

OMA-BOD-SPC-2011-0061R06

OMA Home Environment Services Workshop

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OMA HES Workshop scope

- The home environment

- presents an exciting and challenging scenario to support person-to-person and rich multimedia communication services
- has a diversity of devices
 - computing devices, e.g. mobile phones, desktop/laptop/tablet computers etc.
 - connected devices, e.g. TVs, M2M, sensors/triggers etc.



- Users demanding a richer and more seamless service experience
 - ever decreasing service distinction between mobile devices and fixed devices

- The Challenge

- support of these services delivered to, and accessed from, the diversity of devices provides challenges for
 - consistence architecture, device management, security, ID management, authentication, privacy



- The Workshop is invited to address and examine this challenge

OMA Mission

The mission of the Open Mobile Alliance is to facilitate global user adoption of mobile data services by specifying market driven mobile service enablers that ensure service interoperability across devices, geographies, service providers, operators, and networks while allowing businesses to compete through innovation and differentiation



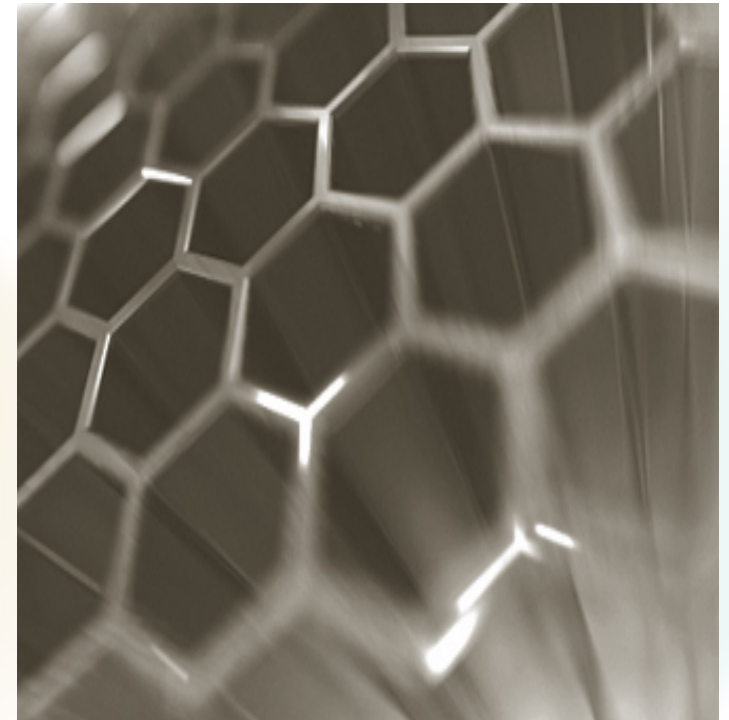
OMA overview

- **Founded June 2002**
 - Over 130 members from across the mobile value chain
 - Operators, terminal and software vendors, content and entertainment providers
- **Interoperable service enablers across multiple domains**
 - Architecture, Security, Charging
 - Person-to-Person Communications
 - Device Capabilities
 - Access to Content
 - Services Access Interfaces
 - Service Customisation
- **Current and Ongoing Technical Deliverables**
 - Over 50 service enablers delivered in 2011, with around 80 planned for 2012
 - Over 100 active work items



