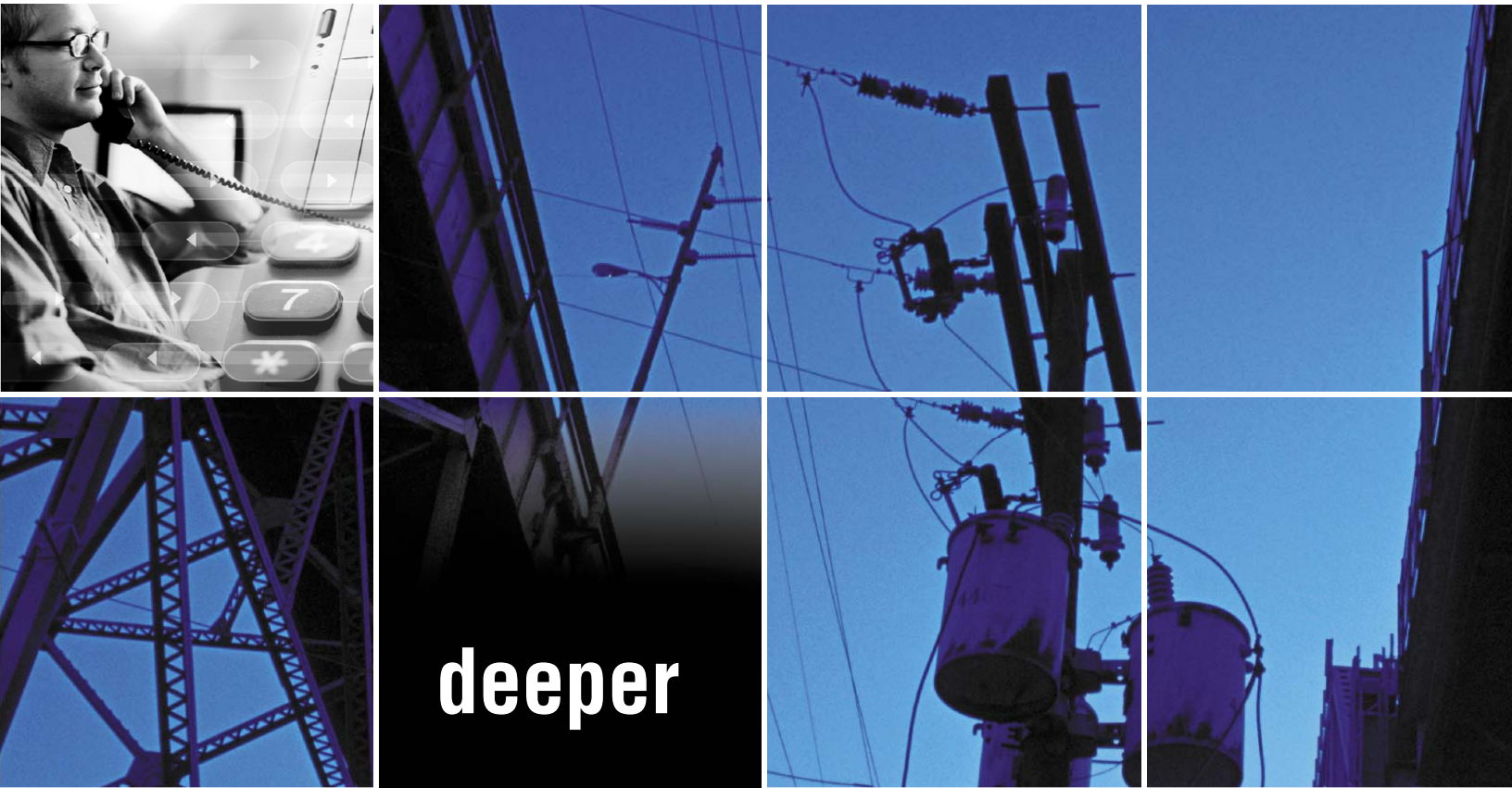


## Ring in a new era of growth for wireline telecom



*An IBM Institute for Business Value executive brief*

The IBM Institute for Business Value develops fact-based strategic insights for senior business executives around critical industry-specific and cross-industry issues. This executive brief is based on an in-depth study created by the IBM Institute for Business Value. This research is a part of an ongoing commitment by IBM Business Consulting Services to provide analysis and viewpoints that help companies realize business value. You may contact the authors or send an e-mail to [iibv@us.ibm.com](mailto:iibv@us.ibm.com) for more information.

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## *Ringing in a new era of growth for wireline telecom*

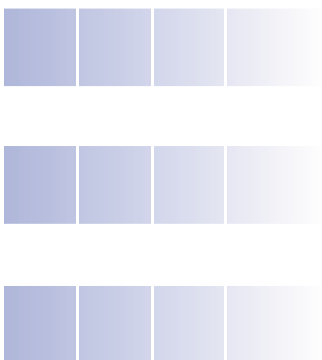
While the telecom industry as a whole is yet again on a path to positive growth, the financial markets remain skeptical about the opportunity for revenue growth in the mature wireline sector. Today, carriers face a host of inescapable industry issues, as well as fundamental challenges inherent in their traditional business models. Above all, wireline carriers must simultaneously address the dual challenges of:

- Building Internet protocol (IP) and digital media network services and platforms for top-line growth in the face of competitive substitution; while
- Managing down the costs of legacy parallel networks, processes and IT systems.

