

Achieving Real Business Value with IBM Connections 4.0

IBM Redbooks Solution Guide

On a smarter planet, inter-connectivity goes beyond connecting computers and smart devices. The advance of Web 2.0 and social networking technologies has now shifted the focus to people networks; it is as much about relationships as it is about the technologies.

People are using social networking in staggering numbers. Pioneering organizations see opportunity in this shift. They are integrating social collaboration capabilities into their strategies, operations, and processes. Whether it is with customers, partners, or employees, these organizations use collaboration tools to improve efficiency, solve problems, create opportunities, boost productivity, and drive innovation that makes them more competitive and successful. Figure 1 states the IBM® vision for social networking.

IBM Connections is an industry-leading social software platform. IBM Connections incorporates sophisticated analytics capabilities, real-time data monitoring, and faster collaborative networks both within and outside the organization, whether on premises, in the IBM SmartCloud®, or using a broad range of mobile devices.



Figure 1. Social collaboration

Did you know?

According to IBM's CEO Study, today only 16 percent of CEOs are using social business platforms to connect with customers, but that number is poised to spike to 57 percent within the next three to five years. A recent IBM study of more than 1,700 chief marketing officers reveals that 82 percent plan to increase their use of social media during that same three to five year period.

IBM Connections can help business leaders to embed social connections into their key business processes to shift their business from the era of "liking" to "leading".

Business value

IBM Connections 4 integrates activity streams, calendaring, wikis, blogs, a new email capability, and more, and flags relevant data for action. It allows, for instance, collaboration with one simple click, and enables you to build social, secure communities both inside and outside the organization to increase customer loyalty and speed business results. The new Connections mail capability provides simplified access to email within the context of the social networking environment.

Figure 2 shows the applications that IBM Connections offers.

