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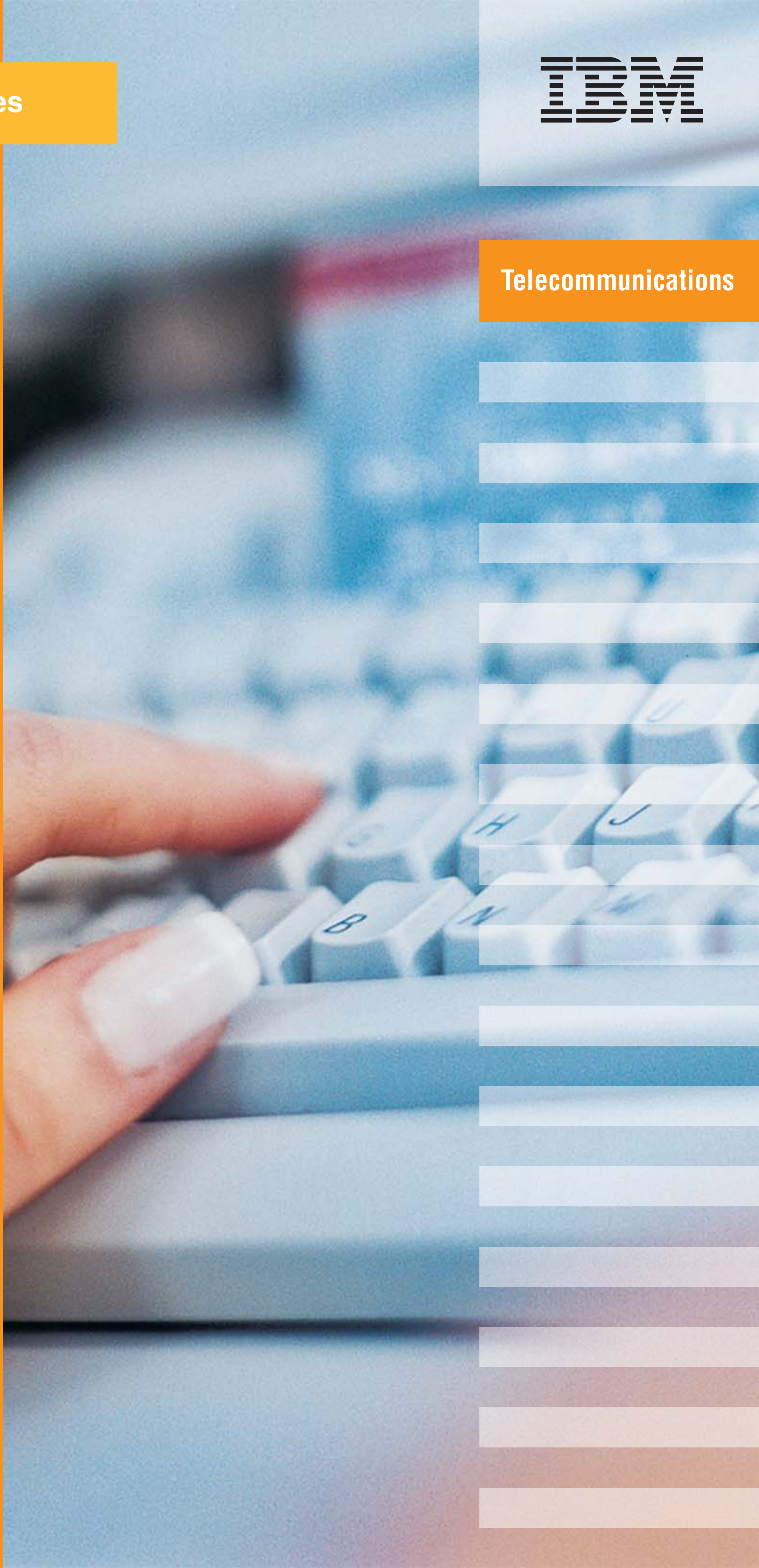
Telecommunications

The order matters

Increasing value in order-to-cash begins with order management



IBM Institute for Business Value

IBM Global Business Services, through 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 by the Institute's research team. It is part of an ongoing commitment by IBM Global Business 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 for more information.

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Executive summary

Despite improving market conditions, telecom service providers (SPs) continue to face significant challenges in finding new sources of revenue growth, reducing time to market, retaining customers and improving margins. At the same time, they are being squeezed by price pressures, high costs of multiple non-integrated business processes, legacy back-office applications and the need to comply with Sarbanes-Oxley regulations.[1]

While SPs are banking on convergence to drive revenue growth through new services, the ability to launch and support advanced services with diverse pricing structures creates serious challenges within the order-to-cash process, encompassing the processes and applications from ordering through collections.

To succeed in a converging world, SPs will need to:

- Develop the capabilities to deliver an enhanced customer experience, including achieving a single view of the customer, a single point of contact and an integrated bill
- Enable seamless integration of third-party content and services to drive new revenue growth
- Address operational inefficiencies, customer dissatisfaction and revenue leakage resulting from exponential growth in pricing options, products and channels
- Reduce complexity from silos and unsynchronized databases leading to process breakdowns, high costs and customer dissatisfaction.

Transformation in order-to-cash presents significant opportunities for SPs to address these challenges and enhance performance, in terms of improved key performance indicators (KPIs), cost reduction and revenue enhancement.

For example, in one recent engagement, IBM was able to help a US telco achieve savings of over 30 percent in the cost per order by simplifying order management processes and rationalizing products and offers, which is also expected to help enable more rapid introduction of new, revenue generating services. Transformation of the front-end can also help enable more effective end-to-end automation, and consolidation of billing and other back-end systems.

To get the full benefits of order-to-cash transformation, IBM has identified eight imperatives to help telecom SPs overcome key operational and business process challenges:

1. Provide online, realtime, accurate and “zero-touch” service management
2. Create multichannel, intentional, differentiated customer experiences
3. Simplify and optimize product and service offerings
4. Enable accelerated and adaptive new product introduction
5. Allow integration of partner content and offers, including micro payments
6. Consolidate and cleanse customer and network databases to optimize offer configuration
7. Drive process and infrastructure change across the organization, eliminating product/service-specific silos and mitigating transformation risk
8. Deploy on demand, converged business support systems that are responsive, variable-cost and resilient.

Achieving these imperatives will require a three-step approach that begins with order transformation and product and offer simplification, setting the foundation for more effective transformation and consolidation of the billing and order fulfillment systems and processes.

By following this approach, order-to-cash transformation can enable significant improvements across critical measures, including improved cost performance, back-end billing, collections and customer satisfaction, while accelerating cash to the firm.

Succeeding in a converging world

Under pressure to improve performance

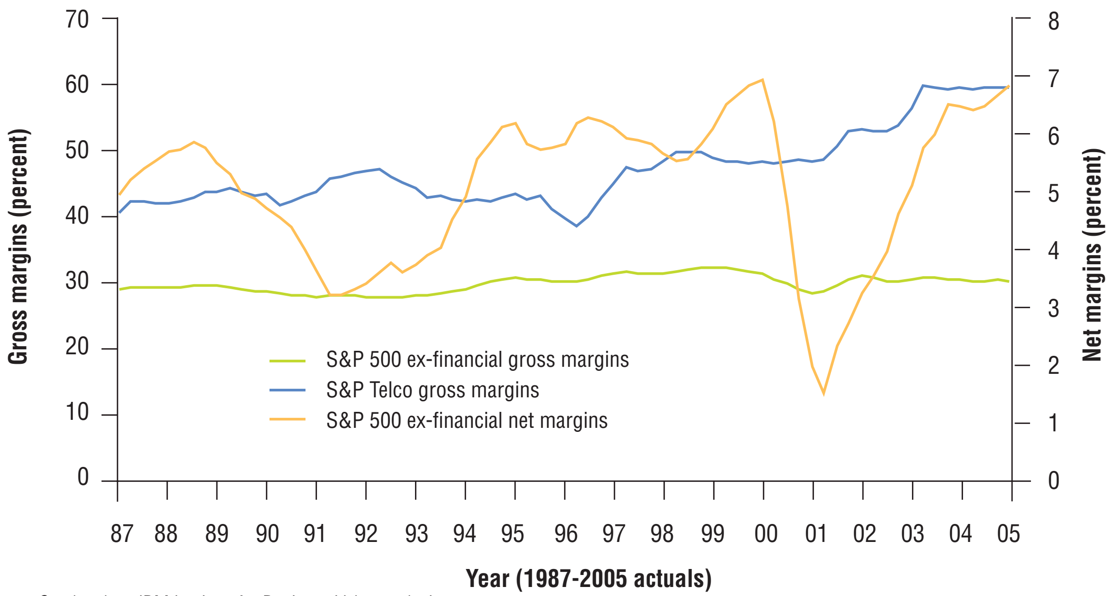
Despite improving market conditions, including a perceived revenue upside fueled by convergence, telecommunications SPs of all kinds are under pressure to find new sources of revenue growth, reduce time to market, improve customer retention and margins (see Figure 1). While up from the lows of 2001/2002, telecom margins have reached a plateau, putting SPs under pressure to deliver improved returns.

