definitions are contained in a Software AG IDL file. IDL compilers read IDL files and generate interface objects

or descriptions from the definitions they contain.

IDL Compiler The Software AG IDL Compiler generates interface objects, skeletons

and wrappers. It uses a Software AG IDL file and a template file that

controls the generated output.

IDL Editor The Software AG IDL Editor is a syntax-aware editor for Software

AG IDL files. A content outline view enables operations on the IDL tree. Other features include syntax highlighting, content assist and

a Problems view for resolving IDL syntax errors.

IDL Extractor for COBOL The Software AG IDL Extractor for COBOL enables you to extract

the interface of a COBOL server and transforms it into a Software AG IDL and a Software AG server mapping file. Both files are re-

quired to provide access for any RPC client to the COBOL server.

IDL Extractor for Integra-

tion Server

The Software AG IDL Extractor for webMethods Integration Server is a wizard that reads a package from the Integration Server and generates a Software AG IDL file from all the existing services and nodes. Each service results in a program in the IDL file. All parameters of the services are mapped to an IDL alphanumeric data type,

available as variable (AV) or fixed (An) length.

IDL definition from a Natural source in a Natural project in Eclipse,

or from an object within a Natural RPC environment.

IDL Extractor for PL/I The Software AG IDL Extractor for PL/I extracts a Software AG IDL

file from a PL/I source. The PL/I source can be located in the file system or accessed remotely within a PL/I RPC environment defini-

tion.

IDL Extractor for WSDL The Software AG IDL Extractor for WSDL is a wizard that generates

Web service client artifacts from a WSDL file. With these artifacts, EntireX RPC client applications can access external Web services.

IDL Extractor for XML Doc-

ument

The Software AG IDL Extractor for XML Document generates a *Software AG IDL File* in the IDL Editor documentation and a related

XML mapping file (XMM) from a given XML document.

IDL Extractor for XML

Schema

The Software AG IDL Extractor for XML Schema generates a *Software AG IDL File* in the IDL Editor documentation and a related XML mapping file (XMM) from given XML schema files.

IDL File A Software AG IDL file contains definitions of the interface between

client and server. The IDL file is used by Software AG wrappers to generate RPC clients, RPC servers and tester etc. on the basis of these

definitions.

The IDL file can be edited by the IDL Editor provided by plug-ins

for Eclipse.

IDL Template An IDL template file contains the rules that the Software AG IDL

Compiler uses - together with the IDL file - to generate interface objects, skeletons and wrappers for a programming language. The Developer's Kit provides several templates for various programming

languages.

Impersonation EntireX Security allows a server to be started under

the user ID of the calling client or

a defined user ID (obtained from the registry, for example).

Authorisation is carried out appropriately in either case.

Integration Server The webMethods Integration Server is a Java-based, multiplatform

enterprise integration engine supporting the execution of services to perform integration logic such as data mapping and communica-

tion with other systems.

Integration Server Wrapper The webMethods Integration Server Wrapper generates Integration

Server adapter services and listeners from a Software AG IDL file

within an Integration Server connection definition.

Interface

A specification of a set of methods, which implement functionality of the same subject. An interface is a strongly typed, semantic contract between client and server.

In EntireX Broker, the prominent interface is the ACI in its various implementations (for example, broker.dll).

In the context of RPC programming, a client/server interface contains one or more remote procedure call operations and associated data, each of which may have input and output parameters associated with it.

Interface Object

An interface object is an application-dependent generated piece of code to issue/receive remote procedure calls (RPCs).

In EntireX RPC programming, a *client-side interface object* is a piece of code generated by a wrapper contained in the EntireX Workbench that allows you to call a remote RPC service. The signature of each RPC service is described by a Software AG IDL file (Interface Definition Language) which must be provided as input for a wrapper. The main task of the *client-side interface object* is to marshal/unmarshal the RPC parameters and to call the underlying transport layer using an available Broker stub.

A *server-side interface object* is a piece of code also generated by a wrapper contained in the EntireX Workbench to be used on the server side. The main task of the server-side interface object is to marshal/unmarshal the parameters received/returned by an RPC server.



**Note:** In earlier versions of EntireX, interface objects were referred to as "stubs".

Internationalization

Software internationalization is the process of designing products and services so that they can be adapted easily to a variety of different local languages and cultures. Internationalization within EntireX means internationalization of messages: the incoming and outgoing messages are converted to the desired codepage of the platform in use.

