

Jabber XCP

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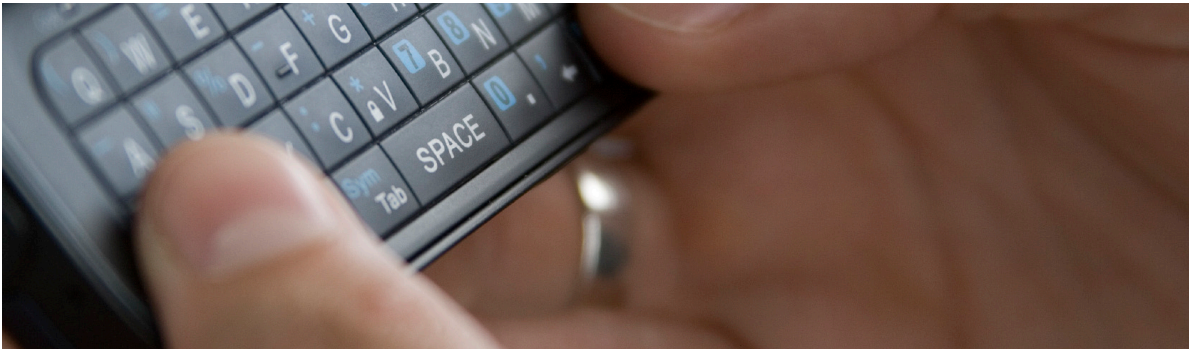
The Web 2.0 era is defined by presence, the ability to see the status and availability of a person, device, system, application, service, or network. Presence is the critical enabling technology for applications and services that are distributed, take place in real time across social networks or corporate work groups or a company's IT infrastructure or even within a home, and utilize all available forms of media and devices. Since our company's founding in 2000, we at Jabber, Inc. have been committed to driving the development of a whole new generation of presence-enabled applications, services, and business processes with our market-leading Jabber Extensible Communications Platform™ (Jabber XCP™) presence and messaging platform.

Early adopters of presence-based applications were companies in sectors at the leading edge of real-time communication, (e.g., Wall Street traders, emergency first responders, the military, and mobile operators) who wanted to integrate presence and messaging into their consumer offerings. Soon, the possibilities of presence as an enabler of unified communications came to light. Instead of desk phones, mobile phones, email, instant messaging (IM), and other applications being separate, unconnected systems, they can be aggregated to consolidate communications. And the uses of presence keep growing; it seems that nearly every day, an enterprising company has discovered an innovative new way to harness the

Power of Presence®: online gaming, social networking, lightweight message oriented middleware for network or application monitoring, and Internet video conferencing are just a handful of examples.

Web 2.0 companies, online game providers, and next generation Internet application and service providers have all realized the competitive necessity of adding presence and real-time messaging to their application or service. Jabber XCP is fast becoming the platform of choice for those companies because of its proven and superior scalability, high availability, extensibility, federation, and security.

Isn't it time for your organization to become presence-enabled?



The Power of Presence

Today's truly competitive businesses, the most agile service providers, and the most sophisticated government agencies must bring real-time services to people, and also to processes and applications. Presence will be everywhere and essential for any 21st century application or service.

Government

Most government agencies today have a specific need for situational awareness. That is, complete awareness of the presence, availability, and status of people and systems involved in the national mission, but also access to real-time information and data, as soon as it becomes available.



Virtual Incident Rooms Connect First Responders

The Capital Wireless Information Net (CapWIN), a consortium of 70+ federal, state, and local agencies with overlapping responsibilities for emergency first response, needed to manage and dynamically generate teams to communicate across jurisdictions. When an incident occurs, a persistent chat room is created to enable real-time communication between all available experts and support personnel regardless of location. Along with the ability to search multiple databases, these "incident rooms" give dispersed personnel a platform to review incident discussions, gather information as it is happening, and plan a more coordinated response to each emergency. This cost-effective and simple-to-support solution eliminates information silos during emergencies and enables more fluid coordination amongst responding agencies.

First to Fight with Jabber XCP

When the United States Marine Corps (USMC) needed a comprehensive communication and collaboration solution they selected Jabber XCP as the presence and messaging platform. In a high-volume, environment where communications range from routine to critical and the success of a mission may hang in the balance, proven performance and high availability were critical factors that allowed the USMC to entrust its tactical systems communications foundation to Jabber XCP. In addition to IM, the USMC needed group communication features such as persistent group chat. Because the Marine Corps wanted a common presence platform that could integrate with new and legacy information systems, they planned to make extensive use of Jabber XCP's interoperability features, such as gateways for federation with the Session Initiation Protocol (SIP) for Instant Messaging and Presence Leveraging Extensions (SIMPLE), and Internet Relay Chat (IRC) messaging services, as well as the extensibility offered by software development kits (SDKs) for custom development.

