



Financial products Markup Language

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Safe,  
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Markets

# FpML<sup>®</sup>

## Transport Guidelines



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# Agenda

- 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

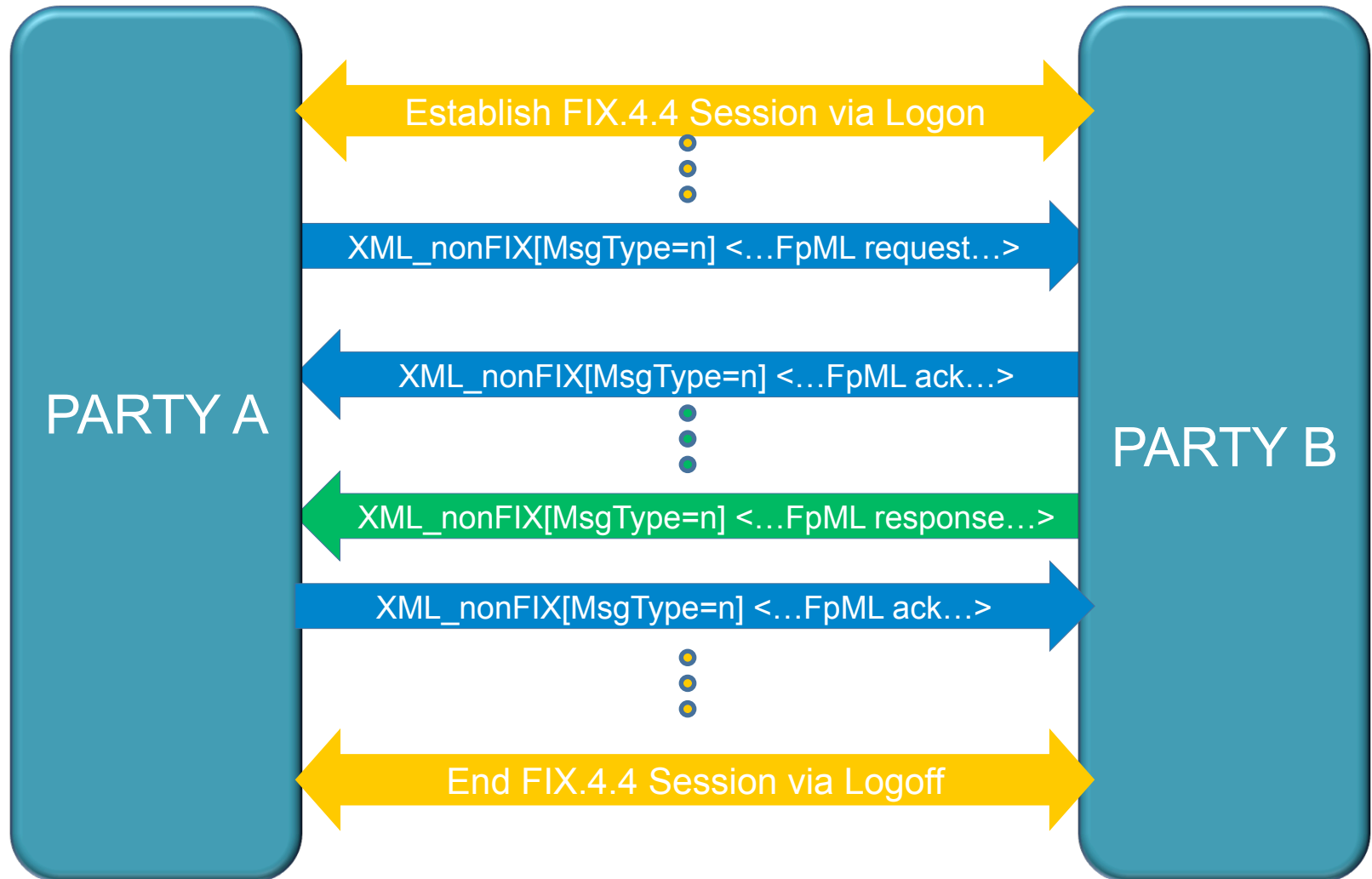
- Define SOAP web service interfaces with WSDL
- Use appropriate security, ideally client certificates
- Support compression if available in the web services framework
- Support a specific set of entry points:
  - `public string submitMessage(string fpmlDoc) (async)`
  - `public string processMessage(string 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





# Guidelines for Message Queue

- 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





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# Sample Implementations

- Sample implementations have been created for
  - Message Queues, using AMQP with Apache QPID
  - Web Services, using Microsoft ASP/SOAP etc...



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# Demo: Web services

- TBD



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# Demo: Message Queuing

- TBD



- 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