Convergent services

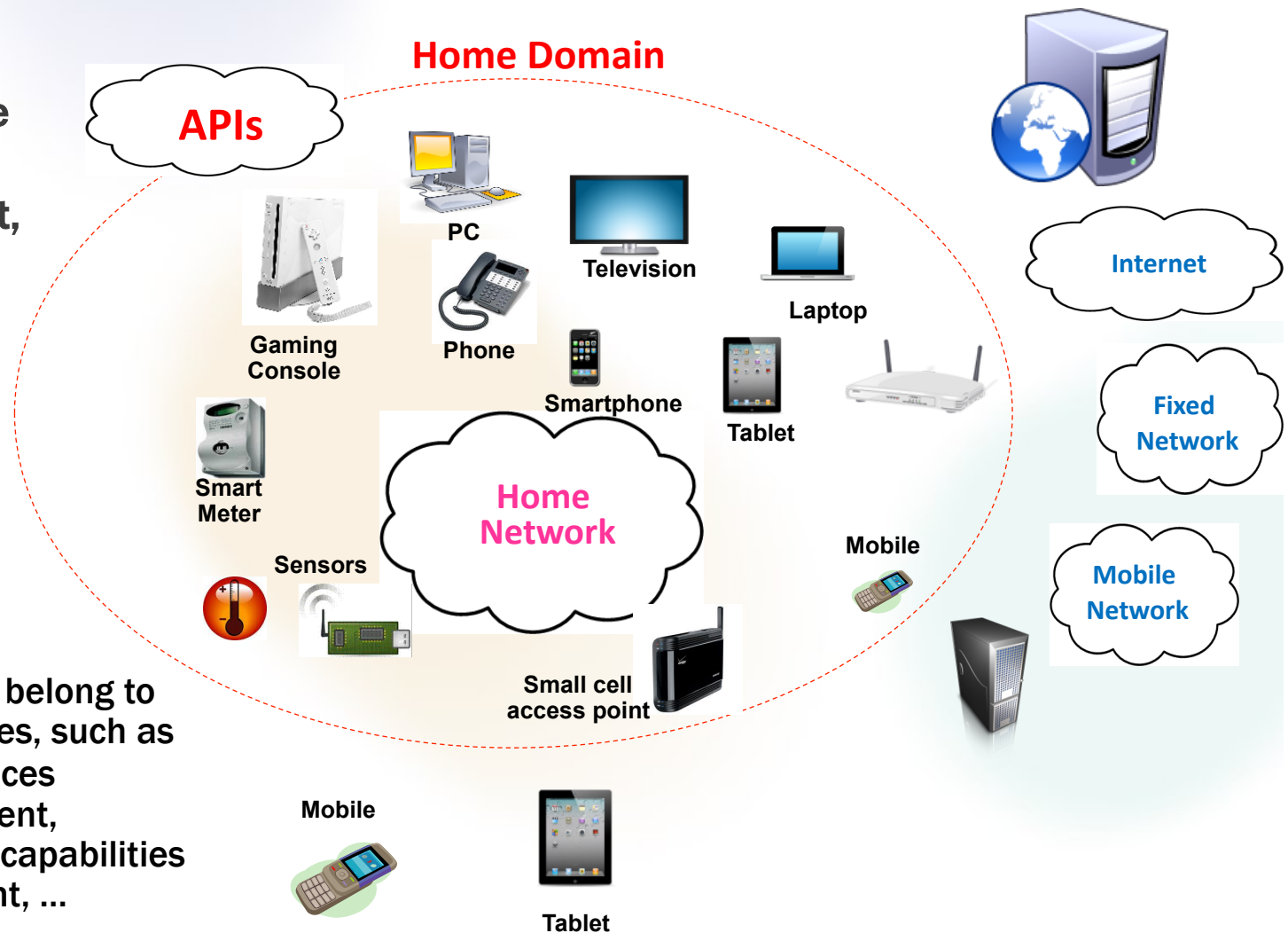
- Increasing usage of same (convergent) services on different devices
 - mobile devices, PC, fixed devices
- Decreasing distinction between mobile devices and fixed devices
 - many smartphones offering similar functionality
- Users demanding similar service experience on mobile devices, computer and fixed devices at home
 - e.g. access to social networks, discovery and access to services
- Contextualisation and personalisation
 - Adaptation of services and content to the type of device and the user's preferences



The context

Consumers want usable and rich services, on the devices they want, whenever and wherever they want

Many relevant components belong to Home Environment Services, such as Network connectivity, Devices availability and management, Content delivery, Services capabilities and Services management, ...