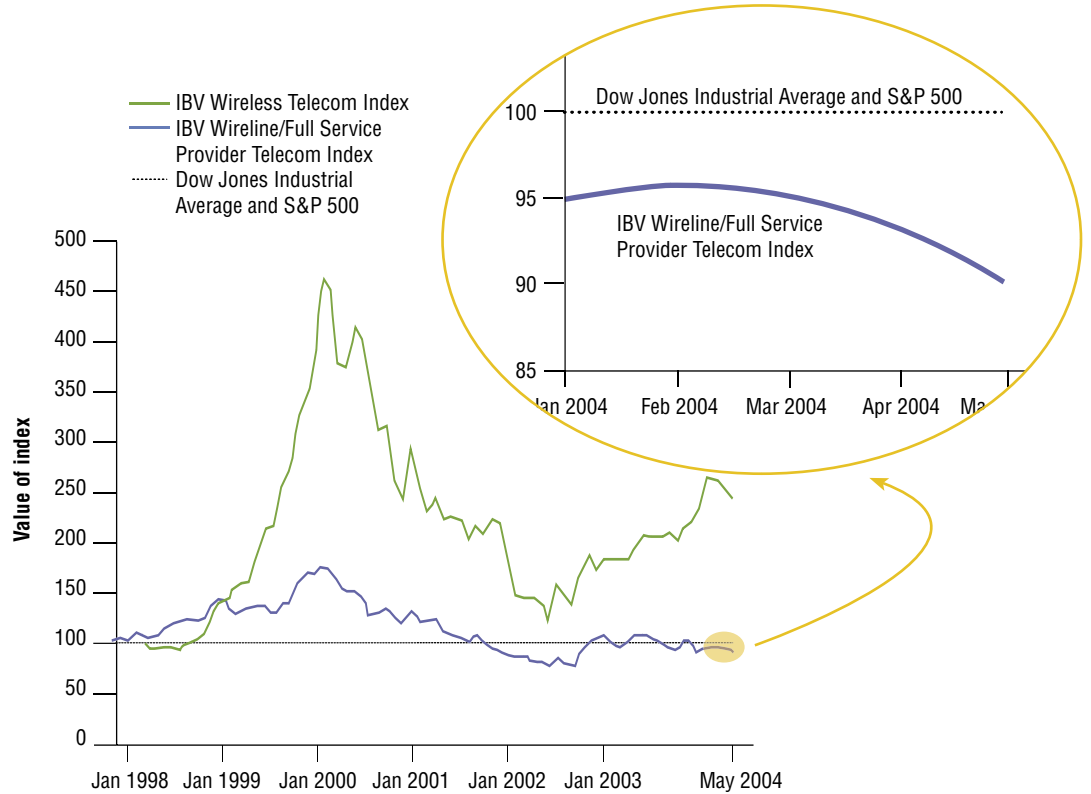
Wireline carriers face substitution from wireless cellular and broadband, cable companies and IP. In a dynamic, cannibalistic market, they must find ways to address these challenges, while responding to external market pressures and transforming their legacy business models. To succeed in a market increasingly characterized by the need to provide services on demand, wireline carriers must improve their market responsiveness, flexibility and operating efficiency, thereby achieving the dual objectives of top-line growth and overall cost base reduction. They need to position the fixed, wireline business as a key part of the network fabric where it co-exists, supports and also competes with other networks and technologies. Wireline carriers may update their business and operating models through key on demand transformation initiatives, in the process creating the scope for 20 to 50 percent improvement in free cash flow (FCF), with one third or more coming from revenue generating initiatives. These on demand initiatives can build the capabilities for longer term financial performance and reinvestment in network transformation to drive new revenue growth.

## *The stock markets keep a watchful eye on wireline*

The stock markets reflect some improvement in parts of the telecom industry after the slump of recent years. Wireless valuations are up; however, wireline and full service provider stocks are not keeping up with the Dow Jones Industrial Average (DJIA) and S&P (see Figure 1). Service providers are beginning to see new opportunities for service growth, supported by rising telecom spend and revenue forecasts: Global telecom spend (enterprise and consumer) is expected to surpass US\$1 trillion in 2004, up 4.4 percent from 2003, and is expected to grow at a compound annual growth rate (CAGR) of 4.7 percent through 2007.<sup>1</sup>

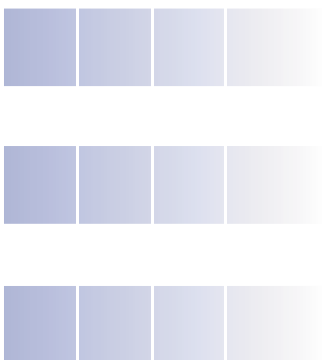


**Figure 1. Wireless and full service provider telecom stock performance index.**



*Notes: (1) The IBV Wireline/Full Service Provider Telecom Stock Index tracks the monthly performance of global wireline and full service telecom providers relative to the performance of the S&P 500 and the Dow Jones Industrial Average. An index value of 100 indicates the averages are performing on par with the DJIA and S&P, while values above and below indicate outperformance and underperformance, respectively. The operators included in the index are Verizon, SBC, BellSouth, AT&T, Qwest, BT, Deutsche Telekom, France Telecom, Telecom Italia, Telefonica, Korea Telecom, NTT, Telstra. (2) The IBV Wireless Telecom Stock Index follows the same rules as the Wireline Average, except the index starts at April 30, 1998. The operators included are AT&T Wireless, Sprint PCS, Nextel, NTT DoCoMo, China Mobile, mm02, Vodafone, Telefonica Moviles.  
Source: IBM Institute for Business Value analysis; Yahoo! Finance.<sup>2</sup>*

Despite the overall market turn, however, wireline is trailing wireless as the investment community remains divided about the outlook for wireline carriers, which are perceived by some as maturing, utility businesses with limited growth prospects. Even with the brighter industrywide outlook, the markets continue to watch carefully for signs of new revenue growth and value creation – especially by wireline carriers – to satisfy the growth forecasts.



In the new data-centric and application-centric world, migration to a digital media and IP environment is not only a trend, but over time will become a necessity to enable the seamless and simultaneous delivery of new services being demanded, such as voice, data, games and video streaming.

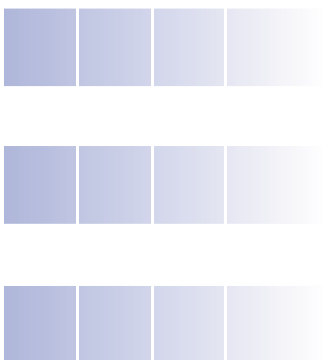
## Challenges to top-line growth

With the industry starting to turn around, wireline carriers and the financial markets are beginning to refocus on new service creation and revenue growth opportunities, as opposed to sources of cost reduction. However, in building for growth, carriers are wrestling with the dual challenges of having to implement new IP and digital media network platform upgrades to enable future service delivery, while striving to contain costs of legacy networks, processes and systems to sustain financial performance.

