

Experiences with Triple Play in the USA

Munich, May 10th 2006



US Triple Play Initiatives: Some Numbers

A sound infrastructure foundation with a continued build out roadmap and significant investments in infrastructures.

Cable/MSO	
Homes passed:	110.2 million
Basic Subscribers:	65.4 million
Annual Revenue:	69.5 billion
Advertising Revenue:	24.6 billion
VoIP Adoption:	> 3 million

Telco/RBOC	
Number of lines:	150 million
Fiber homes passed:	> 4 million
Fiber connected homes:	0.7 million
Annual Revenue:	> 80 billion
Triple Play Invests:	\$3B/year

Since the 1996 Telecommunication Act MSOs have invested over \$90 billion to create a triple play network. RBOC investment seems pale in comparison.

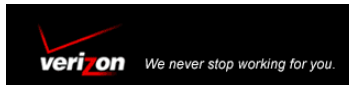
Source: Detecon Research, NCTA, TIA,
Consulting

US Triple Play Initiatives: Who & What?

RBOCs as well as regional Telcos deploy Triple Play to drive ARPU and answer the competitive threat of cable.

Verizon - FiOS

- FTTH roll out passing 6 M homes in 2006
- First test market in Keller, Texas
- Services: HDTV, short messaging, Interactive Shopping, EPG



AT&T – Lightspeed: U-Verse

- FTTN deployment to 18 M. Homes by YE 2008
- Local trial and test market in San Antonio, 20 markets by YE
- Services: MPEG4, Telephony functionalities, photos, etc.



Bellsouth

- Focus on ADSL 2+ to deliver triple play
- 1,000 homes test in Atlanta scheduled for 2006
- Service differentiation: partnership with SES Americom for content feeds



Surewest

- FTTH roll out using video head end asset base of WINfirst
- Over 16,000 active subscribers in the Sacramento, CA area
- Service Differentiation: better customer service and 10Mbps bidirectional data offering



US Triple Play Costs and Return on Investment

The US Telcos billion dollar investment in FTTx infrastructures depend on all three elements of Triple Play for ROI.

The Math behind the US Triple Play Initiatives:

- Depending on specific FTTx architecture the cost, just to pass a home, is on average US \$1000/home.
- In order to provide video or IPTV services, costs are estimated at US \$500/home for network and consumer equipment.
- For US Telco's to provide video programming (at same level as satellite and cable) the costs are \$20-28/customer/month.
- Potential ARPU with Triple Play Offering: US \$100+/month

Triple Play Services = Significant Investment & Long Term ROI

Source: Detecon Research, Fortune, Business 2.0, Forrester, CNet, Verizon, SBC/at&t

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Money Goes to Hard Hats

Cost of electronics is going down at a ever fastest pace but the cost of digging street stay stable and very high.



Digging the Streets

... in addition operators experience high cost associated to the resurface of existing public and private street.



Triple Play Build Outs: Challenges

At this stage US-FTTx roll outs are characterized by a variety of operational and technical challenges that could potentially jeopardize the business cases.



Home Installation

In house wiring remains a problem. CAT5 is a solution of choice but is rarely present in home. RBOCs must be flexible and use an array of solutions both wire and wireless.



Competitive Dynamics

US Cable companies or MSOs have started to enrich their portfolios and lower their prices.

MSOs before ...

- Basic and advanced cable TV services
- Pay Per View TV- schedule based
- Cable modem roll outs initially required PSTN for uplink
- Monopoly on market– less than 5% of US market had access to another terrestrial content provider
- Owned some content, rights to sports/events broadcasting
- Very limited regulation on pricing or models.

... and after

- Enriched VOD portfolio and EPG
- Lower (competitive?!) prices – bigger bang for the buck. Cable prices in TX lowered due to FiOSTV!
- Increased Speeds in cable modem services
- Triple (VoIP) and Quadruple Play (Landmark JV with Sprint, Auction 66?!) path
- Increasing vertical integration among MSOs and content
- Facing ala carte pressures

Seeking Partner

The integration challenges have led RBOCs to select a vendor that has a good track record of executing and is committed to the success of IPTV: Microsoft

1

Microsoft Brand Name: Personal involvement of executives, Wall Street respectability, fast follower ...

2

A Partner not just a Vendor: Share the risks, investment in marketing campaign, liability, early adopter program ...

3

A Convergence Solution: Multi format, multi platform, entertainment and communication package ...

4

Herd Mentality of the Telcos: SBC, VZ, BT, Bell South next FT, DT,

5

Four Cornerstones: Instant channel change, SMPTE VC-1, weak network QoS requirements and DRM

Regulatory: Net Neutrality, Franchising & Ala Carte

The hot topics of the cable industry...franchising and ala carte are hotter with the entrance of Telcos in the content marketplace.

Telcos & MSOs agree!

Net Neutrality

- Telcos, granted forbearance* to their FTTx infrastructures in 2004, want to capitalize further on their FTTx networks by charging large content providers, portals such as Google and Yahoo, ISPs, etc. more for “packet prioritization”
- Currently in debate in US Congress, essentially Google/Ebay/Yahoo et al. vs. Telcos & Cable Cos. Future of net neutrality not looking so bright.

Franchising

- Cable operators negotiated rights and fees with municipalities in order to provide service. There are thousands of municipalities in the US and can take 6-18 months/municipality!
- Currently in debate in US Congress is an over-arching national franchise model (supported by Telcos) which would reduce this barrier to entry for competitive content providers. Signs are promising for national franchise policy.

A la Carte

- Movement to allow consumer choice of which channels they want (and pay for) from video service providers, more choice than just the tiers of channels offered today.
- MSOs see higher costs in having to provide this service– much easier for an IPTV provider through IP addressing.
- Currently in debate in US Congress– could be a toss up!

Source: Source: Detecon analysis, 'Reclaim the Media', CNET

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**FCC decision that Telcos did not have to re-sell access to their FTTx infrastructures to competitors. Also, in August 2006, Telcos will not be required to unbundle/re-sell access to their DSL lines. As a part of SBC's acquisition of AT&T, promised to up hold net neutrality until 2007*

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Summary: Triple Play Challenges in the US

Regulatory, technical, provisioning and competitive issues are faced by US Telcos concerning their Triple Play Strategies.

Uncertainty	<ul style="list-style-type: none">■ Still incredible uncertainty regarding success of Triple Play business model and its ability to “save” the Telco ARPU and have a decent ROI.
Microsoft IPTV	<ul style="list-style-type: none">■ Verizon, AT&T and BellSouth are using some elements of the MSTV solution which is closed and proprietary; challenges: time to market, second source
Regulatory Hurdles	<ul style="list-style-type: none">■ Telcos must gain franchise rights in cities, municipalities or states in order to legally provide video services.■ The cable industry has been lobbying this issue intensely.
Provisioning	<ul style="list-style-type: none">■ FiOS installation can take up to 6-8 hours! Processes need fine tuning.<ul style="list-style-type: none">● “Quick jump” into converged marketplace by Telcos illustrating provisioning weaknesses.● Hidden costs developing in installations due to in-house networking/cabling.● Backend systems still not fully integrated.● Limited technical support/information from customer support staff.
Net Neutrality	<ul style="list-style-type: none">■ US Telcos wanting to preserve and compound revenue potential of new fiber networks by charging a “premium” for packet prioritization to content providers
Parity	<ul style="list-style-type: none">■ Telco’s may not be able to differentiate from the cable offerings in content & features which could result in a price war and delay ROI expectations.