With heightened competition from existing and new players, SPs are being squeezed by price pressures, high operating costs and compliance with Sarbanes-Oxley regulations. At the same time, rapid technology change, industry consolidation and more sophisticated customer demands challenge SP responsiveness to new opportunities. From an internal perspective, SPs face significant challenges to their business and operating models from ordering through cash collection. In today's environment, most operators have to support multiple revenue streams. Service proliferation is adding additional cost and complexity to already complex order management and general business processes. Finally, multiple, non-integrated back-office functions add to these challenges. Overall, the picture presents a continuing and substantial opportunity for operating performance improvements.

Profiting from convergence

With IP, convergence and demand for multimedia services firmly underway, SPs face a plethora of new service and revenue opportunities. For example, Juniper Research expects the 2005 mobile TV services market of around US$136 million (worldwide subscriptions) to grow to 55 times this amount within five years, reaching a total of US$7.6 billion by 2010.[2] Both Frost & Sullivan and Strategy Analytics echo this trend, predicting total mobile video revenues of more than US$1 billion for the U.S. and North American market by 2010.[3]

Figure 1. Telco versus S&P 500 margins.



Source: Morgan Stanley data; IBM Institute for Business Value analysis.

At the same time, this growth in demand for new advanced services challenges internal SP capabilities and the economics of service delivery. For instance, product and service development and delivery, marketing, customer management and third-party partnerships for content and applications are critical business functions to support convergent service offerings and competitive differentiation. However, to many SPs, the envisioned profitability from convergence may be put at risk by the non-integrated, silo structures of many of these functions, IT environments and business support systems.

Not only can traditional, silo structures *not* deliver new convergent services (such as fixed-mobile convergence propositions), but disparate operations support systems and business support systems (OSS/BSS) are also ill-equipped to support such services. Legacy systems offer limited opportunities to bundle prices, apply cross-service discounts and billing, and deliver end-to-end customer service. They are also expensive to maintain, impacting margins. In a survey to examine key operator order-to-cash challenges undertaken by Analysys in the UK with 40 operators across 16 countries, respondents report widespread difficulties in the launch of innovative services, and in bringing new tariffs and service bundles to market, with medium-sized operators most likely to admit to these concerns.[4]

BT Group: Shunning the silos to enable converged services
One organization that recognizes the danger of rigid silo structures (organization, products, network) in a convergent world is BT Group in the UK. With its 21st Century Network (21CN) program, BT aims to become the world's first multi-service, all-IP network. Aside from enabling the delivery of converged services such as "BT Datazone" and "BT Fusion,"[5] 21CN aims to reduce costs and time to market for new services, supported by its Exact One IT program, which aims to streamline and consolidate platforms and services. Exact One IT is intended to make it easier for customers to do business with BT through a realtime, zero-touch, self-service customer experience.[6]

Depending on their precise choice of business model and internal capabilities, SPs are likely to face different order-to-cash challenges affecting their ability to deliver against their convergence vision.

Responding to industry consolidation

Financial performance pressures and convergence opportunities have fueled industry consolidation around the world. Telecom providers are expanding into new geographies, consolidating business units or acquiring other providers. Recent telecom mergers and acquisitions (M&As) include Sprint/Nextel, AT&T/SBC and Verizon/MCI in the U.S., Telefonica/O2 and Telenor/Vodafone Sweden in Europe, and Optus/Virgin Mobile Australia in Asia-Pacific.[7] When companies merge, they expect to leverage greater opportunities and significantly lower costs. However, combining hitherto separate operations poses significant operational and integration challenges. Post-merger companies need to integrate multiple, previously distinct business processes for customers, suppliers and partners, including product and service definitions and prices, contract terms, sales force coverage (presenting one face to the customer), ordering, order management, customer support and alliance and partner go-to-market approaches.

Vodafone Group PLC aims at consistency and synergy across global operations
With operations in 27 countries and a history of multiple M&As, Vodafone Group PLC realized that non-integrated and disparate legacy systems are expensive to maintain and unable to support full Group revenue potential. In October 2003, Vodafone launched its five-year transformation program, "One Vodafone," aimed at addressing these challenges. A key concept of the program is the "design once, deploy many times" principle. According to this principle, the design of core enabling systems, technologies and business processes will be undertaken centrally, then rolled out to multiple geographies – saving duplication of development costs in each country and helping to ensure global consistency of Vodafone products, services and brand experience.[8]

Regulatory and compliance issues also need SP attention post-M&A: for example, contracts and billing forms, employee- and tax transfers, cash and fixed assets, and transition of supplier service agreements. Industry consolidation will redefine the global telecom landscape. However, the full benefits to the industry, SPs and customers alike can only materialize when SP internal systems and processes have been fully synchronized and integrated.

Putting customers and retention first

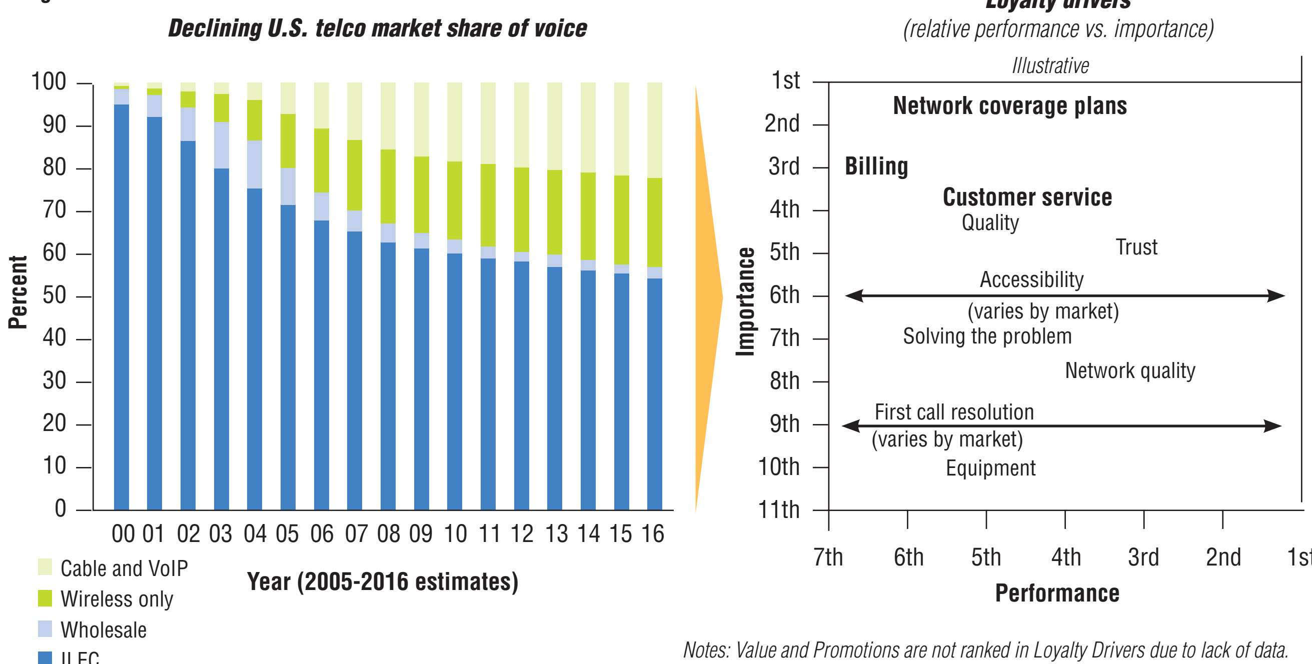
Increasing opportunities have sparked intensifying competition. Figure 2 illustrates the threat to incumbent U.S. telco voice market shares from wireless, cable and Voice over Internet Protocol (VoIP) providers. The voice market share of Incumbent Local Exchange Carriers (ILECs) is expected to decline below 55 percent by 2015.[9]

With intensifying competition and potential loss of business, telecom providers are increasingly focusing attention on customer and revenue retention. With recent years' relaxation of the regulatory environment (such as number portability), users may easily change providers, making customer retention more important than ever. As shown in Figure 2, differentiation must be achieved through targeted branding, service propositions and customer service, rather than purely through pricing and technology differentiation.

