



IMS within the Open Mobile Alliance

Enabling and Testing IMS with OMA Enablers

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Howard Greenwell, Director of Technical Programs, OMA

- » Overview of the Open Mobile Alliance
- » Current IMS based Specifications from OMA
- » Testing IMS-based Enablers in OMA
- » OMA Pipeline of IMS based Enablers
- » Summary

OMA - Vision and Background



» Vision

- » **No matter what device I have**
 - » **No matter what service I want**
 - » **No matter what carrier or network I am using**
 - » **I can communicate, access and exchange information**
-
- » **The Open Mobile Alliance is an international organization, developing open, market driven interoperable specifications for global adoption of data services**
 - » **Created in June 2002 by leading mobile operators, device and network suppliers, information technology companies, content and service providers**
 - » **380 Global Members developing open, market driven interoperable specifications for global adoption - representation from across the widening mobile value chain**
 - » **42 Formal Cooperation Agreements avoiding fragmentation and duplication**
 - » **39 Enablers published and over 100 active work items**

OMA - Deliverables



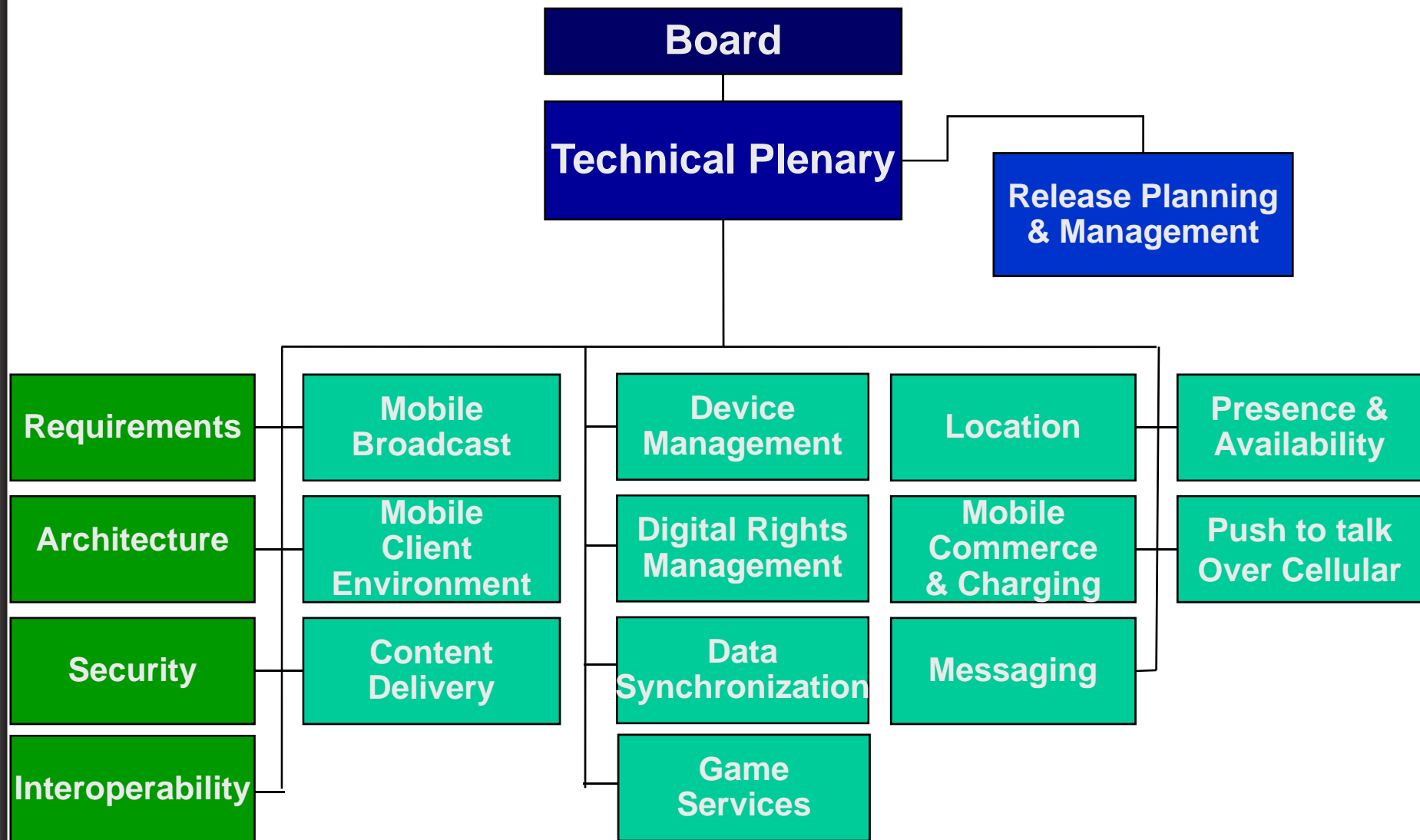
- » **Principal Forum for support of interoperable data services across multiple domains**
 - » Creating specifications driving adoption of multimedia and data services

