AMQP in Action

By members of the AMQP Working Group
QCon London, March 2009
Who’s talking today

**John O’Hara, JPMorgan**
- Started AMQP, Chair of AMQP Working Group
- JPMorgan Senior Architect and Distinguished Engineer

**Pieter Hintjens, iMatix**
- CEO iMatix and creator of OpenAMQ and 0MQ

**Alexis Richardson, CohesiveFT**
- Director of CohesiveFT who sponsor Rabbit MQ

**Carl Trieloff, Red Hat**
- Senior Consulting Engineer, Director for Red Hat MRG
- Chair of Apache Qpid project
AMQP was born of frustration

MOM needs to be *everywhere* to be useful

- dominant solutions are proprietary
- too expensive for everyday use (Cloud-scale)
- they don’t interoperate
- incumbents stagnating
- has resulted in lots of ad-hoc home-brew
  - *how hard can middleware be?*

Middleware Hell

- 100’s of applications
- 10,000’s of links
- every connection different
- massive waste of effort

The Internet’s missing standard

- *Why has no one done this before?*
AMQP Capabilities

An *Internet Protocol* for *Business Messaging*

- A Protocol (not an API) for maximum interoperability
- Queuing with strong Delivery Assurances
- Event distribution with Flexible Routing
- Large Message capability (gigabytes)
- Global Addressing Scheme (email-like)
- Meet common requirements of mission-critical systems
  - Robust, available, scalable, secure, resilient
  - Aims to be stable over the long run
  - Platform agnostic and totally open

AMQP delivers this in one handy protocol

- Candidate for a common infrastructure for the enterprise
- A foundation for other protocols and products

www.amqp.org
AMQP Roadmap

- AMQP 1.0 this year

- Key features
  - Simplified Architecture
  - Stronger Transaction Model
  - Global Addressing
    E.g. “forex@jpmorgan.com”

- Current implementations are AMQP v0-91 and v0-10
  - Implementer commitment to painless 1.0 migration
  - 1.0 will be finalised only after extensive inter-op testing
  - Now is the right time to embrace AMQP

- Join us at the AMQP Conference
  - Presenting AMQP 1.0 Public Review
  - April 1, University of California at San Diego
  - www.amqp.org for details
“High touch” global trading application

- Hundreds of client GUI’s subscribe and unsubscribe to only update the visible screen as users scroll through thousands of stocks!
- Routes messages based on header properties – not a topic tree
- Runs across Windows, Linux, Solaris; C++, Java, .NET
- 1 billion messages per day; live for 3 years