### Increasing competitive substitution

At this time, managing substitution is perhaps the most significant market issue facing carriers, because substitution bites into core wireline revenues from multiple directions:

- *Wireless* – Wireless substitution is producing significant traffic migration from wireline to wireless and helping to fuel fierce price competition, resulting in margin squeezes for both. Wireline voice tariffs in Organisation for Economic Co-operation and Development (OECD)<sup>3</sup> countries have fallen by an average of three percent per year between 1999 and 2003.<sup>4</sup> According to West LB, “..... over the next decade mobile will carry between 50% and 80% of all voice minutes vs. 20% on average today.”<sup>5</sup>
- *Voice over Internet Protocol (VoIP)* – As some incumbent wireline carriers start to offer VoIP services in the U.S., VoIP will be a key contributor to wireline voice’s inevitable decline as a profitable segment. This threat is reinforced by the emergence of new, small market entrants such as Skype in the Nordics,<sup>6</sup> offering free software which enables completely free-of-charge voice telephony when installed on microphoned PCs.
- *Broadband* – Accelerating rates of Internet use have increased broadband substitution and uptake of asymmetric digital subscriber lines (ADSLs), reducing basic access line growth. For example, in the U.S., incumbent service providers are expected to lose 10.2 million basic access lines by 2008, due in part to an expected 30 percent of cable modem users adopting VoIP.<sup>7</sup> Against that, wireless fidelity (WiFi) hotspot build out in Europe alone is expected to reach some 174,000 sites by 2009 to generate at least US\$2.45 billion in revenues,<sup>8</sup> up from an estimated 8100 active WiFi sites in May 2004.<sup>9</sup> In addition, new wireless broadband technologies, such as Worldwide Interoperability for Microwave Access (WiMAX), are expected to fall below wireline costs and are being backed by new entrants such as wireless communications pioneer Craig McCaw. Competition from cable multiple service operators (MSOs) is rising in some markets like the U.S., where MSOs hold a two-to-one share advantage in broadband Internet services and may soon cut into VoIP with voice offerings.



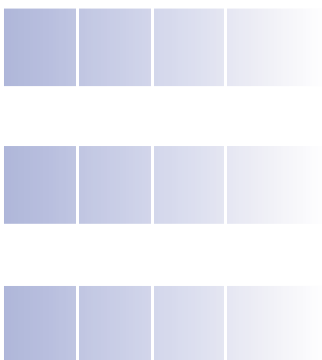
### Converging customer demands

With the proliferation of telecom services in recent years, it is increasingly difficult for wireline carriers to meet rapidly changing, on demand customer needs. Consumers seek a continuously widening array of voice, data and multimedia applications and services, delivered seamlessly, irrespective of access technology or platform. In response, wireline and wireless services are converging as customer requirements expand beyond traditional transport and access services into media services such as content delivery. As a result, service providers have flooded the market with services and are struggling to get the right service to the right people, at the right time.

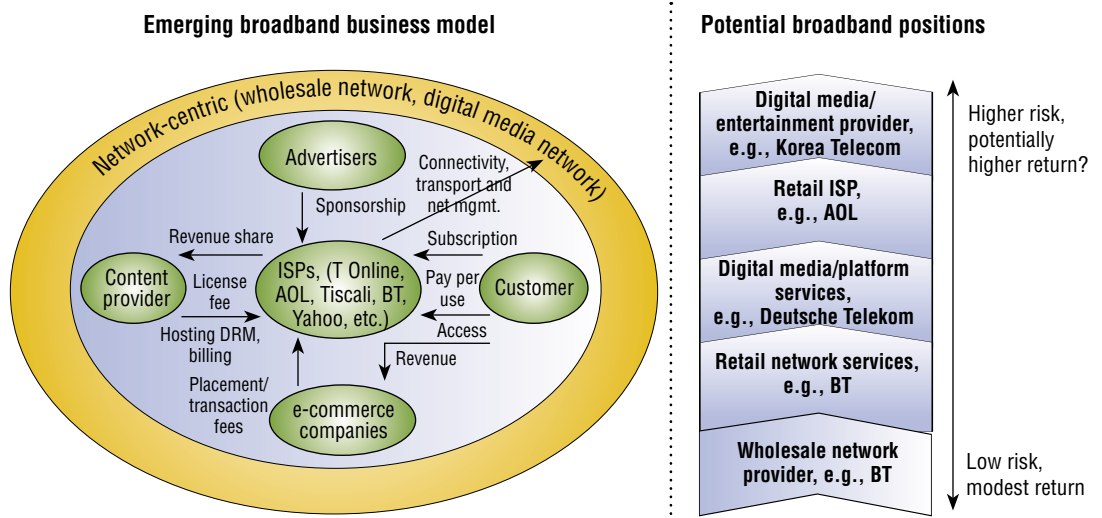
In the enterprise space, growth in the information, communications and technology (ICT) market is shifting from traditional product and connectivity components toward applications, hosting, managed and integration services. Customers increasingly want such services delivered together, on demand, using variable, flexible economic approaches, or outsourced to third parties with the option to pay a usage fee per transaction. Consequently, opportunities for new value creation lie in non-core wireline business areas, such as systems integration, professional services and process outsourcing, presenting a key challenge to traditional wireline competencies and capabilities.

This poses a dilemma for wireline carriers that are faced with the choice of sticking with their traditional network transport and access business – a largely low-risk, low-return option – or building new capabilities in new growth areas such as systems integration or managed services that are higher up the value chain and command a much greater growth opportunity, but also entail higher risks.

In the mass market, wireline carriers may assume a variety of market positions in dealing with the emerging broadband business models and ecosystems pictured in Figure 2. Each has its own potential risk/reward matrix.



**Figure 2. Potential wireline carrier positions within the emerging broadband business model.**

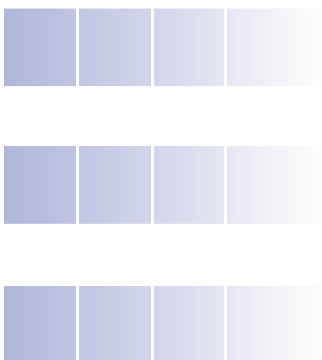


Source: IBM Institute for Business Value analysis.