- » **Published specifications only part of OMA story**
 - » Development is market driven with members observing industry demand
 - » Use cases identify market requirements
 - » OMA facilitates market adoption through member-driven specifications

- » **Convergence**
 - » Not just mobile: applicable to fixed AND mobile networks
 - » In 2005 OMA expanded its mandate to include : “...*other present and future wireline and wireless network standards supporting the Internet Protocol family*”
 - » OMA enables enhanced seamless and integrated services

- » **Interoperability test programme**
 - » Product testing for conformance in trusted zone key differentiation point for OMA
 - » Verifies specification interoperability
 - » Communicates value to market
 - » Test Specs, TestFests (**26 to date**), 1400+ implementations tested, Test Reports
 - » Facilitates certification outside OMA

OMA - Current Evolved Organization



Highlights of OMA Service Enablers



» Over 20 Candidate and Approved Enablers Published in the Last 20 Months

» Candidate Enabler Releases

- » OMA Push to talk over cellular V2_0
- » OMA Secure User Plane Location V2_0
- » OMA Mobile Location Service V1_2
- » OMA Secure Removable Media V1_0
- » OMA Instant Messaging - SIMPLE V1_0
- » OMA Presence V2_0
- » OMA XML Document Management V2_0
- » OMA Mobile Broadcast V1_0
- » OMA Download V2_0

» Approved Enabler Releases

- » OMA Email Notification V1_0
- » OMA vObject V1_0
- » OMA Charging V1_0
- » OMA Client Side Content Screening Framework V1_0
- » OMA Secure User Plane Location V1_0
- » OMA Online Certificate Status Protocol Mobile Profile V1_0
- » OMA Standard Transcoding Interface V1_0
- » OMA Smart Card Web Server V1_0
- » OMA Presence SIMPLE V1_0

» **A Candidate Enabler Release (CER)** delivers an approved set of open technical specifications that can be implemented in products and solutions, and then tested for interoperability.

» **An Approved Enabler Release (AER)** represents Candidate Enabler Releases that have gone through the Interoperability Program (IOP) of OMA. The IOP tests interoperability between different member company's implementations – either within the OMA or through other means.

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Current IMS Specifications in OMA



» IMS in OMA

- » OMA Reference Release
- » Defines architecture for all OMA usage of the IMS environment in OMA Specifications

» Enablers

- » **Presence-SIMPLE v1.1** - (Approved Enabler)
 - » Defines User Presence and Availability attributes for a mobile user
- » **Push to talk Over Cellular (PoC) v1.0.2** - (Approved Enabler)
 - » Defines a mechanism for a group of mobile users to use their mobile phones as broadcasting radios
- » **SIMPLE-IM v1.0** - (Candidate Enabler)
 - » Instant Messaging over Mobile phones using IMS
- » **XML Document Management (XDM) v1.1** – (Approved Enabler)
 - » Group management of users and other resources

