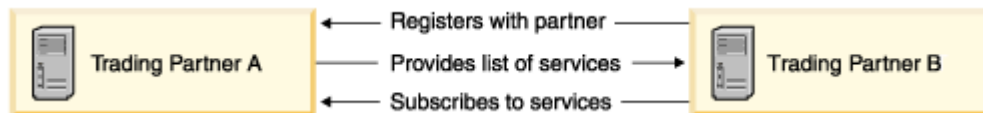# Product overview

The IBM® WebSphere® Business Connection offering enables you to engage in process and data sharing with your trading partners. For example, suppose your organization needs to communicate with trading partners or with other organizations within your enterprise. Today, that communication might take place in a variety of ways, from faxes and phone calls to customized programmatic interactions. Using IBM WebSphere Business Connection, you move to a higher, more efficient and flexible level in which communication between all partners can be accomplished through an open-standards-based programmatic interface.

The Business Connection offering provides benefits for enterprises both large and small. For a larger enterprise, for example, the Business Connection Enterprise Edition provides a complete business-process management solution. It enables the enterprise to register new subscribers quickly and easily and to provide new services to its subscribers. For the smaller enterprise, the Business Connection or Business Connection Express Edition can provide a cost-efficient way to connect a marketplace or service provider.

For example, suppose Trading Partner B is in need of a particular service. It discovers that the service is available through Trading Partner A and so it registers with Trading Partner A. Trading Partner A provides a list of services, and Trading Partner B subscribes to the desired service. In the course of registering for the original service, Trading Partner B discovers other services of interest.

The benefits accrue to both enterprises. Trading Partner B is able to connect easily with Trading Partner A and is able to get the desired service as well as see other possible services. Trading Partner A obtains a new partner to which it can make its services available.
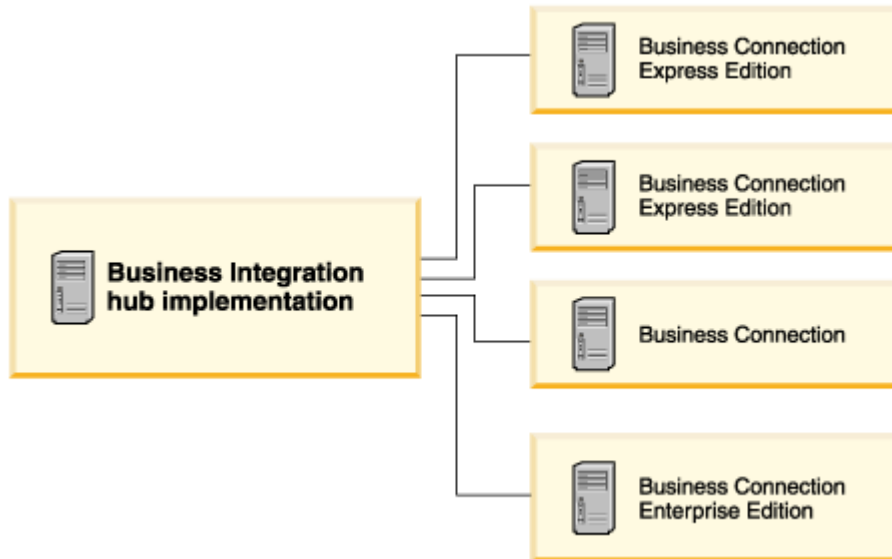
Business Connection editions

The Business Connection offering is built upon a set of IBM and partner software products and offers the following key features:

- Support for guaranteed delivery of large files across the Internet
- A federated partner profile, which is a repository containing all the information required for B2B interactions, including available services, message formats, and preferred communication protocols

The Business Connection offering is composed of the following three editions, which are designed to meet a wide range of needs:

- Business Connection Enterprise Edition
- Business Connection
- Business Connection Express Edition

A typical scenario is to have one or more of the Business Connection editions connected to a WebSphere Business Integration hub implementation, as in the following illustration.

The IBM WebSphere Business Integration hub implementation is a reference architecture and implementation that can be built through a services contract with IBM. For more information, see your IBM marketing representative.

All these products run in conjunction with the IBM e-business infrastructure, which consists of:

- WebSphere Application Server with a DB2® repository
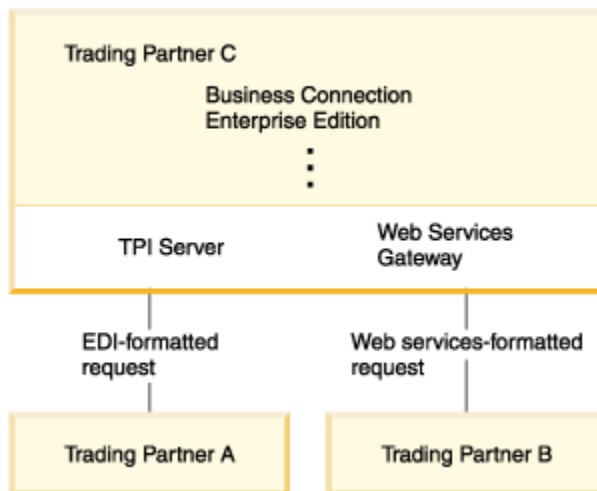- Windows® 2000 Server

The WebSphere Business Connection Enterprise Edition, which includes all the functions of the Business Connection offering, is described first, followed by descriptions of the Business Connection and Business Connection Express Edition.

