Telco Triple Play: The DSL Imperative

EXECUTIVE SUMMARY

The "triple play" of voice, video, and data services has long been an object of desire for telcos, but it has always remained just out of reach. A number of small, independent telcos operate as video providers today, primarily in rural and small-town markets, but the major operators, despite various attempts to enter the video business and complete the triple play, have so far found success frustratingly elusive.

That is about to change, for two basic reasons. First, the technology to enable triple play over carrier infrastructure is now ready for deployment. Second, local telcos have no choice but to become triple-play providers. Voice revenues are diminishing as competition from wireless operators, local telco competitors, and even cable operators intensifies. Best-effort data services have quickly become commoditized and today generate only cash, not profits. Partnerships with satellite video operators do give telcos a path of entry into video services, but they don't offer any way to leverage existing infrastructure, nor enter the more lucrative interactive video services markets.

Telco Triple Play: The DSL Imperative takes a look at how telcos worldwide are delivering triple play over copper infrastructure. The primary emphasis is on video delivery – the key ingredient in any telco move to triple play, and the one that offers the most risk and the greatest rewards.

This report was designed to answer the following key questions facing the market today:

- What is triple play?
- How will telcos around the world support triple play?
- Is video the killer app?
- How can a telco differentiate video from cable network offerings?
- Will everything converge over IP? If so, when?
- When choosing DSL, what are the options?
- When choosing DSL, who are the vendors?
- Which DSL solutions will prevail? Which will fall to the wayside?
- Is there a clear leader among vendors of triple-play-over-copper equipment?

As part of this report, Heavy Reading conducted a worldwide survey of service providers to gauge their plans and attitudes toward triple play and video over copper. More than 300 service provider respondents participated in the survey of carrier attitudes toward video service delivery. In addition to the survey, Heavy Reading conducted a series of in-depth interviews with leading telco strategists and the vendors supplying them to get a qualitative read on triple play's prospects.
Equipment makers interviewed or profiled in this report include the following:

- Adtran Inc. (Nasdaq: ADTN)
- Advanced Fibre Communications Inc. (AFC) (Nasdaq: AFCI)
- Alcatel SA (NYSE: ALA)
- Allied Telesyn International Inc.
- Atrica Inc.
- Calix Networks Inc.
- Ciena Corp. (Nasdaq: CIEN)
- ECI Telecom Ltd. (Nasdaq: ECIL)
- Entrisphere Inc.
- LM Ericsson (Nasdaq: ERICY)
- Ikanos Communications Inc.
- Kasenna Inc.
- Next Level Communications Inc. (a subsidiary of Motorola Inc. [NYSE: MOT])
- Myrio Corp.
- Nortel Networks Corp. (NYSE: NT)
- Occam Networks Inc. (OTC: OCCM)
- Pedestal Networks Inc.
- SkyStream Networks Inc.
- Texas Instruments Inc. (NYSE: TXN)
- UTStarcom Inc. (Nasdaq: UTSI)
- Zhone Technologies Inc. (Nasdaq: ZHNE)

Carriers interviewed for this report include the following:

- Cincinnati Bell Inc. (NYSE: CBB)
- CT Communications Inc. (Nasdaq: CTCI)
- FastWeb SpA (a subsidiary of eBiscom SpA [Italian: EBI])
- MCI Corp. (Nasdaq: MCIP)
- SBC Communications Inc. (NYSE: SBC)
- Sprint Corp. (NYSE: FON)
- SureWest Communications (Nasdaq: SURW)
- Verizon Communications Inc. (NYSE: VZ)

Key Findings

Key findings of the report include the following:

**Triple play is no longer just a revenue enhancer, but a must for long-term survival; telcos must devise a video strategy in the coming year.** The ability of cable operators to quickly add voice to their service mix is a major threat to local telcos. With competition for core voice services coming from multiple fronts, telcos already face real prospects of accelerated revenue erosion.

**Telcos must become involved in the creation of content and services.** Those that do not take an active role will be reduced to operators of “dumb-pipe” broadband networks, while facilities-free service providers reap the rewards of triple play by accessing the customer directly over their broadband lines.

