

# The Battle of Bundles Intensifies As Competitors Fight For An Edge

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Domestic cable operators around the world have spent over \$60 billion in recent years to upgrade their networks from analog to digital, yielding a significant increase in available bandwidth, channel capacity, and two-way capability. The infrastructure upgrade—combined with advances in compression technology and the decreasing cost of enabling technologies has enabled cable operators to deliver additional services to their subscribers beyond the traditional video offering. Now that they have completed the investment in a fat interactive pipe to their subscriber premises, cable operators are focused on deploying new services, such as telephony, broadband access, HDTV and video on demand (VOD) in order to generate a return on that investment.

We believe that cable operators have built a competitive advantage versus telecom and satellite operators from a network perspective. In our opinion, networks represent bandwidth inventory; providers with the greatest amount of available bi-directional bandwidth can develop and deploy value-added applications at the lowest cost per subscriber. We believe cable operator networks have the highest inventory of bits. This gives cable an advantage over telecom providers, who still face a last-mile network bottleneck that prevents telcos from delivering digital video. Also, cable's bi-directional capabilities provide an advantage versus satellite's one-way networks. To get around these limitations, local telecom providers have partnered with satellite providers to deliver a complete bundle of voice, video, and data to their subscribers. In our opinion, these partnerships are inefficient versus bundled cable offerings

because subscriber ownership is unclear. Also, the economics of bundled services are better when those services can be offered over one network. Another plus for cable operators is the fact that they can share the cost of deploying next-generation services across their multiple services. For example, a cable operator can allocate the cost of the CMTS across the cost structures of its broadband data business and its telephony business, enabling a better potential return on investment in both segments.

Economics aside, cable operators are currently engaged in a pitched battle with telecom and satellite providers to win and maintain subscribers. Their weapons of choice are bundles of advanced services such as broadband data, digital video, video on demand, telephony, and HDTV. When offered in a bundled package, these services have proven to reduce subscriber churn for the providers offering the most compelling package of services. For these reasons, we expect strong growth in deployments of next-generation cable

eration cable services.

So far, domestic next-generation cable services deployments have exceeded our initial projections. Quarterly results and announcements from North American MSOs provide solid evidence that services such as VOD, HTDV, and broadband data are gaining traction and that operators are also focused on deploying IP telephony services in 2004. In 1Q04, total digital cable subscribers reached 23.6 million (36.9% of basic cable subscribers) compared to our forecasts of 23.3 million and 36.6%. Cable modem subscribers were 16.9 million (71.7% of digital subscribers) compared to our forecasts of 16.0 million and 68.5%. VOD-enabled subscribers reached 13.4 million, or 56.8% of digital subscribers, compared to our forecast of 13.1 million and 56.1%. HDTV subscribers grew to 7.8 million, or 33.1% of digital subscribers, slightly below our forecast of 8.2 million and 35.1%. Cable telephony subscribers reached 2.6 million, or 11.1% of digital subscribers, in line with our estimates.

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services as cable providers (MSOs, or multiple systems operators) seek to establish a competitive advantage, reduce subscriber churn, and generate a return on their substantial infrastructure investment. Because of that substantial investment, we expect cable operators to be aggressive in deploying next-gen-

The competitive advantage that cable providers have created through their network investment gives cable a head start in the intensifying battle of the bundles. However, we expect local telecom providers to re-enter the fray given the repeal of UNE-P (unbundled network element) regulation. Until

recently, UNE-P unbundling regulations required local telecom providers to resell switching capacity at below-market wholesale rates. This led to local service subscriber declines at the RBOCs as valuable local customers switched to bundles of local and long distance services provided by long distance providers. It also drove declining capital spending by RBOCs as UNE-P subscriber losses made the economics of network innovation difficult at best. Now that a federal court decision has led to the repeal of UNE-P requirements, we expect local telecom providers to invest heavily in their networks in order to eliminate the last-mile bottleneck and deliver the triple play of voice, video, and broadband data over their own networks. The uptick in RBOC network investment is already under way in the form of FTTP (fiber to the premises) and FTTC (fiber to the curb). Verizon has announced its intention to spend over \$1 billion on FTTP in 2004, and on June 22, SBC announced a \$4-6 billion multiyear FTTC initiative. We expect a similar announcement from BellSouth. As a result of these initiatives, we have increased our expectations for FTTP/FTTC projects to 15% of total 2005 RBOC estimated capital spending (\$840 million) from 10% of RBOC capital spending (\$560 million).