Execution, however, is complicated and dependent on the quality of individual telco order-to-cash processes and delivery capabilities. Efficient customer account handling, order management and billing processes enhance the customer experience.

The opposite encourages customer churn. If, for example, billing processes do not accurately assess customer usage, subscribers may be overcharged, leading to customer dissatisfaction and potential churn and revenue loss, as well as damage to the provider's brand.

Figure 2. U.S. retail voice share forecast.



Source: Goldman Sachs, Telecom Services U.S., January 2006.

Notes: Value and Promotions are not ranked in Loyalty Drivers due to lack of data.
Source: IBM Global Business Services.

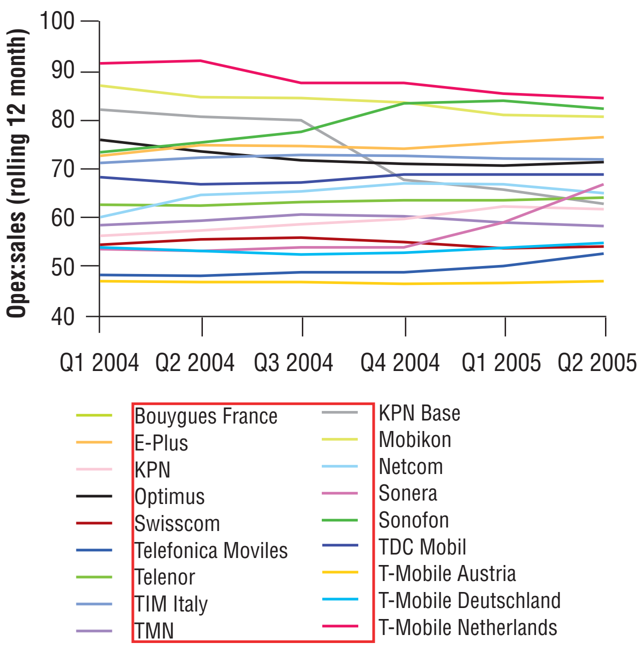
Although most SPs recognize the importance of this in today's market, few do it well. Indeed, telco SPs may look to the retail or consumer product space for valuable lessons in customer management. For instance, new-age retailer Starbucks sells what was once considered a commodity (coffee), but differentiates on the coffee experience and brand. Underlying Starbucks' success are its customer focus and capabilities to deliver a unique, but consistent, customer experience across its operations, channels (in-store locations, online site, partners) and geographical locations.[10]

Managing costs goes hand in hand with enhancing revenues

Pressure on revenues and prices (intensifying competition and substitution to broadband and IP in fixed-line; market saturation and intensifying competition in mobile) is driving heightened SP attention to cost management. During recent years' downturn, most cost reduction initiatives were focused on sales, general and administrative (SG&A) costs, rather than costs of goods sold (COGS), stopping short of transforming underlying cost structures. Driven by near-term gains, SPs sought to achieve operating expense (opex) savings by reducing overheads in sales, marketing and general functions. By implication, inflexible operations and silo structures (organization, product, systems) have remained in place, allowing process breakdowns, costly maintenance and customer dissatisfaction to continue. Although nearly all operators in Analysys' order-to-cash survey claim to have driven major improvements in these areas in the last couple of years, they concede that the main obstacles continue to be complexity of processes and the impact of legacy systems.[11]

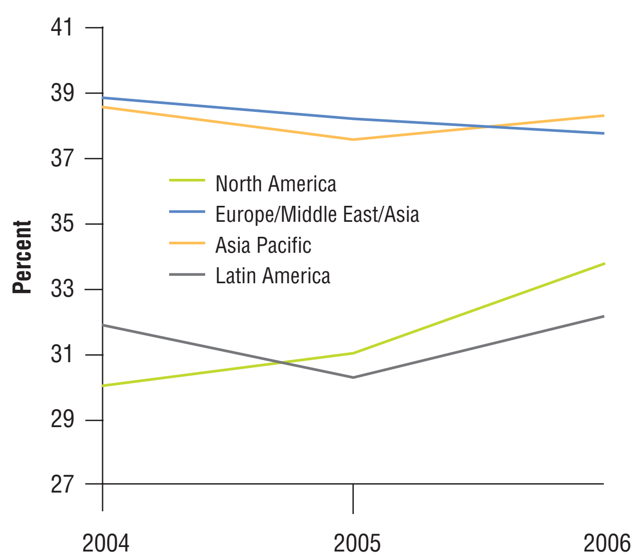
Figures 3 and 4 compare opex/sales ratio to Earnings Before Interest Tax Depreciation and Amoritization (EBITDA) margin trends for leading mobile carriers. As the charts illustrate, despite recent years' efforts to squeeze costs, overall opex as a share of the business (revenues) is generally not falling through 2Q05, resulting

Figure 3. Opex:sales ratio trends.



Source: Martin Garner, Wireless Intelligence, "Opex: a bubble not a squeeze," February 3, 2006, https://www.wirelessintelligence.com/print/035823.pdf

Figure 4. Wireless EBITDA margin trends.



Source: Tim Long, Bank of America, Equity Research, Communications Equipment, Jan 19, 2006; Patrick Russel, Merrill Lynch, VoIP in Asia-Pacific, December 14, 2005; IBM Institute for Business Value analysis.

in flat or declining EBITDA margins for the period 2004-06. (Figure 3 shows data for Western Europe. Comparable data are available for North America and Asia-Pacific carriers).

With a more positive industry outlook, the time is ripe to address more fundamental business process and cost management issues. This will require SPs to reassess their business' ability to support their longer-term vision and objectives, and to identify the key order-to-cash challenges which require business process redesign, including consolidation and rationalization of redundant systems, development of shared services across business units and elimination of weaknesses in legacy environments. The end goal is to improve operating performance, by focusing resources on critical value-creating functions while partnering or outsourcing non-differentiating capabilities. Non-action may jeopardize next generation service delivery, and potential revenue and margin gains.

Elisa realizes overall cost reduction by outsourcing non-core capabilities

In 2005, Finnish operator Elisa signed a seven-year outsourcing agreement for application management services with IBM. Under the deal, IBM will develop both customized and packaged applications that support key areas of Elisa's business, such as product development, delivery services, customer management, order and delivery, billing, business intelligence and support functions. The main objective of the agreement is to achieve a significant reduction in the overall cost of Elisa's application management services, while increasing revenue as a result of an extensive business performance transformation program.[12]

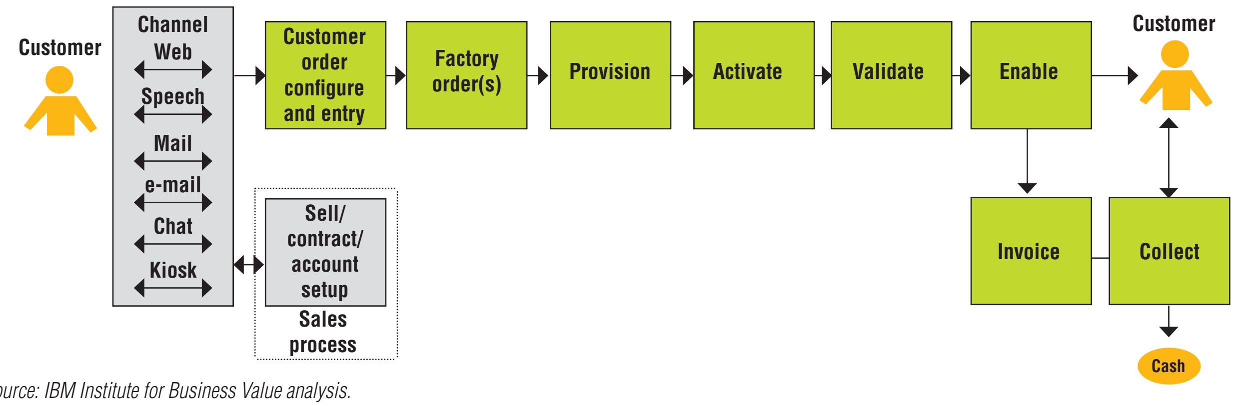
Market dynamics trigger key order-to-cash challenges

Market dynamics have implications for SP business processes and capabilities from ordering to collections, including order management, service provisioning and management, back-end billing, collections and customer management across services and channels (see Figure 5).

