**Fuego Toolkit: A Modular Framework for Content-based Routing**

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**Introduction**

- Content provisioning and delivery are becoming increasingly popular and important.
- Open Source Fuego content-based routing toolkit was developed at HIIT between 2002 and 2007
- Components include:
  - Extensible router core
  - Data structures: forest, poset, and variants
  - Filter merger
  - Filter partitioner
  - Mobile support (J2ME)

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**Overview**

Application Programming Interfaces (APIs)

- Metadata-based group tracking
- Data Synchronization API
- XML Merging and Differencing API
- Event Service API
- Filter API
- Web Service Execution API

Implementations

- DataSpace implementation
- Syxaw XML-aware Synchronizer
- Fuego Content-based Router

- XML Processing API
- Messaging API
- Host Identity Protocol API

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**Event Service**

- The client-side API is similar to JMS and includes session management
- The server-side provides a framework for content-based routing with optimizations for mobility support
- Generic router implementation allows pluggable routing algorithms and routing table user interfaces
- Server functionality is split into two parts: routing module and local client module
- Routing topologies such as hierarchical, peer-to-peer, and clusters are supported by the toolkit
- The default filtering language is based on typed tuples and supports the determination of covering and overlapping relations
- The server has a Web interface for inspecting routing tables and information pertaining to local clients

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**More information:**

[www.cse.tkk.fi/Datacommunications/Research/Software](http://www.cse.tkk.fi/Datacommunications/Research/Software)