As the battle of the bundles between cable operators and RBOCs intensifies, the major beneficiary will be the consumer, in the form of lower pricing. Another significant beneficiary will be the vendors that supply equipment to enable next-generation voice, video, and data services. Among next-generation cable services equipment vendors, the best positioned are those with equipment that addresses the needs of both cable and telecom providers. Number one on this list is Harmonic, a vendor that currently provides equipment to cable operators, telecom providers, and satellite providers. Harmonic's gateways are the traffic cops for VOD traffic. Its gateways are in high demand among cable operators, most notably Comcast, which has been par-

ticularly aggressive in deploying VOD services. Harmonic's encoders make it possible for cable and satellite operators to deploy HDTV, and they allow satellite providers to deploy additional local television markets. Also, Harmonic has partnered with Advanced Fiber to provide video transmission equipment to Verizon. Another well-positioned vendor is C-COR.net, a key provider of distribution and transmission equipment to cable operators and, potentially, a provider of video transmission equipment to the RBOCs. We view C-COR as a pipe-fattener that will benefit from the bandwidth expansion of the distribution network required in order for cable providers to deploy next-generation cable services. C-COR also has a software portfolio that addresses the provisioning and network management requirements of cable operators as they deploy new services. Scientific Atlanta and Motorola should also benefit from the opportunity to sell video transmission equipment and set-top boxes to the RBOCs as they upgrade their networks and deploy video services. Finally, we expect SeaChange International and Concurrent Computer to benefit from continuing cable-provider investment in VOD and the RBOCs' potential entry into VOD (a step we believe will be necessary for RBOCs to match cable's menu of services).

There are also a number of equipment vendors that provide key solutions for either new cable services initiatives or new RBOC initiatives. ARRIS Group provides the CMTS (Cable Modem Termination System) that allows cable providers to deploy broadband data and VoIP. Demand for ARRIS's EMTAs, which enable both voice and data functionality in one device at the customer premise, have been accelerating as cable providers begin to deploy VoIP to their subscribers. Other major CMTS vendors include Cisco, Motorola, ADC Telecom, and Terayon. Another potential beneficiary of cable telephony deployments is Net2Phone, a managed cable VoIP service bureau targeted at Tier 2 and Tier 3 cable

operators, as well as international cable operators. Net2Phone wholesales its telephony services to cable providers, who then brand the services under either a hosted or franchised model depending on the needs of their operator customers. The company has signed deals covering 2.3 million potential homes passed. RBOC fiber-network upgrade initiatives should provide a boost to some telecom optical equipment vendors; we believe Ciena, Lucent, and Nortel will experience an uptick in their optical divisions. Finally, Advanced Fibre (SP?), which is in the process of being acquired by Tellabs, has a deal in place to supply Verizon with FTTP equipment. We also expect optical components vendors such as Avanex and JDSU to generate significant FTTP-related revenues.

Clearly, the battle of the bundles remains competitive. Although we believe cable has an early lead, the race to supply the most compelling bundle of services is far from over. Subscribers can expect to be offered an exciting menu of new services that will be available from one provider on one bill. Equipment vendors can look forward to growing operator investments to enable new services. Regardless of the winner, we are in the early stages in the evolution of a digital revolution. ■

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### About the Author

*Erik Zamkoff is an analyst at Independent Research Group LLC, member NASD, SIPC. IRG Research maintains Buy ratings on C-COR.net, Harmonic, Inc., Net2Phone Inc. and SeaChange International; ARRIS Group is rated Neutral. Independent Research Group LLC is not involved in investment banking, capital markets, market making, and underwriting or proprietary trading. Opinions and estimates constitute our best judgment at the time of publication and are subject to change without notice. Information upon which this material is based was obtained from sources believed to be reliable but has not been verified.*