



The Elk Project

<http://elk.itn.liu.se>

Claes Buckwalter
Linköping University

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About the Elk Project

- Idea presented at Drupa 2004
- Development started in August 2004
- Project goal:

To design and implement an application framework in Java that provides the basic services needed by JDF-enabled software.



The Elk Project

- Consists of two separate parts
 - The Elk Framework
 - Mainly specifies interfaces and abstract classes
 - The Reference Implementation
 - Concrete implementations of the framework
 - A web application

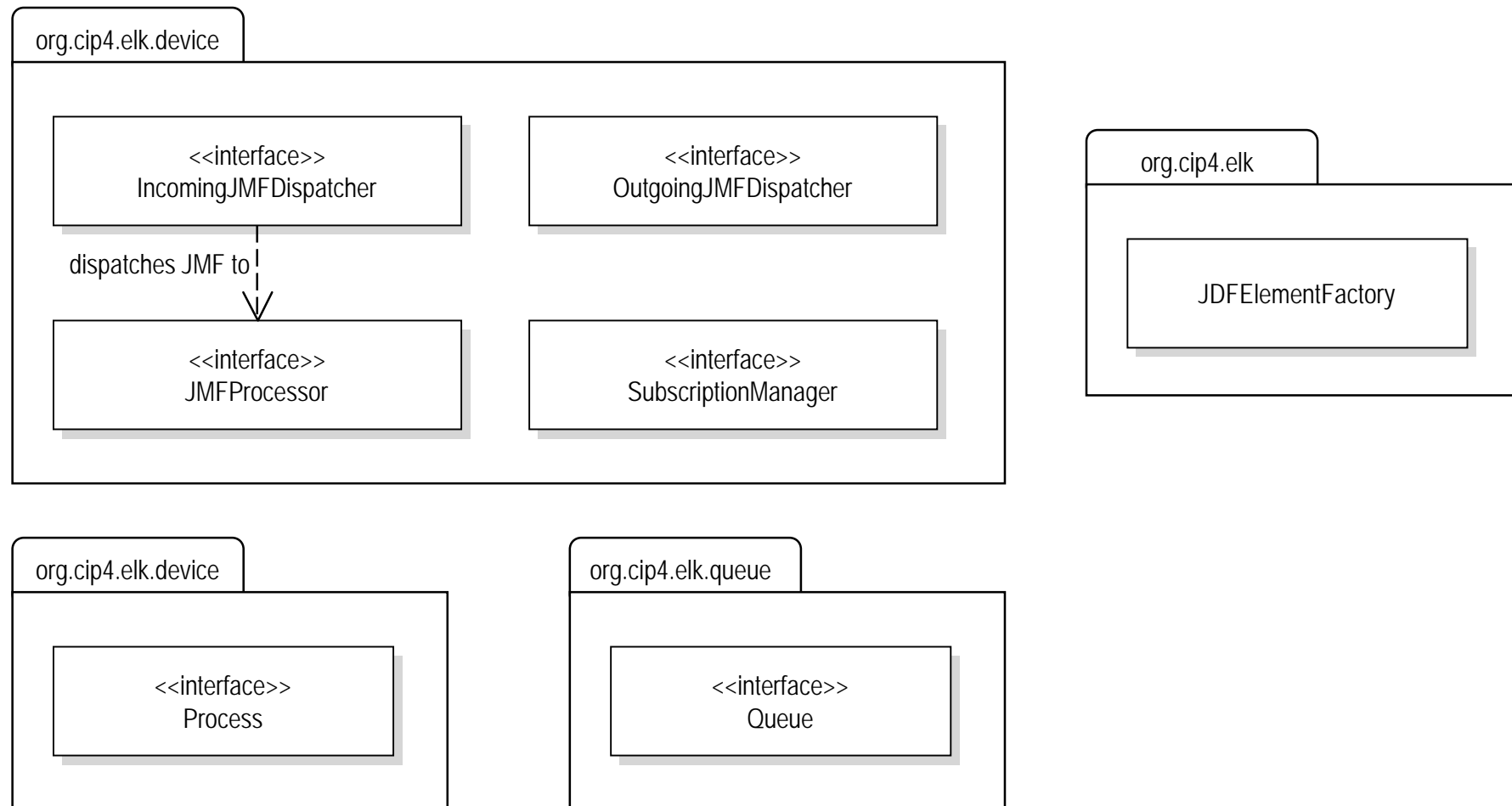


The Elk Framework

- Package name: **org.cip4.elk**
- Interfaces and abstract classes that specify the services needed by a device:
 - Incoming/outgoing message dispatchers
 - JMF processors/handlers
 - JMF servlet
 - Queue
 - Process
 - Subscription manager
 - Factory for JDF elements



