# Messaging, Realtime and Grid

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http://www.redhat.com/mrg

# Quality Engineering

## http://fedoraproject.org/wiki/QA

- Audience (possible new hires)
- Skills (what you may need to know)
  - Programming languages
    - Shell (automated tests), C (kernel), C++, Java, Python, Ruby, .NET
  - RPM packaging
  - Understanding of TCP/IP networking
  - VCS': GIT, Subversion, CVS



# Grid

`http://www.cs.wisc.edu/condor`

- Condor Project from University of Wisconsin
  - High-Throughput Computing in contrast to HPC
  - Scavenger: unused desktop computation power
  - Scalable: large pools (hundreds of machines)
  - Use-cases:
    - Animation “Render Farm”
    - Scientific simulations
    - Fast messaging-based low-latency “calculator” accepting jobs and sending their results via AMQP



# Realtime

## http://rt.wiki.kernel.org

- “rt” patch for Linux
  - Low latency
  - Use-cases:
    - Financial market data (multicast messaging)
    - Multimedia – Audio and Video recording/playback
    - Seismic analysis
    - Military – navigation, image recognition
  - See also presentations from Real Time Linux Workshops located at http://www.osadl.org



# Messaging

## http://qpid.apache.org

- Apache Qpid
  - AMQP broker
    - C++, Java (not in-sync with C++ broker)
    - HA clustering (using corosync – was: OpenAIS)
    - Broker federation
    - Persistent store
  - AMQP client
    - C++, Java, .NET, Ruby, Python
- QMF (MMF) Management interface
  - Cumin (web-based GUI front-end to MRG)



# Questions?

`http://www.redhat.cz/jobs`

- How does Red Hat make living out of this Open Source stuff?
- MRG covers new and interesting technology often requested by customers.

Thank you