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ORACLE COMMUNICATIONS INSTANT MESSAGING SERVER

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The Oracle Communications Instant Messaging Server provides a secure, scalable, extensible, and rich communication and collaboration platform. It allows telecommunications service providers, financial services firms, enterprises, government agencies, and educational institutions to leverage the power of presence and instant communication to create a highly responsive, real-time business environment of connected employee, customer, and partner communities.

SECURE, STANDARDS-BASED REAL-TIME COMMUNICATION AND PRESENCE PLATFORM
KEY FEATURES AND BENEFITS

- Comprehensive IM features including presence, multi-user chat, file transfer and avatar on PC, Mobile and the Web
- SMS gateway that delivers chats and alerts to offline users via SMS
- Integration with Convergence, the Ajax Web client for the Oracle Communications Unified Communications Suite
- Access to external networks including SIP/SIMPLE networks through federation
- Open, standards-based architecture and co-packaged gateways facilitate interoperability with other IM systems and a variety of clients
- Extensible and integratable real-time communication platform enables the embedding of presence and real-time collaboration functionalities within other applications and services
- XMPP WebSocket gateway enables reliable bi-directional data communication for browser-based real-time, interactive applications like audio/video clients and games
- Aggregated monitoring, trouble ticketing and reporting of a distributed server deployment using Oracle Enterprise Manager Plugin
- Scalable, highly available distributed architecture enables large deployments and helps reduce TCO

Secure, Extensible Communication Platform

The industry-leading Oracle Communications Instant Messaging Server integrates with the Oracle Directory Server. It provides presence information and presence-based collaboration capabilities to a wide range of additional applications, in a secure and extensible way.

Real-Time Communication

Real-time communication and collaboration has changed social and business practices, delivering benefits to both enterprise users and consumers. The foundation of instant messaging (IM) is presence awareness. Presence information tells a user which colleagues are available to help solve a problem or provide information immediately. It increases productivity and reduces response times.

IM also facilitates the work of remote teams by enabling interactive communication more cost effectively across disparate locations. Being able to communicate in real time through IM reduces the use of other more-costly and sometimes delayed means of communication: long-distance phone calls, teleconferences, e-mail, and voice mail. The ability to quickly resolve an outstanding issue improves productivity and also provides the benefit of user satisfaction. In a customer interaction, that satisfaction often leads to customer loyalty, an ongoing relationship, and ultimately more revenue.

The presence management technology in the Oracle Communications Instant Messaging Server automatically indicates who is online—even across organizational boundaries and geographical regions. Automatic activity detection updates a user's presence information without user

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input. Users can add customized text messages to their presence status to more-accurately describe their availability or location. Presence status can also be automatically updated based on user's calendar availability – an out of the box integration with Oracle Communications Calendar Server. In addition, they can choose to be "invisible," which allows them to see the presence of others but not appear online themselves.

Beyond an Application: A Foundation for Leveraging Presence

Presence can be the foundation for a wide range of real-time applications. Presence information can be used to perform intelligent routing and workflow based on available resources. In the case of a customer service desk, knowing the availability of appropriate support staff is critical to a rapid response, which in turn contributes to customer satisfaction and increased loyalty.

The Oracle Communications Instant Messaging Server provides not only a real-time communication and collaboration platform for enterprises but also a foundation to leverage presence for real-time application development. For example, the Oracle Communications Instant Messaging Server is an ideal platform to build collaborative applications like online social games, collaborative document editing, whiteboard sharing, machine-to-machine (M2M) communications.

The simple web Presence API dramatically simplifies embedding user's Presence state in business applications like employee directory listings, corporate web portals etc., without any understanding of underlying Presence technologies by the application developer.