Service providers need to ask themselves whether they want to be providers of broadband access or if they want to be full service content providers. Of the five types of broadband positions illustrated on the right side of Figure 2, most service providers today fall into the middle category. They offer several platforms to their customers, including broadband data (and in some cases video), but little in the way of content. As wireline carriers look up the value chain, they must be more access platform-agnostic and differentiate themselves on enabling or delivering content and services. The “build it and they will come” mentality can no longer suffice. Now they need to look for areas of differentiation through services. For example, Deutsche Telekom (DT) has implemented one of the world’s largest digital media content hosting platforms. As a result, enterprises, Internet service providers (ISPs), and DT’s own DSL subscribers will have faster, easy-to-access multimedia content, in realtime and on demand.<sup>10</sup>

### ***Containing the legacy of cost and complexity***

To create new value, carriers need to develop and deliver new revenue generating services, which requires investment in new network and process capabilities and enabling technologies. But since there is insufficient investment to move completely to new multi-purpose IP and digital media network capabilities, wireline providers are layering new networks, processes and systems on top of legacy ones, adding cost and complexity. Against that backdrop, the financial markets – and the carriers themselves – are looking for enhanced cost and financial performance.



Are wireline carriers stuck between a rock and a hard place?

Adding to the wireline cost burden, and exacerbated by the industry downturn in recent years, carriers have struggled with accelerating operating expenses (OPEX). The increases in OPEX experienced globally are largely due to legacy carrier internal structures and systems, producing high and costly operational complexity and inflexibility, ranging from inherited product-focused (siloes) organization structures and business processes, to dated operations and business support systems (OSS/BSS) across multiple geographies, combined with increasing customer acquisition and retention costs in the face of increasing competition.

Between 1999 and 2003, OPEX climbed in excess of 7 percent globally, well ahead of revenue growth of 2.8 percent, with two regions carrying the heaviest burdens: Europe, Middle East and Africa (EMEA) and Asia Pacific (AP) (see top chart in Figure 3). Although the Americas were more successful at containing OPEX growth from 1999 to 2003, that region also experienced negative revenue growth (see bottom chart in Figure 3).

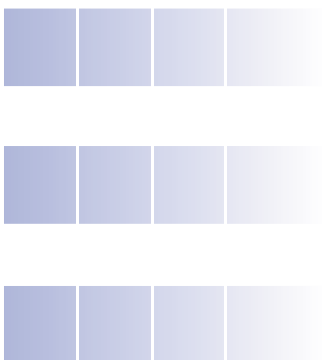
**Figure 3. Full service provider OPEX and revenue growth, 1999 to 2006E.**

OPEX growth	Global % CAGR	EMEA % CAGR	AP % CAGR	Americas % CAGR
1999 - 2003	7.2%	12.5%	12.4%	0.7%
2001 - 2003	5.7%	8.9%	9.6%	0.4%
2003E - 2006E	3.3%	5.1%	4.0%	0.6%

Revenue growth	Global % CAGR	EMEA % CAGR	AP % CAGR	Americas % CAGR
1999 - 2003	2.8%	6.0%	5.6%	-1.7%
2001 - 2003	1.0%	5.6%	0.2%	-2.7%
2003E - 2006E	2.5%	5.7%	5.3%	-2.1%

Source: Company reports; "Telecommunications Global Analyzer", UBS Investment Research, February 2004; IBM Institute for Business Value analysis.



Overall, most wireline carriers that have attempted fixed-cost reduction initiatives have addressed sales, general and administrative (SG&A) costs rather than cost of goods sold (COGS). They have stopped short of transforming cost structures or outsourcing non-differentiating functions or processes to relieve high operating and labor costs. Global wireline OPEX growth is expected to slow to 3.3 percent on average per year from 2003 to 2006, still ahead of revenue growth globally.<sup>11</sup> However, to generate deeper and lasting reductions in OPEX growth, carriers need to consider the value of completely transforming their internal operating and business support processes and systems.

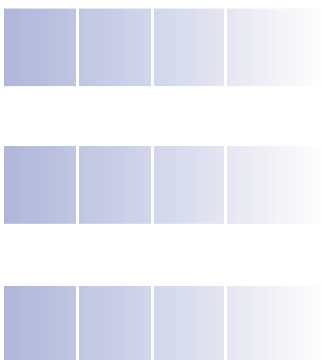
Moreover, with only modest growth in some wireline markets, further industry consolidation is likely as carriers attempt to drive value through scale and synergies. Such consolidation has already begun in the U.S., with very little so far in Europe. Shared service platforms can help service providers to streamline functions such as billing, procurement, service delivery, content management, finance and accounting and HR, helping to make the integration work inherent in consolidation less costly. What's more, transforming legacy processes and systems can lead to improved cost efficiency overall along with planned consolidations.

### Constrained investment hampers transformation

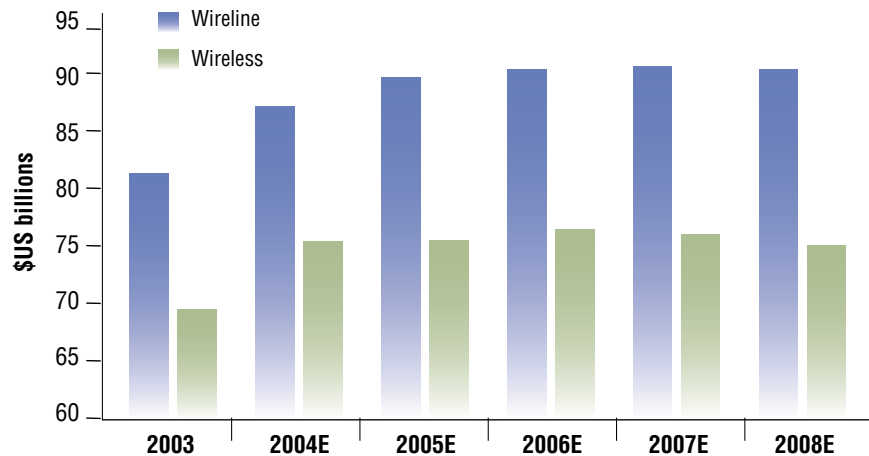
In light of emerging customer demands for more advanced, multimedia services, the future on demand value network will call for advanced IP and digital media services in an ecosystem that enables growth from new business models, partner applications and content. However, the need for complex network upgrades compels many wireline carriers to operate a parallel network environment which is extremely costly – delivering traditional voice, private line and data services from their legacy networks while upgrading to digital media and IP as future service platforms. Until such migration is complete, these carriers will continue to carry the OPEX and capital expenditure (CAPEX) burdens of dual networks, with the associated impact on costs and overall financial performance.