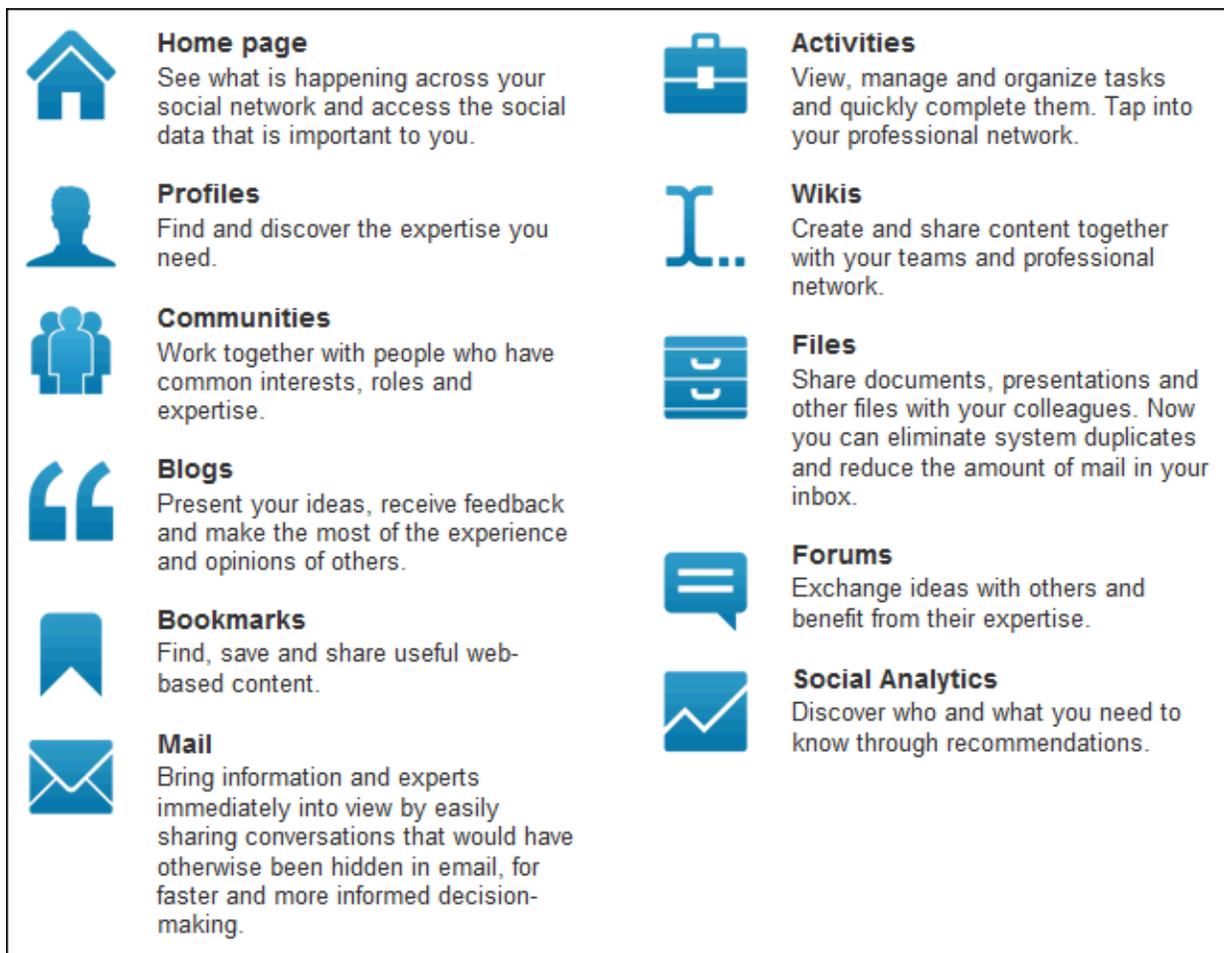


Figure 2. IBM Connections applications

Now, organizations can integrate and analyze massive amounts of data generated from people, devices, and sensors, and more easily align these insights to business processes to make faster, more accurate business decisions. By gaining deeper insights into customer and market trends and employees' sentiments, businesses can uncover critical patterns to help them not only react swiftly to market shifts, but predict the effect of future actions.

The new capabilities of IBM Connections 4 empower employees from every line of business, such as marketing, human resources, and development to gain actionable insight into the information being generated in their social networks. For example, the IBM Connections landing page features a single location that allows users to view and interact with content from any third party solution through a social interface, alongside their own company's content, including email and calendar. The embedded experience of the news feed, also known as an activity stream, allows employees from any department

within an organization to explore structured and unstructured data (such as Twitter feeds, Facebook posts, weather data, videos, log files, and SAP applications), to electronically sign documents, and to quickly act on the data as part of their everyday work experience.

Among its many benefits, IBM Connections enables your company and you to:

- Engage instantly and in context to get business done by staying on top of relevant activity in your professional networks and communities
- Act quickly and responsively to customers by pivoting rapidly between internal and external communities
- Create an ideal community experience and anticipate the needs of a community by monitoring social activity and participation
- Increase personal and organizational effectiveness by creating, connecting, and sharing in one easy to use social experience
- Access your communities from a variety of devices ranging from a PC web browser to mobile devices
- Innovate through cultivation of critical information from co-workers, colleagues, partners, and customers
- Utilize numerous points of integration with other products to establish many possible ways to create and consume multimedia content
- Exploit high scalability to meet the demands of tens to hundreds of thousands of users
- Customize and brand access points and displays to deliver an experience unique to your company

Solution overview

Figure 3 illustrates the primary deployment components that make up IBM Connections. These are the minimum required components. In some instances, components might be co-located on the same physical server. For example, while it is normally the preferred practice to install an HTTP server on a separate physical unit from the IBM WebSphere® Application Server, it might be appropriate to install them on the same physical unit in some low-usage scenarios, such as for a development or test server, or for a small proof-of-concept or pilot deployment.