**IUBL** 

The Internal User Buffer Length (IUBL) is the EntireX Broker parameter that sets the maximum length (in bytes) of the buffer that can be passed from the caller to the EntireX Broker. It must be large enough to hold the maximum send length plus receive length required for any caller program plus an administration overhead of

about 600 bytes. Default is 8000. The maximum size of IUBL is the
same as the maximum value of the Adabas parameter LU.

Java ACI EntireX Java ACI is a Java class library that provides access to the

EntireX Broker ACI for Java programmers. It covers the whole EntireX Broker ACI which enables you to write both client and server applications in Java. Any of these can then interact with each other and with other applications written in other languages on the same network using EntireX Broker. The EntireX Java ACI also contains

the framework necessary for Java RPC requests.

Java RPC Server The EntireX Java RPC Server is an RPC server which runs Java

server interface objects generated from your IDL files. This server can register an Attach Service to start several services with the same

server address on demand.

Java Runtime EntireX Java Runtime is a protocol that enables RPC-based commu-

nication between clients and servers in a Java environment.

Java Wrapper The EntireX Java Wrapper provides access to EntireX RPC-based

components from Java applications. EntireX Java RPC enables users to develop both client and server applications written in Java. Java

applets can also be used as EntireX RPC clients.

Java Wrapper for Natural The EntireX Java Wrapper for Natural allows you to generate EntireX

Java client interface objects from Natural subprograms in a Natural Solution alone project in Eclipse. The generated Java client interface objects can be used by Java application developers to access Natural server

components, using EntireX/Natural RPC.

н

Lightweight Diagnostics Lightweight Diagnostics is a subset of the Trace facility of Entirex

Broker. With Lightweight Diagnostics you can run the Broker kernel without needing to run a heavyweight trace all the time. Lightweight Diagnostics report on problems that impact the performance and

the functionality of the Broker kernel.

Listener A listener is an EntireX component that listens on incoming requests

and sends RPC requests in the background (for example XML or

MQ).

Locale A locale provides a means of identifying a specific region for the

purposes of internationalization and localization. EntireX sends

properties of the operating system locale to the Broker, using the locale string.

Load Balancing

A network-based technique to distribute common workload across multiple backend services that can be evenly distributed or routed based on weighted inference of a key performance attribute (commonly called filtering).

Locale

A locale provides a means of identifying a specific region for the purposes of internationalization and localization. EntireX sends properties of the operating system locale to the Broker, using the locale string.

**LPAR** 

A logical partition (LPAR) describes the virtualization of the System z hardware platform; if one LPAR goes down it has no effect on any others running on the same hardware.

See High Availability with Sysplex under z/OS.

M

Mainframe Some sites that deploy one or more UNIX servers refer to these as

'mainframes'. The EntireX documentation uses the term 'mainframe' specifically to refer to z/OS, z/VSE (IBM) and BS2000/OSD (Fujitsu)

systems as opposed to UNIX machines.

Marshalling Marshalling is the process of packaging interface data into RPC

packets for delivery across process or network boundaries. This includes converting data from its true data type (for example int, long etc.) to an internal representation. Converting data from an internal representation to its true data type (for example int, long etc.) is called unmarshalling. RPC programming thus has an advantage

over native ACI coding in the area of transparent data translation.

In an environment that uses EntireX as communication technique, clients and servers communicate by exchanging messages. For example, a message can be both a request for data and the returned

data itself.

Message ID identifies a message and can be used in several ways:

It allows a REPLY to be associated with a specific REQUEST.

■ It can be used on a RECEIVE to limit the RECEIVE to a specific message. If message ID is not specified, the next available message is returned.

Message

Message ID

- It can be used by a client program when sending a REQUEST or a DATAGRAM. If message ID is not specified, the system generates one and returns it upon completion of the SEND.
- When sending a REPLY, the server program should specify the message ID of the associated REQUEST.

#### Messaging

Messaging is defined as the creation, exchange, storage and management of files in a communications network. Those files can be text, images, voice, telex, fax, e-mail, paging, and Electronic Data Interchange (EDI).