Service and Network Providers

For service providers, Average Revenue Per User (ARPU) correlates to the volume, length, and frequency of customer interactions. Products that add value to the user experience lead to increased customer retention as well as to growth of the overall user base, and thus, have a direct impact on the bottom line. To increase ARPU, service providers need to offer presence-enabled solutions to their customers to capitalize on the potential real-time capabilities of the wide array of communications-enabled devices available on the market. And broadband network service providers that have presence-enabled their networks with specifications such as personal eventing via publish-and-subscribe (PEP) have found that the more users of their networks get accustomed to seeing their friends' moods, activities, blog posts, or other personal information, the more likely those users are to stay in their communities (i.e., the "stickier" those networks become).



Internet Video Conferencing without the Skips and Jumps

Online video conferencing provider ooVoo handles millions of video calls per month via their Jabber XCP presence-enabled video and voice application. This is no small feat when one considers the challenge of coordinating streaming video and voice so that consumers have a satisfying experience without disturbing latencies and time lags. It's an even larger feat when one considers that there are peak usage times and the quality of the service cannot decrease without disgruntled users who will quickly take their business elsewhere. ooVoo relies on Jabber XCP's linear scalability to provide a high quality of service even during peak usage times. Here at Jabber, we were so impressed by ooVoo's video technology, that our sales people use ooVoo for video conferences with customers and prospects.

Presence-enabled Social Browsing Replaces Solitary Surfing

Internet browsing is an inherently solitary activity. Or is it? Me.dium based its business on the idea that browsing was not solitary by nature, but by design. Me.dium bet that with the right technology underpinnings, surfing the web will become a group activity. Enter Jabber XCP. Me.dium's users can initiate one-to-one or group chats, add new users to private chats, post messages to the online community, and follow each other around the web. When a user in the Me.dium network moves from one website to another, Me.dium receives a notification that the user's location has changed. This information is aggregated across the Me.dium network and compared to the browsing activities of other Me.dium users. Me.dium streams the data back to each user's browser and displays a map color-coded by relationship showing who is currently on that same content. Jabber's presence platform makes it possible for Me.dium to scale quickly and connect large numbers of people even during high traffic periods.

Enterprise

Getting the right information to the right person at the right time is critical in today's business climate. Knowing the availability, location, device, and role of your colleagues ensures your communications translate to action and results.

Jabber and its web conferencing partners including Adobe®, Cisco®, and WebEx™ have customers in common that wanted best of breed solutions for collaboration and EIM. By integrating their conferencing suites with Jabber's messaging and presence capabilities, customers can click-to-launch impromptu web conferences from IM sessions to collaborate, deliver presentations, and share rich multimedia content.



For Work-from-home Nurses, Presence is Like Being There

When McKesson Health Solutions, a leading provider of healthcare products and services, decided to expand its CareEnhance NurseTriage program from beyond the brick-and-mortar confines of the call center to offer clinical nurses the opportunity to work from home, several challenges became apparent. To be effective, the application had to connect nurses to colleagues and resources in real time with the highest level of uptime. The system had to be able to meet stringent Health Insurance Portability and Accountability Act (HIPAA) patient record security requirements, be cost-effective, and not require an enormous investment in hardware, software, and maintenance. To achieve its objective, McKesson implemented Jabber XCP. Because Jabber XCP is up to four times as hardware efficient as competing systems, runs on multiple operating systems, and leverages existing IT infrastructure, McKesson was able to implement the system with minimal investment. The entire process from idea to implementation—accommodating proprietary work processes—took less than six months.

Jabber XCP Helps Prevent Web Traffic Jams

When companies receive complaints from customers about how long their websites take to load, they turn to Akamai for content peering—the task of optimizing networks and keeping websites up and running at usable rates. Customers rely on Akamai to keep their data moving and Akamai's employees rely on Jabber XCP to deliver round-the-clock customer support. Akamai implemented Jabber's presence-based enterprise instant messaging (EIM) solution, web and mobile clients, and the AOL® Instant Messenger™ (AIM®) Gateway from Jabber, Inc. so that employees can see instantly who is available to help solve a customer's problem regardless of location or device. When working onsite with a customer, tech support personnel use mobile or web clients to communicate with their Network Operating Center and persistent group chat to brainstorm potential resolutions. The solution provides 24/7 tech support coverage for 24/7 websites.