In recent years, slow or even negative revenue growth – accompanied by accelerating costs – had a negative impact on wireline operational performance and FCF. With high debt levels and demanding shareholders, carriers reacted by reducing CAPEX to improve FCF. However, CAPEX reductions delayed needed investment in network transformation initiatives and carrier expansion plans. This increased service provider reliance on slower, but steady cash flows from existing network and other infrastructure assets, hampering service and revenue growth – creating a “catch-22” situation for wireline carriers. Today, with the global telecom market seemingly in recovery, global CAPEX forecasts give grounds for cautious optimism, but not enough for rapid transformation away from their legacy past (see Figure 4).

Among the key findings of the 2004 IBM survey of more than 450 CEOs in all major geographies and industries: “With a more positive view of economic trends, they are focusing more aggressively on growth and investment opportunities.... Two-thirds of the CEOs expect growth to come from new products that they will develop over the next five years, with more than half expecting to enter new markets in search of growth opportunities.”<sup>12</sup>



**Figure 4. Global telecom CAPEX forecasts, 2003 to 2008E.**



Source: Alkesh Shah, et al. "Wireline Networking Equipment; Global Capex Up 3% in 2004 vs. Prior 2% Expectations." Morgan Stanley, March 18, 2004; IBM Institute for Business Value analysis.

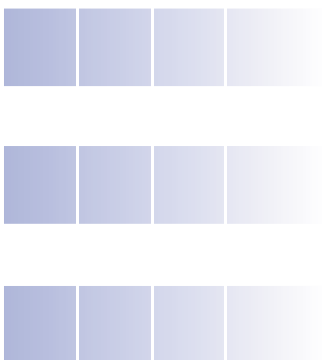
**An on demand business is an enterprise with business processes – integrated end-to-end across the company and with key partners, suppliers and clients – that can respond with speed to any customer demand, market opportunity or external threat.**

### ***Wireline services in an on demand world: No longer fixed***

Bearing in mind their dual objectives of achieving top-line growth and optimizing costs, wireline carriers may choose multiple entry points for their business and operating model transformation, depending on their unique market positions and internal makeup. Using the flexibility inherent in an on demand model, wireline carriers may lower their fixed capital structures and create value in two ways:

- Focusing on their differentiating capabilities which drive direct value to the business
- Looking to alternative delivery models to deliver the benefits of scale and cost efficiency in non-core activities.

Using the traditional telecom model, carriers have built their businesses around large, costly network infrastructures, often building new parallel networks to add new services. Traditionally, carriers performed a broad retail role, selling directly to all end-user segments. Vertically integrated from the network to customer management, costs are fixed and attributable to a heavy, owned network, proprietary systems, high maintenance costs and, increasingly, multiple parallel networks. An infrastructure built for peak load translates to heavy up-front investment for new services, which is now beginning to outweigh the benefit of high quality achieved through redundancy and "gold plating."



### Answering the call: Characteristics of an on demand carrier

On demand wireline carriers exhibit the four key traits of on demand enterprises: *focus, responsiveness, variability* and *resilience*.<sup>13</sup> They are *focused* on the differentiating components of their business that matter the most, rather than pursuing a comprehensive strategy dependent upon being best-in-class across all aspects of their value chain. The focused provider owns differentiating core competencies within a value chain, targeting selective high-value segments for retail sales, along with increased wholesale and indirect sales through others that are better positioned in key segments of the enterprise to leverage on demand or digital media ecosystems. The emphasis is on building a common, robust, next generation network and systems infrastructure, while non-differentiated business components are outsourced to benefit from best practices at lower costs.

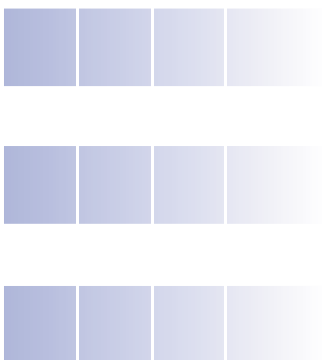
On demand carriers are *responsive* to the accelerating pace of change in the industry and spend less time revamping inflexible business models that are based upon predicting the future. They leverage offerings such as computing on demand and new product development platforms to support their responsiveness. Peak loads are managed through resource sharing, grid computing and outsourcing. Responsiveness is further enhanced through shortened and lower cost product development cycles delivered by open systems, in collaboration with business partners.

Facing unrelenting financial pressures (from the stock market) and capital scarcity, on demand carriers evolve their cost structures to more *variable* models which can adapt quickly to changes in demand, moving away from committed investments in fixed assets and toward scalable, reusable service development and delivery platforms. Their variability produces evolving service portfolios in line with market needs, with a robust, variable back-end to support them, the anticipated result of which is flexible customer care, enterprise, supply chain and IT costs.

On demand carriers run *resilient* operations that offer optimum reliability to clients and internal robustness in the face of unpredictable threats, through achieving autonomic, policy-based orchestration of IT and network environments with virtual resources.

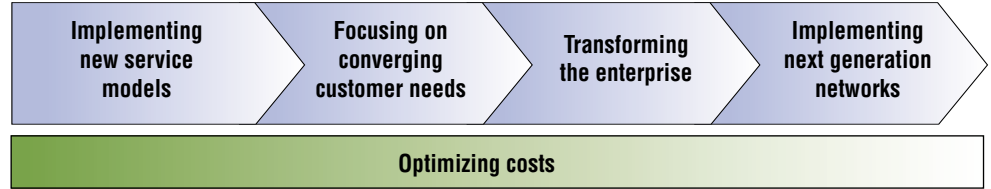
### Strategic on demand imperatives for value growth

Five primary strategic imperatives for wireline carriers address the key challenges identified above, focusing on the need to stimulate revenue growth, as well as optimize costs across the value chain (see Figure 5). Two of these imperatives, *implementing new service models* and *focusing on convergent customer needs*, deal directly with top-line growth; *optimizing costs* and *transforming the enterprise*



focus on enhanced operating efficiency and cost reduction; and the fifth initiative, *implementing next generation networks*, supports carriers in transforming to the IP and digital media networks of the future.