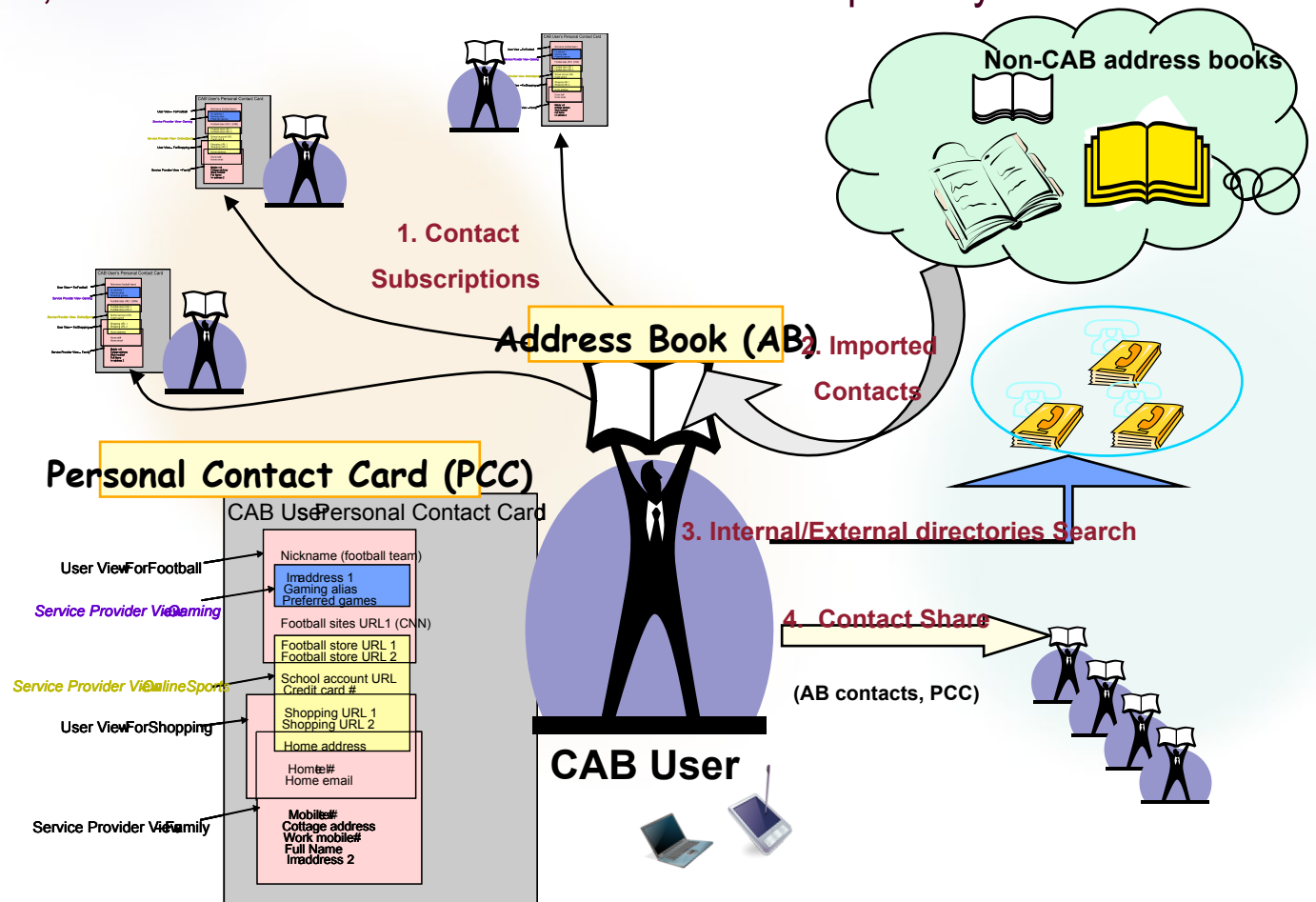


Examples of OMA service enablers (1/5)

• OMA Converged Address Book

- manages contact information in both user facing applications as well as in support of network facing activities, with a network-based shareable contact repository

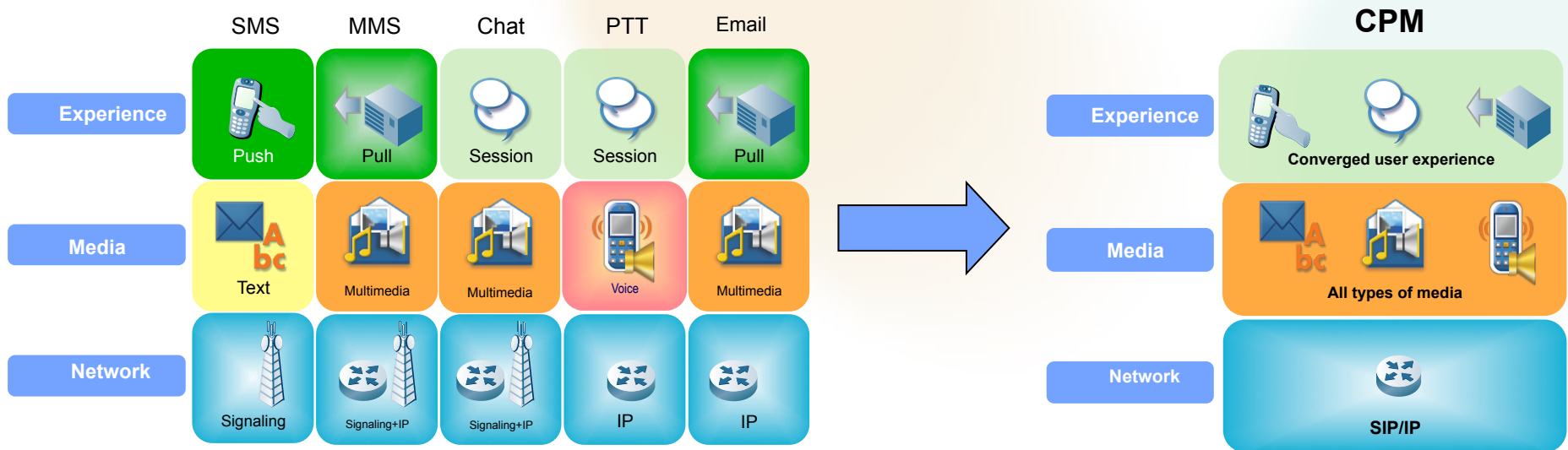
- use of a single network-based address book environment by a variety of services and devices in the home
- enables sharing and management of centrally located contact information across all devices in the home
- may serve as a launch pad for new messaging and communications services built around contact information on home devices