Security, Privacy, Archiving, and Regulatory Compliance

Business users are increasingly employing public IM services to interact with colleagues and others across the extended enterprise. However, when users communicate with coworkers or customers about business-related topics via a public IM network, the integrity of enterprise information assets can be at risk. On public IM networks, messages that are sent unencrypted can be intercepted. In many industries, such as healthcare and financial services, regulations require that enterprises protect their information assets and users' privacy with secure communications.

The Oracle Communications Instant Messaging Server allows IT organizations to manage their own user populations, control their own servers to prevent interception of confidential information, ensure user privacy, and comply with industry regulations. It enables users to archive and retrieve transcripts of IM exchanges by leveraging the archive

capabilities of traditional e-mail systems as well as the search capabilities of traditional e-mail clients.

Multiple authentication mechanisms and granular access policies help ensure that users are properly identified and authorized. Communications are secured through client-to-server and server-to-server Transport Layer Security (TLS) support. In addition, the Oracle Communications Instant Messaging Server offers a sophisticated set of privacy profile controls, allowing users to specify which other users and groups can and cannot see their status, and to communicate with them.

Finally, although mostly known in the context of e-mail, spam and viruses are penetrating IM as well. As a means of protecting against spam and viruses, the Oracle Communications Instant Messaging Server provides a message conversion API that enables the scanning and filtering of message contents and attachments.

Platform Extensibility, Scalability, and Interoperability Safeguards Investments

Support for Java technology and the Extensible Messaging and Presence Protocol (XMPP) helps protect infrastructure investments by enabling the Oracle Communications Instant Messaging Server to be easily extended and customized to meet specific or changing business requirements. A number of XMPP-based clients, including mobile clients, can be used with the Oracle Communications Instant Messaging Server.

A comprehensive set of APIs facilitate openness and extensibility:

- **Service API.** Allows developers to extend IM services, embed them in other applications, or develop additional Java technology–based or Web-based clients or bridges to other classes of clients.
- **Authentication provider API.** Allows integration with alternate authentication and single-sign-on services, facilitating integration with third-party portal solutions.
- **Message conversion API.** Enables integration with content filtering, antispam, and virus protection. Both text messages and attachments can be scanned before delivery.
- **Archive provider API.** Allows integration with third-party message archiving applications.
- **Web presence API.** Enables developers to retrieve presence information from the server and display it to users.

Built for high performance and scalability, the Oracle Communications Instant Messaging Server can support very large user deployments. Gateways to external IM networks such as SIP/SIMPLE networks can be used for interoperability across the Oracle Communications Instant Messaging Server and external networks.

Oracle Communications Instant Messaging Server Capabilities

The Oracle Communications Instant Messaging Server provides a variety of collaborative features, security and privacy controls, and administrative tools that meet the needs of end users, IT administrators, and developers.

Collaborative Features

Increase the work efficiency and productivity of employees, partners, and customers through collaborative features, such as the following:

- IM and chat allow users to converse with each other—either one to one or in a group. Users can invite other users into an ongoing chat or have side conversations.
- Contact lists let users create and manage groups of contacts for collaborating with different users and groups. Users can create group contacts specific to projects, teams, and accounts.
- Conference rooms are persistent, pre-established, private discussion rooms where multiple users can collaborate. In a moderated conference room, a designated moderator facilitates the discussion by receiving, filtering, and submitting messages. Content from these conferences can be archived when a project is complete.
- File transfer enables users to share documents, media files, and any other files to supplement communications.
- Message forwarding enables users to specify the routing of messages received when offline. Store and forward options include storing until the next time the user logs on; discarding alerts sent while offline; and forwarding to e-mail, pager, or Short Message Service (SMS)–equipped mobile phones.
- User-configurable content enables users to input information to specify presence status such as “on the phone” or “at lunch.” Users can also indicate the mood of a message by changing the font and color of the text or by adding an emoticon for emphasis.
- Automatically change the Presence status to ‘Busy’ based on the user’s calendar appointment, Calendar pop-up reminders enable users to receive real-time notification of upcoming calendar events through integration with the Oracle Communications Calendar Server.
- Message archiving enables users to capture the knowledge generated within an IM session or conference, and perform a keyword search and retrieval of transcripts through a variety of e-mail servers and clients, or via the archive API and a third-party archiving solution.
- The HTTP gateway enables a connection to the IM system via the HTTP protocol, allowing clients running on constrained platforms such as Java 2 Micro Edition or browser-based Ajax clients to use the IM service.
- The SMS gateway provides a connection between the XMPP network and the Short Message Service, allowing users to deliver chat messages and alerts to offline contacts in the form of SMS messages.
- SIP/SIMPLE Federation Service (SFS) provides interworking between XMPP users and SIP/SIMPLE compliant platform users.
- The XMPP WebSocket gateway enables the Instant Messaging Server to support the WebSocket protocol for XMPP. This allows WebSocket client applications that require reliable bi-directional interactive data communication like audio/video applications, notifications, and games to communicate with the IM Server.