Technology Integrators/ Original Equipment Manufacturers

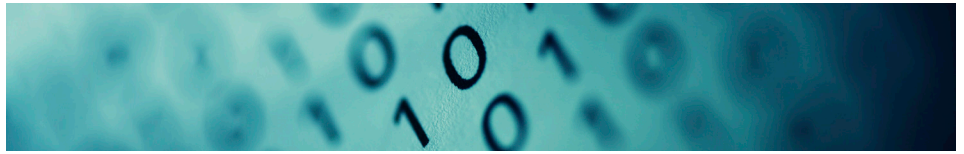
Companies that have tried know that carrier-grade presence servers capable of scaling to millions of points of presence are extremely difficult to build. As an enabling technology, any commercial-grade presence solution must contend with a staggering and ever-changing array of new and legacy systems, protocols, operating systems, hardware platforms, applications, and devices. Presence solutions must guarantee accurate and in-sequence presence data even when different types of media are involved. And, they must scale seamlessly to handle hundreds of thousands, even millions of concurrent active users. Jabber invested nearly a decade developing the leading presence platform in the industry. When presented with the decision of build versus buy, IT professionals looking for best of breed presence servers should buy from the market leader just as they would when buying a web or an email server.

Integrated Presence and Click-to-call Convenience

Nothing speaks to the power of Jabber XCP's multi-protocol platform better than when Avaya selected Jabber to build a scalable and extensible SIP/SIMPLE presence engine for its application that enables converged, aggregated presence and communication across SIP/SIMPLE and Extensible Messaging and Presence Protocol (XMPP) technologies. Additionally, Avaya collaborated with Jabber to integrate telephony presence into Jabber XCP. Now, when end users pick up the phone, presence changes automatically to "on the phone" for all other people on their Jabber IM client to see. At the call's termination, presence reverts back to its previous setting. If the end user changes presence at the application level, this change is carried over to the telephone; calls are automatically routed to voicemail when presence is set to "do not disturb" or a mobile phone when presence is set to "away." Additionally, Avaya can enable click-to-call so that a telephone call can be initiated within an IM session with a single click. There is no need to look up the telephone number and dial it into the telephone. In other words, the telephone, rather than being a stand-alone service, is part of a converged communications solution.

"Having a great time, wish you were here" Goes Real-time

In the consumer market, the Net Generation expects to share the moment, the mood, the emotion, the music. Successful service providers are those who can figure out innovative ways to enable group communication in the digital age. HP developed its OpenCall Instant Communication solution with Jabber XCP as a presence platform to allow mobile service providers to deliver personalized, content rich services so that mobile phone users can enjoy instant voice, text, and multimedia communication along with content sharing within members of groups. With OpenCall, someone belonging to a social network can see which group members are available, invite them to an impromptu meeting, initiate a group call with the push of a button, even share real-time photos or video with the entire group. A group member who is not available will see a complete history of the communication thread. To ensure easy adoption, the solution is designed to fit natural group behaviors of the fluid, dispersed 21st century community.



With more than 100,000 active users, HP is one of the largest single deployments of Jabber XCP for EIM and proof that the platform scales to meet the demands of very large and distributed information environments.

Jabber XCP Overview

As we developed the Jabber XCP server, there were many features we considered to be must-haves for a commercial-grade presence platform. First, to maximize interoperability and prevent vendor lock-in, presence platforms should be based on truly open standards and not rely on proprietary extensions. Second, to allow organizations to offer customized, highly differentiated solutions, it must provide developers ways to access and extend its capabilities. There is no such thing as a one-size-fits-all presence model. Third, it had to have all the other features we identified as imperatives. That is why today, Jabber XCP offers the most scalable, extensible, highly available, multi-protocol, and device agnostic presence solution in the industry.

Innovative companies rely on Jabber XCP to:

Integrate and build presence-based solutions. With Jabber XCP as a common presence platform, customers can integrate presence capabilities into existing applications and services or build new presence-enabled solutions.

Deploy standards based software. Jabber XCP is based on XMPP, an Internet Engineering Task Force (IETF)-approved standard for messaging and presence that has been deployed on hundreds of thousands of servers across the Internet and is being used by more than 40 million people worldwide. XMPP is mandated as a Department of Defense standard.

Support multiple protocols. We were the first to understand that the power of presence could only be realized if it worked across all networks and

multiple protocols. Still today we are the only company to offer a multi-protocol presence solution so that customers never find themselves trapped behind a technological iron curtain. Jabber XCP supports multiple protocols including XMPP, SIP/SIMPLE, Instant Messaging and Presence Service (IMPS), and many others so that presence capabilities can be extended to the widest range of businesses and communities.