In programming, messaging is defined as the exchange of specially formatted data describing events, requests, and replies (messages) to a messaging server, which acts as a message exchange program for client programs. The two major messaging server models are point-to-point and publish and subscribe. With messaging, programs can share a common message-handling code, isolate resources and interdependencies, and easily handle an increase in message volume. Messaging also makes it possible for programs to communicate across different programming languages and operating systems. All that each environment needs to understand is the common messaging format and protocol.

#### Micro Focus RPC Server

The EntireX Micro Focus COBOL RPC Server allows standard RPC clients to communicate with COBOL servers written with Micro Focus COBOL. It works together with the *COBOL Wrapper* and the *IDL Extractor for COBOL*.

# Visual Studio Wizard for DCOM Wrapper

The Microsoft Visual Studio Wizard for EntireX DCOM Wrapper is a Software AG add-in that enables Microsoft Visual Studio 2010 to generate Visual C# .NET and Visual Basic .NET Windows applications that use EntireX DCOM Wrapper objects. The Visual Studio Wizard creates a DCOM Wrapper object from a Software AG IDL file and adds a reference to the object into the new Windows application.

# Visual Studio Wizard for .NET Wrapper

The Visual Studio Wizard for .NET Wrapper is a Software AG add-in for Microsoft Visual Studio 2010 that makes the client functionality of the EntireX .NET Wrapper available to Microsoft Visual Studio 2010.

### N

#### **NABS**

The Number of Attached Buffers (NABS) is the Broker parameter that specifies the number of attached buffers to be used. The default

value is 10. An attached buffer is an internal buffer used for interregional communication. An attached buffer pool equal to the NABS value multiplied by 4096 will be allocated. This buffer pool must be large enough to hold all data (IUBL) of all parallel calls to EntireX Broker.

Natural Wrapper

The Natural Wrapper allows you to develop Natural client applications that access RPC-based server components, and to create Natural RPC server skeletons you can use as a basis to write a Natural RPC server that can be accessed by RPC clients.

**NCQE** 

The Number of Command Queue Elements (NCQE) is the Broker parameter that specifies the number of command queue elements to be established. Its value determines the maximum number of EntireX Broker commands that can be queued and/or be in progress at any time. Each command is assigned a command queue element. This element is released when the user has received the results of the command or when the user has been timed out.

.NET RPC Server

The EntireX .NET RPC Server, together with the EntireX .NET Wrapper, enables you to call .NET assemblies as servers.

**NLB** 

Network Load Balancing (NLB) is a clustering technology for Windows servers that enhances the scalability and availability of mission-critical, TCP/IP-based services, such as Web, Terminal Services, virtual private networking, and streaming media servers.

See also High Availability with NLB under Windows.

.NET Wrapper

The EntireX .NET Wrapper provides access to RPC servers for .NET client applications and access to .NET servers for any RPC client. The .NET Wrapper generation tools of the Workbench take as input a Software AG IDL file, which describes the interface of the RPC, and generates C# classes that implement the methods and data types of the interface.

Node Convergence

The process of converging static machine addresses into a clustered IP address on Windows.

P

Participant

Within EntireX Broker nomenclature, a participant is an application implicitly or explicitly logged on to the Broker as a specific user. A participant could act as client, server, publisher or subscriber.

PCB Participant control block. In the context of persistence in EntireX,

part of the UOW (unit of work).

Persistence Persistence is the ability of a message or message queue to live longer

than the connection it is using, allowing the system to recover to a known point without loss of data. Persistence is implemented in EntireX as an optional attribute of a UOW (unit of work). If a UOW is specified as persistent, it is stored on some non-volatile medium after being committed by the sender. Its delivery to the intended receiver is assured, even if a system failure occurs. Persistent UOWs are automatically restored to their last status prior to Broker or system failure. All of the necessary internal structures are reconstructed.

Persistent Status Persistent status is an attribute of a UOW (unit of work). If a UOW

has persistent status, the status of the UOW is maintained in the persistent store, and is updated whenever the status changes. The persistent status remains in the persistent store after the UOW is

completed, until its status lifetime has expired.

A persistent status value represents a multiple of the UOW lifetime value. Thus if a UOW has a lifetime of 5M (whereby M stands for minutes) and a persistent status value of 4, the status of the UOW would be deleted 20M (5M\*4) after the UOW was completed.

Persistent Storage Interface The Persistent Storage Interface (PSI) is the EntireX Broker compon-

ent that maintains non-volatile images of persistent UOWs (units of work). The PSI provides status information and is responsible for

recovery if a system failure occurs.