**Figure 5. Strategic on demand imperatives for wireline carriers.**

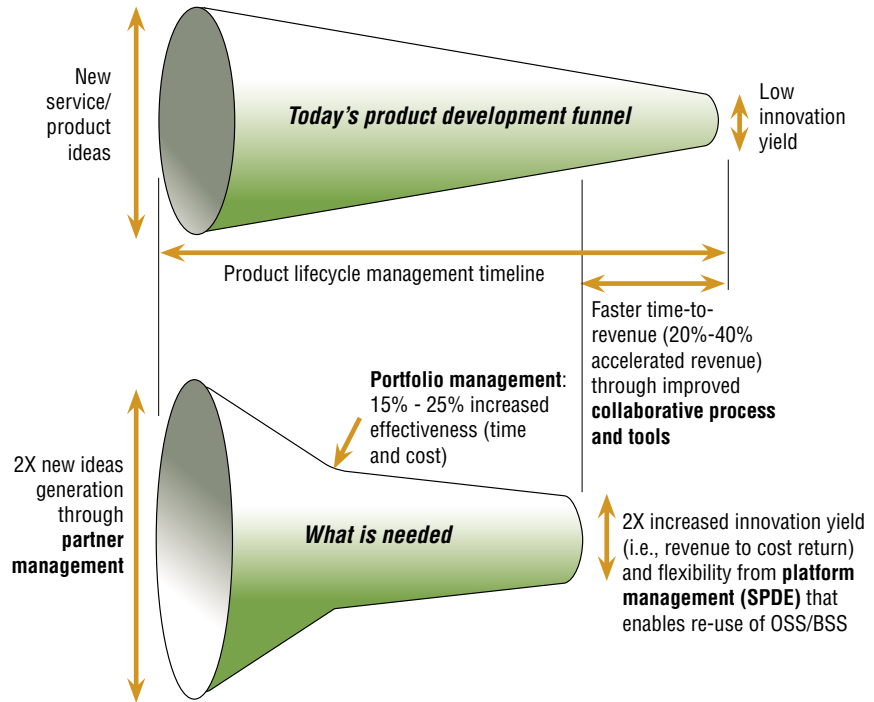


Source: IBM Institute for Business Value.

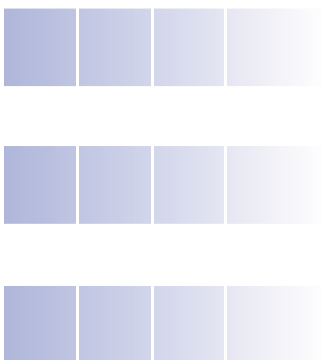
**Implementing new service models**

Carriers need to adopt a collaborative approach to new service creation by integrating their own development processes and functions with those of business partners. This includes the development of flexible platforms that can multiply innovation yield and speed up time to revenues. Four primary product development and innovation competencies will be crucial to reshape the product development funnel (see Figure 6).

**Figure 6. The traditional versus reshaped product development funnel.**



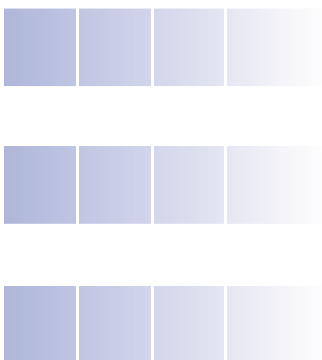
Source: Adapted from "Reshaping the funnel: Making innovation more profitable for high-tech manufacturers." IBM Institute for Business Value. December 2002.<sup>14</sup>



- *Product portfolio management* – For sustained returns, product portfolio management targets the right investments in development, by considering ROI, strategic direction, risk and other critical success factors. At the right pace, portfolio management balances effectiveness and efficiency across the full lifecycle, from concept to service.
- *Partner management* – Partner management means having the right partner/supplier strategy to bring products/services to market. With increasing convergence and the need for services on demand, service rollout will be critically reliant upon third party collaboration and well-defined positions within the digital media ecosystem.
- *Platform management* – At the right cost, platform management establishes the right architecture to deliver more products, better leveraging development and deployment expenditures. Platforms based on open standards are designed to enable the integration of business partner content and applications, streamlining the introduction of new services. For telecom carriers, this means a more “componentized” architecture that reuses OSS/BSS processes and systems across product families.
- *Collaborative process and tools* – In a “collaborative ecosystem,” partners leverage each player’s unique competencies and their combined scale to create greater value for end users. Flexible platform and partner management allow operators to respond to the IP and digital media services opportunity in collaboration with their business partners, helping carriers attract and retain a greater share of the marketplace.

**U.S. full service provider: Implements a new service delivery platform to boost revenues**

To realize rapid improvements on the scope of current projects in progress, a U.S. full service provider recently partnered with IBM to implement an open standards-based development environment that will deliver process and technology for download of premium content, access to network-embedded services (such as location, presence, messaging and notification) and an enhanced customer service Web presence. Using a common platform for service delivery will shorten and simplify the development cycle, as well as reduce long-term operating costs. As a result, this full service provider expects to boost revenue by hundreds of US\$ millions by 2007.



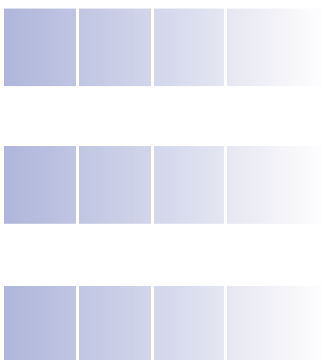
## Focusing on converging customer needs

In an intensely competitive market, wireline carriers need to sell, cross-sell and improve customer service levels while reducing customer care and sales costs. Although most are striving to become more customer focused, only a small proportion of carriers today can deliver truly superior, differentiated customer sales and care across segments and operations. Understanding individual consumer and business customer needs and profit contribution improves customer care and revenue growth. The ability to provide uniform services and a virtually seamless customer experience can improve customer satisfaction and retention. Finally, smarter investment in service rollout and customer care saves costs and increases capability and customer profitability. Potential initiatives operators may take to improve customer sales and care while lowering costs include:

- *Customer relationship management (CRM) transformation.* Outsourcing and consulting for operational transformation in business areas such as customer experience, revenue enhancement (cross-sell or upsell and collections) and HR processes (training and workforce management). CRM transformation can help a carrier dramatically improve customer satisfaction through better customer segmentation, more efficient call routing, reduced average call handle time and a higher rate of first call resolution. A primary objective is to continue to improve customer satisfaction while driving operational efficiency to increase sales and/or lower costs.
- *Improved segmentation and service delivery.* Advanced customer analytics enable carriers to segment their customers based on tenure, risk of flight, satisfaction levels, profit contribution and other selected criteria. This knowledge may be used to channel marketing and new service rollouts to specific segments. More sophisticated call-routing capabilities allow operators to tailor the customer experience to individual and segment needs.
- *Customer self-service.* Large-scale Internet adoption, technology and handset advances and better customer management processes provide opportunities to offer differentiated and cost-saving customer self-service.

