

Borland® Janeva™

Frequently Asked Questions

General Questions

What is Borland® Janeva™?

Borland® Janeva™ is designed to provide seamless connectivity between applications built for the Microsoft® .NET Framework and those built for the J2EE™ platform or the Common Object Request Broker Architecture® (CORBA®). An ideal way to lower development and integration costs in mixed IT environments, Janeva allows client- or server-based Microsoft .NET applications (including Microsoft Office applications) to access heterogeneous J2EE and CORBA server-side components—no extra bridges, hubs, or translators are needed; no extra programming knowledge is required.

Who should use Janeva?

Janeva is well-suited for organizations with existing J2EE/CORBA infrastructures that are adopting the Microsoft .NET Framework for new software development initiatives. Developers using any development environment for the .NET Framework can use Janeva to enable their new application to interoperate with existing J2EE/CORBA infrastructures.

What business problem is Janeva designed to solve?

Organizations that understand the competitive and business value of software are always in need of smarter and more cost-effective technology that helps them get to market faster. The goal is to produce more user-friendly, customer-focused applications; at the same time, they do not want to throw away technology they have already built.

Borland has many customers in the financial services, telecommunications, and government sectors, for example, with large, mission-critical J2EE and CORBA applications in production. These organizations now need to expose those applications to consumers and business partners. Rather than completely re-writing the applications for the Microsoft .NET Framework, these enterprises need only build the front-ends and use Janeva to leverage their existing J2EE and CORBA back-end systems. Janeva helps them save time and money in terms of integration.

How does Janeva compare to Web Services?

Web Services and Janeva are complementary solutions, designed to solve different problems in the platform interoperability space.

In general, Web Services provide an excellent solution where interoperability is required across Wide Area Networks, where users employ different types of clients connecting to various types of servers—Internet environments are a key example. Web Services were specifically designed for exposing applications as a set of services, where it is not known in advance what kind of client is going to invoke the service, and there is no degree of control over the architecture/technology of the client. The practice of exposing application services over the Internet is also

characterized by coarse-grained interfaces, used to minimize the number of network roundtrips required to access the application, and to reduce overall latency. The loosely coupled, coarse and “descriptive” nature of Web Services provides the necessary flexibility to match these kinds of requirements.

Alternatively, Janeva may be considered the best solution in an *intranet* environment, where businesses require a reliable, high performance, scalable, and secure interoperability solution. In addition, it is applicable when development teams have control over the architecture, design, code, and technology used for various application tiers. Under these circumstances, Janeva can be used to optimize communication between .NET clients and J2EE/CORBA back-ends. For such environments, when there are requirements for security, high throughput, usage of stateful interfaces, complex data-types, or fine-grained communication, Janeva is a great alternative to Web Services.

See the comparison table below for more details:

	Web Services	Janeva
Client	Any client	.NET specific
Back-end	Web Services	J2EE™ or CORBA®
Best high-level project fit	Internet based	Intranet based
Interface granularity	Coarse grained	Fine grained
Stateful communication	No	Yes
Native transactions support	No	Yes (full ACID)
Native security support	No	Yes
Data mapping for simple types (.NET to J2EE/CORBA)	Slow	Fast
Data mapping for complex types (.NET to J2EE/CORBA)	No	Yes

Can Janeva and Web Services work together?

Yes, they can work together. For example, Web Services could be used as a coarse-grained interface facilitated by the Web Server (IIS), while Janeva is used behind the corporate firewall, to facilitate high-bandwidth and optimized communication between ASP.NET components (or thick .NET clients) and J2EE/CORBA back-ends (or vice-versa). Note that Janeva is fully firewall-enabled, not just Internet-oriented, due to the requirement that Janeva be deployed on the client. This means that Janeva is a good solution to traverse firewalls between separate LANs in a corporate intranet.

How does Janeva compare to bridge technologies?

Some bridge solutions require a physical ‘black box’ to sit in between .NET and J2EE/CORBA components, thus necessitating more hardware and software to run. Not all bridge solutions require this extra physical component, but

in all cases, changes are required to the existing J2EE/CORBA back-ends. This, in turn, requires re-deployment; the quality or performance of the application can suffer, and it requires a working knowledge of J2EE or CORBA, as well as .NET programming models.

Janeva does not require additional hardware or software, reducing risk and cost. Janeva is embedded directly in the .NET application on the client side, and therefore requires no changes to the server/back-end.