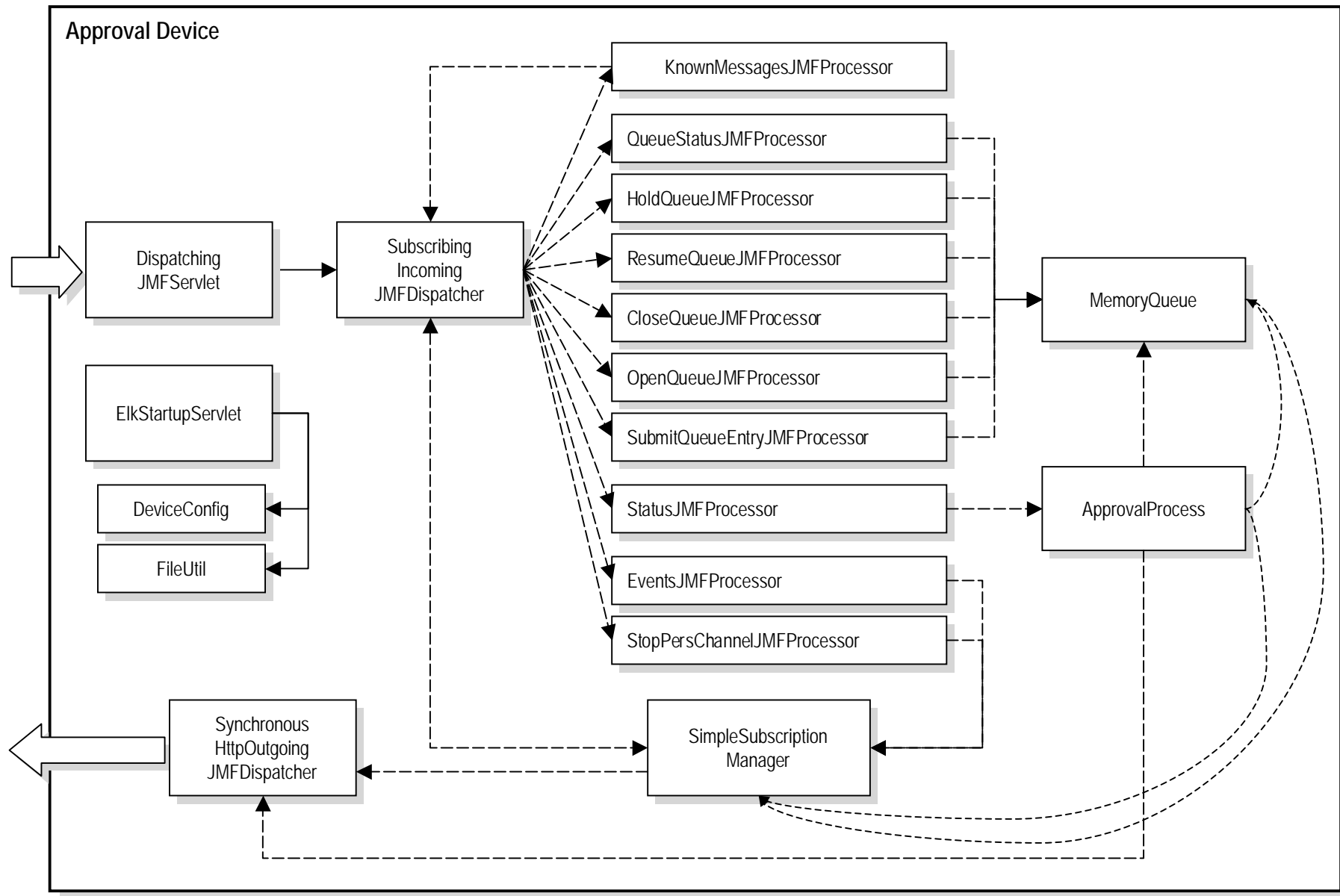
Overview of Important Classes





Reference Implementation

- Package name: **org.cip4.elk.impl**
- Concrete implementations of the classes defined in the Elk Framework:
 - Dispatching JMF servlet
 - Synchronous message dispatchers
 - 10 JMF processors
 - Memory-based subscription manager
 - Memory-based queue
 - Approval process
 - MIME package reader
 - Tool for accessing URLs (*http, https, file, ftp, WebDAV*)





Test Tools

- Command-line client for sending JMF, JDF and MIME
 - Proxy support
 - HTTPS support
- Servlet for testing MIME package clients
<http://elk.itn.liu.se/elk/mime>



To Be Done...

- The Elk Framework
 - Refactor JMFProcessor into 3 interfaces
 - SignalProcessor
 - QueryProcessor
 - CommandProcessor
 - More inter-device events
 - Add/refactor as reference implementation evolves
- Reference implementation
 - Full compliance to Base JCS Level 3
 - Add support for all JMF message types
 - Asynchronous messaging
 - Full subscription/persistent channel support
 - Receive and submit MIME
 - Full queue support
 - A better process implementation

Help wanted!





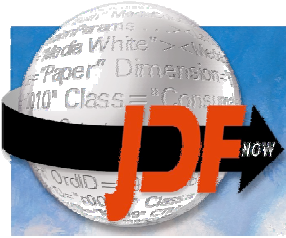
Live Demo

- **<http://elk.itn.liu.se/elk/jmf>**
The reference implementation web application. Send a *KnownMessages* Query to it to find out what it can do.
- **<http://elk.itn.liu.se/elk/mime>**
For testing clients that send MIME packages. Send a MIME packages to it.



More Information

- The project web site: **<http://elk.itn.liu.se>**
 - Binaries
 - Source code
 - Documentation
 - Javadoc
 - Developer's tutorial
 - Design, UML



Thank you for listening!

Claes Buckwalter

clabu@itn.liu.se

<http://www.itn.liu.se/~clabu>