Examples of OMA service enablers (2/5)

• OMA Converged IP Messaging

- building blocks to enable creation of a variety of interpersonal, interactive, multimedia communication services that run on top of an IP network
 - may be used to support messaging and communication between multiple devices in the home
 - supports a home environment with a diverse mixture of devices
 - enables rich media content and services to be accessed and shared across the home network devices
- centralised network repository for all types of user data that can be accessed from all devices in the home

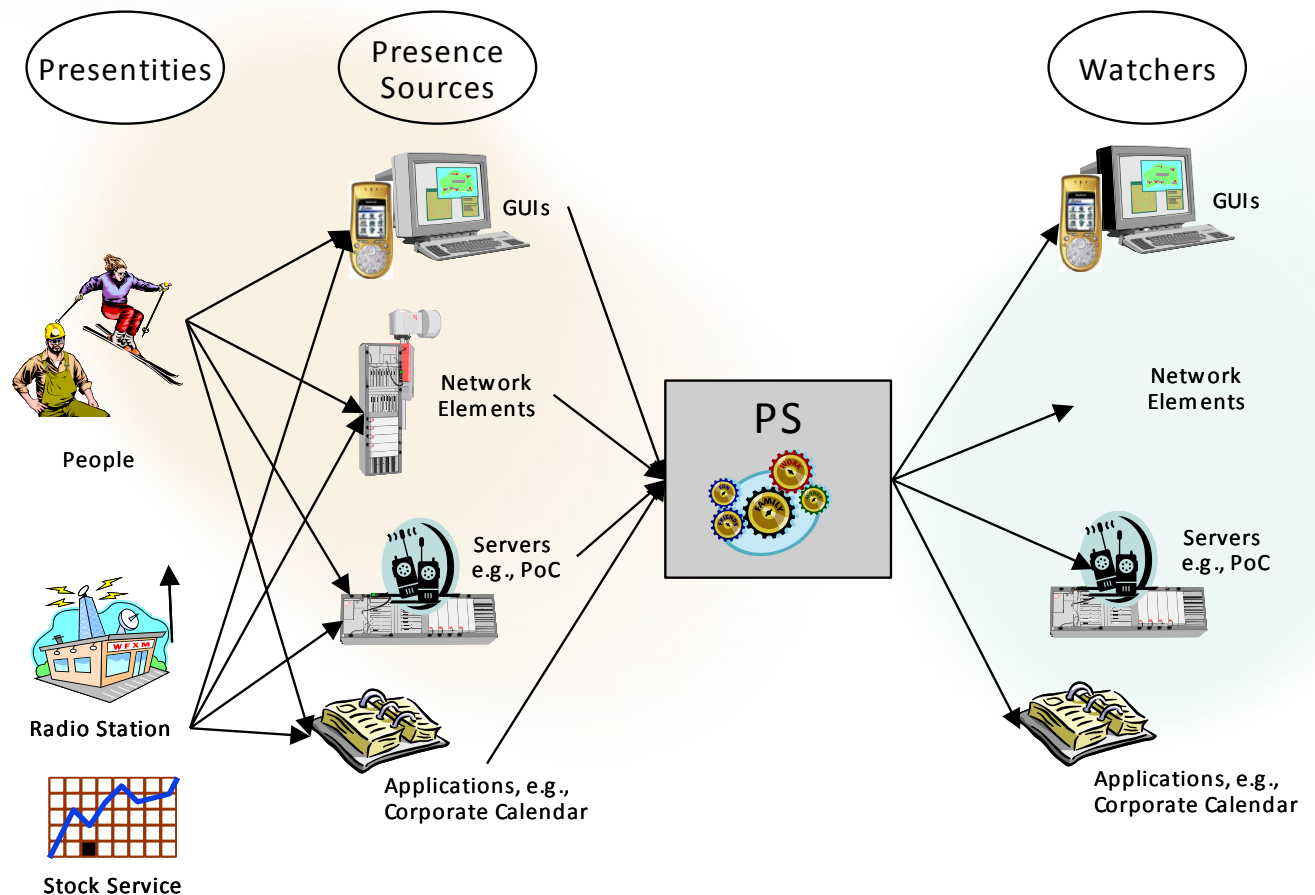