### U.S. full service provider: Improving the customer experience through transformation

A major full service provider recently found itself technologically challenged, lagging in industry customer satisfaction, and struggling to deal with disparate business processes and costs that were among the highest in the industry. To address these challenges, the service provider recently found a partner to transform and manage its customer contact services, with an associated cost reduction estimated to reach US\$550 million over the next three years. The holistic solution encompasses management of customer operations, such as call centers, self-service, infrastructure and related HR processes, as well as operational transformation and technology transformation projects.



Along with significant improvements to the customer experience and cost savings, the service provider expects increased flexibility to scale service according to demand and to adapt in realtime to changing market conditions and new product and services offerings that drive sales growth, all while reinforcing customer service as a core organizational capability.

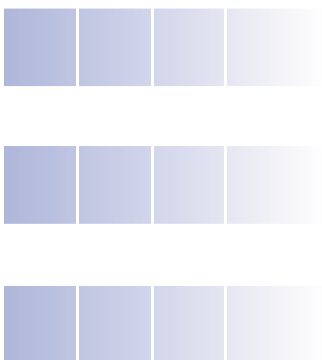
### **Optimizing the parallel cost and capital base**

Financial pressures require wireline carriers to drive through cost and efficiency enhancements in their OSS and BSS across the value chain, particularly if operating in dual network environments. For example, billing and collections is the largest OPEX component after network development within the wireline value chain (for more detail, see Figure 8 on page 16). The strategic context for billing is one of increasing requirements against rising costs. For instance, increasingly operators will need to provide realtime billing information to customers, seamlessly integrating processes, services, network capabilities, applications and content. A number of transformation options exist to enable wireline carriers to respond to the emerging needs while containing costs. Alternatives include in-house rationalization of legacy billing systems, installation of a packaged solution, hosted billing and utility billing. The best strategic option (or combination of options) depends on individual carrier needs and “pain points.” However, “billing on demand” solutions designed to address the key billing pain points can deliver variable costs and potentially drive large savings of up to 20 to 40 percent per bill.

### **Transforming the enterprise**

Enterprise processes such as supply chain, finance and administration, HR and IT offer tremendous potential cost savings that can be channeled back into capital investments, hence contributing to new value creation. For example, business transformation outsourcing (BTO) provides the opportunity to achieve global best practices performance and costs while allowing the telecom service provider management team to focus on transforming its core competencies.

Another part of enterprise management is the creation of an on demand computing environment. Initiatives such as service delivery transformation, application management process transformation and grid computing may improve utilization, reduce costs and improve productivity. Transformation to an on demand computing environment could potentially save at least 30 percent of IT spend.



### Leading global wireline carrier: Streamlining the supply chain

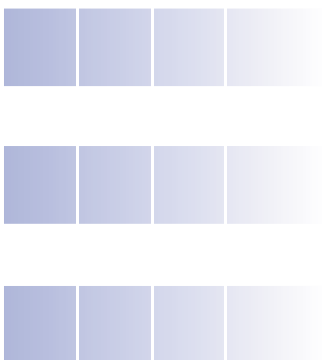
A leading global wireline carrier recently developed an on demand supply chain solution to connect its enterprise resource planning (ERP) systems with those of its network suppliers. For the pilot project, the carrier chose to synchronize its systems with its most important supplier, a leading telecom equipment manufacturer. The solution has streamlined the carrier's supply chain process, using Web-based collaboration to allow supplier synchronization with customer demand, enabling simplified supplier forecasting and investment decisions, and improving the carrier's information, which provides better management control and facilitates decision-making. In financial terms, the carrier has reaped substantial CAPEX as well as OPEX savings from this transformation initiative.

### Implementing next generation networks

Today's telecom customers operate in a global, dynamic environment, and they demand no less from their communications service providers. The legacy telecom networks of most wireline carriers today were optimized only for the transmission of voice traffic or separately for data traffic. It is anticipated that the on demand network of tomorrow will be entirely IP-based and reside in a collaborative ecosystem that readily enables new business models. As mentioned previously, platforms based on open standards are essential to enable the integration of business partner content and applications. As service providers move to the next generation IP network, the telecom network must converge with the IT operating environment. For next generation networks, key technology trends include:

- *Convergence of multiple service networks* – Requires migration of technology, people and processes from time division multiplexing (TDM) to IP, enabling new services
- *General purpose, not proprietary platforms* – Reduces the number of element types in the network, provides access to advances in computing hardware, allows use of ISV software and promotes vendor independence through open standards
- *Increased capabilities sourced from multiple software vendors* – Made possible through the use of common tools and interface standards
- *Separation of traffic from the control layer* – Deconstruct network components into functions, centralize select control functions
- *Multiple access technologies and a common core* – Separates core and access networks, implements common protocol stack and open interface standards.

New IP and digital media network capabilities are critical to the evolution to on demand operations for all industries, including both the IT and entertainment industries. To truly succeed, wireline providers will need to position the fixed, wireline network as a key part of the network fabric where it co-exists, supports and also competes with other networks and technologies.

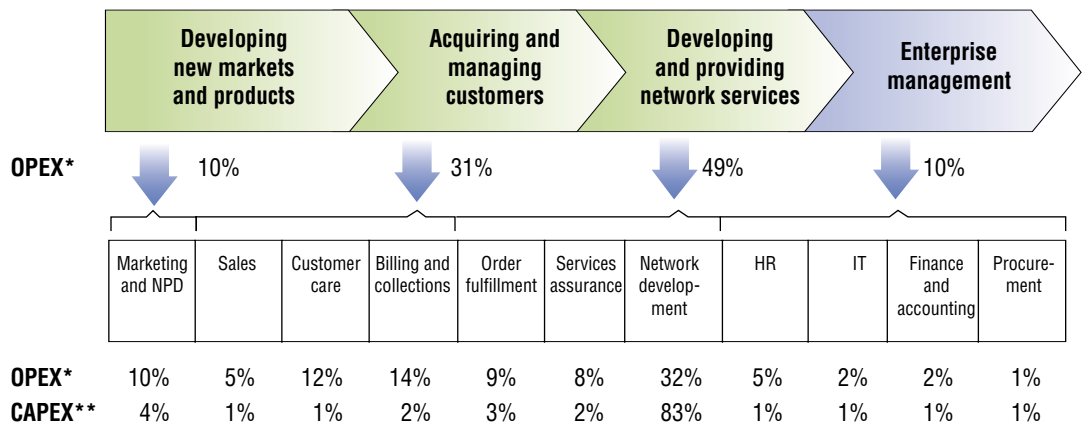


New service creation, customer care, billing, enterprise management and network transformation initiatives such as those highlighted above demonstrate the significant scope wireline operators have to improve market responsiveness that can stimulate top-line growth, flexibility and operating efficiency. Greater degrees of automation, collaboration and outsourcing of non-core competencies can cut costs significantly. The savings gained may then be reinvested in the business to support new value creation.