WebSphere Business Connection Enterprise Edition

The Business Connection Enterprise Edition handles multiple protocols, which makes it an ideal environment for enterprises that deal with multiple partners.

Support for multiple protocols

Suppose a marketplace exchanges processes and information with several trading partners. Most of its partners use Web-service interactions, but one partner sends data via the Electronic Data Interchange over Internet (EDI-Int) protocol. The Business Connection Enterprise Edition provides support for Web services (through the Web Services Gateway) as well as for EDI-Int messages (through its Trading Partner Interchange (TPI) server and WebSphere Data Interchange). The combination of TPI Server and WebSphere Data Interchange provides a complete EDI solution that supports Internet transports as well as XML data translation.

The Business Connection Enterprise Edition (as well as the other two Business Connection editions) includes the Web Services Gateway, which means that all of them can expose their internal processes as Web services and can access external Web services. A brief overview of Web services follows.
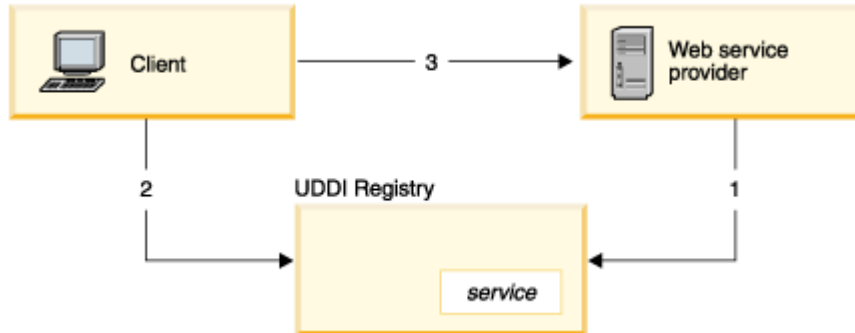
Web services

The Web Services Gateway lets you make any internal services available as *Web services*, enabling clients to access the services over the Internet. If you are the originator of a Web service, you can make the service available to selected trading partners, or you can advertise the service by placing it in a public UDDI, which is a registry in which clients can search for services.

Web Services are exposed to the outside world through the IBM Web Services Gateway. The Web Services Gateway provides a mapping between your internal service and the

way the service is exposed to the outside world. Further, the Web Services Gateway provides a reliable document delivery feature for transport over the Internet. With this feature, partners are guaranteed that even very large files, such as CAD/CAM drawings, electronic chip designs, and sales forecasts for inventory replenishment, are delivered despite transient network failures that might occur during the transmission.

The following is a general example of how a Web service can be exposed outside an enterprise.

1. The enterprise (the Web-service provider) exposes one of its internal processes as a Web service and publishes the service in the UDDI registry.
2. A client, looking for such a service, sees the Web service in the UDDI registry.
3. From the information that is published in the UDDI registry, the client finds the information needed to access the service.

The Business Connection Enterprise Edition provides a services catalog, much like a private UDDI, which an enterprise can use to list its available services.

Multiple partners

The Business Connection Enterprise Edition allows connection to multiple trading partners. For example, an enterprise might have a large number of buyers and sellers who exchange information through the enterprise.

The Business Connection Enterprise Edition can have up to 100 Web-services-based connections and one TPI-based connection.

Trading partner interactions

The Business Connection Enterprise Edition manages those trading partners who are transacting business processes collaboratively with the enterprise. It provides business processes to its trading partners, and it includes the following services to facilitate B2B interactions:

- Trading-partner management services (to facilitate registration of partners and provisioning of services)
- Document exchange services

The trading partner management services are an especially important aspect of the Business Connection editions. This is the function that allows B2B process and data sharing to occur between partners. Whenever a business process elects to send a message to a business partner, the trading partner profile is used to determine the preferred communication protocol and message format desired by the trading partner.