Examples of OMA service enablers (3/5)

• OMA SIMPLE Presence

- an application level specification for a SIP/SIMPLE-based Presence Service using the IETF's SIP/SIMPLE set of RFCs, with information semantics and guidelines for presence applications

- may be used to assign different services to various devices in the home
- may be used to identify on which device in the home the user is active, or on which the user may be contacted
- may be used to identify the availability of the user on specific home devices

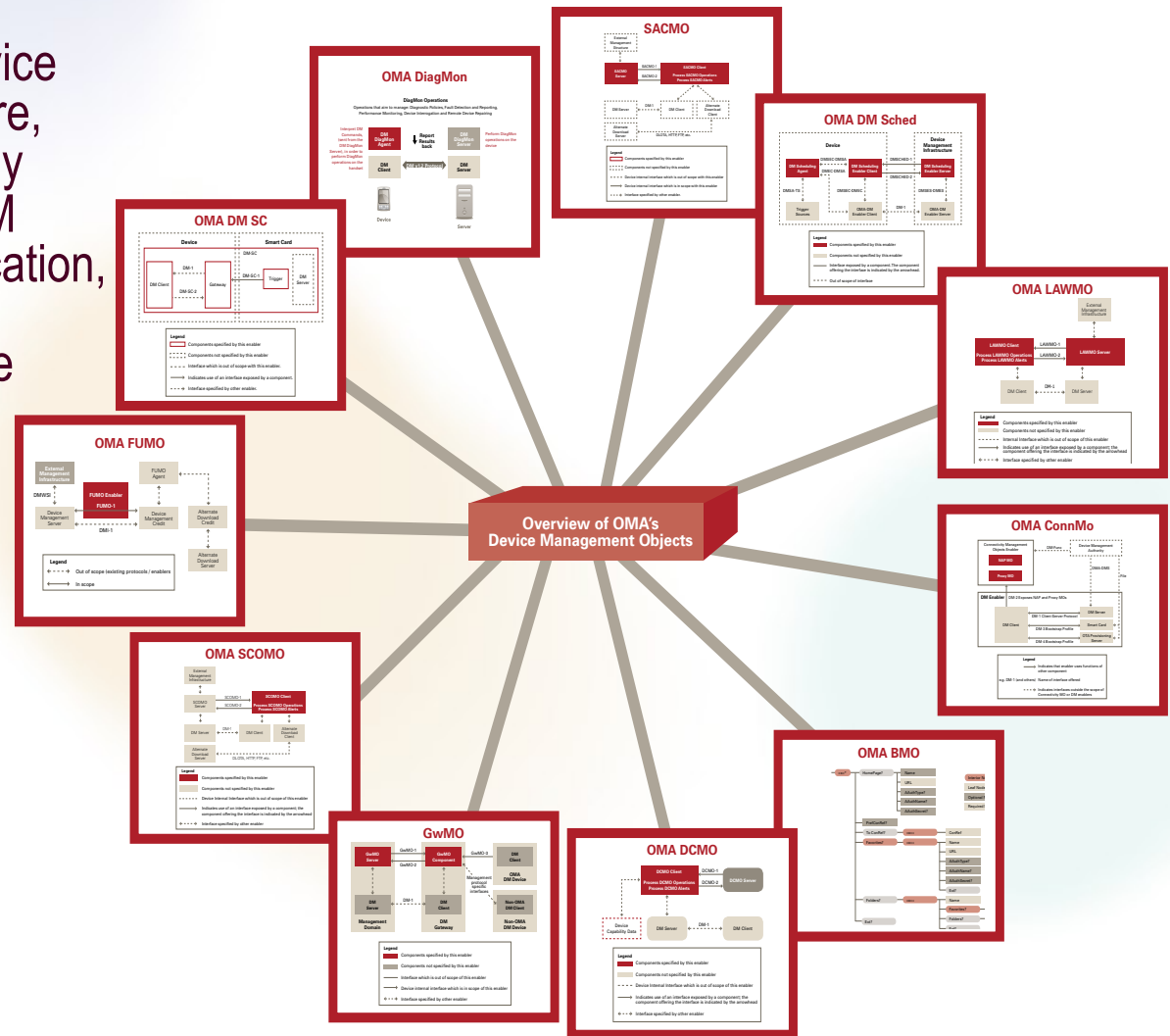


Examples of OMA service enablers (4/5)