### The potential benefits of on demand transformation

To understand the potential benefits of on demand initiatives – and how they may enable the reallocation of FCF for investment to help stimulate revenue growth – IBM has constructed a wireline service provider model with a simplified value chain that is divided into 4 key areas and 11 core business processes. The value chain details OPEX and CAPEX breakouts for a representative sample of global carriers. Wireline carriers may use the value chain to benchmark at a high level their own OPEX and CAPEX cost allocations and to identify potential “pain points” that require action. The model may also serve as a useful tool to support assessment of the potential financial benefits from various on demand initiatives (see Figure 7).

Figure 7. The wireline value chain with associated cost estimates.



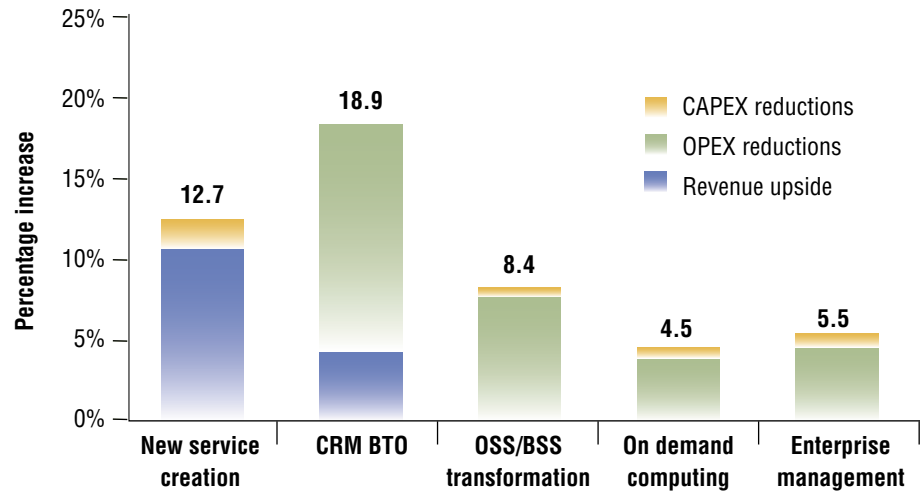
Notes: \* Global spending breakouts are an average of Europe, Asia Pacific and U.S. wireline carriers, and were derived from U.S. benchmarks using total cost of goods sold (COGS) and Sales, general & administrative (SG&A). \*\* CAPEX breakouts are based on U.S. benchmark only.

Source: Global service provider annual and quarterly reports, FCC ARMIS Database;<sup>15</sup> IBM Institute for Business Value analysis.

While responding to all of the above strategic on demand imperatives may help wireline carriers *reduce costs* through improved efficiency and elimination of legacy constraints, two of these, *new service creation* and *CRM transformation*, offer the greatest potential to *improve top-line growth*. Although the actual value creation potential will vary significantly by service provider depending on its current state, Figure 8 illustrates the potential benefits for a typical U.S. wireline service provider implementing the following types of on demand initiatives in concert (please note that estimates of network transformation benefits are still being determined):

- Improving the process for *new service creation* by implementing new service models
- Improving *CRM via BTO* to focus on convergent customer needs
- Transforming *OSS/BSS functions* and optimizing costs
- Improving *enterprise management*
- Transformation into an *IT on demand operating environment*.<sup>16</sup>

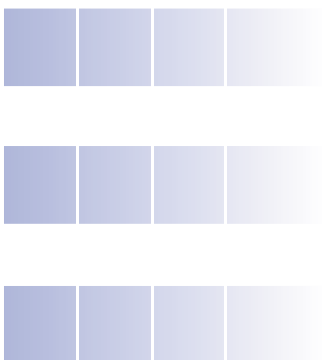
**Figure 8. Potential financial upside of on demand initiatives.**



*Note: Potential benefits based on a hypothetical wireline carrier and past client experience.  
Source: IBM Institute for Business Value analysis.*

### ***Rejuvenating wireline telecom growth through on demand***

With the telecom market on an upward trend, wireline service providers have fresh opportunities to convince the financial markets of their potential for value growth. Stimulating top-line growth through improvements in service creation and customer management is an essential part of this process. At the same time, cost control is fundamental, not only for its contribution to the bottom line, but also for improved reinvestment potential.



To succeed in a competitively cannibalistic market, wireline operators must identify and invest in those capabilities that are critical to winning and retaining increasingly fickle and demanding consumers and enterprises, and seek alternative delivery mechanisms for non-core activities. They must build the business strategies to stay ahead of fast-moving competitors from inside and outside the wireline industry. To learn more about restructuring your wireline business model, driving top-line growth, saving money for reinvestment in the future of your business and winning more of the telecom market, contact us at [iibv@us.ibm.com](mailto:iibv@us.ibm.com) or visit our Web site:

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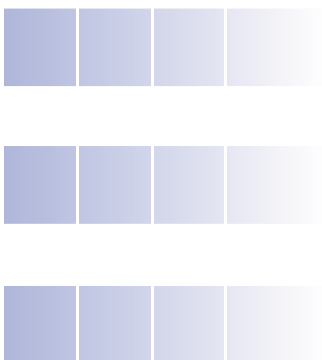
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- <sup>16</sup> IBM Institute for Business Value analysis. These benefits are shown using flexible financial models – in some cases of BTO, for example, an initial investment may be required. Actual results are expected to vary based on the current situation of the service provider, the extent of integration and up-front investment requirements. Network transformation estimates are still being determined.

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