

# 3GPP MMS MM7 proposal

Nokia  
Seattle, USA  
Apr. 29. 2002.

# General structure

- General abstract framework -> Envelope
  - outlined in principles (some section copied from Logica CR)
  - Define binding of the framework to SOAP 1.1
    - stable version, widely implemented
- Use HTTP/1.1 as required transport protocol
- Separate MMS functionality from non-functional extensions
  - MM7 structure entirely in SOAP body
  - Possible future extensions (user authentication, user authorization)
  - Extensions as headers can be processed by dedicated SOAP nodes (multi-hop) =>
  - Processing time gain (performance)

# General structure - 2

- Use SOAPAction header in HTTP
  - Define SOAPAction for every operation (needed for WSDL description)
  - Easier implementation
  - Easier extension with new message exchange patterns
- **ContentType** on transport layer:
  - xml/text** for single SOAP message
  - or
  - mime/multipart** for multimedia message with SOAP attachment method

# Message exchange

- Synchronous communication

Request in HTTP POST method request

Reply in HTTP reply

**What if error occurs during processing of reply?**

- Asynch communication

Request in HTTP POST method (A -> B)

Ack of request as HTTP reply (B -> A)

Response in HTTP POST (B -> A)

Ack of response in HTTP reply (A -> B)

**Possible processing of Response errors in Ack of response.**

# Error handling

## Two-level error handling

- **Envelope** error

Errors on SOAP level (parse, validation errors etc.)

Contained in Envelope's Fault element's **detail**

The GeneralError container is envelope framework independent.

- **MMS** application error

MMS application level errors (content not accepted, unresolved address etc.)

Contained in ReqStat element in response (no error on SOAP level)

- HTTP level error code: 500 (Internal Server Error)

# Open issues

- Sender address format and semantics in Submit and Deliver primitives ?
- How to include To:/CC:/BCC: informational addresses?
- How to identify VASP,VAS,MMR/S ?
- Error classes (fatal / tolerable etc.) and required handling processes?
- Text-only messages should be in the Body instead of using MiME multipart ?
- EncodingStyle is not used, shouldn't we mention it explicitly?
- Do we need ContentType explicitly (or transport level) ?

# Open issues - 2

- Do we need ContentSize to be present in elements ?  
(or mandate Content-Length header in MIME body parts)
- MessageID uniqueness?