TME – Symlabs
Liberty ID-MM7 Demo
February 2006
Statement of the Business Problem

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Nowadays when a user requests a Logo, a Ringtone, or a subscription to a Newsletter, she is forced to give her telephone number (MSISDN) to the 3rd Party. This 3rd Party could give or sell this information to others, without any kind of control. Both the 3rd Party and others who have obtained the MSISDN information could send unwanted messages to the user.

**Loss of Privacy for the User**

**A Significant Source of Spam**
“More than 8 in 10 mobile phone users surveyed in a study by Switzerland's University of St. Gallen and mobile services firm bmd wireless have received unsolicited mobile messages.”

“Most complaints about mobile spam are directed toward the mobile operators. (...) Mobile spam generally has a negative impact on the brand of the mobile network operator.”

55% mobile phone users surveyed in Spain claim about unwanted SMS, which invites to participate in a game or a poll, through one (or more) premium message.”
A Liberty technical solution

- Make use of existing identity management techniques

- For instance:
  - Different user identifiers for each 3rd Party, **masking the MSISDN**
  - Updating of these identifiers.
  - User capability to terminate her federation with a 3rd Party.

- Define a proper **interface**, reusing identity management capabilities and fulfilling all business requirements.
Significance for Mobile Operators

- Mobile Operators are well placed to be IdPs

- As well, Operators already have existing business agreements with a range of 3rd Parties ➔ Great revenue generator!!

- They risk losing customer’s trust in their services due to malicious content, unwanted messages and SPAM

- They need to cover all the services offered to 3rd Parties: the most important is missing!!
Significance for Mobile 3rd Parties

- Every 3rd Party has business agreements with several mobile operators in each country (i.e. Telefonica in Spain).
- They have to implement different solutions for each operator.

- Having all interfaces standardized will prevent a 3rd Party from implementing different technologies for every operator.
What do we need to standardize?

- Web Service Wrapper for SMSC and MMSC
- Interface “B” between 3rd Party and Messaging Service
- Operations:
  - Federation
  - Send, Receive & Notify
- Message content:
  - SMS (text, logo, ringtone, …).
  - MMS.
  - WAP push.
- Short number placeholder (3rd party numbers).
Why Content SMS & MMS Interface in Liberty?

- Liberty needs Messaging to complete its SIS offer
- MSISDN masking & Spam are privacy and trust issues
- Web Services expertise
- Coherence with previous work in Liberty
- No internal messaging requirements are going to be specified
- Changes to Liberty framework may be required (DST, federation mechanisms, …)
- Speed in developing standard specification
Impact on existing standards

- Based on Liberty specifications (ID-FF, ID-WSF, ID-SIS)
- Changes to Liberty framework may be required (DST, federation mechanisms, …)
- Could be based on existing messaging specs (i.e. MM7, Parlay X, …)
- No requirements for OMA are expected
- Another example of wrapping a service with Liberty’s WS
Current Situation and Next Steps

- Marketing Requirements defined
- SG – CSM Messaging subteam created
- ID – MM7 v1.0-10 recently released
- Any comment or suggestion is welcome
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Technical Details
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High Level Overview

- The subscriber wants to download a content for its handset from a Third Party
- The subscriber does not want to provide the phone number to the Third Party
- The content depends on the specific capabilities of the handset.
Scenarios Discussed

- **MO-MT**
  - Mobile Originated, because the subscriber initiates the process by sending an MMS request to the platform
  - Mobile Terminated because the result of the service is delivered via a MMS towards the subscriber handset

- **MT**
  - Web originated, in which the subscriber initiates the process by accessing the web interface of the third party providing the content
  - Mobile Terminated because the result of the service is delivered via a MMS towards the subscriber handset
MO-MT Scenario

1. MMS: "Tetris" to 55555
2. MMS (MSISDN)
3. MSISDN for Handle?
4. Handle
5. MMS (Handle)
6. EndPointRefs?
7. EndPointRefs:
   - ID-DAP
   - ID-MM7 MT
8. Terminal Type for handle?
9. DoJa / Java
10. MMS (Handle)
11. MMS (MSISDN)
12. MMS with Game URL (DoJa / Java) for Download

Application

Messaging

ID - MM7

ID-DAP

DS

IdP
MO – MT Message Flow (1/2)

1. MMS (MSISDN)
2. MM7 (MSISDN)
3. AuthnRequest (MSISDN)
4. AuthnStmt (NameID), AttributeStmt (EndPointReference_DS)
5. AuthnStmt (NameID), AttributeStmt (EndPointReference_DS)
6. EndPointRef_DS, DiscoveryLookup(NameID)
7. EndPointRef_DAP, EndPointRef_MM7-MT, Credentials
8. <QueryItem> Credentials, EndPointRef_DAP
9. Response: DoJa/Java

Principal → Messaging → ID-MM7 MO Relay → IdP → ID-VASP → ID-DAP

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MO – MT Message Flow (2/2)

1. Principal
2. Messaging
3. ID-MM7 MT Relay
4. IdP
5. ID-VASP

6. EndPointRef_MM7-MT, Credentials, MM7 (NameID)

7. MM7 (MSISDN)
8. MMS (MSISDN)
9. Delivery Receipt
10. Delivery Receipt
11. Delivery Receipt
12. Delivery Receipt
13. Delivery Receipt
14. Delivery Receipt

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MT Scenario

1. Service Request
2. AuthenReq
3. Handle
4. EndPointRefs?
5. EndPointRefs:
   - ID-DAP
   - ID-MM7 MT
6. Terminal Type for handle?
7. DoJa / Java
8. MMS (handle)
9. MMS (MSISDN)
10. MMS with Game URL (DoJa / Java) for Download

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MT Message Flow

1. Service Request
2. AuthenticationRequest
3. AuthnStmt (NameID), AttributeStmt (EndPointReference_DS)
4. DiscoveryLookup (NameID), EndPointReference_DS
5. EndPointRef_DAP, EndPointRef_MM7-MT, Credentials
6. <QueryItem> Credentials, EndPointRef_DAP
7. Response
8. EndPointRef_MM7-MT, Credentials, MM7 (NameID)
9. MM7 (MSISDN)
10. MMS (MSISDN)
11. Delivery Receipt
12. Delivery Receipt