• OMA Device Management

- range of protocols and on-device Management Objects (firmware, software components, gateway management, lightweight M2M protocol, M2M device classification, lock and wipe personal data, schedule and automate device management tasks etc.)

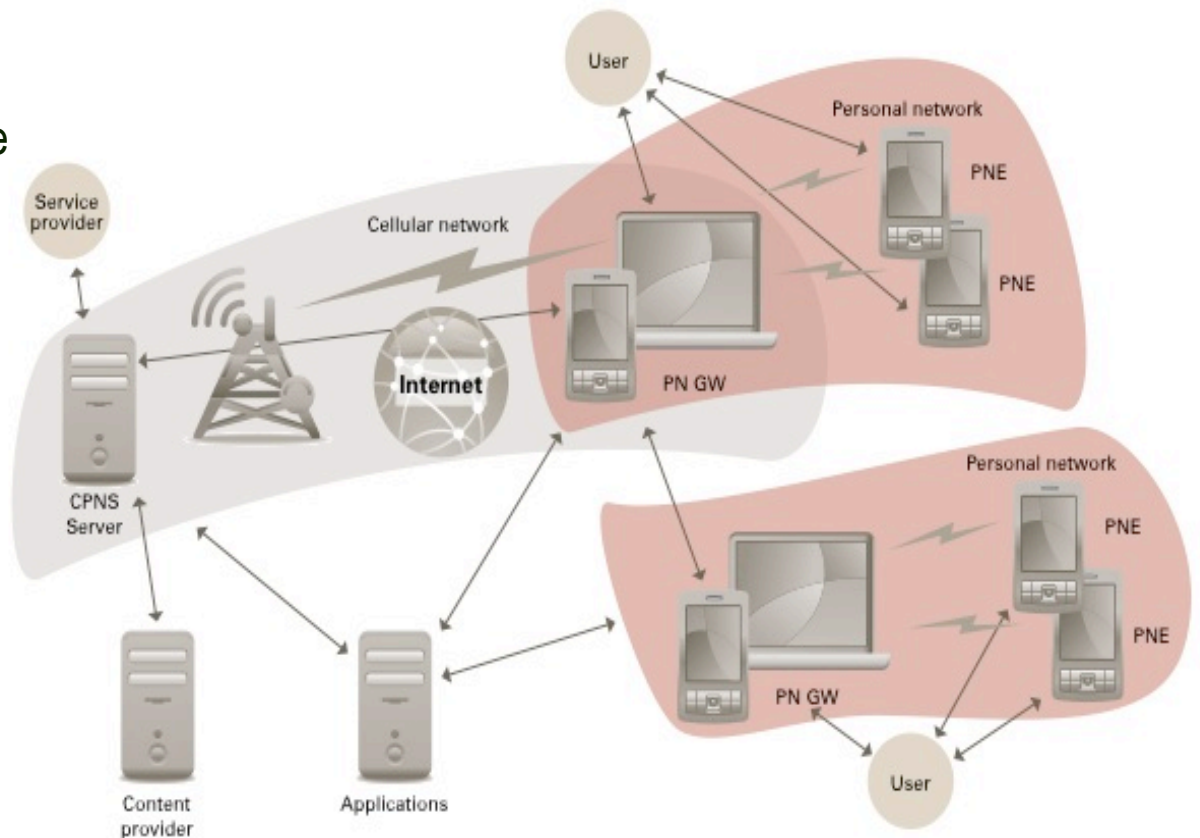
- widely deployed globally on over 1 billion mobile devices
- any network, any bearer, securely
- may be deployed on mobile/smart devices, computers, consumer electronics, sensors
- protocols and mechanisms may be used to facilitate (remote) management of multiple devices, sensors and gadgets in the home



Examples of OMA service enablers (5/5)

