Taking advantage of a vibrant market place

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March 23rd 2006
Digital Culture is Evolving

Gaming

TV

Music

Blogs

Social Networking

Experience
Experience is Consumer Defined & Driven
Tailored to Their Own Unique Interests and Needs

<table>
<thead>
<tr>
<th>What They Want</th>
<th>When They Want It</th>
<th>Where They Want It</th>
<th>How They Want It</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad choice, personalized and simple</td>
<td>On demand, available always</td>
<td>Everywhere, follow me</td>
<td>Flexible, with no platform, access or bundle restrictions</td>
</tr>
</tbody>
</table>

Yes We're OPEN
Connected Home
Essential Element to the Experience

Communication Services
- VoIP
- 802.11 phones
- Presence
- In-home key systems

Information Services
- VPN
- Home networking
- Parental control
- Firewall
- Storage

Automation and Control Services
- Home surveillance
- Nanny cam
- Security
- Fire, utilities, lighting

Entertainment Services
- Video
- Music
- Gaming

VoIP
- Presence
- In-home key systems

802.11 phones
For Providers…
Greatest Opportunity…
&
Greatest Challenge
New Service Provider Offer:
“Many Services to Many Screens”

- VoIP
- Custom Ring Tones / MP3 Player
- High-Speed Internet / VPN
- Text / Instant Messaging
- Push-to-Talk / Intercom
- Video Conferencing
- Digital TV / VOD
- PDA / Email
- Video Data Voice

At Work, At Home, On The Move
Greatly Expands Addressable Market

Example: Connected Home

- Residential Broadband Access $\$
- Video and xVOD $$$
- Local and Long Distance Voice $\$
- Direct to Disk/Pod Content Distribution $
- Wireless Video $
- Security $\$
- Home Net $
- Net PVR $
- Digital Music $
- Dual Mode Voice $\$
- Gaming $\$
- Video Telephony on TV $\$
- Mobile Phone GPS Mapping $

...and more
Convergence of SP Segments More Urgent
Can No Longer Be Defined by Access Technology

Experience Provider

Wireline

Over the Top

Cable

Mobile
.... As is Integration of Different Industries
Expanded Scope for SPs and Others

- Internet
- Entertainment
- Software
- Gaming
- Converged Branded Experience
- Advertising
- Telecommunications
- Retail
- Finance
- Converged Branded Experience
Video is Key for Experience Delivery

High Definition

Video-TV On Demand / nDVR/ Mobile TV

Managed Video Applications

Video Phone / Video Conferencing

Gaming / Interactive TV

Video Communications Services

Video Streaming

Video to Other Devices

“Over the Top” Video

Video TV On Demand / Mobile TV

Video Phone / Video Conferencing

Video Streaming

Managed Video Applications

Video Communications Services

“Over the Top” Video
### Video Challenges

**Business Challenges**

- Differentiation/New Business Models
- Content Explosion
- Growth of “on-demand” TV
- Increasing relevance of long tail (niche) content to consumers
- Impact of “over the top” video

**Technical Challenges**

- Achieving scale at a lower TCO
- Managing video in scope of larger Triple Play on the Move convergence
- Linking key architectural elements to deliver a better user experience
- Capitalizing on 3rd party innovation

### Business Challenges

- **“Content Scope & Control”**
  - Differentiation/New Business Models
  - Content Explosion
  - Growth of “on-demand” TV
  - Increasing relevance of long tail (niche) content to consumers
  - Impact of “over the top” video

### Technical Challenges

- **“Open, Balanced System”**
  - Achieving scale at a lower TCO
  - Managing video in scope of larger Triple Play on the Move convergence
  - Linking key architectural elements to deliver a better user experience
  - Capitalizing on 3rd party innovation

### Services

- **Traditional Web-Based Services**
- **VoIP Services**
- **Video-Based Services**
Experience in Delivering Large Scale Video Systems and Networks

- **Scale**: Largest Digital Video Market Penetration in US
- **Speed to Service**: Achieved over a Million Digital Video Subs in first year of working with Scientific Atlanta
- **Open**: Cablevision develops their own applications (iO interactive optimum) for Scientific Atlanta platform

- **Expertise**: ATT (formerly SBC) selected Scientific Atlanta to design, build and activate the “true video” component of network
  - IP Video super hub offices (SHO)
  - IP Video hub offices (VHO)
  - IP Video operations center (VOC)

- **Experience**: Different access technology but still video; 55 years of video experience at work to make Project Lightspeed successful
Overall Media spending in EMEA is growing faster than the economy (GDP growth: 5.6%)
Western Europe: Digital penetration expected to reach 60% within 3 years

Digital TV in Europe – 2004-2009*

- Digital Terrestrial is expected to grow most and to catch up with Satellite
- Digital Cable and digital satellite growths are quiet similar
- Digital Satellite still has the most true PayTV Subs
- IPTV is the fastest growing platform in Europe

Source: Datamonitor
Each country is different, everywhere the potential is real

TV distribution in Europe

Distribution platform repartition

- Digital Satellite
- Digital Cable
- Digital Terrestrial
- DSL
- Analog TV

Source: Dataxis
As an example, the battle for the French Triple Play market…
Is driving a strong price and services competition

- Broadband
- Data
- Mobile
- Fixed
- TV

‘bouquet’

Unbundled Triple Play

2003

2006

200?

- Triple Play
- Bundles

- Prices flat but improvement on services and content offering

- What will be the impact of Quadruple play on unbundled services (including mobile)?

- How much margin is there when Network/mkt costs are no more compressible?

- What will be the bundle price with mobile?
Our most important challenge: Help Service Providers Differentiate
Europe to be larger digital TV market than US by 2006

- Europe will overtake the US in 2006 to become the largest digital TV market
- Europe to overtake the US in penetration terms at the end of this decade
Cisco IP NGN Vision and Architecture
Expanding Cisco’s IPTV/Video over IP NGN Value Proposition

IP DNA

Build
CRS-1, XR 12000, 7600, more...

Video DNA

Partner
Content providers... Middleware...

Home Networking DNA

Acquire
Scientific Atlanta, Linksys

Cisco Service Provider Vision
Connecting Customers with Services, Services with Networks, and Networks with Each Other

IP Next-Generation Network
VPNes, Internet, Mobility, Content, Transport
experiences

Poweredbycisco.
Scientific Atlanta
A CISCO COMPANY