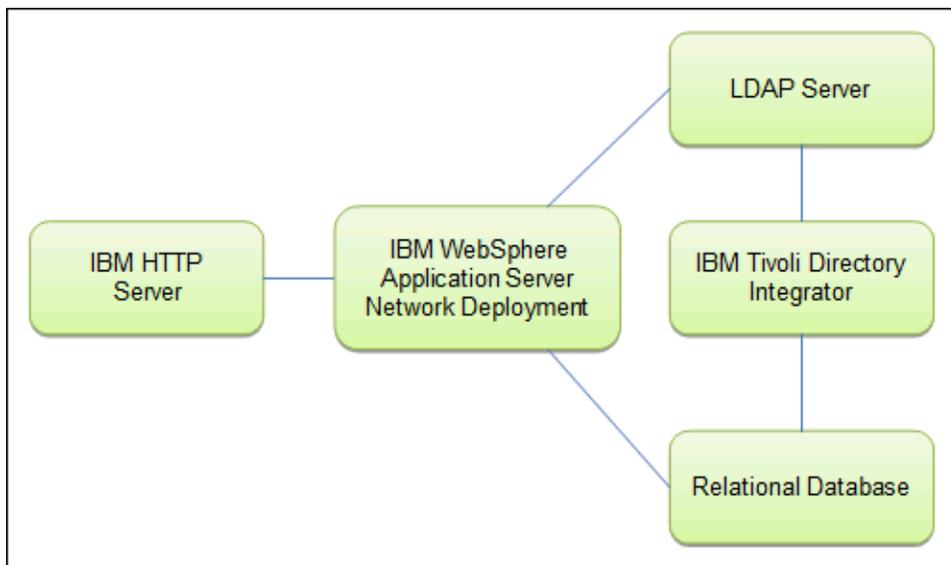


Figure 3. IBM Connections deployment components

IBM Connections requires WebSphere Application Server running on a supported operating system. A single functional feature can be installed, or multiple features can be deployed into separate application servers on the same physical instance. In addition, you can deploy features across several physical servers that are part of a network deployment cluster if the company requires a highly available environment or if IBM Connections must scale to support deployment to a large user population.

IBM Connections databases can be hosted on either IBM DB2®, Microsoft SQL Server, or Oracle. On DB2, each service's data is stored in a separate database. On Oracle, Profiles and Activities data are stored in separate database instances, while Blogs, Communities, and Dogear data are stored in separate tables that share a single database instance. With most deployments, the IBM Tivoli® Directory Integrator application that is used to populate the Profiles database is co-located with the database server.

Certain data is stored outside of databases in the file system that is accessible by the IBM Connections features. These file system components, such as indexes and file attachments, must be stored on drives attached to WebSphere Application Server. If you are deploying in a clustered WebSphere Application Server environment, each cluster instance must have access to a file share on common file servers or enterprise network storage devices.

Solution architecture

IBM Connections uses a set of J2EE-based social collaboration services tailored to support the needs of the enterprise. It consists of lightweight, independent features designed to facilitate incremental implementation and adoption by the business, while at the same time providing a simple and extensible integration framework that allows the individual features to interact when they are deployed together in an organization.

The functional features of IBM Connections include the following:

- **Activities.** Provides a means for individuals and groups to organize work, to plan and save process steps for reuse, and to collaborate easily on everyday deliverables.
- **Blogs.** Provides a weblog service available to individuals or groups to share points of view and to get feedback from others.
- **Bookmarks.** Provides a facility to save, organize, and share bookmarks to valued online resources and a means to discover bookmarks that have been shared by others.
- **Communities.** Provides a facility for creating communities of common interest, responsibility, or areas of expertise that people across the organization can join.
- **Files.** Helps provide a fast and easy way to share files with individuals and groups. The model is simple. You upload a file of any type and add readers and editors to it.
- **Forums.** Provides a convenient way to create an online discussion board where people can ask questions, share their experiences, and discuss topics of common interest.
- **Home Page.** Helps provide individuals with a consolidated view of their social data from across all of the IBM Connections applications.
- **Profiles.** Provides quick access to information about people in the organization, including the ability to search across the organization using keywords that help identify expertise, current projects, and responsibilities.
- **Metrics.** Statistics tool that collects and displays information about how people use Connections applications. Community metrics show details about a particular community; global metrics show information across all of Connections.
- **Wikis.** A tool for creating wikis that individuals, groups, and communities can use to capture, share, and coauthor information, and view page changes, recommendations, and comments.

Figure 4 illustrates the logical architecture of IBM Connections features. It consists of the following:

- Clients used to access the features
- HTTP transport and proxy caches
- J2EE container that hosts and controls access to all IBM Connections features and data
- Back-end systems for use by those features for authentication, data storage, and integration with external messaging systems