Extend application capabilities. Via the SDK, our partners and customers can customize Jabber XCP using Java, C++, and other languages so that presence can be extended into any application, system, device, or service, including phone systems, workflow back-ends, and customer relationship management (CRM) systems. Jabber XCP supports multiple simultaneous connections to applications and systems.

Serve millions of concurrent users. Jabber XCP demonstrated linear scalability to over one million concurrent users in recent benchmarks and has been proven to handle message loads of more than 5,000 messages per second in sequence.

Connect to any device. Telephones, mobile phones, laptops, televisions, even household appliances—all can be presence enabled.

Ensure high availability. Since presence-enabled applications operate in real time, often in large-scale commercial settings, they need to show an extraordinary degree of availability. Jabber XCP's highly modular architecture allows redundancy of key components and can be implemented and optimized to meet specific availability requirements.

Reduce process latency. Particularly when integrated with workflow systems, Jabber XCP can help to significantly reduce lag time in business processes, eliminating dead ends and delays, by rerouting requests and approvals based on detailed presence information.

Operate at peak efficiency. Memory utilization is an issue Jabber has been working on for years. Jabber XCP runs at around 20KB of memory per user, or 50 users per megabyte of RAM, or more than an order of magnitude less than other presence servers. When one projects hundreds of thousands of concurrent connections and the implementation of multi-media, Jabber XCP not only delivers a satisfying user experience, but saves significant costs over time.

Protect IT and intellectual property.

With a full range of security/authentication features, Jabber XCP protects against viruses, spam over instant messaging (SPIM), and other malicious software (malware) while also preventing intellectual property loss. Jabber XCP incorporates Kerberos secure authentication and a Federal Information Processing Standard (FIPS) 140-2 certified Secure Sockets Layer (SSL)/Transport Layer Security (TLS) stack. Client-to-server connections are encrypted over SSL/TLS.

Deliver messages in order. Jabber XCP is the only XMPP system that has been able to solve the difficult problem of sequential message delivery without adding to latency or compromising scalability. This key architecture differentiator becomes critical in real-time data sharing applications, as out of order message delivery can have significant consequences on data flow and user experience.

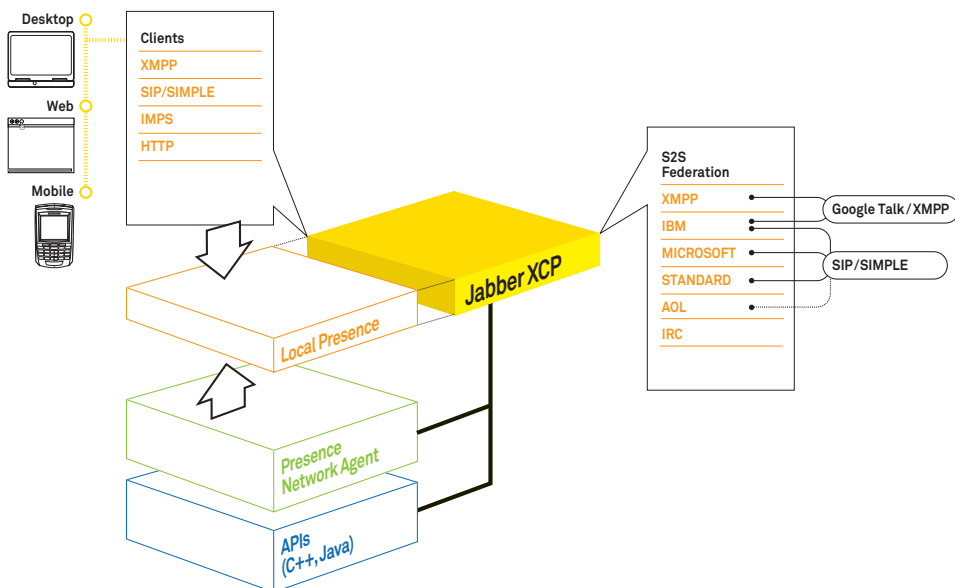
In television set-top boxes, Jabber XCP manages preferences and permissions to facilitate 'smart content' or context-based information display with personally scheduled programming (e.g., reminders based on advertisements, polls or votes based on programming, or add-to-favorites for future shopping).

