



The Elk Project

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

Claes Buckwalter
Linköping University

Sunday, April 24, 2005
PIA/GATF, Pittsburgh



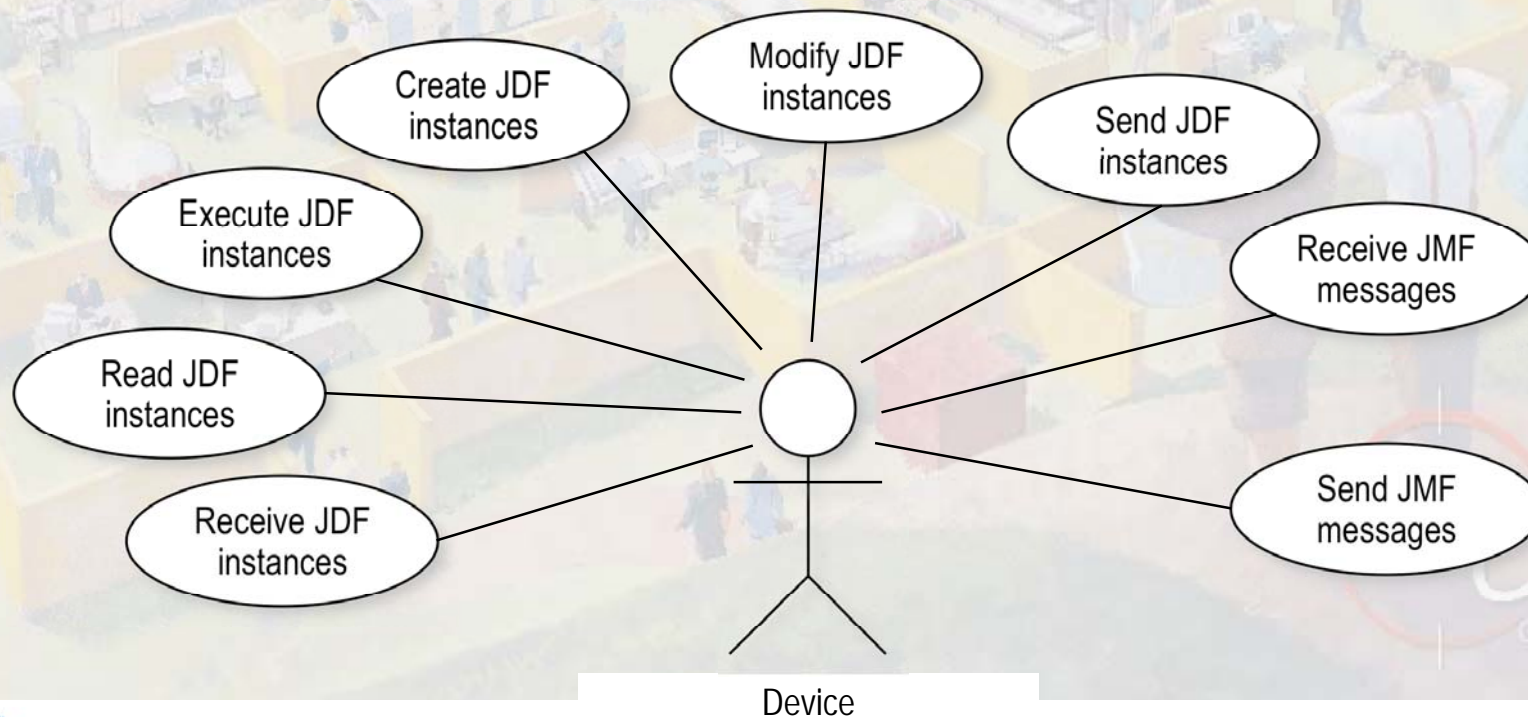
Linköpings universitet
INSTITUTE OF TECHNOLOGY