• OMA Converged Personal Network Services

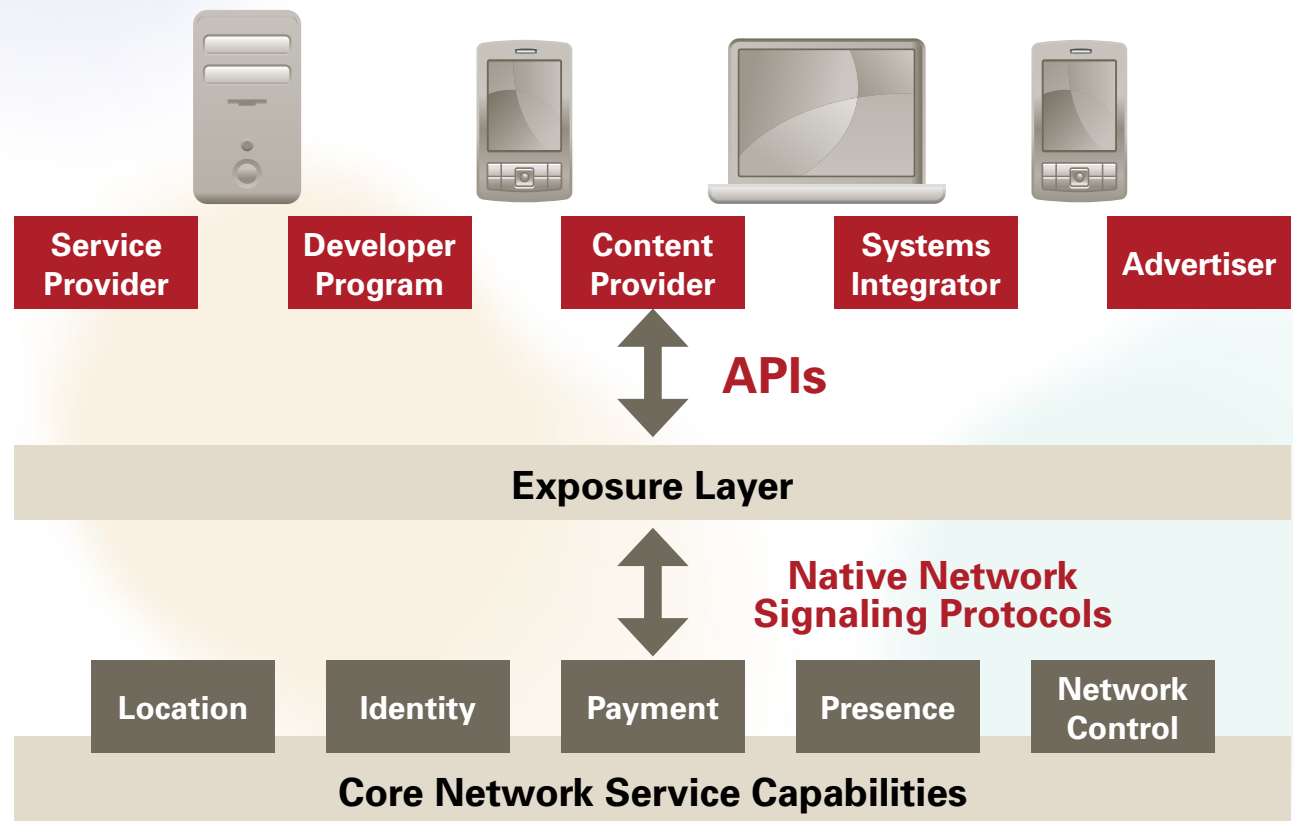
- provides application-layer support for ubiquitous access to services in a converged network (a collection of individual networks that are interconnected by means of gateway devices (such as a mobile phone))
 - enables universal access to services across a convergence of Personal Networks and Wide Area Networks/Cellular Networks
 - may be used in the home to watch high-quality movies on a big screen using a mobile device serving as a gateway, between a movie-streaming server via Cellular network and home consumer electronic device via Wireless Personal Access Network technologies
 - may be used to support interaction with M2M services and applications in the home
 - may be used to support e-health scenarios in the home



APIs (1/2)

• Application Programming Interfaces

- open up service capabilities and assets in core network to application developers
- Application developers don't require comprehensive knowledge of telecomms signaling protocols and call state models
- Applications built towards the API can be ported across network types and access technologies



APIs (2/2)

