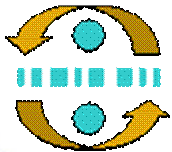


Broadband Triple Play: Business Opportunities & Technology Challenges

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BReATH – Broadband e-Services
and Access for the Home

Promoting broadband in NMS countries and Greece

Why is Greece lagging behind?

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From “Convergence” to “Triple Play”



- Once upon a time...
 - Voice and Data integration over IP networks for telcos
 - TV operators (cable & satellite) struggling for interactivity
- “The show must go on”...
 - Offering combined Voice & Data services is the standard offering
 - Addition of Video for Triple Play is probably the best way to exploit the new high speed networks

Hardly a new idea...



- Many incumbent telcos trialed TV and VoD in the early-to-mid 1990s
 - Proved to be a failure in the past
- So, why are telcos and other network operators doing TV & video again?
 - Are their memories too short?
 - Have the circumstances changed in ways that enable the idea to make sense this time around?

It does make more sense this time!



- Drivers are intensifying
 - Increase broadband take-up
 - Maintain BB revenues as prices fall and traditional revenues are declining
 - Fight back competitors' Triple Play products and reduce churn

*From “**Can we afford to?**” to “**Can we afford NOT to?**”*

- Enablers are improving
 - Higher access bandwidth through advancements in DSL technology
 - Progress in video compression (H.264-MPEG 4 Part 10 and Microsoft Windows Media 9)
 - Lower cost for infrastructure (storage, Set Top Boxes, etc)

But even if you think video is the killer broadband application...

It's still not a license to print money!

Is it about **more** TV?



- Abundance of content
 - Thousands of TV channels, 350 million Internet domains, 43.000 magazines, tens of thousands of podcasts
- Multiple available devices
 - TV sets, DVDs, PCs, mobile phones, mp3 players
- Consumption of content is rising, but even so...
- TV is more popular than ever
 - For the last few decades, consumers have migrated to more specialized, niche content

It's about **better TV!**



- Television in the new era
 - Personalized
 - Interactive
 - “On Demand” services
 - Mobility of consumer
 - Portability of content
 - Convergence of devices
 - End of the traditional concept of release windows

“The end of Television as we know it?”

The stages of market development



- **Replication**

- “Linear” viewing (scheduled programming)
- Limited interactivity (VoD, PVR, Time-shifting)
- Richer user interfaces (EPG)

- **Integration**

- Increased interactivity, Internet like experience and services
- Integration with communication (messaging, chat, video telephony), and commerce services

- **Innovation**

- Localization and personalization of content
- Portability of content and multiple devices
- Mobility of consumers and location awareness

Customers' bimodality

The following years will be stamped by the coexistence of two discrete customer segments*

- Lean back (massive passives): TV as the media centerpiece, scheduled programming, growing time-shifting
- Lean forward (gadgetiers – kool kids): experiential interactive video experiences, heightened control of aggregation, multiple content sources, space-shifting, time-shifting, user contribution of content, device interoperability
 - 57% of US Internet teenagers create, remix or share content online
 - This group is already forcing radical changes in existing business models in their quest for content

Evolution of business models



- Consumers change ... business models lag!
- Yet, market changes are triggering trials of new business models
 - BBC is piloting a P2P player for downloading and sharing BBC content on the PC
 - Disney and Apple entered a partnership to enable access to one-day-old episodes of popular shows via iTunes at the price of 1.99\$ per episode. The content is portable on iPods!
 - MTV “Overdrive” and AOL “In2TV” (with Warner Bros) are examples of no-user-fee services (genre-driven and thematic video channels respectively), where the revenues accrue from skip-resistant advertisements

The competitive Outlook



- It is a long value chain...



- And there are quite many candidates...
 - Content producers, content aggregators, TV channels, pay TV operators, satellite TV operators, cable TV operators, incumbent telcos, alternative telcos, ISPs, ASPs...
- Round 1: Telcos vs. TV operators
 - Pay TV operators cease to define themselves by their original access network
 - But it is not a race for the Broadband Port

It is the “battle of the living room”

Countering the over-the-top video threat



- Other players will also try to establish their place in the video distribution value chain
 - Will major content owners go directly to consumers?
 - Will Internet content aggregators circumvent traditional programmers?
- *The TV content networks rank Internet services among the top areas of concern and Internet Portals (e.g. Yahoo!, Google) as the most significant competitors in the next 5-7 years**

* Economist Intelligence Unit survey

Today's technology challenges



- The obvious ones...
 - DSL networks designed for residential access to the internet
 - IP transport networks: ATM/SONET vs. IP/Ethernet (more cost-effective)
 - Centralized DSLAMs
 - Support of multicast and necessary protocols (e.g. IGMP)
 - Home network
 - Mass production of MPEG4 on-chip decoders and STBs is just starting
 - In-house wiring and methods of video delivery
- But do **NOT** underestimate the rest!
 - Interoperability of solution components given the lack of standardization
 - Need for cross service and BSS integration
 - Scalability of technical solutions
 - A single installation is over the 500.000 subscribers threshold!
 - Service management and troubleshooting

Lessons learned



- Focus on your core business
 - Ovum advises Telcos: “Stay out of the content business and concentrate on being good service companies”
- Adapt your strategy to your market and the real needs of your customers
 - Create a solid Business Case
- Be careful
 - Perform a pilot
 - Start with Me Too services (broadcast - linear programming TV). Users’ viewing habits are changing slowly.
 - Provide users with a differentiated offering, incrementally upgraded (major on one feature).
- Be bold (lessons from the music industry)
 - Get out in front of a changing marketplace
- KISS: Keep It Simple Stupid
 - It’s TV, not IPTV
 - Provide users with adequate support for the STB installation
 - Design a simple and consistent user interface
 - Create simple payment mechanisms



Thank you!

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