Advanced service delivery and customer management require integrated, end-to-end capabilities and efficient, business processes and applications. Problematic order-to-cash processes carry high costs and may deprive telcos of much needed revenues. Typical problem areas include complex service offerings, high error rates for order-taking and fulfillment, billing process inefficiencies and inaccuracies, high costs of dispute resolutions and inefficient collection processes. These problem areas provide significant opportunities for business performance transformation, revenue enhancement and opex savings.

In Analysys' survey with 40 leading fixed line, cable and mobile SPs throughout North America and Europe, 80 percent of respondents recognize that further order-to-cash process improvements are necessary, to attain competitive differentiation and better financial results.[13] Thirty-five percent of respondents indicate that complexity of IT systems is a major obstacle to achieving order-to-cash efficiencies, with 30 percent pointing to difficulties in customizing legacy systems.[14]

Figure 5. Order-to-cash process.



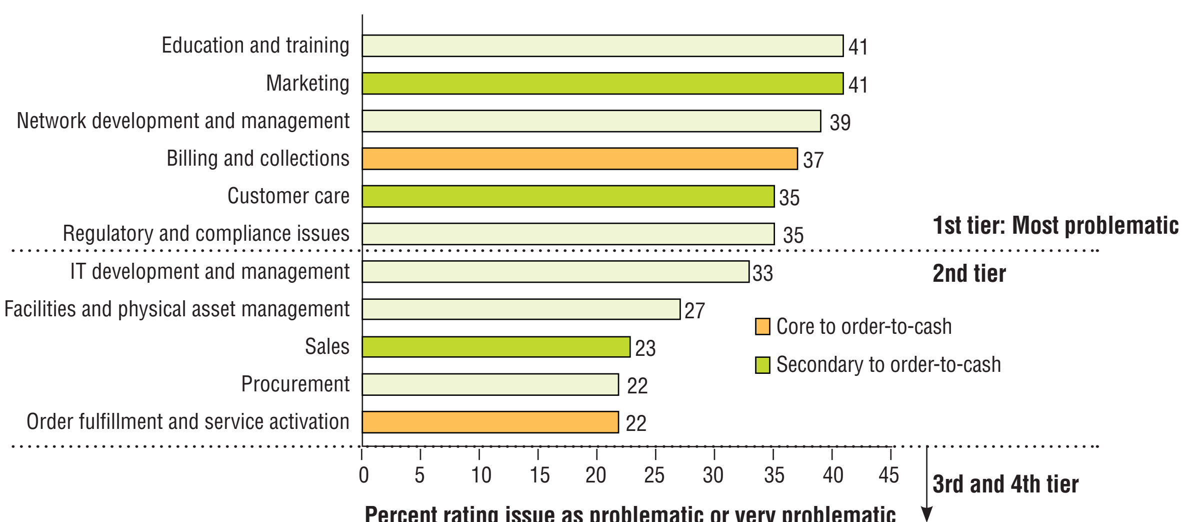
Source: IBM Institute for Business Value analysis.

Delivering a differentiated customer experience requires integrated capabilities

In a recent Forrester survey in which customers were asked "How much would each of the following influence you to sign up for a combination of telephone, television, and/or Internet from the same company?", respondents ranked (from most influence to least) Discounts, One Bill, Single point of contact and Promotion as the features most likely to entice them to move to converged services.[15]

Meeting these requirements relies on integrated order-to-cash capabilities. However, as Figure 6 shows, SPs must overcome significant business process challenges to succeed. Billing and collections, order fulfillment and service activation belong to the most problematic processes. Addressing processes such as these will be critical to SPs' ability to provide the differentiated customer experience necessary in the converging telecom marketplace.

Figure 6. Problematic processes for telecom service providers.



Source: IGS Market Research Surveys, 2Q04, 4Q03.
Question 11: Please rate each of the following processes on a scale of "1" to "5" where "1" means that the process is "Not At All Problematic For Our Company" and "5" means it is "Very Problematic For Our Company."

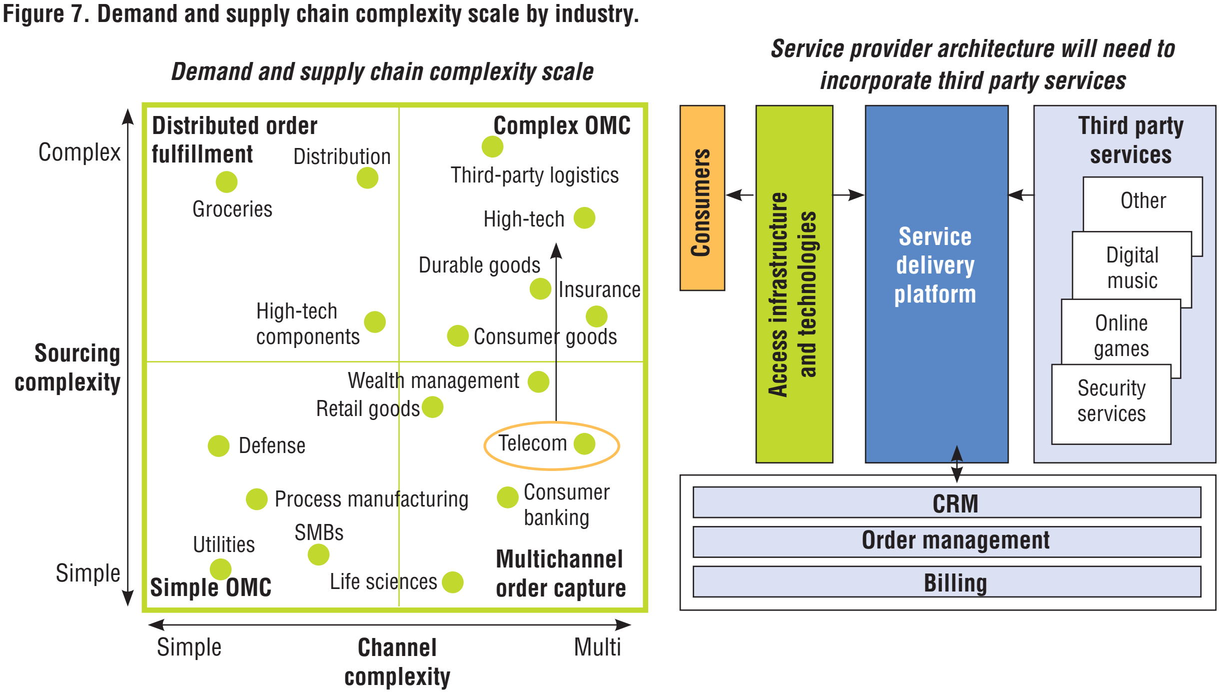
Third-party integration adds complexity and infrastructure requirements

Convergence requires SPs to offer third-party content and services to meet user demand and optimize revenues. Delivering third-party content, however, requires seamless integration of third-party services into SP architectures, supported by customizable revenue-sharing capabilities and integrated order-to-cash processes. As the number of partners and suppliers grows, the complexity increases, as does the pressure on processes and capabilities (see Figure 7).