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OMA TestFests



- » **Interoperability Events held throughout the year**
 - » 4 or 5 times per annum, testing 4 to 6 different enablers at each event
 - » Over 25 events held since November 2002
 - » Provide Infrastructure to test OMA Enabler Implementations
 - » GSM, CDMA, W-CDMA Networks
 - » SMS-C, WAP-GW, PPG Systems
 - » Invited IMS Providers
 - » Ericsson
 - » Hewlett Packard
 - » Huawei
 - » (Nokia)
 - » Nokia Siemens Networks
 - » Nortel
 - » (Siemens)
 - » SK Telecom
 - » ZTE



TestFest Principles



- » Provides confidential neutral environment
 - » Different Host operators also provide interface challenges
- » Allows inter-working between competitors
- » Provides complete infrastructure in a real world environment
- » Formal testing against OMA Test Specifications
- » Results reported anonymously to OMA IOP WG
 - » Allows for assessment of the enabler completeness, ambiguities, and implementations to finally approve the enabler
- » Problems and issues fed back into OMA process through neutral reporting system

IMS Testing at OMA TestFests



- » Initially validated Client and Server Capability in one IMS System
 - » No Authentication No Roaming
- » Subsequent PoC Testing moved to test Multiple Clients connected to 2 PoC Servers through 2 IMS Systems
 - » Initially with the IMS Systems being from the same vendor
 - » Later tests worked with the IMS Systems and PoC Server Systems being from different Vendors.
- » Final Test Scenarios included true Network to Network Interface testing, Authentication Testing and Roaming to different Networks

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ENHANCED OMA ENABLERS



- » Push to talk Over Cellular v2.0
- » Presence-SIMPLE v2.0
- » XML Document Management v2.0

- » New versions of the existing IMS based enablers that will add new features including New Media Types being supported, PoC Sessions with multiple groups, Performance enhancements and more...

NEW OMA ENABLERS



- » **Converged IP Messaging (CPM) v1.0**
 - » New Messaging Enabler that aims to combine all Messaging Technologies in one Enabler (Service?)
 - » Short Messages (Text), Multi-Media Messaging, Instant Messaging, Push to talk Over Cellular, Mobile Email
 - » Coordinates all of these messaging technologies on IMS

- » **Converged Address Book (CAB) v1.0**
 - » Provide for a single address book to be used by all of the messaging technologies
 - » Will also run in an IMS based environment