Persistent Store The persistent store is used for storing unit-of-work messages and

publish-and-subscribe data to disk. This means message and status information can be recovered after a hardware or software failure to the previous commit point issued by each application component.

Persistent Unit of Work Persistence is an attribute of a UOW (unit of work). If a UOW is

persistent, its messages are saved in the persistent store when the sender COMMITS the UOW and they are retained until the receiver COMMITS or CANCELS the UOW, or until its lifetime expires. If the Broker or system should fail after the UOW is committed by the sender, the UOW (and its conversation) will be restored to their last,

stable status when the Broker restarts.

PL/I Wrapper The EntireX PL/I Wrapper provides access to RPC-based components

from PL/I applications. It enables you to develop both client and

server applications.

Privacy

In the context of EntireX Security, privacy means that data packages cannot be examined by unauthorized persons.

**Proxy** 

In COM/DCOM terms, a proxy is a small binary loaded into the client's process space that acts as a "front-end" to the remote server's interface. The client calls the proxy just as it would the server, and the data is marshalled to the stub which in turn calls the server object.

In EntireX Broker terms, the ACI acts both as a proxy and a stub, but is commonly referred to as the "broker stub" or simply "stub" regardless of whether it is installed on the client side or the server side.

Publication

Within EntireX Broker nomenclature, a publication is a message or a set of messages created by one publisher for a list of subscribers. All requests must specify the publication ID generated when the publisher issues the first send publication.

Publish and Subscribe

The EntireX Broker uses two communication models: publish and subscribe and client and server. Publish and subscribe communication is used if data is to be published. Client and server communication is used if data is to be sent to exactly one partner. These two communication models cannot be combined with each other.

Publisher

Within EntireX Broker nomenclature, a publisher is an application issuing Broker requests to send one or more publications to one or more topics.

### Q

Queued Direct IO

Queued Direct IO is a System z hardware feature offering an enhanced data transfer architecture for improving data transfer speed and efficiency for TCP/IP traffic.

See High Availability with Sysplex under z/OS.

## R

Relay Manager

Obsolete. In earlier EntireX versions, the Relay Manager was the EntireX Broker component that re-created structures and environment for any UOW (unit of work) that were incomplete at the time the last execution of EntireX Broker ended, whether normally or abnormally. All Relay Manager functionality is now handled by broker stubs.

Remote Attach Manager

The Remote Attach Manager of EntireX Broker Services is an application programming interface (API) consisting of a verb set that manages the dispatching of server programs. It allows you to write programs to start server programs when incoming client requests are received, but no servers are available to service the requests.

Remote Program

The application program with which the local program converses.

**RPC** 

A Remote Procedure Call (RPC) is a protocol that one program can use to request a service from a program located in another computer in a network without having to understand network details. (A procedure call is also sometimes known as a function call or a subroutine call.)

RPC uses the client/server model. The requesting program is a client and the service-providing program is the server. Like a regular or local procedure call, an RPC is a synchronous operation requiring the requesting program to be suspended until the results of the remote procedure are returned. However, the use of lightweight processes or threads that share the same address space allows multiple RPCs to be performed concurrently.

When program statements that use RPC are compiled into an executable program, an interface object is included in the compiled code that acts as the representative of the remote procedure code. When the program is run and the procedure call is issued, the interface object receives the request and forwards it to a client runtime program in the local computer. The client runtime program has the knowledge of how to address the remote computer and server application and sends the message across the network that requests the remote procedure. Similarly, the server includes a runtime program and interface object that interface with the remote procedure itself. Results are returned the same way.

Some examples of RPC technology are Software AG's EntireX/Natural RPC, Microsoft RPC, and DCE RPC.

**RPC Compression** 

RPC compression is a means of reducing network traffic. IDL fields that are marked as IN, OUT, or IN OUT parameters are transferred in the respective direction only. RPC compression is handled automatically for EntireX RPC Servers and Natural RPC Server after Natural RPC version 5.1.1. If you are using an older Natural RPC Version, RPC compression must be turned on manually in your RPC client component to take effect.

RPC Runtime Software AG RPC runtime is a protocol that enables RPC-based

communication between clients and servers.

