Introduction to Fixed-Mobile Convergence (FMC)

Amit Patel
Lucent Technologies
CTO – US Major Accounts
aapatel@lucent.com
Introduction to Fixed/Mobile Convergence
(Wed 10/11/06 2:00-2:45)

- IMS and Fixed-Mobile Convergence (FMC) have taken front stage in the industry over the last 12–18 months. Many within the industry acknowledge that IMS as an architecture makes a lot of sense and will enable the delivery of new services more quickly, and at lower cost than today’s silo-based approach. But if we scratch under the surface, it’s clear that many service providers are still wrestling with the lead application driver that justifies the initial deployment of a commercial IMS network to their customers. This session will explore how services that bridge between fixed and mobile networks have become a lead driver for IMS deployments, and look at the latest technical and architectural developments to bring converged services to market using an IMS approach.

- Presented by:
  - Jon Arnold (Moderator) – Analyst, Jon Arnold & Associates
  - Amit Patel, CTO – US Major Accounts, Lucent Technologies
  - Craig Gosselin, Chief Marketing Officer, Newstep Networks
  - Seamus Hourihan, Vice President of Marketing and Product Management, Acme Packet
  - Chris Knight, Telecom Solutions Architect, Stratus Technologies
  - Ronald F. Gruia, Senior Telecom Analyst, Frost & Sullivan
**What is FMC?**

- One phone number across wireline, WiFi and wireless access
- Support for today’s Voice, SMS, Voicemail services – and tomorrow’s multimedia services
- When indoors service provided over WiFi, when in wide area service provided by Cellular
- Seamless mobility across domains
  - Handoff and roaming
- Advanced calling features
  - Call forward, call wait
  - Multi-line calls
  - Personal/Enterprise/Family feature control
- Advanced multi-media features
  - Video calling/conferencing
  - Multi-party gaming
  - Blending IM/voice/video/web
# FMC Value Proposition

<table>
<thead>
<tr>
<th>End User</th>
<th>Cost</th>
<th>Convenience</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Consolidate mobile &amp; fixed devices &amp; services</td>
<td>• Improved reception/coverage</td>
<td>• Personal portal for feature management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Shared contact lists &amp; voice mail</td>
<td>• Parental control of features</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Simultaneous, multi-line, distinctive ringing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Multi-media features</td>
<td></td>
</tr>
<tr>
<td>Service Provider</td>
<td>Revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Retain and/or gain subscribers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Increase revenue from added voice features</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reuse IMS architecture for other services</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost Optimization</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Lower cost option for better coverage</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Efficient use of network &amp; licensed spectrum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
FMC Solution – Based on IMS

- IMS Solution appears as “roaming” MSC to wireless network
- IMS Solution can be home network or visited network
- Mobility and Handoff Manager is an IMS compliant application that can communicate with the CSCF/HSS in IMS and HLR/VLR in the wireless network
- The Telephony Application provides the voice features
- Client software is required on the “dual mode” device to monitor signal strength between cellular and WiFi – and to signaling to both networks (e.g. registration, dialed digits, SMS, etc.)
- Additional applications can be easily added to IMS solution
IMS Application Examples Beyond FMC

- **Fixed Mobile Convergence**
- Push to Talk over Cellular (PoC)
- Real Time Video Sharing
- Interactive Applications
  - Interactive Gaming
  - Shared Folders / Sync Data
- Instant Messaging Services
- Voice / Multimedia Unified Messaging
- IMS-enabled Voice and Video Telephony
- Video-conferencing
- IPTV/IMS Service Blending
- Enterprise Routing Services
- Programmable Application Server
- More to come . . .
FMC Solution – Beyond Voice and SMS

Applications added via SIP ISC interface into Session Control and Sh interface into the HSS
FMC Devices

- **Forecasts**
  - 66M dual-mode handsets in use by 2009 (In-Stat)
  - Annual global sales to exceed 100m in 2009 (ABI Research)

- **GSM with PCTel Client Software**
  - Cingular 8125
  - XDA Mini-S (HTC iMate K-JAM)
  - HP iPAQ 63xx ; 6900 series

- **CDMA with PCTel Client Software**
  - Samsung i730
  - UTStarcomm 6600 and UTStarcomm XV6700
  - Kyocera KX5 Slider

Tier One terminals (e.g. Motorola, Nokia, etc.) for commercial deployment being positioned for 1H 2007