As the chart on the left of Figure 7 shows, the telecom industry has traditionally been an industry with complex channels, but simple sourcing – in line with wealth management, retail goods, consumer banking and life sciences. However, with today's needs to support numerous customer touch points, the industry is becoming more and more complex in terms of numbers of channels *and* sourcing, to be more at par with high technology.

To overcome the increasing complexity, SPs need to upgrade their network architectures and support systems (for example, CRM, order management and billing) and aim to create integrated, end-to-end, business and supply chain processes across brands, suppliers and partners, thus enabling rapid response to changing market conditions.

Figure 7. Demand and supply chain complexity scale by industry.



Source: Wang, R. Ray, Forrester Research, Beyond order to cash, Feb 24, 2005.

Source: IBM Global Business Services.

Complex pricing, products, and channels add to operating inefficiencies and cost

Market dynamics have led to exponential growth in pricing, products, and channels, creating a highly complex and high-cost environment.

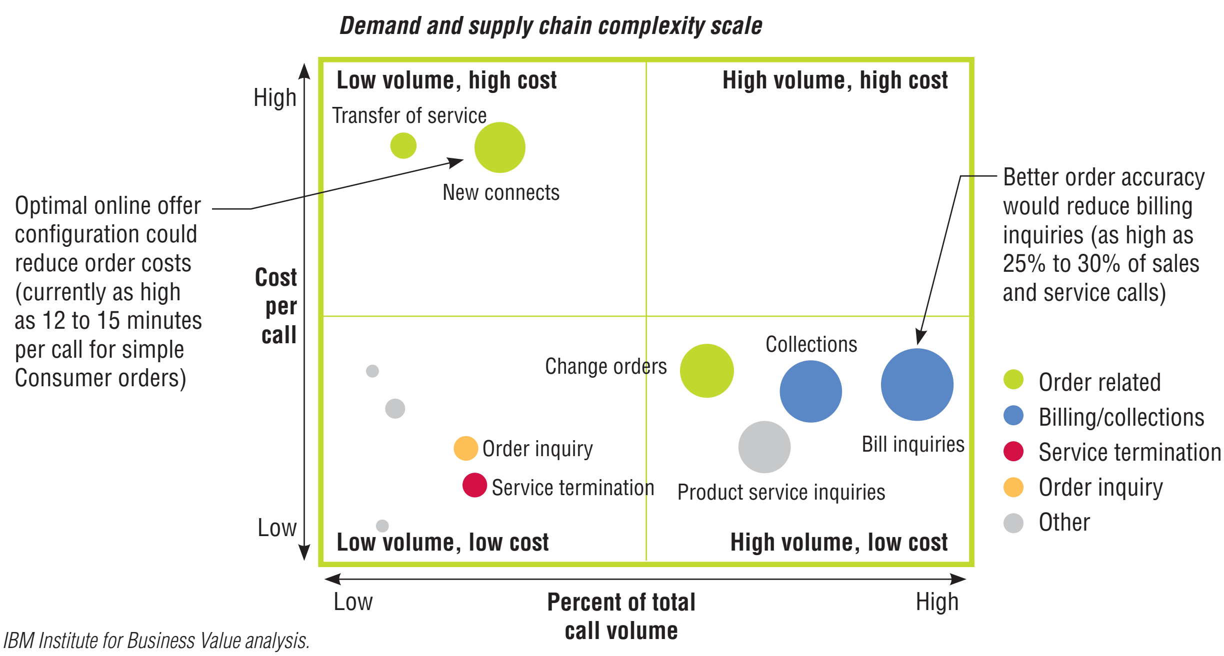
- Intensifying competition requires today's telecom SPs to manage elaborate pricing structures. In some cases, a single product can have more than ten pricing paths and more than five discounting paths, each with a number of price points.[16] Managing these pricing structures across an organization is challenging.
- Convergence is expanding already broad product portfolios: although an SP may offer in excess of 100 product types, and manage over 1 million product codes, not all of these contribute meaningfully to revenues. However, all offered services contribute to the SP's cost base.
- Telecom SPs make use of multiple channels for customer interaction, adding complexity and cost (and potentially creating inconsistent customer experiences across channels).

Elaborate pricing structures, broad product portfolios and multiple channels may lead to operational inefficiencies, such as billing inaccuracies. Revenues may be impacted by billing disputes, unbilled services and slow introductions of new products, prices and channels. New revenue opportunities may be lost as a consequence of non-optimal cross-sell and up-sell.

In addition, mishandling of complex pricing, products and channels may lead to frustrated customers, confusion about available services, delayed service delivery, errors in billing and customer dissatisfaction. For a typical integrated SP, complex pricing, products, and channels may result in high cost per sale and large volumes of customer billing inquiries (see Figure 8).

The lower left quadrant indicates calls that are low volume and low cost; SPs want the majority of their calls to fall into this category. Calls related to new connects fall into the top left quadrant, indicating that they are low volume, but high cost. Easing the ability to order and driving down the costs of new connects is an obvious

Figure 8. Sales and service call volume and cost breakdown for typical consumer.



Source: IBM Institute for Business Value analysis.

objective. Product service and billing inquiries fall in the bottom right quadrant, indicating that they are low cost, but high volume. This quadrant represents an opportunity to improve order accuracy and product service information to drive down call volume. The top right quadrant indicates high sales and service call volume and high cost, reflecting complexity of sales process and/or customer management. Clearly, SPs should aim to have nothing fall within this category.

Complexity from silos and unsynchronized databases lead to process breakdowns, high cost and customer dissatisfaction

Just as intensifying competition, expanding product portfolios and third-party partnerships contribute to an environment of complex pricing, products and channels, complexity from silos and unsynchronized databases lead to process breakdowns, high opex and customer dissatisfaction.

As SPs converge, consolidate and form partnerships, they bring together multiple processes, products and OSS/BSS silos, as well as customer and network databases. Often, these silos and databases are of questionable stability or quality post-integration. In consequence, SPs might find themselves in a complex maze of process breakdowns that are difficult to identify and/or resolve.

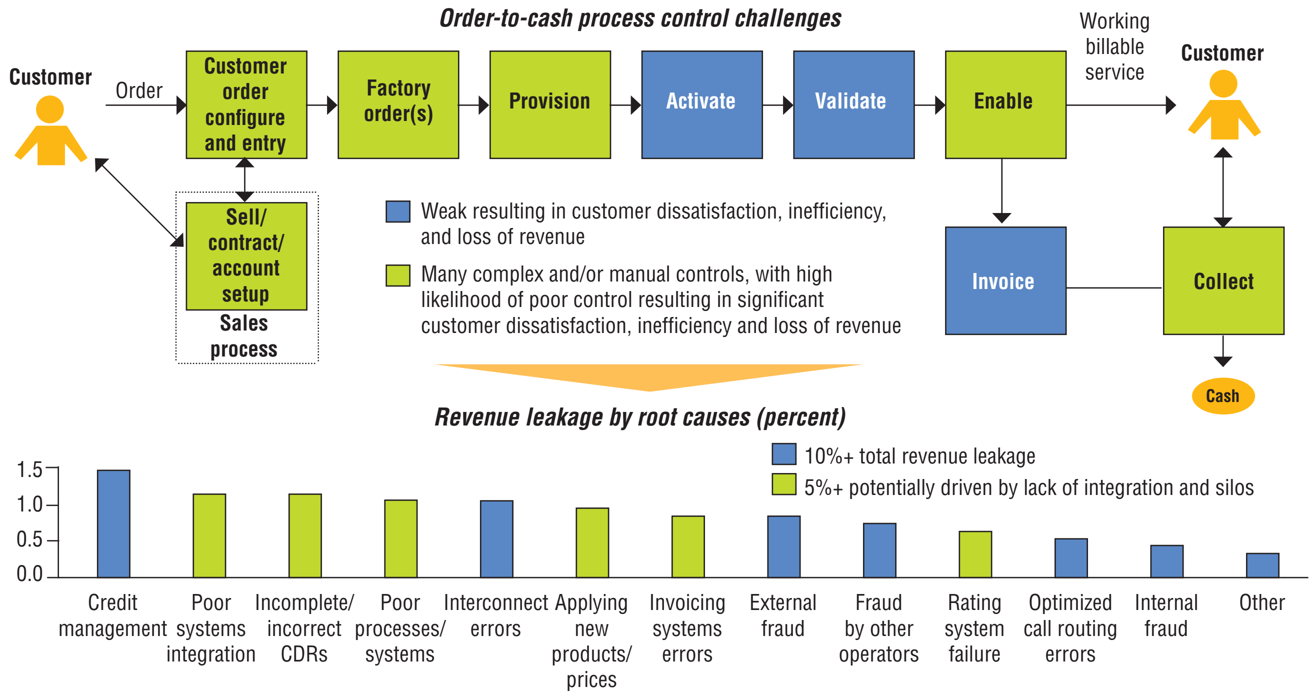
The OSS/BSS and multiple database challenges can have the following effects:

- *High cost per order, relative to declining service revenue.* Simple consumer orders (for example: move, add, change or disconnect requests) cost between US$6 and US$12.[17] Equivalent complex orders cost between US$13 and US$20 each.[18]
- *Long order cycle times and orders not delivered when promised.* From the time an order is placed until delivery can take anywhere from 1/2 day (for example, for Voice Caller ID) to 100 days (for Data OC-3).[19] On delivery commitments, consumer orders experience a 94 to 99 percent success rate, whereas business orders range widely, from 60 to 95 percent success.[20]
- *Low end-to-end automation and high rework because of data quality problems.* Consumer orders typically experience fallouts from automated process for 5 to 25 percent of orders; for more complex business orders, fallout ranges from 15 to as high as 100 percent.[21]
- *Delays in new price, product, and channel introduction.* Time to market for preparation of the order-to-cash process ranges from 5 to 30 days for pricing or promotion changes and 30 to 270 days for new product introductions.[22]

The latter point, in particular, is backed up by the Analysys study which suggests that currently, the key theme to be addressed by the promotion of order-to-cash systems is the potential for time to market improvements.[23]

Figure 9 illustrates key order-to-cash process control challenges and resulting revenue leakage by root causes. Key areas of weakness include activation, validation and invoicing, which results in customer dissatisfaction, inefficiency and revenue loss. Other weak areas may include complex controls and tasks that must be performed manually (such as account creation, order placement, factory orders, provisioning, activation, validation, enablement and collection).

Figure 9. Order-to-cash process control challenges.



Source: IBM Institute for Business Value analysis.

Of the 13 root causes in the order-to-cash process contributing to total revenue leakage of more than 10 percent, six are driven by lack of integration and silos. These include: poor systems integration, incomplete or incorrect call detail records, poor processes or systems, application of new products or prices, invoicing systems errors and rating system failure. In combination, these six causes contribute to more than 5 percent of the total revenue leakage, which in turn presents a compelling case for telecom SPs to address silos and integration issues.[24]

Eight imperatives drive change in order-to-cash

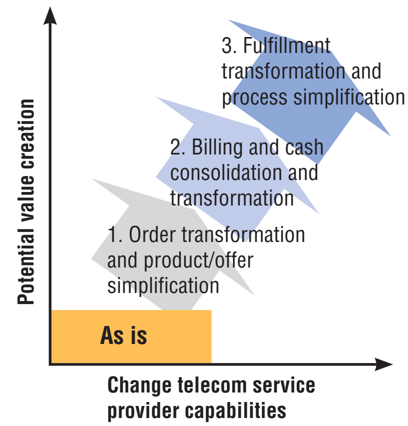
Acting on strategic imperatives to realize benefits

Order-to-cash transformation presents significant opportunities for SPs to enhance performance, in terms of both cost reduction and revenue enhancement. However, before performance improvements may be fully realized, the key order-to-cash challenges must be addressed. This results in priorities for SPs that may be grouped into four categories and eight common strategic imperatives which can help SPs overcome their key efficiency, flexibility, and responsiveness challenges (see Figure 10).

Figure 10. Summary order-to-cash imperatives to realize benefits.

Summary order-to-cash strategic imperatives	Value drivers
Customer interactions 1. Provide **online, realtime, accurate** and **"zero-touch"** service management 2. Create **multichannel intentional, differentiated** customer experiences	↓ Operating expenses ↑ Customer satisfaction ↓ Revenue leakage
Products/offers 3. Simplify and optimize product and service offerings 4. Enable accelerated and adaptive new product introduction 5. Allow integration of partner content and offers including micro payments 6. Consolidate customer and network databases to optimize offer configuration	↓ Product and ordering complexity ↑ Revenue generation ↑ Time to market
People/Process 7. Drive process and infrastructure change across the organization, eliminating product/service-specific silos and mitigating transformation risk	↓ Cultural barriers
Infrastructure 8. Deploy on demand, converged business support systems that are responsive, variable-cost and resilient	↓ Total cost of ownership

Order-to-cash business performance transformation



Source: IBM Global Business Services.

These imperatives serve as a "framework for action," focusing on improving customer interactions, simplifying products and offers, eliminating people and process silos, and strengthening infrastructure, including online, self-service channels. Achieving these imperatives will require business performance transformation in the right sequence, starting with order transformation and product and offer simplification. Transforming and simplifying the front end can drive increased order and billing accuracy, and allow for more effective consolidation of back-end systems, which is likely to produce the greatest returns.

Customer interactions

1. Provide online, realtime, accurate and "zero-touch" service management

To unlock customer value, a paradigm of customer interaction based on "zero-touch" service management through a fully automated flow-through process is required. This approach relies on customer use of online channels, enabling realtime, accurate and efficient self-service, ranging from account management (such as status of account and bill payment), to service requests, self provisioning and problem resolution. "Zero-touch" service management in turn requires a security-rich, resilient and highly reliable multichannel infrastructure, with easy-to-use and consistent customer interfaces for multiple device types (such as access via Internet, IVR and 3G). The infrastructure needs data capture and reporting capabilities to enable customer service performance tracking (for example, wait time, first-time call routing).

2. Create multichannel, intentional, differentiated customer experiences
A branded, channel-specific customer experience tailored to a customer profile is required to attract and retain customers. This experience ought to be intentional designed to produce consistent customer satisfaction, rather than accidental experiences that vary by channel over time. This requires an in-depth understanding of customer needs, clear plans to meet (exceed) those needs and consistent delivery across touch-points throughout the customer lifecycle. Key benefits of this approach include increased revenue through enhanced customer loyalty and reduced churn.

Bharti invest heavily on efficient self service to enhance customer satisfaction
Bharti Tele-Venture Ltd (BTVL), a leading provider of telecommunications services in India, works with IBM to transform its business, optimize IT, streamline processes and prepare for growth and excellence in customer service. Part of the transformation program is the development of a Web-based customer service platform, designed to improve customer satisfaction and reduce costs, in part through implementation of a customer self-service facility to support rapid customer growth.[25]

Products and offers

3. Simplify and optimize product and service offerings
Order management transformation begins with simplification of complex and difficult-to-manage product portfolios and pricing structures. Telecom providers need to rationalize the range, age, marketability and profitability of their product offerings, removing duplicate or non-profitable services or price plans. Simplifying products and service offerings results in less customer frustration, more efficient sales and lower customer care and billing costs.

4. Enable accelerated and adaptive new product introduction
A more collaborative approach to new service creation – integrating business and partner functions on flexible platforms – is expected to multiply the innovation yield and speed time to revenues. Infrastructures need to be optimized to enable flexibility in service and tariff bundling to drive improved time to market, and more accurate and consistent product configurations across multiple channels (for example, retail outlets, online sites, self-service portals).

5. Allow integration of partner content and offers, including micro payments
By implementing service platforms that incorporate third-party content and services with flexible micro payment options, SPs can drive new revenues while reducing collection risk and achieving higher margins on differentiated content.

6. Consolidate and cleanse customer and network databases to optimize offer configuration
Telecom providers need to integrate their standalone databases and invest in "data hygiene" capability in order to achieve accurate, timely and holistic customer views. This can result in better, tailored offers targeted to specific customer segments, better care of customers and reduced order fallout and costly rework.