Security and Privacy Controls

Ensure security, privacy, archiving, and regulatory compliance with the following features:

- Session encryption through client-to-server and server-to-server TLS support protects the integrity of communications.
- Extensive privacy controls allow users to exercise control over who can see and communicate with them, delivering authorization for presence access as well as communication access.
- Spam and virus protection is enabled through a message conversion API, which enables scanning and filtering of message contents and attachments.

Centralized Administration, Management and Monitoring

Reduce the total cost of ownership (TCO) with centralized administration, management, monitoring capabilities, such as the following:

- Ease of installation and administration enables both rapid deployment and lower TCO.
- Simple server-to-server configuration facilitates the rapid deployment of distributed servers across multiple datacenters.
- Command line utilities to get-set configuration options. Configuration data is stored internally as XML. In an upgrade, all old configurations are migrated to the new sub-system, and are retained for reference and fallback.
- Extensive Logging for recording detailed transactions between client and the servers.
- Auditing of message transcripts is possible through the message archiving feature, which enables storage of message transcripts within a fully searchable database. Archiving allows institutions in finance and healthcare to comply with industry regulations.
- Extensive monitoring of distributed servers and aggregated collection of various useful metrics including number of active users, chat rooms, number of participants in chat rooms, average message transfer rate, average users login rate, federated connections etc., help the administrator in better capacity planning to improve the overall QoS
- Monitoring the servers using the Oracle Enterprise Manager Plug-in provides comprehensive, aggregated monitoring, trouble ticketing and reporting functions out of the box. Servers can also be monitored independently using any JMX compliant console.

Open, Scalable and Flexible Platform

Support large or small deployments with an easily scalable, open architecture, featuring capabilities such as the following:

- Open standards such as XMPP, HTTP, SIP/SIMPLE, WebSocket, Java technology, and TCP/IP facilitate integration with other software applications as part of a total real-time collaboration solution.
- A modular, scalable architecture with message-routing multiplexers, multi-server nodes in a pool (cluster) and server to server federation enables highly available and reliable deployments supporting hundreds of thousands of users.

- The Oracle Communications Instant Messaging Server can be used with any XMPP-compliant client, including many open source clients that aggregate contacts from public networks.
- Published APIs allow developers to extend and enhance presence and real-time collaboration capabilities, security and authentication mechanisms, and user interfaces.
- XMPP PubSub a building block for applications that require real-time Push notifications/data services.

PLATFORMS AND REQUREMENTS

Operating Systems and Platforms.

- Oracle Solaris 64-bit SPARC and x64 10, 11
- Oracle Linux 7, Red Hat Enterprise Linux 7

System Requirements

- Server deployments: Java 2 Runtime Environment, Standard Edition 7 or later
- Server disk space: 300 MB, plus 5 KB per user
- Memory: 256 MB minimum

Supported Browsers

- Chrome
- Internet Explorer
- Firefox
- Safari

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For more information about Oracle Communications Unified Communications Suite, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.