Jabber XCP Architecture

Jabber XCP offers the most scalable, extensible, highly available, and device agnostic presence solution in the industry. It is built upon XMPP and is the only multi-protocol presence engine with the ability to aggregate a single view of presence in the same domain regardless of protocol. Jabber XCP’s highly programmable platform is ideal for adding presence and messaging to existing applications or services and for building next generation, presence-based solutions.

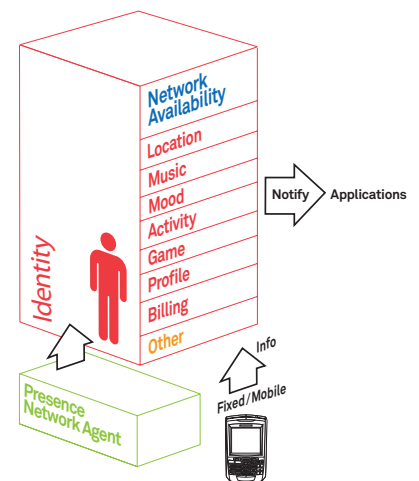
Interoperability. Interoperability is at the core of Jabber XCP’s architecture. Jabber XCP natively federates with any XMPP system (e.g., Google™ Talk) and communicates with AIM®, Microsoft®, and IBM® Lotus® Sametime via SIP/SIMPLE server-to-server (S2S) gateways. Jabber XCP also provides the tools so that customers can write their own presence network agents (PNAs) which are then enabled through Jabber XCP application programming interfaces (APIs). PNAs inject presence information into a service or application on the

user’s behalf, often from devices that traditionally don’t have presence associated with them. On-hook/off-hook (see page 7, “Integrated Presence and Click-to-call Convenience”) is an example of a PNA used to integrate private branch exchange (PBX) telephone information with a presence-based application. The tools used to create PNAs use only small amounts of code, are easy to work with, and with Jabber handling all scalability issues, greatly reduce time to market or time to deployment.



» Jabber XCP interoperability

Presence. Identity has moved beyond “Available,” “Away,” and “Busy” to offer much richer and ever-changing presence information that can include location, activity, mood, and anything else someone might want to publish. Identity is fluid (e.g., a sales person who was on the phone in the office five minutes ago is reachable on a mobile phone while on the way to a customer, then unavailable while at the customer site). Jabber XCP makes it possible to seamlessly incorporate this changing presence information into applications and services. Jabber XCP has added support for XMPP Extension Protocol 0163 (XEP-0163) or PEP, which lets users send updates about anything they wish to users on their contact list, as well as receive the information they want, when and how they want it (e.g., news feeds, stock prices, auction results, etc.). When aggregated across entire organizations or groups, subjective presence information such as mood is anything but trivial—it can move capital markets (e.g., the overall mood of employees at a trading house is shown to be bullish), determine the outcome of elections, and have a major impact on the success of corporate, military, and organizational initiatives.