People and processes

7. Drive process and infrastructure change across the organization, eliminating product/service-specific silos and mitigating transformation risk
To realize the full benefits from IP and convergence, telcos need to align their organizations to business and commercial objectives. In a "horizontal" network environment, SPs must flatten their vertical, single product-based structures to enable horizontal service delivery and innovation across business functions, processes, channels and technologies. Benefits can arise from cost reductions (such as joined sales and marketing divisions, business process efficiency enhancements) and revenue enhancement (improved brand leveraging, integrated marketing, cross selling and enhanced customer service). European

telcos (for example, Mobilkom and Telecom Italia/TIM) are leading the way by flattening their organizations and processes and implementing shared structures for multimedia, next-generation service delivery.[26] Required organizational changes involve both people and processes, directing SP attention to potential cultural adversity, and staff training and development.

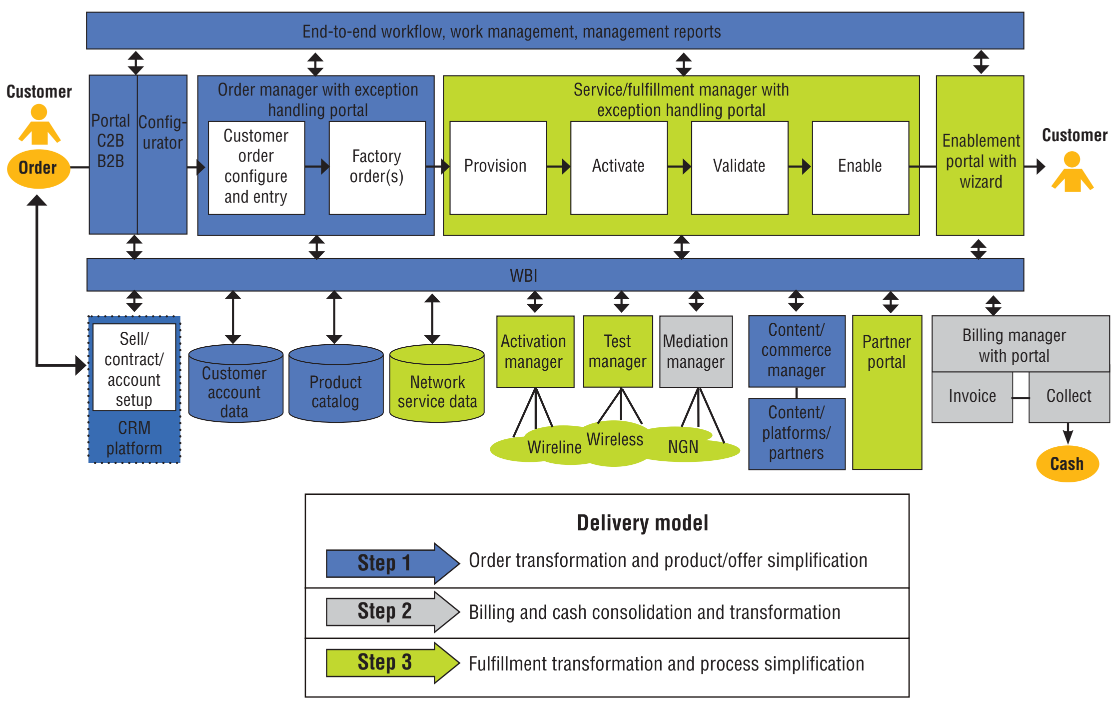
Infrastructure

8. Deploy on demand, converged business support systems that are responsive, variable-cost and resilient
With migration to IP-based network environments, telecom providers need to upgrade their OSS/BSS systems to become on demand operating environments, while continuing to manage existing services. On demand operating environments are characterized by variable cost structures and responsiveness to market changes and offer significant potential for improved OSS/BSS capabilities at reduced total cost of ownership.

Order-to-cash transformation begins with order management

Achieving the eight imperatives and potential benefits from order-to-cash transformation will require a three-step approach. Maximum benefit will be achieved by starting with transformation of order management, followed by transformation of billing and fulfillment management. "Transformation" includes re-engineering of the end-to-end process and sub-processes within each of the three domains, supported by new IT platform capabilities for flow-through automation and exception handling (see Figure 11).

Figure 11. Order-to-cash transformation components.



Source: IBM Institute for Business Value analysis.

The sections below define each of the three steps in the order-to-cash transformation approach:

Step 1 – Order transformation and product and offer simplification

The focus of Step 1 is on order management improvement, and product and offer simplification. The objectives of this step are three-fold: first, to simplify and rationalize existing SP offers, product portfolios and pricing, removing legacy complexity built up through years of competition and acquisitions; second, to transfer more than 60 percent of order entry volumes to the online channel, to simplify product selection and ordering for end customers, configure orders to their needs and help to ensure accurate and complete orders; third, to transmit configured orders into the fulfillment process with over 90 percent flowthrough.

The key components transformed in Step 1 are:

- Consumer and business portal – Provides a secure environment enabling realtime, multichannel Web access for laptops, kiosks, personal digital assistant (PDAs), etc. to order entry, order status, bill presentment and payment functions.
- Product and offer configurator – Provides product recommendation and order configuration to simplify product selection while helping to ensure order completeness and accuracy. The configurator is context driven, having automated pre-population of relevant customer, account, service and network information with at least 60-90 percent-plus of order entry volumes flowing automatically to provisioning with "zero-touch."
- Product catalogue – A single virtual data repository (hub) for product information, simplified and rationalized as a result of removing legacy complexity from competition and acquisition activities.
- Customer account database – A single virtual data repository (hub) for customer related information.
- Exception handling portal – Provides functions for credit check and service availability determination, with the capability to resolve fallout and reinsert an order into the automated process.
- Order Manager – Is responsible for decomposition of the order created via the configurator or standalone order creation/validation, order status and tracking, workflow management, handoff/interaction with the Service / Fulfillment and Billing Managers, and order close-out.
- Content platform and partner manager – Manages digital content ordering and settlement across multiple content partners.

Implementing Step 1 can enhance business performance on both the cost and revenue side. The following results are among those SPs would be expected to gain:

- Simplification of both product offers and order entry/ management, improving sales efficiency and minimizing opex cost and implementation efforts
- Enablement of online, realtime multichannel service management, a differentiated positive customer experience, and more effective upsell and cross sell to drive revenue growth and retention
- Achievement of self-service adoption and order accuracy targets, driving potentially significant labor savings and sales productivity.

Step 2 – Billing and cash consolidation and transformation

The aim of Step 2 is to consolidate and migrate multiple, legacy billing processes and systems to a few modern, flexible and extensible, integrated billing, invoicing, and collections processes and platforms. Step 2 supports the achievement of:

- Integration of the billing and collections platform, enabling electronic bill presentation and payment
- Enablement of billing exception handling capability to resolve fallout issues and reinsert bill into automation process, including the capability to support on-phone customer account inquiries and adjustments
- Support for online mediation management providing usage and charging transaction data across multiple network technologies to billing platform via a single interface.

The possible benefits of Step 2 build on the accomplishments in Step 1:

- Enablement of increased billing accuracy, reduced revenue leakage and cost of billing
- Accelerated new product introduction across channels, along with reduced total cost of ownership and reduced days sales outstanding
- Reduction in inaccurate and unbilled revenue.

Svyazinvest replaces 180 billing systems in multiple regions across Russia
Svyazinvest is a major Russian holding company, with 51 percent share in seven regional operators and one interconnect carrier supporting more than 35 million Russian wireline subscribers. Svyazinvest is working with IBM and Amdocs to transform over 186 billing systems across seven regions as part of its three-phase modernization program enabling a single view of customer, accelerated introduction of new voice and data services, and a platform for entry into the mobile market.[27]

Step 3 – Fulfillment transformation and process simplification

Step 3 focuses on fulfillment transformation and further process simplification. It aims to consolidate service specific fulfillment processes and implement flow-through automation, including automated activation of intelligent network elements. Among the accomplishments we expect from Step 3 are:

- Simplification / consolidation of existing service specific fulfillment processes and implementation of flow through automation, including automated provisioning / activation of intelligent network elements
- Centralization of command and control of order fulfillment management functions through a service fulfillment manager or portal
- Automated support of all order types including: add, change, disconnect, cancel, move, supplemental and bulk
- Further implementation of "zero-touch" service, such as in "zero-touch" flowthrough to intelligent network elements (e.g. Service Control Point)
- Enablement of support capabilities that push order completion information to customers, wizard enabled, automated enablement testing and service validation, including push to chat/talk.