RPC Servers The EntireX RPC Servers (available under CICS, z/OS Batch, UNIX,

Windows and Java) execute servers on RPC client requests. Using EntireX RPC Wrapper technology of the *EntireX Workbench*, you can generate these servers together with integrated wrappers (server interface objects). The Workbench tool you choose to generate these servers depends on your environment, for example Java Wrapper,

COBOL Wrapper, C Wrapper, XML/SOAP Wrapper, etc.

RPC Service An RPC service is a customer-written program to be provided as a

service by means of a configured RPC server.

RPC-ACI Bridge The RPC-ACI Bridge enables RPC-based client applications to be

used with ACI servers.

S

SCB Sender control block. In the context of persistence in EntireX, part

of the UOW (unit of work).

SDK A Developer's Kit is a set of programs usually including an editor,

a compiler, a linker, a screen builder etc., used by computer program-

mers to write application programs.

SDL The Server Definition Language (SDL) is the language in which the

statements are written that define the EntireX Broker systems installed, the servers that are to be controlled by the Attach Server and the path definitions required to establish the execution environments

of the servers.

Server Within EntireX Broker nomenclature, a server is an application issu-

ing Broker requests to process client requests assigned to specific

services.

Server Mapping File A server mapping file (SVM) enables the RPC server to correctly

support special COBOL syntax such as REDEFINES, JUSTIFIED, SYNCHRONIZE and OCCURS DEPENDING ON clauses, LEVEL-88 fields, etc. If one of these elements is used, the EntireX Workbench automatically extracts an SVM file in addition to the IDL (interface definition language), or an SVM file is generated by the COBOL Wrapper for a server skeleton. The SVM file is used at runtime to marshal and

unmarshal the RPC data stream.

Server Program A piece of application software that can provide one or more services

to client programs on request.

Service A particular type of functionality provided by one or more servers.

> Within EntireX Broker nomenclature, a service is uniquely identified by a combination of service name, server name and server class.

**SMA** System Maintanance Aid. Software AG product for installing and

managing the configuration of a Software AG product environment.

Software AG IDL Software AG IDL (Interface Definition Language) is a language that

lets a program or object (the client) written in one language communicate with another program written in another language (the server). An interface definition language works by requiring a program's interfaces to be described in an interface object or slight extension

of the program that is compiled into it.

Software AG IDL is used to define an interface between the client and the server. These definitions are contained in a Software AG IDL file. IDL compilers read IDL files and generate interface objects

or descriptions from the definitions they contain.

See also *IDL Compiler* 

Software AG Common Platform

The Software AG Common Platform is a Java runtime environment based on the OSGi framework. It provides a standard platform on which to run Software AG products and the enterprise applications you develop around those products. The Software AG Common Platform provides common infrastructure for user authentication, event handling, and the execution of Web applications. Infrastructure components that the Software AG Common Platform provide include Software AG Security Infrastructure, Software AG Web Server based

on Apache Tomcat, and Web Services Stack.

Software AG Runtime The Software AG Runtime is an installable instance of the Software

> AG Common Platform that functions as a stand-alone Tomcat server and a container for Web applications. EntireX uses the Software AG Runtime to host the EntireX XML/SOAP Listener and XML/SOAP

RPC Server.

Software AG Security Infra-

structure

Software AG's webMethods suite of products has a common authentication infrastructure called SIN. It provides the products with security components for authentication of users, management of roles, and query of user, role, and group information. It works both on client-side applications and on server-side applications.

Software AG Web Server

The Software AG Web Server based on Apache Tomcat is one of the basic infrastructure components provided by the Software AG Common Platform. It provides HTTP/HTTPS services, a JSP engine, and a servlet container. Unlike a typical Tomcat implementation, the Software AG Web Server is OSGi-based and supports both .WAR-based and .WAB-based web applications.

**SPFX** 

Stub prefix. The SPFX acts as a table of contents for the other sections of the ACI request or reply.

SSX

Software AG Security Extension. SSX handles authentication and provides interfaces to the user database to perform list, add, modify and delete operations.

Stub

A Broker stub is a ready-made module/class delivered with EntireX to communicate with a Broker. It is platform-dependent, but application independent. A Broker Stub implements an API (application programming interface) that allows programs written in Java, C#, C, Natural, and IBM i ILE-enabled languages (C, COBOL, Natural, RPG) to access the EntireX Broker. A Broker stub can communicate with an EntireX Broker using either TCP/IP, SSL (and TLS), or Entire Net-Work. Stubs are required for RPC and message-based communication.