Additionally, bridge solutions are not tightly integrated with .NET IDEs such as Microsoft® Visual Studio® .NET or Borland® Delphi.™ Janeva is designed to work seamlessly (like a plug-in) to .NET IDEs. As a result, developers do not have to learn J2EE or CORBA technology/programming. Janeva makes J2EE/CORBA look like .NET to the .NET developer, (so the learning curve is minimized. With bridge solutions, separate compiling is required, and there is no automatic mapping of J2EE/CORBA data types to .NET data types — this must be done manually, thus requiring expertise in both/all types of technology.

How is Janeva licensed?

Janeva provides two components: the development software and the production license. The Janeva development software should be used by Microsoft .NET Framework developers to build interoperability into the .NET application. When that application is ready to be deployed, a Janeva production license is required. Production licenses are available for thick-client .NET applications or thin-client (ASP.NET server) applications.

Can I evaluate Janeva?

Yes! Janeva development software is available for download from the Borland Web site without charge. Please visit <http://www.borland.com/janeva/downloads>. Once you have done your proof of concept and are ready to deploy your application, you must contact your Borland representative to obtain the appropriate production license.

How do I buy Janeva™?

See above. Borland is a worldwide organization with offices in Europe, South America, Asia Pacific, Canada, and the United States. Please visit http://www.borland.com/company/contact/where_to_buy.html or get in touch with the sales account manager in your local office through http://www.borland.com/company/borland_worldwide.html

Technical Questions

Which Microsoft® .NET Framework development environments does Janeva support?

Janeva is tightly integrated with Microsoft Visual Studio for .NET and Delphi.™ The Janeva compiler and runtime libraries can also be integrated through the open APIs of other development environments that are based on the Microsoft .NET Framework.

Which languages for the Microsoft .NET Framework are supported by Janeva?

Janeva supports the Microsoft Common Language Runtime (CLR), so any CLR-compliant language is accessible with Janeva, including C#, J#, Microsoft® Visual Basic® for .NET, and Microsoft® Visual C++® for .NET.

What technology standards are supported by Janeva?

Janeva interoperability strictly adheres to existing standards outlined for the Microsoft .NET Framework, the Sun J2EE specification, and the Object Management Group™ (OMG™) CORBA specification. Janeva does not require support for any additional standards or proprietary technology.

Which deployment platforms does Janeva support?

Built on existing and proven technology standards, Janeva enables interoperability with any other J2EE and CORBA infrastructure that complies fully with the Internet Inter-ORB Protocol (IIOP™), including BEA WebLogic Server,™ IBM WebSphere® Application Server, Oracle9i™ Application Server, IONA® Orbix® and Borland® Enterprise Server, AppServer™ and VisiBroker® Editions.

Does Janeva support enterprise features of J2EE™ and CORBA® middleware servers?

Founded on IIOP, Janeva supports advanced Quality of Service (QoS) such as load balancing, fault tolerance, transactions, security, and scalability with all IIOP-compliant J2EE and CORBA platforms.

How does Janeva work?

Developing Microsoft .NET applications with Janeva is similar to developing with Web Services. Developers using IDEs such as Visual Studio .NET or Delphi can attach J2EE and CORBA (EAR, JAR, CLASS, IDL) components to a Microsoft .NET application being developed just as a Web Services component (WSDL) would be attached. Janeva generates .NET stubs and assemblies automatically as part of the build and compile process. Janeva compilers can also be configured as external tools within Visual Studio .NET and Delphi to give the developer manual compilation capabilities as well. Janeva also includes a runtime component that is embedded in the final (deployed) application and translates .NET remoting calls to IIOP at runtime.

How much effort is required to implement Janeva?

Janeva makes J2EE and CORBA transparent to developers using Microsoft .NET Framework development environments —Janeva does not require any skill or understanding in these technologies. Also, Janeva provides an interoperable solution that requires no additional hardware or software infrastructure to be introduced into the deployment environment. Low impact and low risk is further extended without requiring changes to the J2EE or CORBA back-end and without requiring development of any new components for connectivity. Janeva not only allows the skills of the .NET developers to be leveraged with no additional training or software tools, but also allows investments in J2EE and CORBA infrastructures to be leveraged as well. This reinforces a low total cost of ownership.

Are there printed or PDF manuals available?

Yes. Complete documentation for Janeva is available on the Borland web site at <http://www.borland.com/techpubs/>. View the documentation in PDF format from your Internet browser or download the complete set to your hard drive.

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