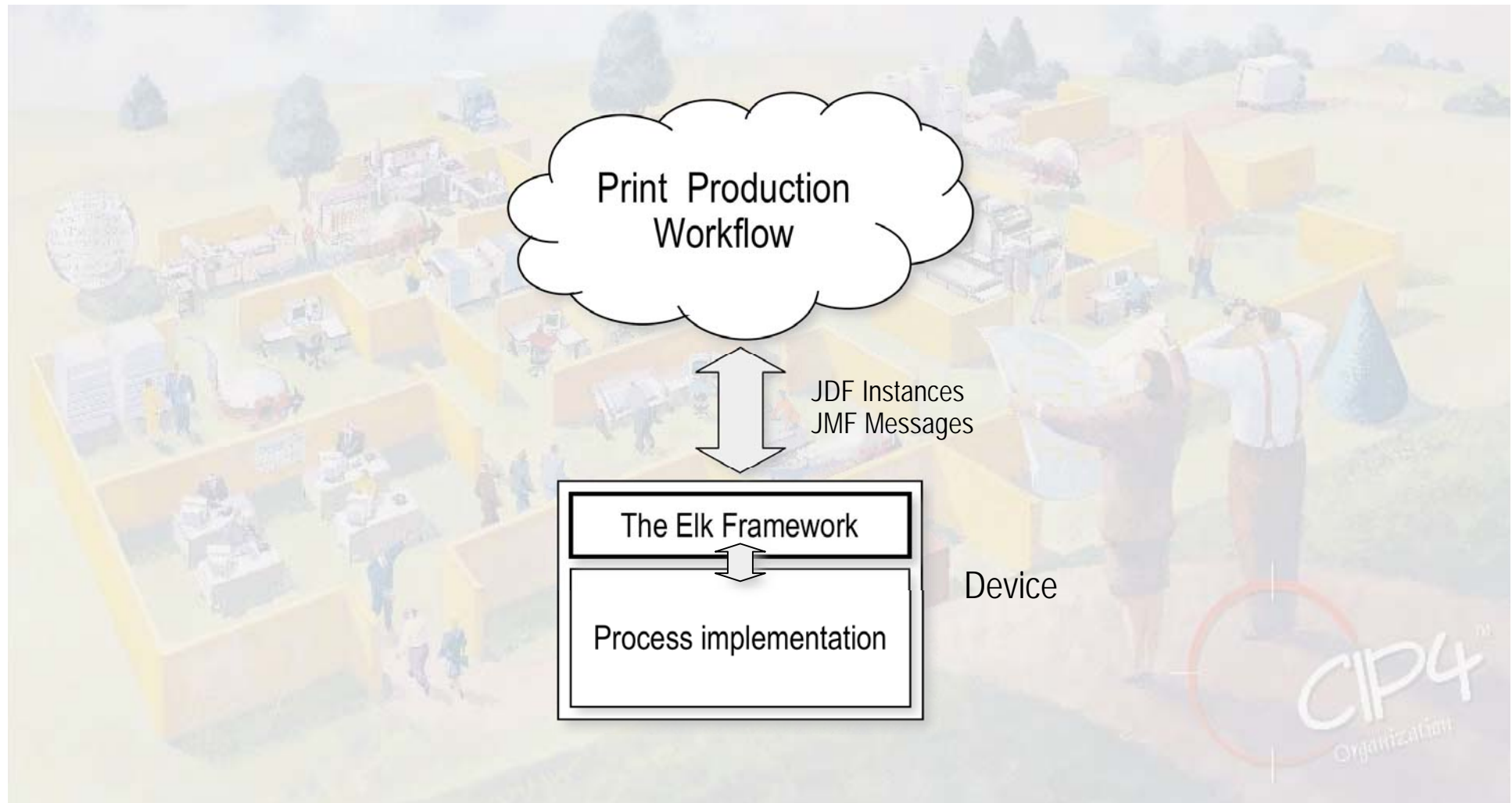
The Elk Project

- An open source Java framework that provides the generic functionality required of a JDF-enabled device





The Elk Project



Linköpings universitet
INSTITUTE OF TECHNOLOGY





The Elk Project

- Consists of two parts
 - The Elk Framework
 - Mainly specifies interfaces and abstract classes
 - The reference implementation
 - Concrete implementations of the framework
 - A simulated process
 - Is deployed as a web application



Linköpings universitet
INSTITUTE OF TECHNOLOGY





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
 - Queue
 - Process
 - Subscription manager
 - Factory for JDF elements



The Elk Framework

- *A JDF-enabled Workflow Simulation Tool*,
TAGA 2005 Proceedings
- Future Work
 - Better process simulation
 - Hot folder support
 - MIS ICS level 3