In earlier versions of EntireX, the term "stub" was also used to refer to application-dependent, Workbench-generated pieces of code for issuing and receiving remote procedure calls. These objects are now referred to as *interface objects*.

Subscriber

In the context of the EntireX publish and subscribe communication model, a subscriber is an application issuing Broker requests to receive one or more publications of one or more topics.

Subscription

In the context of the EntireX publish and subscribe communication model, a subscription identifies a Broker participant as receiver of publications for the subscribed topic.

**SVM** 

A server mapping file (SVM) enables the RPC server to correctly support special COBOL syntax such as REDEFINES, JUSTIFIED, SYNCHRONIZE and OCCURS DEPENDING ON clauses, LEVEL-88 fields, etc. If one of these elements is used, the EntireX Workbench automatically extracts an SVM file in addition to the IDL (interface definition language), or an SVM file is generated by the COBOL Wrapper for a server skeleton. The SVM file is used at runtime to marshal and unmarshal the RPC data stream.

Sysplex

A Parallel Sysplex is a cluster of IBM mainframes acting together as a single system image with z/OS. Parallel Sysplex combines data sharing and parallel computing to allow a cluster of up to 32 systems to share a workload for high performance and high availability.

See also Setting up your EntireX Environment for Sysplex.

System Management Hub

The System Management Hub is Software AG's cross-product and cross-platform product management framework. Its platform-independent, XML-based architecture provides generic rendering engines for HTML, batch etc. and standard interfaces for application development (HTML, WML, native C/C++, native Java, etc.)

Т

Tamino X-Tensions

Tamino X-Tensions can be described as the technology you need to develop, administer and execute XML-based application logic within the Tamino context. Tamino X-Tensions provide you with the ability to extend the functionality of the Tamino Server in cases in which the standard functions are not sufficent to satisfy all of the needs of an internet application. Tamino X-Tensions can be generated by the *EntireX Workbench* to call an EntireX/Natural RPC Server.

TCP/IP Communicator

The EntireX Broker TCP/IP communicator enables transparent direct TCP/IP communications between a broker stub and the EntireX Broker running under z/OS.

Template

In EntireX RPC programming, a template file is required by the Software AG IDL Compiler and describes the source language in which the client interface object or server interface object is generated. Several templates are provided by the Developer's Kit for various programming languages. Experienced users can modify these templates or create new templates for other program languages.

Topic

A topic is a logical grouping of publications relating to one subject area which is defined in the Broker attribute file. Topics reflect subject areas, for example current news, stock quotations, weather, online chat, sales systems. Data can be published to a topic only if there are current subscribers for this topic.

For EntireX Broker, the term *topic* is analogous to the term *service*. Topic represents the grouping of related information flows for the publish and subscribe communication model, as service does for the client and server model.

TOR In Broker ActiveX Control, the transaction object repository (TOR)

is the compound file within the file system in which transaction ob-

jects (TOs) are stored.

Transaction Object Transaction Object (TOs) in Broker ActiveX Control are selections

> of logical methods that are stored in a transaction object repository (TOR). These logical methods contain all the connection and interface

details necessary to communicate with EntireX Broker.

Transaction Recovery A feature for recovering resources in the event of an unplanned

outage.

**TRAP** Translation Routine / Area for Parameters (TRAP) control block

fields are supplied by the Broker and *must not* be modified by user-

written translation routines.

Tunnel Servlet See Broker HTTP(S) Agent.

U

**UDDI** Registration EntireX UDDI Registration is a tool with which you can register a

Web service with any UDDI registry for which you have an account.

A unit of work (UOW) is a set of one or more messages that are processed as a single unit. The sender of a UOW adds messages to the UOW and then indicates that the UOW is complete (COMMIT). The UOW and its messages are not visible to the receiver until the sender has committed the UOW. Once the UOW is committed, the receiver can receive the messages, and can indicate when the UOW

is complete (COMMIT).

Each UOW has a lifetime value associated with it. This is the period of time that the UOW is allowed to exist without being completed. This time starts when the UOW is initially created and runs until the UOW is completed. A UOW is completed when it is successfully:

- cancelled or backed out by its sender, or
- cancelled or committed by its receiver.