The key benefits include:

- Achievement of order automation and accuracy targets driving opex savings
- Enablement for accelerated and adaptive new product introduction
- Enablement for "zero-touch" infrastructure and KPI continuous improvement.

Value creation through order-to-cash transformation

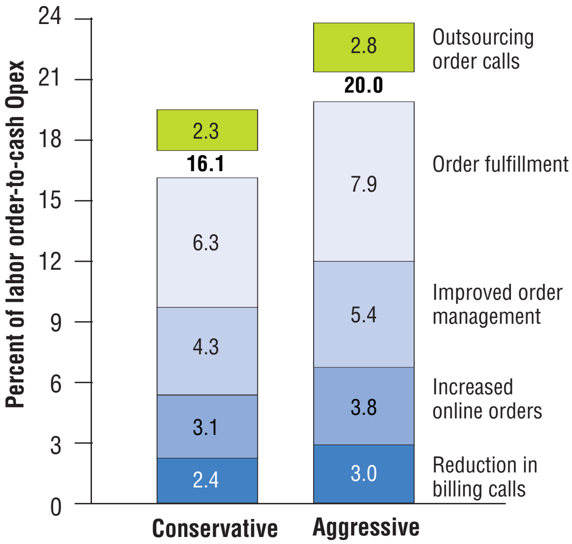
Business case

Transformation in order-to-cash can bring significant improvements across critical measures, including order management and fulfillment, increased online orders and reduction in billing calls accelerating cash to the firm. From a potential cost reduction perspective, up to 20 percent of labor related costs may be eliminated (excluding outsourcing order calls) (see Figure 12).[28]

O2 realizes significant cost savings through its Companion transformation program
O2 is well underway with its order-to-cash transformation program. O2 plans to replace its complex infrastructure of many duplicate systems with an umbrella platform that provides best-in-class solutions in billing and customer care, and supports improved order management and fulfillment processes. The aim is significant cost-savings, faster introduction of new services with reduced ROI, seamless service across all of the delivery channels, and better and more cost-effective customer interactions. A large part of these objectives has already been realized.[29]

Figure 12. Order-to-cash transformation benefits.

Annualized cost performance improvement from executing key order-to-cash initiatives



Source: IBM Institute for Business Value analysis.

Order fulfillment

- Increased automation in order fulfillment process

Improved order management

- Reduction in manual order entry and elimination of nearly 80 percent of inaccurate orders
- Reduction in order status calls from improved flow through and cycle time

Increased online orders

- Elimination of staff required for order entry from moving 40 to 50 percent of order volumes to online channel

Reduction in billing calls

- Downstream reduction in billing inquiry calls from improved order management
- Reduction in billing and payment calls from enhanced online billing portal

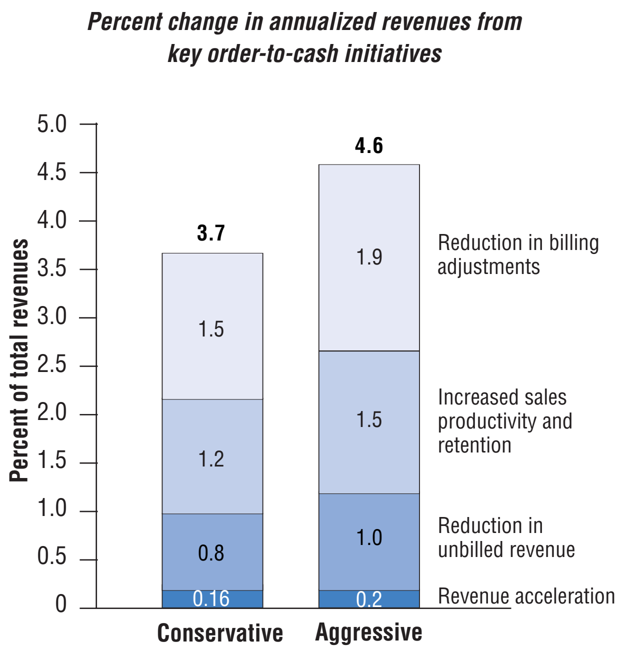
Outsourcing order calls

- Productivity improvements in agent utilization and occupancy from improved management
- Labor arbitrage – 35 to 45 percent reduction in wage rates from outsourcing and offshoring order call centers

The above potential benefit assessment is based on a sample of actual IBM client transformation engagements.

On the revenue side, an increase of 4 to 5 percent in net revenues may be achieved through top-line enhancement and reduction in revenue leakage (See Figure 13 on the following page).[30]

Figure 13. Order-to-cash transformation benefits.



Note: Benefits related to interest savings used to finance Days Sales Outstanding were not included given they were not significant in size.
Source: IBM Institute for Business Value analysis.

Reduction in billing adjustments
- Improvement in billing adjustments between 1.5 percent to leading practice of 1.9 percent of revenues
- Improvements driven primarily by increased accuracy in order entry process

Increased sales productivity and retention
- Increase in new revenues from improved up-sell/cross-sell due to simplified product/service structure and improved order management
- Reduction in customer churn from increased customer satisfaction relating to reduction in billing inquiries and increase in commitments met

Reduction in unbilled revenues
- Reduction in unbilled revenues of between 0.8 percent leading practice of 1 percent from integration of disparate billing systems and databases

Revenue acceleration
- Acceleration in in-year revenues through increase in commitments

The above potential benefit assessment is based on a sample of actual IBM client transformation engagements.

A global operator has improved order management through order-to-cash transformation

A global operator has resolved key order-to-cash pain points in its Asia-Pacific operations via an extensive business transformation program. Through delivery of a new regional integrated customer care and billing infrastructure, this operator is now able to reduce costs, increase average revenue per unit (ARPU) from existing customers, improve acquisition of high-value customers, and differentiate through improved customer service. Order transaction times have decreased from more than half an hour to less than a couple of minutes.[31]

What is your current order-to-cash transformation trajectory?

The following questions are designed to help executives assess their current order-to-cash challenges and develop a framework for action that converts these challenges into top and bottom line growth:

- Is your business delivering best-in-class operating performance? Does your business have high revenue leakage?
- Is your organization optimized for on demand convergent service delivery?
- Are your current product and service offerings driving significant complexity in your business, resulting in confused customers, low sales productivity, high care costs and billing accuracy?

- Have you integrated common functions (such as sales, marketing, billing, customer service and distribution) across different areas of your business to drive revenue and reduce cost?
- Do non-integrated business functions and legacy systems and processes inhibit your responsiveness to new revenue opportunities?
- Are you managing your cost base optimally, hand in hand with enhancing core revenues?
- Are you offering differentiated service propositions and are you proud of your customer retention rate?
- Is your customer management based on a single view of the customer? Can you deliver a unique, end-to-end customer experience, based on a multichannel approach?
- Have you upgraded your legacy billing processes and systems with end-to-end capabilities offering customers one bill for all services?
- Is your IT strategy based on flexible, scalable platforms that can integrate all customer-facing processes across your business?

If you recognize any of the above issues, you may be one of many telecom SPs that suffer key order-to-cash challenges and urgently needs a transformation plan to move to more cost-effective and efficient order-to-cash processes, to help you succeed in the converging and intensely competitive telecom environment. To learn more about preparing for and executing order-to-cash transformation, contact us at *iibv@us.ibm.com*.

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About IBM Global Business Services

With business experts in more than 160 countries, IBM Global Business Services provides clients with deep business process and industry expertise across 17 industries, using innovation to identify, create and deliver value faster. We draw on the full breadth of IBM capabilities, standing behind our advice to help clients implement solutions designed to deliver business outcomes with far-reaching impact and sustainable results.

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BT Datazone is the service where there is a combined Wi-Fi, 3G and GPRS tariff for users accessing the Internet via these media. Business customers using a data card, such as the GlobeTrotter QUAD*, will be able to access the Internet, send and receive e-mails and download large files at over 7800 BT Openzone hotspots in the UK and Ireland, or "on the move" through a 3G or GPRS connection. Customers can also use BT Datazone when travelling overseas by using 3G or connecting to one of 30,000 Wi-Fi hotspots that BT Openzone customers can access. http://www.btopenzone.com/news/news_2005_09_29.jsp

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