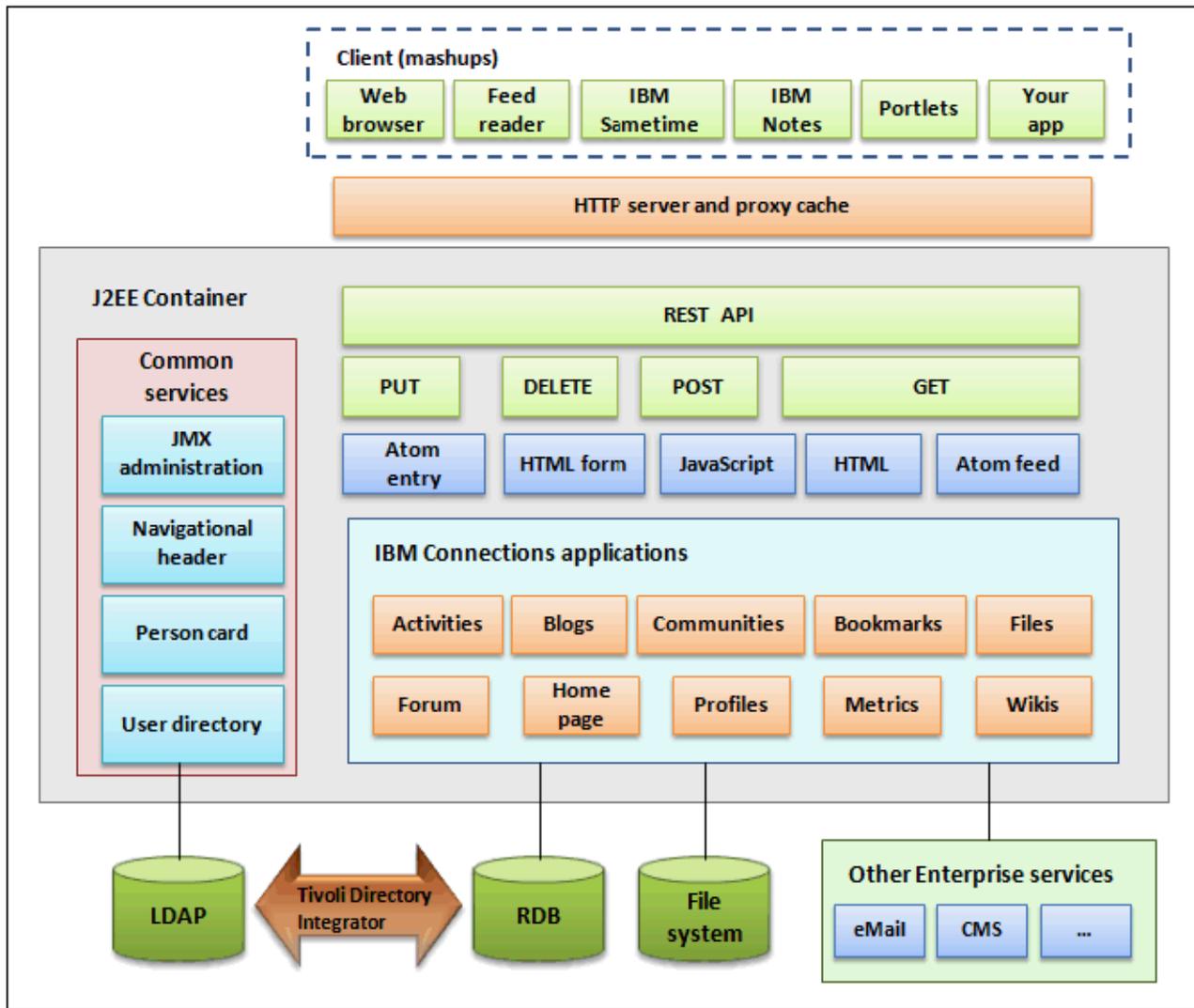


Figure 4. IBM Connections logical architecture

IBM Connections provides features to various types of clients over standard web ports through an API based on the REST protocol and the Atom standard. While several means of accessing the features are provided natively, such as browser access and application plug-ins for IBM Sametime® or IBM Notes, the API is designed to allow customers to create, update, query, and manage IBM Connections information from their own custom applications.

Because the IBM Connections REST API is similar in structure to HTTP (in fact, HTTP is a REST-based protocol), and because it uses the same transport layer as standard web servers, calls to the features are compatible with standard web servers and proxy servers.

The API allows information to be entered and managed using POST, PUT, and DELETE methods with the service data encapsulated in an HTML form or an XML Atom document. Information can be retrieved using the GET method and rendered either as an HTML or an XML Atom document, depending upon the needs of the requesting client.