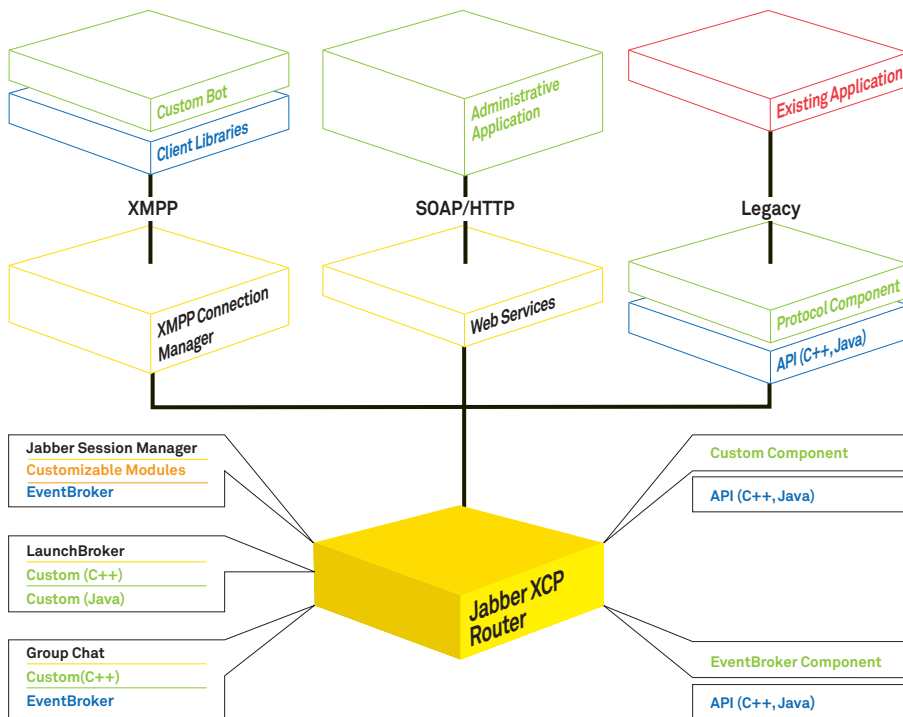


» Jabber XCP presence

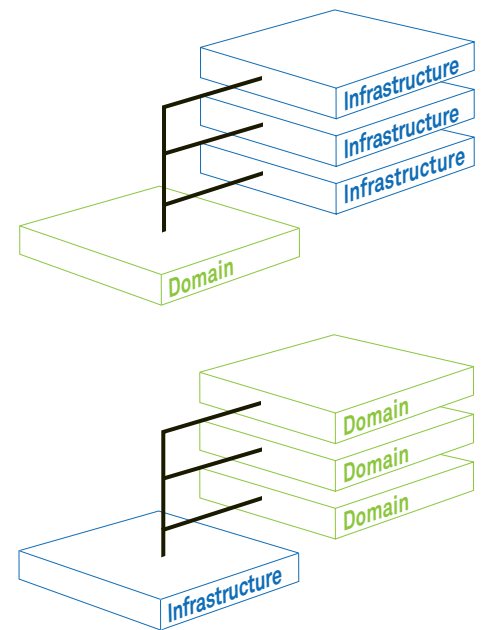
Extensibility. When it comes to presence, one size does not fit all, so Jabber XCP was designed with extensibility in mind. Jabber XCP can be modified to suit individual business needs, systems, or line of business applications. Many customers that have purchased Jabber XCP because of its flexibility as a presence and Extensible Markup Language (XML) messaging development platform have created competitive advantage, driven productivity, and reduced costs by developing unique extensions to its framework. Some of these extensions are as straightforward as an authentication modification

or as complex as a custom foreign exchange trading system integrated with back-end order fulfillment, trading workflow, and compliance systems. Using Jabber XCP extensibility options, developers have added new protocols, modified group chat business logic, launched new workflows, or intercepted system events sent from group chat or the Jabber Session Manager (JSM). Jabber XCP has many extension points ranging from simple to advanced; Jabber professional services staff can help customers develop a solution to best fit their particular application needs.

Scalability. Jabber XCP has scaled seamlessly to over one million concurrent active users using only a fraction of the hardware resources available. Jabber XCP's highly modular architecture allows redundancy of key components and supports clustering, so that load can be balanced across hardware resources. Jabber XCP also supports multiple tenants on a single hardware infrastructure, providing a platform to host services for third parties.



» Jabber XCP extensibility



» Jabber XCP scalability

Jabber XCP Developer Options

User-centric is inherent in the term presence. No two enterprises or government agencies have identical needs that can be satisfied with a one-size-fits-all presence solution. And in the telecommunications arena, network and service providers must find ways to differentiate their offerings in order to satisfy and grow their customer base. This is why Jabber provides the most comprehensive suite of developer tools and extensibility options of any presence-enabling platform.

LaunchBroker. Utilizing the XMPP-standard open command framework, XEP-0050, developers can create single- and multi-stage application extensions to Jabber XCP. The LaunchBroker component integrates with custom external commands that are written in Java. Developers can interact with third party solutions such as collaboration tools or PBXs. As an example, Jabber XCP's web conferencing support was created using LaunchBroker.

Service providers can use LaunchBroker to quickly and easily roll out new user-facing features and applications such as conferencing, search, directory assistance, and mapping/directions without modification to existing clients. Impact on the end user is minimal as new services can be added within the network infrastructure and thus automatically made available to the installed base of existing Jabber XCP-compatible clients.

EventBroker. Developers can register for events that occur within Jabber XCP. EventBroker redirects events to a developer's component, where the developer can process the protocol in generic ways. Examples include allowing or blocking messages, editing message content, and integration with back office billing systems.

Service providers can use this highly versatile component to intercept any system event (e.g., login, message, presence, subscription, file transfer) in real time to allow action to be taken by an integrated or third party application. EventBroker can be used for functions such as access authorization (i.e., to an age-restricted chat room), billing authorization and accounting, keyword blocking, and language translations.

From within their data centers, distributed organizations need to be able to run remote diagnostics on hardware installed in literally tens of thousands of locations around the globe. Jabber's presence server can aggregate status, capacity, and load information across the network to assess trends, recognize and resolve individual and system problems, and remotely assign tasks to the most appropriate machines.