**The telco business case for triple play is improving, but many telcos feel the "grand slam" of voice, data, video, and mobility will be their long-term differentiator from competitors.** In many cases, this will favor vendors that are able to support fixed-mobile convergence from their access platforms.

**The emphasis on and interest in triple play are clear indications that telcos are rediscovering the importance of the consumer market.** Although telcos still see business markets as potentially more lucrative, they also realize that continued erosion of their bread-and-butter consumer business could be fatal. Service bundles are their solution to stem that erosion.

**Second to competition, the ability to increase ARPU by 100 percent is driving renewed interest in video.** No other service can offer this effect on top-line growth for a local service provider. Broadband data service for the consumer market has already fallen to commodity status.
Smaller, independent telcos are taking the lead in deploying IP-based video services. Smaller telcos are moving quickly to embrace switched digital video based on IP to take advantage of the technology's ability to better support unicast and interactive video services. This strategy will put smaller telcos in a favorable position to compete against satellite and cable providers.

RBOCs are far apart on their plans for triple-play infrastructure. Verizon is showing a preference for fiber to the home with a dedicated wavelength for video, while SBC is taking a pure-IP approach to triple play, delivered via a fiber-to-the-neighborhood architecture. BellSouth appears committed to fiber to the curb, though its video plans are not yet announced.

IP is emerging as the telco's most critical weapon in a showdown with cable competitors. All service providers can become triple-play providers, leveraging multiservice IP access solutions to provide voice, video, and data over a common platform. Although telcos have failed in the past to compete effectively with cable operators as video providers, the ongoing trend toward switched digital video services could favor the telco that understands switched services well and has well-established operations to support massively scaleable switched services.

Although much has been made of FTTP in the past year, telcos worldwide remain committed to delivering bundled services over their copper networks. RBOCs and PTTs surveyed showed a preference for central-office-based multiservice access platforms (MSAPs) over DSLAMs alone, allowing them to flexibly provision voice and other data services from a common platform with high-speed backhaul. Independent and rural telcos showed a preference for IP DSLAMs with Gigabit Ethernet transport.

Twenty is the magic number. Operators worldwide are finding that a minimum of 20 Mbit/s is required to enable a compelling triple-play offer over DSL. This will guide network reengineering projects and vendor DSL solutions in the coming three years.

Survey Scope

To fulfill the objectives of this report, we prepared and conducted a survey of service providers worldwide to gauge their interest in triple play and gain specifics on how and when they planned to implement the infrastructure necessary to support video. We received 319 qualified responses to the survey.

Excerpt 1: Respondents by Service Provider Type
Report Structure

When assessing the outlook for video over DSL, it is important to begin by putting the opportunity in context of the larger market forces at work in the first half of 2004.

Section II of this report examines the situation in which telcos currently find themselves and explains why it is forcing their hand to make critical decisions this year about entering the video services market.

Section III explores video services in more detail, leverages our survey to illustrate telco attitudes toward the video services business, and examines the technology used to support video over copper distribution networks.

Section IV provides a variety of vendor profiles and assesses their competitiveness.
The report is essential reading for a wide range of industry participants, including the following:

- **Telecom service providers**: How do your plans for triple play compare with those of other service providers? Which technologies are the best bets for bringing advanced services to market quickly? Which vendors are in the best position to deliver the products that you need?

- **Equipment and software suppliers**: How quickly will telcos deploy the technology they need to complete the triple play? Which technologies are likely to dominate telco triple-play deployments? What kinds of service providers are the most receptive to investing in triple play? Which ones still need convincing?

- **Investors**: Which equipment makers and service providers are in the best position to capture market share in this important telecom industry sector? Which startups are delivering the technology that will enable triple play?

**Telco Triple Play: The DSL Imperative** is published in PDF format. Purchasers of this report also gain access to a searchable database of all report results. The database allows for further analysis by demographic segment, including service provider type, geographic region, and respondent job category.