• Objective
• Recommended Transports
• Guidelines for Recommended Transports
• Demonstration of Implementations
• Conclusions
Objective

- FpML is transport independent, so FpML does not need to define a transport
- However, significant differences in transports between firms/platforms create additional development work
- This work seeks to define recommended practices for implementing FpML transports to
  - Share lessons learned
  - Reduce costs and improve speed of FpML implementations
  - Provide guidance for developers
Recommended Transports

• FpML recommends several transports, including:
  – Web services
  – Message queuing
  – SFTP
  – FpML over FIX

• FpML can also be integrated into FIXML over transports such as the above
Guidelines for Web Services

• Define SOAP web service interfaces with WSDL
• Use appropriate security, ideally client certificates
• Support compression if available in the web services framework
• Support a specific set of entry points:
  - public string submitMessage(string fpmldoc) (async)
  - public string processMessage(string fpmldoc) (sync)
  - public string retrieveMessage(string fpmldoc) (async)
  - public string retrieveResponseMessage(string fpmldoc) (synch, optional)
  - public string retrieveNotificationMessage(string fpmldoc) (synch, optional)
Guidelines for SFTP

- Service providers provide an SFTP site that clients can access to submit and retrieve files
- Security can use several mechanisms, but client certificates are preferred
- A specific directory structure is defined, e.g.
  - input
  - output
  - error
  - tmp
- A file naming convention is defined, (.xml, .zip)
- A processing flow is defined, e.g.
  - upload to temporary directory/file extension
  - rename when fully uploaded
  - etc.
- Support for compression and encryption is discussed
Guidelines for FIX

PARTY A

Establish FIX.4.4 Session via Logon

XML_nonFIX[MsgType=n] <…FpML request…>

XML_nonFIX[MsgType=n] <…FpML ack…>

XML_nonFIX[MsgType=n] <…FpML response…>

XML_nonFIX[MsgType=n] <…FpML ack…>

End FIX.4.4 Session via Logoff

PARTY B

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• Service provider uses IBM MQ, MS MQ, or AMQP, often wrapped in JMS

• Message properties
  – don’t add business data to message properties
  – recommend how certain properties should be extracted from message (e.g. message IDs, addresses)

• Define queue naming conventions

• Security is discussed
Sample Implementations

• Sample implementations have been created for
  – Message Queues, using AMQP with Apache QPID
  – Web Services, using Microsoft ASP/SOAP etc...
• **TBD**
Demo: Message Queuing

- TBD

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Conclusions

• FpML has defined guidelines for using several comment transport mechanisms
• FpML has developed sample implementations that follow the guidelines
• Implementers are encouraged to review the guidelines and follow the ideas described in them