InfoBroker. InfoBroker is a powerful, real-time publish-and-subscribe (pub/sub) tool that allows organizations to distribute timely information to subscribers based on rich presence and availability information. It can deliver instant content, such as news feeds or alerts and notifications, to as many end points (users or systems) as required. This is the module that allows rich presence information such as mood, geolocation, or preferred contact method to be added to Jabber XCP. InfoBroker supports XEP-0024 and now also XEP-0163 or PEP.

For service providers, Info Broker contains powerful tools for subscription management and real-time content distribution. With InfoBroker, customers can publish photo albums, music lists, mood, and other content to their private contacts; merchants can inform customers in real time of sales, status of auction bids, or other information; and content publishers can reach subscribers in real time and in accordance with availability and capacity. For example, broadband network providers vying for a competitive edge can use InfoBroker to distribute content (e.g., music, blogs, advertising, online auctions, news, sports, stock prices, and alerts) at the most appropriate time, place, and method as defined by their subscriber's preferences. PEP is an important feature that can help service providers increase their customer retention.

Web Services API. By allowing access to core messaging, contact lists, and presence functionality, presence and messaging capabilities can be integrated into other applications via a Simple Object Access Protocol (SOAP)-based Web Services interface. Web Services APIs include access to the most commonly used commands in the Jabber XCP system, including get presence, retrieve and modify roster, send message, submit to InfoBroker, and more.

Presence Mirror. Allows current presence data of all end users in the system to be echoed into any structured query language (SQL) database so that developers can easily access users' presence information for use in other applications, such as a web-based user directory.

Custom Components. But customers are not limited to Jabber's extensibility options to enhance and extend Jabber XCP functionality. Developers can use Java or C++ to create custom components that extend the functionality of Connection Managers, group chat, and IM provided in Jabber XCP. For example, service providers can create tools to route XML data and presence information to multiple backend applications so that data can be shared with billing and provisioning applications. Such solutions eliminate data duplication and business risk while improving customer service.

Developers can leverage any of hundreds of open source projects that are based on XMPP to create forward-looking solutions such as automated order agents. We also provide a standard set of client libraries that are a set of .Net controls which can be used to accelerate the development of applications using XMPP. These libraries are suitable for use in adding presence and messaging capabilities to applications and for developing stand-alone XMPP clients and bots. The libraries include support for client connections, server component connections, presence, service discovery, group chat capabilities, pub/sub, contact lists, and other operations.

Jabber XCP Interoperability Options

Imagine an email system where users could communicate only with others on that same email system. It seems unthinkable, but interoperability is not yet standard practice in presence and messaging. At Jabber, we have been committed to interoperability from the very beginning. So that our customers never find themselves trapped in walled gardens, unable to communicate with others, Jabber XCP provides the widest possible array of gateways and interoperability options available on the market.

In addition to native XMPP federation that allows Jabber XCP to communicate with any XMPP client or device (e.g., Google Talk), Jabber provides three gateways that communicate using SIP/SIMPLE protocol standards including the AIM Gateway from Jabber, Inc., Microsoft gateway, and IBM Lotus Sametime gateway. An IRC gateway is also available. These gateways allow direct communication between Jabber XCP users and users on these other networks. Similar to the way email works across various

protocols and providers, there is no need for Jabber users to set up an account on one of these systems in order to communicate or add users directly to their Jabber contact list. The gateways do not require XMPP client users to have authorization on remote systems; they are completely transparent from the user's perspective. More than one gateway can be installed to allow federation to multiple systems.

Jabber XCP also provides support for IMPS clients utilizing the IMPS server.

Professional Services

To get your presence-based application or service up and running quickly, Jabber's professional services team can help with everything from installation support, including interfacing with internal and external databases, networks, systems, applications and directories, to on-site training. Our consultants specialize in design and customization services and can help you better understand our SDKs, APIs, and XMPP. Specifically, how these technologies integrate with your systems and hardware in order to create a solution that meets your needs. Whatever your requirements are for messaging and presence, Jabber can help develop the appropriate solutions to realize your strategic objectives.

Presence Now

At Jabber, we were the first to recognize that presence was the future. We were the first to build a commercial-grade presence and messaging platform so that we and our partners and customers could develop 21st century applications to deploy in-house or resell. Giving testimonial to the power of presence and Jabber's market-leading vision, top tier companies such as BT, AT&T, Oracle, Avaya, and HP have used the Jabber XCP platform as the basis for presence-enabled applications and services.