In addition to the functional features that are accessed by clients, IBM Connections provides four additional common utility modules:

- JMX administration: Used to configure and manage the IBM Connections environment. Most administration functions are managed using the WebSphere wsadmin command, but others are exposed through a web interface.
- Navigation header: Allows all installed features to be aware of one another and to provide consistent web navigation to users. Extensible to include links to other external services.
- Business card: Displays consistent business card information when a person's basic Profile information is requested from within each of the features. Requires the Profiles feature.
- User directory: Interfaces to the directory used by IBM Connections for authentication, authorization, and query features.

IBM Connections also relies on several key back-end services:

- LDAP: Provides authentication and authorization services to IBM Connections and serves as the primary data source for person information used by the Profiles feature.
- Relational database: Stores databases and tables needed by the IBM Connections features. Each functional feature has its own data store.
- Data integration (IBM Tivoli Directory Integrator): Extracts person information from enterprise data sources, such as the LDAP directory, and pushes that information to the Profiles features database tables. Can also be configured to push updates made to Profile entries back to the original data source. Used only with the Profiles feature.
- File system: Stores service indexes, as well as service-specific data, such as file attachments uploaded to blogs or activities.
- Outbound SMTP: IBM Connections leverages an organization's existing messaging infrastructure to transmit notification messages. This can be any mail system that can accept and forward an SMTP message packet.

Usage scenarios

The world's largest and most active IBM Connections deployment is in IBM. The W3 Connections Community (Figure 5) provides IBM employees with the vehicle to leverage the power of social networking to make the entire organization and project teams more connected and productive.



Figure 5. IBM W3 Connections Community

Integration

Organizations need to become more integrated and social in how they communicate, innovate, and make decisions. IBM Connections Suite combines marketplace leading social software with real-time social communications and document management to foster business competitiveness and growth.

IBM Connections Suite consists of:

- IBM Connections
- IBM Sametime Advanced
- IBM Sametime Unified Telephony Lite Client
- IBM FileNet® Content Manager (restricted use)
- IBM Lotus® Quickr® Connectors

The benefits of this integrated environment are summarized in the following list:

- Immediate and cost-effective ways for people to communicate, collaborate, and take action across an extended business network can help your organization transform into a social business and create competitive business value.
- Trusted expertise from an extended internal professional network is quickly accessed via embedded presence awareness. Immediate access to your organization's collective intelligence helps execute business tasks more efficiently and make decisions faster.
- Integrated online meetings, a softphone, and advanced community tools reduce corporate telephony and travel costs with a standards-driven approach to real-time collaboration within an encrypted, authenticated, and managed environment.
- Document libraries for Communities help to effectively share content and knowledge across teams and the broader organization while keeping information appropriately managed and secure.
- Availability on a broad array of mobile devices and tablets empowers a nimble social business with powerful native client access from a wide range of devices so individuals always stay connected.

Supported platforms

IBM Connections supports AIX®, Linux, and Windows platforms. For hardware and software requirements, see

<http://www-01.ibm.com/support/docview.wss?uid=swg27012786>

The program's specifications and supported operating environment information might be found in documentation accompanying the program, if available, such as a readme file, or other information published by IBM, such as an announcement letter. Documentation and other program content might be supplied only in the English language.

Ordering information

IBM Connections is available through IBM Passport Advantage® in a Passport Advantage media pack or through electronic download. Publications are not shipped with the product.

The Licensing Information form number for IBM Connections is L-CMAS-8D9PLG.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Related information

For more information about IBM Connections, see the following documentation:

- IBM Offering Information page (to search on announcement letters, sales manuals, or both):
<http://www.ibm.com/common/ssi>
On this page, enter IBM Connections, select the information type, and click **Search**. On the next page, narrow your search results by geography and language.
- Visit the Passport Advantage® website:
<http://www.ibm.com/software/passportadvantage>
- IBM Connections Sales Manual:
<http://ibm.co/10lclpV>
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- IBM Connections Product Documentation
<http://bit.ly/T4thnB>
- IBM Connections Wiki:
<http://www-10.lotus.com/ldd/lcwiki.nsf/xpViewCategories.xsp?lookupName=Community%20Articles>
- Installing and Deploying IBM Connections:
<http://www.redbooks.ibm.com/abstracts/tips0994.html>

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