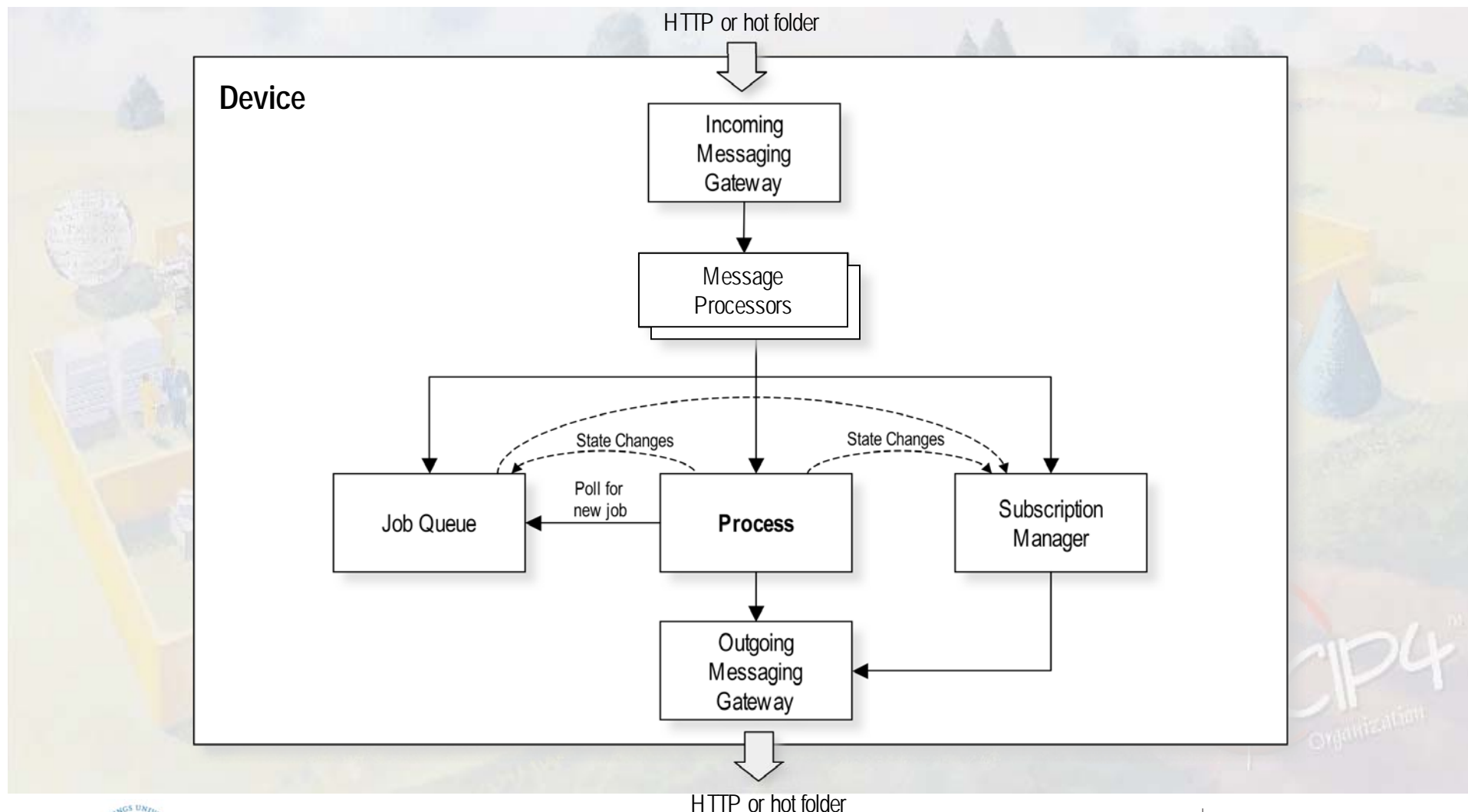


Linköpings universitet
INSTITUTE OF TECHNOLOGY



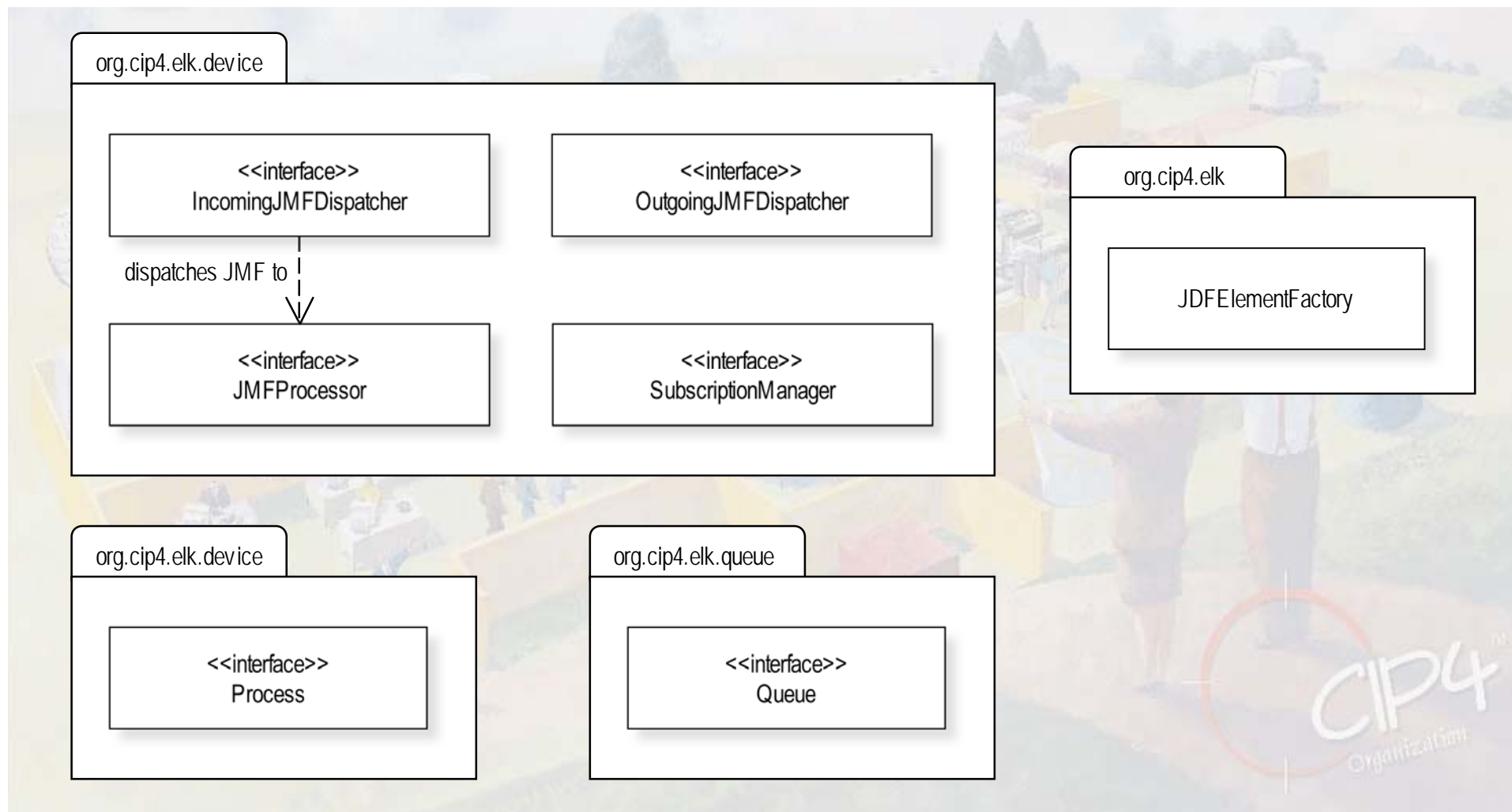


Architecture Overview





Overview of Important Classes

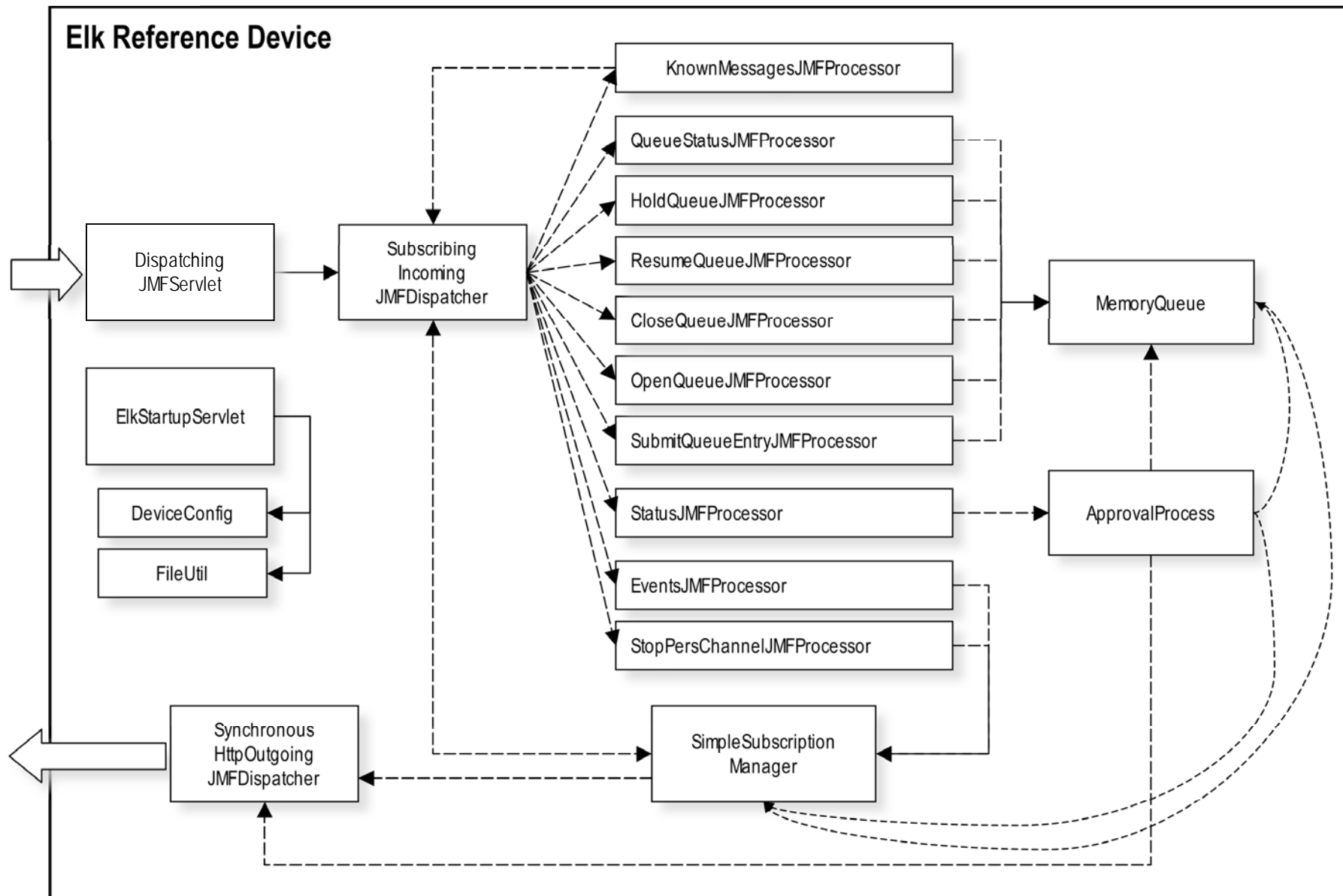




Reference Implementation

- Package name: **org.cip4.elk.impl**
- Concrete implementations of the classes defined in the Elk Framework:
 - Servlet for receiving JMF
 - Outgoing dispatcher for sending JMF
 - >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

- **SendJMF** — 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>
 - Send a MIME package to it





To Be Done...

- The Elk Framework
 - Add/refactor as reference implementation evolves
- Reference implementation
 - Full compliance to Base ICS Level 3 ✓
 - MIS ICS
 - Add support for all JMF message types
 - Secure messaging as defined in JDI 1.3
 - Full subscription (persistent channel support
 - Receive and submit MIME
 - Full queue support
 - Device capabilities ✓
 - A better process implementation

Volunteers?



Linköpings universitet
INSTITUTE OF TECHNOLOGY





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
 - Developers Tutorial
 - Design, UML diagrams
 - Tools used: CIP4 JDFLib-J, Jakarta HttpClient, Servlet API, Mule
- *A JDF-enabled Workflow Simulation Tool,*
TAGA 2005 Proceedings



Thank you for listening!

Claes Buckwalter

clabu@itn.liu.se

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



Linköpings universitet
INSTITUTE OF TECHNOLOGY