If the UOW is in ACCEPTED status when this lifetime expires, the UOW is placed into a TIMEOUT status. Lifetime timeouts will not occur when the UOW is in either RECEIVED or DELIVERED status.

A special "pseudo-clock" is maintained for UOW lifetimes. This clock is implemented in such a way that it only runs when the Broker

**UOW** 

UOW Lifetime

**EntireX Glossary** 

27

is active. This prevents a UOW lifetime from expiring while the Broker is down or otherwise unavailable.

**UOW Status Query** 

Each unit of work (UOW) has a unique identifier that allows you to check the status of the UOW. This is particularly useful during recovery from a system failure. The status of persistent and non-persistent UOWs is maintained by the Broker for a period of time which is determined by user-defined attributes.

**USRSEC** 

USRSEC is the name of the security exit which is called if SECUR-ITY=YES is specified in the Broker attribute file. A security component called USRSEC is provided by EntireX Security in object form only. The EntireX Security USRSEC provides full protection of applications using EntireX Broker. Functionality includes authentication for distributed application components, authorization to start and execute services and encryption of the payload (Broker message). All user and resource definitions are managed through RACF and CA ACF2. In addition, a simple source and load example USRSEC is provided to perform LOGON and LOGOFF security for EntireX Broker. You can adapt this example you specific needs if required.

**UWCB** 

UOW (unit of work) control block. In the context of persistence in EntireX, the UWCB represents the UOW.

V

**VIPA** 

Virtual IP addressing is an IP address assigned to multiple static IP addresses to make them accessible as one address for the purpose of improving availability or load balancing.

See also Setting up your EntireX Environment for Sysplex.

W

webMethods EntireX

webMethods EntireX is a secure, robust, high-performance communication infrastructure that uniquely combines message queuing capabilities with built-in support for synchronous request/reply and conversational communication. It manages interactions for tightly coupled XML-enabled and non-XML enabled systems in time-critical user applications. EntireX's powerful and easy-to-use wrapping technology and flexible programming interfaces turn existing application functions into business services or Web services. These features allow an organization to define an integration architecture for enhancing existing applications, linking up legacy applications with new standard software or adding new custom applications to the mix.

webMethods EntireX was previously referred to as "EntireX Communicator".

webMethods EntireX Adapter

The webMethods EntireX Adapter enables webMethods Integration Server to consume (IS outbound) as well as provide (IS inbound) EntireX RPC services. EntireX supports bidirectional integration with Natural, COBOL, PL/I, C and other applications on z/OS, z/VSE, BS2000/OSD and other platforms. On Linux, UNIX and Windows also Micro Focus COBOL can be integrated with EntireX, bidirectionally.

webMethods Integration Server The webMethods Integration Server is a Java-based, multiplatform enterprise integration engine supporting the execution of services to perform integration logic such as data mapping and communication with other systems.

webMethods EntireX Package

A webMethods EntireX package is an Integration Server (IS) package written to the Adapter runtime specification that allows EntireX assets to be tightly integrated with IS Flow Services. The package features IS nodes and automatic generation of communication services and application services that are associated with making program calls to mainframe transactions via EntireX RPC.

webMethods Integration Server Wrapper The webMethods Integration Server Wrapper generates Integration Server adapter services and listeners from a Software AG IDL file within an Integration Server connection definition.

Web Services

Web services are programmable, distributed application components accessible on the Web using solely standard internet protocols. In contrast to the current "document Web", which specializes in human interaction, Web services are designed to be accessed by programs to form a new application architecture, the "application Web". EntireX supports the creation of Web services from existing EntireX RPC servers.

Web Services Wrapper

The EntireX Web Services Wrapper is a wizard that generates Web services from Software AG IDL, XML/SOAP mapping files or Natural subprogram files. The generated result is a Web service archive (.aar) that contains the relevant artifacts of the Web service such as an XML/SOAP mapping file (.xmm), WSDL file and additional configuration files. The Web service archive can be deployed for execution by the wizard or - in an extra deployment step - in a Web Services Stack with the EntireX XML/SOAP Listener runtime.

Web Services Wrapper for Natural

The EntireX Web Services Wrapper for Natural allows you to develop Web Services that access Natural server components, using Entire X A Language 1 PDC

tireX/Natural RPC.

WLM IBM Workload Manager is a Sysplex based load balancer offering

workload filtering.

