

IETF Hiroshima Meetup

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Real-world Web Sockets

Introduction

- John Fallows, CTO @ Kaazing
- Kaazing Corporation
 - Founded May 2007
 - Based in Mountain View, California, USA
 - WebSocket vendor – Kaazing Enterprise Gateway

WebSocket Contributions

- Naming JavaScript APIs
 - TCPConnection becomes WebSocket
- Wire Protocol Handshake
 - TCPConnection: Hello / Welcome
 - WebSocket: HTTP with Upgrade

Use-case: Financial Institution

- Java Messaging Service in the browser
 - Full protocol capabilities, e.g. transactions
 - JMS over WebSocket
- Unified programming model
 - Desktop and browser clients
- Scaling out to large user population
 - > 100K connections

Use-case: On-line Gaming

- Advanced Message Queuing Protocol
 - AMQP over WebSocket
 - Full protocol capabilities, e.g. flow control
- Scaling out to large user population
 - > 100K connections
 - Geographically distributed

Use-case: Social Networking

- eXtensible Messaging and Presence Protocol
 - XMPP over WebSocket
 - Full protocol capabilities, e.g. presence
- Scaling out to large user population
 - > 100K connections
 - Geographically distributed

DEMO

“Web Sockets in action”

Summary

- WebSocket wire protocol easily implemented
 - HTTP-friendly TCP for the browser
- Minimizing network traffic reduces overhead
 - Reduced CPU, memory, improved scalability
- Customers value full protocol capabilities
 - Transactions, flow-control, presence
- WebSocket is a foundation for any protocol
 - TCP-based for now, possibly SCTP, others later