The Business Connection Enterprise Edition does the message transformation and packages the messages to be sent to the partner via the requisite transport mechanism. With this feature, the same public process used to interact with a partner that uses only EDI-INT could also be used to interact with a partner that prefers to use Web Services for inter-company communication.
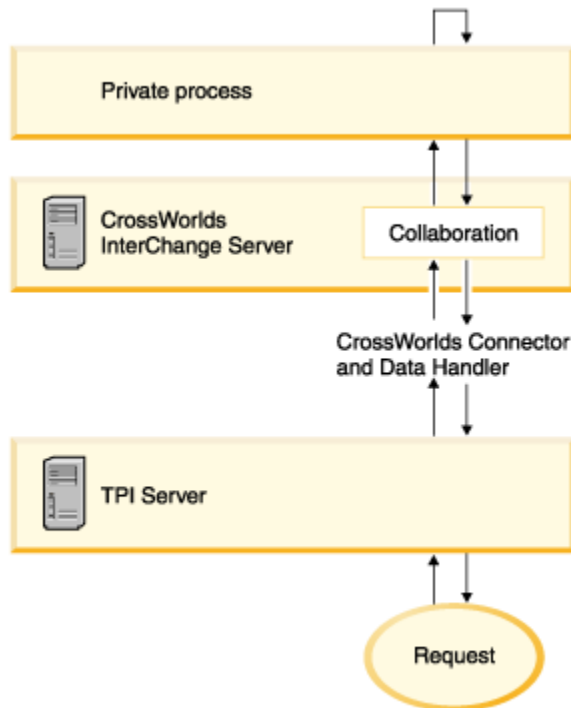
System and solution management

A System Resource Administration tool is available to set traces and trace levels and to control system operations, and a Business Process Manager lets you monitor business processes at a solution level (for example, checking business exceptions).

CrossWorlds components

The Business Connection Enterprise Edition includes several components of the IBM CrossWorlds® family of products:

- The CrossWorlds InterChange Server (ICS) provides the runtime environment in which collaborations reside.
- CrossWorlds collaborations provide process flow definitions that orchestrate the interaction of your internally and externally connected business services.
- The CrossWorlds connector and data handlers provide connectivity and data transformation capabilities.
- CrossWorlds tooling is used to create and modify collaborations.

The example below provides a high-level look at how the CrossWorlds products allow a trading partner to access the processes provided by an enterprise using Business Connection Enterprise Edition.

The request is received by the TPI Server and is transformed into a format that the CrossWorlds collaboration can recognize. The collaboration deals directly with the private application, returning the response (which is transformed again) to the trading partner.

This is a simplified view of the flow through the WebSphere Business Enterprise Edition. A more detailed description is provided in the *Architecture overview.*

Business Connection

Business Connection includes a subset of the features of the Business Connection Enterprise Edition. Business Connection:

- Includes the Web Services Gateway and TPI server
- Includes the Crossworlds Interchange Server as well as CrossWorlds tooling
- Provides trading-partner management service and document exchange services
- Provides system and solution management
- Allows one TPI-based connection and up to 50 Web-services-based connections

Business Connection Express Edition

The Business Connection Express Edition is the entry-level edition of the Business Connection offering. The Express Edition:

- Provides a SOAP over HTTP transport (Web Services Gateway)
- Provides a Web-services runtime capable of executing J2EE/Web services-based business processes only
- Allows up to 10 Web-services-based connections

As you can see, the Business Connection editions span a wide range of function. Should your requirements change, you can easily move to the next edition.

Business Connection Express Edition

Web Services Gateway

Business Connection

System Resource Administration Solution Management

Services:
• Document Exchange Partner Registration with Federated Partner Profile

CrossWorlds InterChange Server and Tooling

Trading Partner Interchange Solo

Web Services Gateway

Business Connection Enterprise Edition

System Resource Administration Solution Management

Services:
• Document Exchange Partner Registration with Federated Partner Profile

CrossWorlds InterChange Server and Tooling

Trading Partner Interchange Solo

WebSphere Data Interchange

Web Services Gateway

Where to next?

This web site includes several other documents related to the Business Connection offering. Where you go next depends on how you'll be using the system.

Where to find additional information	
If you . . .	**See:**
Want to read more about the architecture on which the Business Connection offering is built	*Architecture overview*
Are installing and configuring a Business Connection edition	*Installation and configuration*
Are the person who will be administering a Business Connection site and want to learn how to perform tasks such as viewing logs, exchanging documents, or registering a trading partner	*System administration*
Want to understand more about collaborations and CrossWorlds components in general	*Technical introduction* (on the CrossWorlds web site)
Are writing services that include collaborations and want to know the overall structure to follow and the appropriate documentation to refer to	*System implementation* (on the CrossWorlds web site)
Are writing a web service and want to see how to build and deploy it, using the sample web services provided with Business Connection	*Web Services enablement*
Want to modify the Document Exchange service or gain an understanding of the collaborations and other artifacts that make up the service	*Document Exchange*
Want to modify the Partner Registration service or gain an understanding of the collaborations and other artifacts that make up the service	*Partner Registration*