

Platform Coverage

This chapter covers the following topics:

- Scope of EntireX Version 9.7
 - List of Components per Platform
 - Supported RPC Protocols
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Scope of EntireX Version 9.7

This version of EntireX has been released on the following platforms:

- z/OS
- SUSE Linux Enterprise Server for IBM System z (64-bit)
- Red Hat Enterprise Linux for IBM System z (64-bit)
- Red Hat Enterprise Linux for Amazon EC2 (64-bit)
- Solaris SPARC (64-bit)
- HP-UX for Itanium 2
- AIX (64-bit)
- SUSE Linux Enterprise Server for AMD64 and EM64T (x86-64)
- Red Hat Enterprise Server Linux for AMD64 and EM64T (x86-64)
- Windows (32-bit, 64-bit)

Detailed information regarding supported operating system versions, General Availability (GA), platform retirement, End of Maintenance (EOM), and End of Sustained Support (EOSS) dates for your products can be found under *Products & Documentation > Product Version Availability* on Software AG's Empower website <https://empower.softwareag.com>.

Note:

Software AG provides EntireX support for the operating/teleprocessing system versions supported by their respective manufacturers. In general, when an operating/teleprocessing system provider stops supporting a version of an operating/teleprocessing system, Software AG will stop supporting that operating/teleprocessing system version.

List of Components per Platform

	z/OS	z/VSE	BS2000/OSD	z/VM	SUSE Linux Enterprise Server for IBM System z (64-bit)	Red Hat Enterprise Linux for IBM System z (64-bit)	Solaris UltraSPARC (64-bit)	HP-UX for Itanium 2 (64-bit)	AIX Power (64-bit)	OpenVMS for Itanium (64-bit)	IBM i	SUSE Linux Enterprise Server for x86-64 (64-bit)	Red Hat Enterprise Linux for x86-64 (64-bit) and Amazon EC2 (64-bit)	Windows 32-bit	Windows 64-bit
EntireX Broker	x ⁽⁴⁾	x ⁽⁶⁾	x		x	x	x	x	x			x	x	x	x
EntireX Workbench												x	x	x	x
EntireX RPC															
Batch RPC Server	x	x	x												
CICS RPC Server	x	x													
IMS RPC Server	x														
COBOL Server/Client	x	x	x												
Micro Focus RPC Server					x	x	x	x	x			x	x	x	x
PL/I Server/Client	x														
C RPC Server/Client			x ⁽⁵⁾		x	x	x	x	x		x	x	x	x	x
Java RPC Server/Client	x ⁽³⁾				x	x	x	x	x			x	x	x	x
XML/SOAP RPC Server/Client	x ⁽³⁾				x	x	x	x	x			x	x	x	x
WebSphere MQ RPC Server	x ⁽³⁾				x	x	x	x	x			x	x	x	x
WebSphere MQ Listener	x ⁽³⁾				x	x	x	x	x			x	x	x	x
DCOM RPC Client ⁽¹⁾														x	x
.NET RPC Server/Client ⁽²⁾														x	x
RPC-ACI Bridge	x ⁽³⁾				x	x	x	x	x			x	x	x	x
CICS ECI RPC Server	x ⁽³⁾				x	x	x	x	x			x	x	x	x
IMS Connect RPC Server	x ⁽³⁾				x	x	x	x	x			x	x	x	x
EntireX ACI															
Broker Stubs	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Java ACI	x				x	x	x	x	x			x	x	x	x
ActiveX Control/TOR Editor														x	x
System Management Hub					x	x	x	x	x			x	x	x	x
Broker Agent	x				x	x	x	x	x			x	x	x	x

	z/OS	z/VSE	BS2000/OSD	z/VM	SUSE Linux Enterprise Server for IBM System z (64-bit)	Red Hat Enterprise Linux for IBM System z (64-bit)	Solaris UltraSPARC (64-bit)	HP-UX for Itanium 2 (64-bit)	AIX Power (64-bit)	OpenVMS for Itanium (64-bit)	IBM i	SUSE Linux Enterprise Server for x86-64 (64-bit)	Red Hat Enterprise Linux for x86-64 (64-bit) and Amazon EC2 (64-bit)	Windows 32-bit	Windows 64-bit
JMS Support					X	X	X	X	X			X	X	X	X
Attach Manager					X	X	X	X	X			X	X	X	X
Application Monitoring Data Collector					X	X	X	X	X			X	X	X	X

In accordance with the license agreement you concluded with Software AG, your EntireX license includes either full functionality or specific EntireX components.