• OMA API key messages

- OMA specified requirements of GSMA's OneAPI Profile of RESTful Network APIs
- OMA provides standard API framework
 - can include an abstract definition or specific protocol bindings
- OMA APIs expose a functional interface, which exposes OMA service enablers and generic service functionality to the wider developer community.
- The channel from OMA to third party developers is through the implementation of OMA APIs by other SDOs, network operators and wholesale or open application environments and communities.
- OMA affiliated Parlay in 2008, making the valuable technical work of Parlay a part of OMA's body of technical work. This demonstrates OMA member commitment to interoperability with legacy Web Services.
- OMA has thus far specified more than 30 service access layer interfaces, including five packages of protocol bindings and profiles designed to expose generic and OMA specific functionality to developers outside of OMA.
- OMA accepts requirements for APIs from its members as well as external bodies and organisations.
- See backup slides for more information

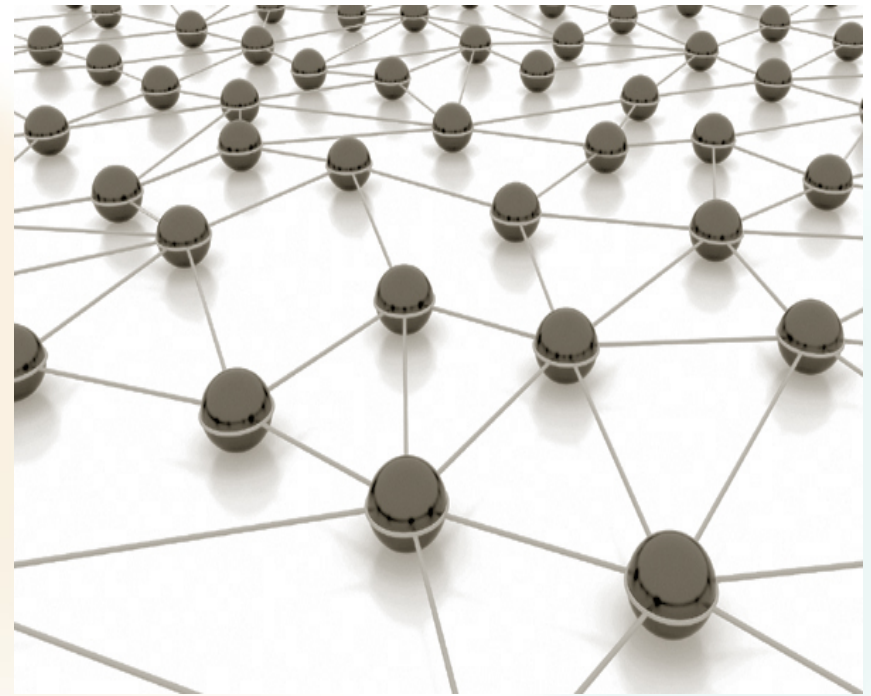
Opportunities

- Aspects of a connected home environment

- ubiquitous connectivity
- location transparency
- remote management
- intra-home and inter-home
- service discovery
- device discovery

- Other examples of services in the home

- Home security
- Home energy management
- Home automation
- Home healthcare



Conclusion

- Home Environment presents a challenging scenario to support P2P and rich multimedia communication services
- Users demanding a richer and more seamless service experience
- Increasing usage of same (convergent) services across device
- Users demanding similar service experience on mobile devices, computer and fixed devices at home
- OMA has many service enablers and APIs suitable for home environment
- Many other opportunities also exist for the home environment
 - e.g. security, energy management, automation, healthcare ...
- OMA welcomes cooperation with other fora in this area
 - continue dialogue, cooperate and coordinate amongst the fora
 - e.g. use CAs/CFs
 - identify common goals, areas of cooperation, leverage works
 - plan for next steps
 - identify potential areas for joint activities and collaborative work
 - identify common scenarios, high level requirements, architectures
 - follow-up Workshop or Webinar later in year



Backup slides

Helpful links

- Open Mobile Alliance public homepage
 - <http://www.openmobilealliance.org/>
- OMA Converged Address Book
 - http://www.openmobilealliance.org/Technical/release_program/cab_v1_0.aspx
- OMA Converged IP Messaging
 - http://www.openmobilealliance.org/Technical/release_program/cpm_v1_0.aspx
- OMA SIMPLE Presence
 - http://www.openmobilealliance.org/Technical/release_program/Presence_simple_V2_0.aspx
- OMA Device Management
 - http://www.openmobilealliance.org/Technical/release_program/dm_v2_0.aspx
- OMA Converged Personal Network Services
 - http://www.openmobilealliance.org/Technical/release_program/CPNS_v1_0.aspx
- Application Programming Interfaces
 - <http://www.openmobilealliance.org/API/APIInformation.aspx?page=about>
 - <http://www.openmobilealliance.org/API/docs/OMA-ARC-RESTdashboard.ppt>