NEW OMA ENABLERS



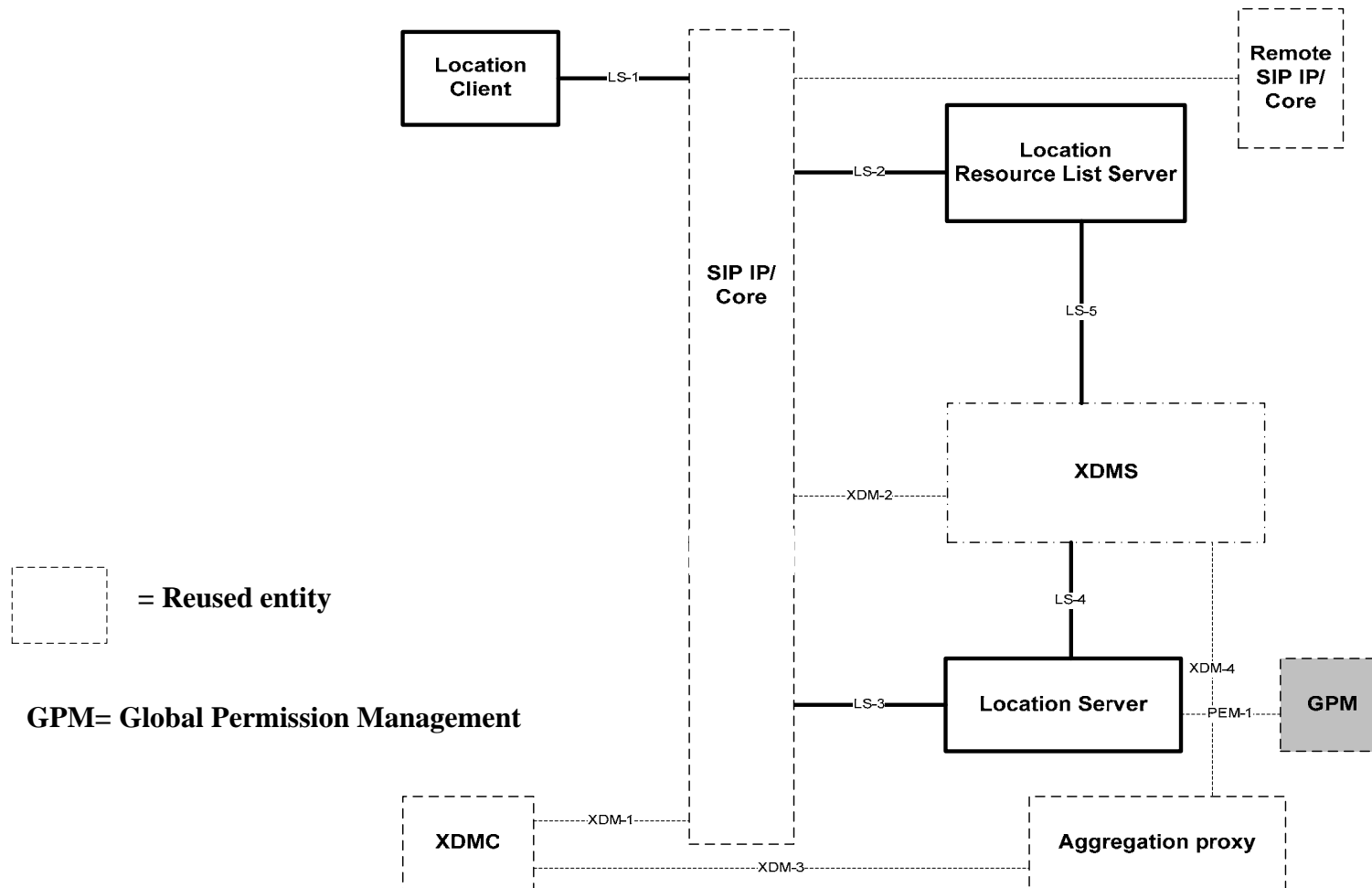
» SIP Push v1.0

- » Updated version of the Push Enabler for the IMS environment
- » Allows for server initiated messages to be sent to the mobile after authentication and authorization checks

» LOCSIP v1.0

- » Update to the Mobile Location Service Enabler for execution in the IMS environment
- » Works, in conjunction with the Presence Enabler, to provide location information when requested, or periodically, or when the user enters a specific area

OMA SIP Architecture - LOCSIP



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Summary



- » All OMA Group's now consider the support of IMS in current and new feature developments
- » External Groups are now referring to OMA Enablers as part of their specification development
 - » Presence SIMPLE and XDM have both been adopted by TI-SPAN for their NGN Network
 - » WiMax are also looking to adopt OMA Enablers
- » OMA continues to promote it's mission of being bearer agnostic encompassing more and more environments
 - » For OMA, IMS is now firmly recognized as a piece of infrastructure that will be important to the mobile industry and therefore upon which all OMA enablers need to be based

More Information



- » **OMA Communications Contact**
 - » Bobby Fraher, External Communications Manager
bfraher@omaorg.org

- » **Interested in joining the OMA**
 - » <http://www.openmobilealliance.org/Membership/default.aspx>

- » **Full list of OMA Enablers**
 - » <http://www.openmobilealliance.org/Technical/releaseprogram.aspx>

- » **List of upcoming OMA Plenary Meetings and OMA TestFests**
 - » <http://www.openmobilealliance.org/Meetings/>
 - » <http://www.openmobilealliance.org/TestFests/overview.aspx>

**Howard Greenwell**

Director of Technical Programs

Open Mobile Alliance Ltd.
Brook House
60/62 Northbrook St.
Newbury
Berkshire, RG14 1AH, UK

Office: +44.208.133.7879
Mobile: +44.775.356.2268
hgreenwell@omaorg.org
www.openmobilealliance.org
skype/yahoo: howard_greenwell