FIXED MOBILE CONVERGENCE/IMS

ACE/RUS SCHOOL AND SYPOSTIUM
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AGENDA

- What is Convergence?
- What is IMS?
- What are the drivers?
- Convergence/IMS Path.
- What are the obstacles?
- What are some available solutions today?
- Summary
WHAT IS CONVERGENCE?

• Convergence has many definitions:
  – Convergence of voice, wireless, video and data onto one network.
    • Network based on IP, only the Access/Transport of the network is different. IMS is a big part of convergence
    • Access could be DSL, FTTH, Coax, PSTN, Wireless (fixed or mobile).
    • Share applications (features) and control across different access types.
  – Mobile wireless and fixed wireless
    • Mobile wireless and Wi-Fi/broadband; Wi-Fi in your house, mobile cellular outside.
    • Femto-cells
  – Enterprise convergence for businesses
WHAT IS CONVERGENCE?

• How do most systems look today?
What does Convergence Look?
WHAT IS IMS?

• IP Multimedia Subsystem (IMS) is an architecture that enables wireline, wireless and cable operators to offer a new generation of rich multimedia services
  – Across both circuit switched and packet switched networking infrastructures

• IMS defines a architecture of logical elements using SIP for call signaling between network elements
  – Provides a layered approach with defined service, control, and transport planes
WHAT IS IMS?

• IP Multimedia Subsystem
  – It is basically the service engine for full Convergence
  – It is IP based and WEB integrated
  – Application mobility – mobile to TV, mobile to PC, mobile to home phone/office
  – Network mobility – same IP address as you move from site to site or access to access type.
  – Access mobility – move from one access type to another
  – Services are only limited by the demand and the ability to sell them
  – Signaling network based on SIP
IMS Benefits

Converged Applications
- Across Networks
- Reduced development costs and time
- Voice, Video and data services
- Write once / use many

Shared Resources
- Media server resources
- Common user data
- Single user profile across applications
- Integrated applications

Session Control
- Common Session Control (SIP)
- Provides common service policies
- Leverages investments across multiple applications

Access Network Agnostic
- Eliminates multiple service solutions
- Network transparency
- Consistent services across networks
- Single presence no matter access type
WHAT IS IMS?

• IP Multimedia Subsystem
### WHAT ARE THE DRIVERS?

#### Shifting Business Models
- **Fixed/Mobile Convergence**
  - Any to Any Access and Content
- **New Competitors, New Tactics**
  - Competition from non-traditional “content” service providers
- **Service Bundling**
  - Voice-driven to multimedia service-driven business model
  - Differentiated portfolio of value-added services
- **Service Delivery: Internet Time at Internet Cost**
  - Transition from network-centric single services to subscriber-centric offering
  - New service economics (low) & new user expectation (high)

#### New Architecture Requirements
- **Any to Any Network & Endpoint Access**
  - Flexibility, scale, and service intelligence
  - IP/TDM services delivered across networks new & old…fixed or mobile
- **Open, distributed service access, integration and delivery**
  - Leveraging standards-based technology & web development model for faster time to market
  - Maturity and adoption of standards – SIP, VoiceXML
  - IP Multimedia Subsystem (IMS)

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WHY IMS?

• Need a better environment for creating and deploying high value multimedia services
  • Transform business models from voice-driven to service-driven businesses
  • Fixed-Mobile Convergence on a common IP application and service delivery architecture

• Grow and protect subscriber base, increase ARPU (Average Revenue Per User)
  • Deliver a differentiated portfolio of value-added services
  • Provide more subscriber focused offerings

• Controlling CAPEX and OPEX
  • Maturity and adoption of SIP and XML
  • Web model development model shortens the required investment of a programmer to develop new applications
  • Enables best-of-breed solutions with focus on new IP application services

• Faster time to market with new services
  • Develop on standards-based technology
  • Reduce time to market for new applications with web development model
WHAT IS THE CONVERGENCE PATH?

- There are many different circumstances depending on your customer make-up, competition, financial situation, etc.
- Some companies may be a combination of these two if you have mobile wireless in your offering.
WHAT ARE THE OBSTACLES?

• Open Standards (or Implementation of them)
• Demand or benefit
• Ubiquitous Broadband deployment
• Finances
• Size of network
• Complexity
• Staff Expertise
• Timing – availability of equipment versus timing of a natural change in your network equipment
WHERE ARE WE TODAY?

- There are several devices and vendors with FMC/IMS solutions.
- Mobile Wireless Service provider services and opportunities:
  - Femto-cells
  - Wi-Fi Home or Enterprise, MVNO Wi-Fi
  - IMS services more prevalent with wireless companies
    - PC to mobile phone (and vice versa) services - SMS, MMS, interactive gaming, video
    - Push to Talk
    - Real-time video sharing
    - Video telephone

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WHERE ARE WE TODAY?

• Wireline Service provider services and opportunities:
  – Wi-Fi Home
    • Dual Mode Phone
    • Need your client on phone
    • Works over broadband network
    • Single number in and out
    • Find me, Follow me
    • Simultaneous Ring or sequential ring
    • VoIP (SIP)
    • Need Softswitch or Gateway
WHERE ARE WE TODAY?

• Wireline
  – Wi-Fi Enterprise – IP Centrex or Hosted PBX
    • Same features as Wi-Fi home but more
    • Mobile Part of business group
      – 4 digit dialing whether on Wi-Fi or cellular network for other group phones. 4 digit dialing for mobile when on Wi-Fi network.
    • Move calls from mobile to PC (Softphone), mobile to desk phone and vise versa.
    • Universal features
    • Remote office
      – When on Wi-Fi will have same features as office phone
    • Possibly even WEB portal to manage features.
    • Control over employee contacts from customers

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SUMMARY

- Convergence may be beneficial to your company.
- IMS is an application driven architecture – focused on service creation and deployment that enables convergence
- Vehicle for “combined services”
  - Voice/video messaging and conferencing, presence, multiplayer gaming, ...
- Going forward Service Providers should try to buy equipment that fits in the IMS standards.
- First step, put together a team to help with:
  - Need
  - Business strategy and service plan.
  - Evolution and migration plan
  - Network and applications selection
  - Network management
  - Cost effective and efficient implementation
Questions?

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