At Jabber, we have presence-enabled our communications and collaboration. We can't imagine working any other way. Not only have we invested nearly a decade developing the most robust presence platform on the market, we have developed a commercial IM application based on the Jabber

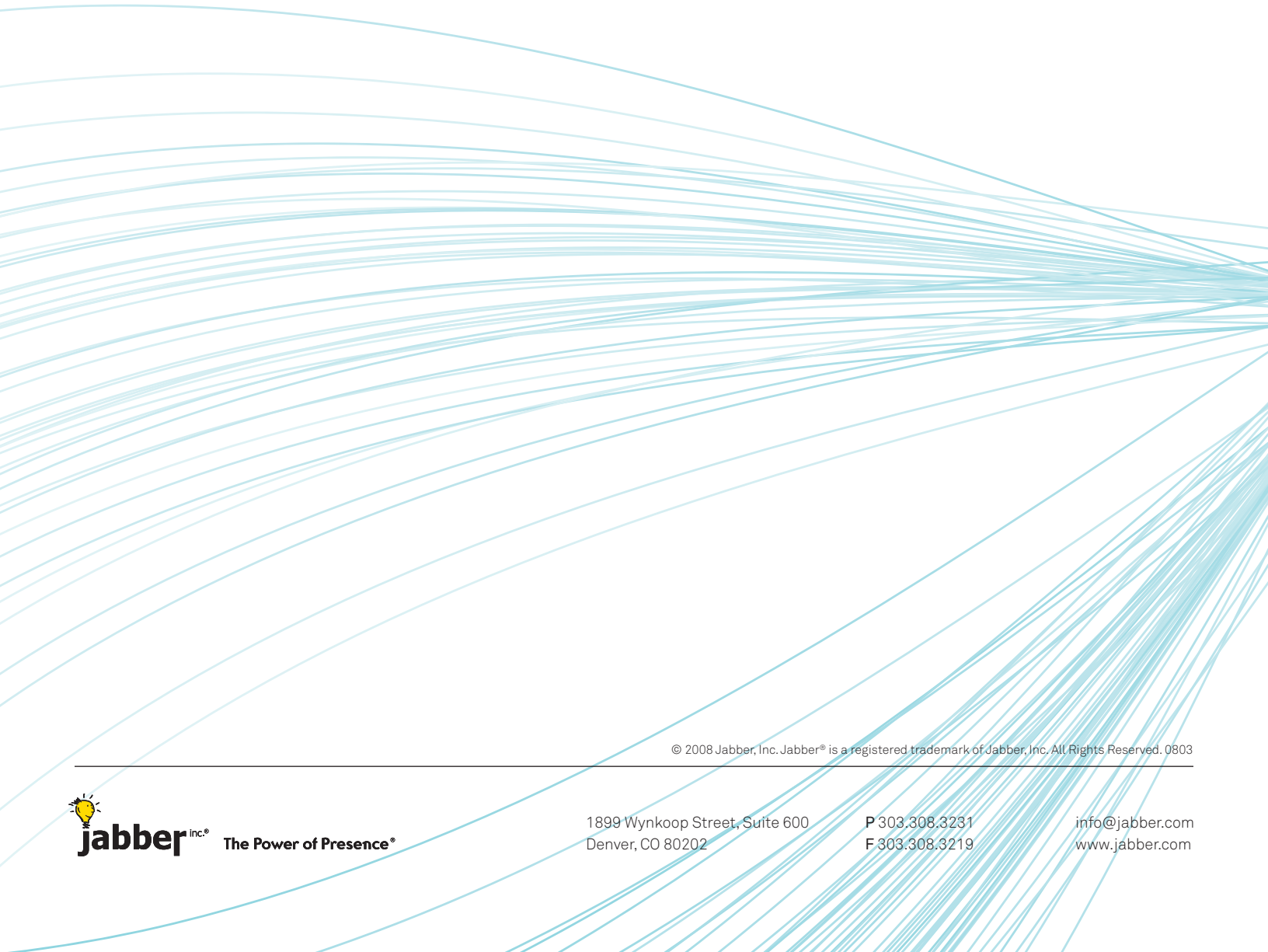
XCP technology. As both users and developers of presence-enabled applications, we know how important it is to shield end users from the incredible complexity underneath the screen interface. Our people have the expertise to help you plan, design, execute, and launch your Jabber XCP presence-enabled solutions.

Jabber XCP System Requirements

The Jabber XCP server is supported on Microsoft Windows®, Sun Solaris™, and Red Hat Linux platforms and integrates with many popular databases and directory servers.

For more information see

www.jabber.com/CE/JabberXCPFeatures.



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