IMS Challenges: Integration, Migration and creation of Sustainable business

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Sophia Antipolis, 24 November 2010.
IMS is a Journey, Not a Destination (John Delaney, OVUM)

Vision
- Business Case
- Convergence

Value
- Application Enablement
- Application Eco-system

Technology
- TDM
- Broadband
- All-IP

Execution
- OpCo
- Operational Excellence
- IMS

OpCo
- High Leverage Network
- RCS
- LTE

ServCo
- SDP
- IMS

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Challenge #1
Mitigating IMS Integration Costs and Risks

- Multi-vendor platforms interoperability
- End-to-end functionality, scalability, security and QoE
- OSS/BSS, applications, CPE and clients integration
- Network and software configuration management
- Dealing with multi-vendor team dynamics
- Reducing costs & risks of project delays
- Labs, methodologies & tools for testing & validation

Expertise, experience and facilities are key to integrate complex multi-vendor networks.
A Holistic Approach to Solution Development & Validation

Analysis & Design          Implementation          Integr. & Verification          Acceptance

Customer                    Solution Definition

System                      Validation Strategy

System Element               Acceptance Plan & Design

End-to-End
Multi-vendor

Customer Validation & Acceptance
Transition
SI Validation
Requirements Verification
Design Verification
Integration
Acceptance

Specification
Detailed Design
Architecture & High Level Design
Requirements Development

Implementation

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**What Gets Measured Gets Managed**  
IMS functional regression testing (POTS & SIP)

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**ILLUSTRATIVE EXAMPLE**

<table>
<thead>
<tr>
<th></th>
<th>Typical industry performance</th>
<th>Measured* Alcatel-Lucent performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test coverage</td>
<td>20-30 tests</td>
<td>126 tests</td>
</tr>
<tr>
<td>Test creation time</td>
<td>1 hour/test</td>
<td>10 minutes/test</td>
</tr>
<tr>
<td>Test execution time</td>
<td>1 person week</td>
<td>1 night</td>
</tr>
<tr>
<td>Test efficiency</td>
<td>~ 2 tests/hour</td>
<td>~ 25 tests/hour</td>
</tr>
<tr>
<td>Lab utilization</td>
<td>mostly daytime</td>
<td>day and night</td>
</tr>
<tr>
<td>Quality coverage</td>
<td>human</td>
<td>based on MOS KQI</td>
</tr>
<tr>
<td>Reporting</td>
<td>error prone</td>
<td>KQI based</td>
</tr>
</tbody>
</table>

(*) Alcatel-Lucent lab results and customer project metrics
Challenge #2

*Migrating* Network and Subscribers to IMS

- Migration from PSTN, NGN and pre-IMS to IMS
- Technical vs. commercial migration
- Network, site and operations readiness
- Minimal impact on service continuity
- Migration methodology, processes & tools
- Resource planning, scheduling and fallback scenarios
- Engaging all stakeholders, including regulators and end-users

*Predictability and automation are key to execute large scale migration projects.*
Methodology & Tools for PSTN to VoIMS Migration

- OSP data records validation & cleansing
- TDM switch
- Data migration
- Provisioning & synchronization
- Re-routing
- Physical cutover
- MSAN
- IP cloud
- IMS core
- Subscriber data
- Routing data
- Legacy EMS/OSS/BSS
- Next gen EMS/OSS/BSS
- POTS users
- ISDN users
### Data provisioning speed

- **1st pass-migration yields**
  - Typical: 50-60%
  - Measured: 98%

- **End-user outage time during physical cutover**
  - Typical: 20 minutes
  - Measured: <20 seconds

- **Migration window**
  - Typical: overnight
  - Measured: 24/24

- **Overall migration cost**
  - Typical: 100%
  - Measured: ~70%

(*) Alcatel-Lucent lab results and customer project metrics
Challenge #3
Creating a *Sustainable* IMS Business

- Implementing a win-win-win model for Network Providers, Application Providers and End-Users
- Enabling applications, exposing and monetizing network assets and user profiles without compromising privacy & security
- Delivering services beyond voice, applications beyond web 1.0/2.0 and enhancing the user experience
- Reducing time-to-market while stimulating open innovation and developer eco-systems

*A sound business model and go-to-market strategy are key to drive successful commercial launch.*
Application Enablement Leveraging a Service Provider’s IMS Environment

High Leverage Network with IMS Core
What Gets Measured Gets Managed
Consumer Demand for New Applications and Bundles

**Consumer likelihood to sign up for LTE applications**

- Live Messaging: 15% Definitely would sign up, 34% Probably would sign up
- Next-Generation Music: 14% Definitely would sign up, 30% Probably would sign up
- Enhanced Mobile Video: 10% Definitely would sign up, 31% Probably would sign up
- Multi-Party Video Call: 9% Definitely would sign up, 25% Probably would sign up
- Image-Enabled Search: 8% Definitely would sign up, 26% Probably would sign up
- Location-Based Services: 8% Definitely would sign up, 25% Probably would sign up
- Mobile Video Monitoring: 11% Definitely would sign up, 21% Probably would sign up
- Mobile Gaming: 7% Definitely would sign up, 21% Probably would sign up

**Preferred tariff models for LTE data services**

- 32%: HSI + top 6 apps, Advertizing, Monthly fee 28€
- 12%: HSI + top 6 apps, No advertizing, Monthly fee 35€
- 11%: HSI + top 3 apps, No advertizing, Monthly fee 28€

(*) “LTE Appeals to European Consumers”, Alcatel-Lucent, Nov 2009
There are many challenges ahead on your IMS journey. Need for a holistic approach and an experienced partner.