Notes:

- (1) Application wizard for Visual Studio .NET also provided in installation kit for Windows 32-bit only.
- (2) Application wizard for Visual Studio .NET also provided in installation kit for Windows 32-bit and Windows 64-bit.
- (3) Batch only. These components included as a TAR file in the z/OS installation kit and must be copied to your z/OS UNIX environment. See *Installing EntireX Java Components under z/OS UNIX*.
- (4) Batch only. "Broker" here refers to the broker kernel, also known as broker nucleus. In all versions of EntireX under z/OS, the EntireX broker kernel runs in batch mode only, either as a job or a started task. It does not run under TSO, CICS, Com-plete or any other online environment.
- (5) Only servers are supported; a server example is delivered.
- (6) Batch only. "Broker" here refers to the broker kernel, also known as broker nucleus. In all versions of EntireX under z/VSE, the EntireX broker kernel runs in batch mode only. It does not run in any online environment.
SSL and IPv6 are not supported on this platform.

Supported RPC Protocols

RPC Protocol ⁽¹⁾	Feature ⁽²⁾	EntireX	EntireX Adapter for Integration Server	PI Adapter for EntireX	Natural			More Information
					Mainframe	ONE	Open Systems	
2000	IDL unbounded arrays	5.4	7.1	4.1.0	4.1.3	8.1	6.1.1 PL13	Unbounded arrays are arrays with variable upper bounds, see <i>array-definition</i> under <i>Software AG IDL Grammar</i> in the IDL Editor documentation. For the programming language COBOL they can be defined with an upper maximum and mapped to COBOL data items with the <i>DEPENDING ON</i> clause. See <i>Tables with Variable Size - DEPENDING ON Clause</i> . If a COBOL server is wrapped with the <i>COBOL Wrapper</i> or extracted with the <i>IDL Extractor for COBOL</i> , a server mapping file (EntireX Workbench file with extension <i>.cvm</i> or <i>.svm</i>) ⁽³⁾ is automatically created for IDL unbounded arrays.
	IDL types PU, NU	5.4	7.1	4.1.0	4.1.3	8.1	6.1.1 PL13	The data types packed and unpacked decimal unsigned support the programming languages COBOL and PL/I. See <i>IDL Data Types</i> under <i>Software AG IDL File</i> in the IDL Editor documentation.
	IDL structs	5.4	7.1	4.1.0	4.1.3	8.1	6.1.1 PL13	An IDL struct describes a user-defined type for reusability. For RPC server with a CICS channel container interface, it describes the layout of container. See <i>structure-definition</i> under <i>Software AG IDL Grammar</i> .
	IDL aligned attribute	5.4	7.1	4.1.0	n/a	n/a	n/a	The aligned attribute is relevant for the programming languages COBOL and PL/I and the server side. For other languages it is not relevant. See <i>attribute-list</i> under <i>Software AG IDL Grammar</i> .
	IDL parameters with more than 3 indices (all indices up to the parent on level 1 counted)	5.4	7.1	4.1.0	n/a	n/a	n/a	See <i>array-definition</i> under <i>Software AG IDL Grammar</i> in the IDL Editor documentation.
	IDL library or IDL program longer than 8 characters	5.4	7.1	4.1.0	4.2.6	8.1	6.3.7	Long IDL library and program names are a challenge for languages such as COBOL and Natural, which restrict program names to 8 characters. These long IDL names are nevertheless supported by EntireX. If a Natural server is wrapped with <i>Natural Wrapper</i> or extracted with <i>IDL Extractor for Natural</i> with a long IDL program name, this forces a client-side mapping file (EntireX Workbench file with extension <i>.cvm</i>) ⁽⁴⁾ and protocol 2030. If a COBOL server is wrapped with <i>COBOL Wrapper</i> or extracted with <i>IDL Extractor for COBOL</i> with a long IDL program name, this forces a server mapping file (EntireX Workbench file with extension <i>.cvm</i> or <i>.svm</i>) ⁽³⁾ to be created.
	Reliable RPC	8.0	7.2	4.1.1	4.2.5	8.1	6.3.6	<i>Reliable RPC</i> .
	CICS Channel Container	8.2.2	7.1	4.1.0	n/a	n/a	n/a	If a COBOL server with interface type CICS with Channel Container Calling Convention is wrapped with the <i>COBOL Wrapper</i> or extracted with the <i>IDL Extractor for COBOL</i> , a server mapping file (EntireX Workbench file with extension <i>.cvm</i> or <i>.svm</i>) ⁽³⁾ is automatically created. Natural RPC clients generated with the <i>Natural Wrapper</i> can call COBOL programs using CICS with Channel Container Calling Convention.
	Mixed case RPC passwords	8.2.2	8.2.2	no	4.1.4	8.1	6.1.1 PL21	Allow RPC passwords with lowercase characters. See <i>Natural Security</i> under <i>Common Features of Wrappers and RPC-based Components</i> .

