Wireline/Wireless Convergence: The 4G solution

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THANK YOU!
Moderator:
David Malfara, Sr., President and CEO, ETC Group, LLC

Speakers:
Bob Calaff, Director, Spectrum & Technology Strategy, T-Mobile USA
Ben Vos, Vice President, Wholesale, Business Operations, Sprint
Craig Clausen, Executive Vice President and Principal Analyst, New Paradigm Resources Group, Inc. (NPRG).
Wireline/Wireless Convergence
The 4G Solution

Bob Calaff
Director, Spectrum & Technology Strategy
T-Mobile USA, Inc.
Dimensions of Convergence

- Access
- Transport
- End to End IP
- Three (or Four) Screens
- Service Features
  - ✓ Bundles
  - ✓ Unified Billing
  - ✓ Authentication & Security
Evolved Packet System (EPS)

- EPS = Long Term Evolution (LTE) + Evolved Packet Core (EPC)
- Designed to support internetworking with fixed and mobile access networks
- Leverages IP Multimedia Subsystem (IMS) and Session Initiation Protocol (SIP)
T-Mobile’s FMC Experience


- Wi-Fi Calling
  - Generic Access Network (GAN) Lite Android clients
  - IMS based
  - Enables richer, multimedia experiences

Source: umatoday.com
The More Things Change . . .

Source: Senza Fili Consulting (2011)
Thank you

Bob Calaff
Director, Spectrum & Technology Strategy
T-Mobile USA, Inc.
bob.calaff@t-mobile.com
Ben Vos
VP Business Operations
Sprint Wholesale Solutions
Wireless and Wireline – A Perfect Combination

• With the advancement in wireless services some consider it a replacement to wireline technology...
• Truly converging 4G wireless with wireline services is the competitive advantage for the provider and end-user...
• Sprint believes that convergence starts in the network, and is leading the industry in integrating technologies to maximize performance and the ability to innovate. This philosophy is visible in the products and solutions we offer our customers...
  — Network Vision
  — 4G Fixed Access
  — Wholesale Mobile Integration (FMC)
  — Cloud Services
Network Vision: The Convergence Enabler

Sprint is building the next generation wireless network that can enable the perfect marriage of wireless/wireline technologies.

- **Better Coverage**: Dramatically improved coverage and in-building penetration for all services.
- **Higher Capacity**: Access to considerable spectrum assets allows Sprint to maximize capacity and coverage.
- **2.5 GHz**
- **1.9 GHz**
- **800 MHz**
Continued Enablement

The synthesis of all of the Sprint networks through Network Vision allows innovation and evolution for each of Sprint’s major services for tomorrow and beyond.
Wireless Convergence for Wireline Access

4G Fixed Access

Disaster Recovery/Redundancy
- Instant physical ingress/egress redundancy
- Standby backup capabilities

Penetrate New Markets
- 4G enables Partners to effectively compete against facilities-based T1 access providers in providing MPLS services
- Expand existing availability footprint

**Connectivity Options**
- Direct Internet Access
- Access to Sprint’s Global MPLS Network via Datalink
- Secure connectivity via Sprint Data Link
- Static IP (coming soon)

**Reduce Costs**
- Utilize instead of bonded T1s
- Eliminate high access mileage costs
- Replacement for existing wireline circuits with low utilization, *e.g.*, backup
- Lower total network cost of ownership for end user
Fixed Mobile Convergence for SIP-to-Wireless Integration

Wholesale Mobile Integration, an IMS powered, network-based FMC solution, gives service providers a new business opportunity by connecting new wireless services to existing wireline services within their SMB customer base.

With WMI, wireline and wireless technologies come together to enable a ubiquitous solution.
Convergence for the End-User

Cloud Services

Enabling software access beyond the desktop, thereby creating a better value to SMB customers by bundling SaaS with Wireless Data plans on Tablets & Datacards.

- Domain registration
- Webhosting
- Mail hosting
- Virtual Servers
- Virtual Desktops
- Virtual Workplace
- Storage
- On-line backup
- Exchange
- Sharepoint
- OCS/Lync
- Dynamics CRM
- Blackberry
- Mail security
- Web security
- Archiving

Wireless

Browser-based Software applications can be delivered across any broadband wireline or wireless access service. I.e.. Computer/Laptop on a wireline network vs. a Tablet / or Mobile Data solution

Wireline
Wireline/Wireless Convergence

The Convergence Imperative

Craig M. Clausen
Principal Analyst
New Paradigm Resources Group, Inc.
30 S. Michigan Ave, Suite 700
Chicago, IL 60603
(312) 980-7840
cclausen@nprg.com
Putting “Convergence” Into Perspective

In the telecom world, “convergence”

- Is usually prefixed by “Fixed-Mobile”
- Voice emphasis
- Focuses on networks, interoperability, interconnectedness
- Engineering flavor
- Two dimensional structure

In the broader communications world, the New Convergence carries larger implications...
The New Convergence Characteristics

The New Convergence is:

- Access agnostic
- Location Independent, but Location Aware
- Any device
- Any time
- Always available
- Any content
- Content creation as well as consumption
- All with a consistent experience
Carrier Opportunities & The New Convergence

The New Convergence:

- Is more encompassing
- Focuses on “Services” not connections
- But still leverages service providers’ core assets
- Larger opportunities
Why is it an Imperative?

• Not understanding and embracing the new convergence is the path to becoming an “also-ran” – an input into someone else’s machine

• New Convergence Indicators:
  ➢ Verizon & Comcast
  ➢ The West Coast Pack (e.g. Google)
Thank You!

Craig M. Clausen
Principal Analyst
New Paradigm Resources Group, Inc.
30 S. Michigan Ave, Suite 700
Chicago, IL 60603
(312) 980-7840
cclausen@nprg.com
IP Multimedia Subsystem
Service Provider Interoperability

Carrier A (Wireline – NextGen Network)
- Wireline Access Network (PON, DSL, ME, etc.)
- Home GW
- NGN Core (IMS)
- Managed IP Network
- IP-to-IP Interconnection

Carrier B (Cellular – 4G/LTE)
- Evolved Packet Core (IMS)
- Managed IP Network
- Radio Access Network

Carrier C (Cable)
- HFC Access Network
- PacketCable 2.0 Core (IMS)
- Managed IP Network

Managed IP Network

ETC GROUP, LLC
Emerging Technology Consultants

IP Media
IP Signaling (SIP)
Speaker Contact Information:

David Malfara, Sr., dmalfara@etcgroup.net
Bob Calaff, Bob.Calaff@T-Mobile.com
Ben Vos, Benjamin.x.vos@sprint.com
Craig Clausen, cclausen@nprg.com
THANK YOU FOR ATTENDING!