WebSphere MQ RPC Server EntireX WebSphere MQ RPC Server runs as an RPC server and

processes RPC client calls. It is used to send messages to and receive messages from a WebSphere MQ Queue. This means that existing EntireX wrappers can be used for communication with WebSphere

MQ.

This component was previously referred to as "EntireX WebSphere

MQ Bridge".

> MQ queue and passes messages to an RPC server. It is used to send messages received from a WebSphere MQ queue to an RPC server applications. This means that existing RPC servers can be used for

communication with WebSphere MQ.

This component was previously referred to as "EntireX MQ Bridge

Listener".

Wrapper In EntireX terms, a wrapper is a tool contained in the EntireX

Workbench to generate interface objects based on an IDL file and additional wrapping properties. Wrappers are provided for different target environments, for example Java, Web services, webMethods

IS, .NET, COBOL and many more.

X

XCOM Communicator The XCOM Communicator consists of the Adabas modules

ADAMPM, ADALNK, and ADASVC. It can be used for intramainframe communications, that is, communications between client and server applications via the EntireX Broker when all components

are located on the z/OS mainframe.

XMLAdapter A Java class generated by the XML Mapping Editor and used by the

XML/SOAP Runtime to map between client XML documents and EntireX/Natural RPC Server parameters (deprecated). Not to be

confused with EntireX XML Adapters.

XML Mapping Editor The EntireX XML Mapping Editor allows you to map XML document

structures to IDL libraries, programs and parameters. The mappings

can be defined for the request and response to the server application, or from the server to the client. The input for the XML Mapping Editor can be a Software AG IDL file and/or an IDL-XML mapping file (perhaps produced by a previous XML Mapping Editor session or by importing a WSDL file, XML Document or XML Schema). The output is an IDL-XML mapping file, other XML structure definitions (such as sample XML files), and perhaps a created or changed IDL file.

XML Mapping File

The XML Mapping File is an XML file (file extension .xmm) generated by the EntireX XML Mapping Editor and used by the EntireX XML/SOAP Runtime, to map between XML documents and EntireX/Natural RPC parameters.

XML RPC

XML RPC is a simple, language and platform neutral, RPC mechanism using XML over HTTP. It is a specification and a set of implementations that allow software running on disparate operating systems, running in different environments to make procedure calls over the internet. HTTP provides the transport and XML provides the encoding. XML RPC is designed for simplicity but allows complex data structures to be transmitted, processed and returned.

XML/SOAP RPC Server

With the XML/SOAP RPC Server you can process XML-based server calls from EntireX RPC clients/Natural RPC clients. The EntireX RPC client communicates with the XML-based server, using the XML/SOAP RPC Server.

XML/SOAP Runtime

The EntireX XML/SOAP Runtime enables XML-based clients to communicate with an EntireX/Natural RPC Server; and it enables EntireX RPC clients to communicate with applications that have an XML or SOAP interface (via XML/SOAP Runtime).

XML Schema

XML Schemas express shared vocabularies and allow machines to carry out rules made by people. They provide a means for defining the structure, content and semantics of XML documents in more detail.

XML Servlet

This term is obsolete. See XML/SOAP Listener.

XML/SOAP Listener

The EntireX XML/SOAP Listener is part of the EntireX XML/SOAP Runtime. It plugs the generated AAR file, including XMM files, into Web servers and so enables the EntireX XML/SOAP Runtime to send and receive XML documents using HTTP/HTTPS to/from a Web server. This component was formerly referred to as "XML Servlet".

XML Tester

Using the XML Tester you can send an XML document to the EntireX

XML/SOAP Listener.

XML to IDL Generators	XML to IDL Generators generate Software AG IDL files and related mapping files from DTD files, XML Schema files, XML files and WSDL files.
XML/SOAP Wrapperr	The EntireX XML/SOAP Wrapper enables XML-based communication to EntireX/Natural RPC servers and communication from EntireX/Natural RPC clients to XML-based servers.
XMM	XML Mapping File, file extension .xmm, replaces the deprecated XML Adapter.
Z	
Zero Client Footprint	In the context of EntireX Security, the fact that the application requires no space on the client machine.
Numbers	
24x7	A business definition for highly available applications representing 24 hours, 7 days a week availability.
	See also High Availability in EntireX.
99.999	A business definition for highly available applications representing a percentage very close to $100\%$ availability.
	See also High Availability in EntireX.