RPC Protocol ⁽¹⁾	Feature ⁽²⁾	EntireX	EntireX Adapter for Integration Server	PI Adapter for EntireX	Natural			More Information
					Mainframe	ONE	Open Systems	
2010	Natural optional parameters	n/a	n/a	n/a	4.1.3	8.1	6.1.1 PL13	Optional parameters are a special Natural feature. See Natural documentation.
2020	IDL types U, UV	7.3	7.1	4.1.1	4.2.1	8.1	6.2.1	The Unicode data types support all programming languages with separate Unicode and character types such as COBOL, Natural and C. See <i>IDL Data Types</i> under <i>Software AG IDL File</i> in the IDL Editor documentation.
	Up to 99 IDL Levels	7.3	7.1	4.1.1	4.2.1	8.1	6.2.1	IDL levels are used in conjunction with parameter grouping. Parameters are either scalar or a member of the immediately preceding group that has been assigned a lower level number. See <i>simple-parameter-definition</i> under <i>Software AG IDL Grammar</i> .
2030	Natural Redefine, client-side mapping file for Natural, and other features	8.2	8.2	4.1.2	4.2.7 and 8.2.2	8.2.4	6.3.9	REDEFINES are supported by <i>IDL Extractor for Natural</i> on the server side and force a client-side mapping file (EntireX Workbench file with extension .cvm) ⁽⁴⁾ to be created. See <i>When is a Server Mapping File Required?</i> in the EntireX Workbench documentation for full list of features.
	Client-side mapping file for COBOL	9.7	9.7	4.1.2	n/a	n/a	n/a	If a COBOL server is wrapped with the <i>COBOL Wrapper</i> or extracted with the <i>IDL Extractor for COBOL</i> , a server mapping file (EntireX Workbench file with extension .cvm or .svm) ⁽³⁾ is automatically created if one is required. See <i>When is a Server Mapping File Required?</i> in the EntireX Workbench documentation. Natural RPC clients generated with the <i>Natural Wrapper</i> can send client-side mapping (containing COBOL mapping or Natural mapping) to the target RPC server.
2040	Increased precision for IDL types N, NU, P, PU	9.7	9.7	no	8.2.2	no	no	If more than 7 digits after the decimal point or more than 29 digits in total (before and after the decimal point) are used. For EntireX, the maximum number of supported digits depends on language and operating system. See notes for data types N, NU, P and PU in section <i>Mapping IDL Data Types</i> to target language environment C CL COBOL DCOM .NET Java Natural PL/I RPG XML.

n/a = not applicable

no = not supported

Notes:

1. To enable communication it is not required that both partners (RPC client and RPC server) support the same level of RPC protocol. There is a handshake to negotiate the highest protocol level supported by both ends. The RPC protocols 1110 thru 1140 (which are not documented here) may occur in communications as well if older RPC components are used.
2. To enable communication the feature used must be supported by both partners (RPC client and RPC server), otherwise communication is not possible.
3. If a client-side mapping file (.cvm) is used, protocol 2030 is forced. If a server-side mapping file is used, the protocol level is not increased. For more information see *Server Mapping Files for COBOL* and *How to Set the Type of Server Mapping Files* in the EntireX Workbench documentation.
4. For more information see *Server Mapping Files for Natural* in the EntireX Workbench documentation.