Leading in the Converged Future: Becoming an Agile Telco

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Abstract

The convergence of networks, systems and devices is revolutionizing the communications industry. As technological progress redefines the marketplace, Communication Service Providers (CSPs) or telecommunications companies (telcos) face a unique set of lucrative opportunities and momentous challenges. Developing economies are opening up in the flattening world to offer CSPs enormous untapped markets. At the same time, emerging players are providing stiff competition through innovative and competitively priced offerings, taking customer expectations to new highs.

If CSPs are to win this game, they must closely engage with their customers while improving their service proposition. They need to work relentlessly toward reducing costs, improving profitability, becoming agile, and transforming the organization to keep pace with the changing paradigms of the flat world. This calls for increased operational efficiencies, integrated processes and rapid roll-out of novel and niche products in new geographies.

This paper outlines the four-pronged approach CSPs need to adopt to secure and maintain their leadership position in an industry hit by a tidal wave of change.
What is driving the agenda for transformation?

The telecommunications marketplace is a whirlpool of volatility and competition. As basic communications services get commoditized, the winners will be those who best meet customer expectations for innovative products while continuously paring costs. To survive and thrive in such a market, CSPs need to understand the factors driving the transformation. These are:

- **Convergence**
- **Porous boundaries between CSPs**
- **Next-generation products and new markets**
- **Mergers and acquisitions**

**Convergence**

Technological convergence offers CSPs and consumers myriad new possibilities. Internet Protocol-based Next-Generations Networks (IP-based NGNs) enable telcos to provide voice, video and data applications over one network. Equipped with capabilities for anywhere, anytime communications, NGNs herald higher quality, genuine choice and attractively priced innovative services for consumers. Further, feature-rich wireline and wireless devices offer an impressive convergence of services. For example, convergence has allowed the mobile phone to evolve from a mode of voice communication to a feature-laden multimedia device that enables users to take photographs, shoot video, listen to music, read documents and even execute financial transactions.

**Porous boundaries between CSPs**

Boundaries between CSPs are also becoming porous as emerging players offer applications which erode the market share of incumbent companies. A case in point is how wireless services have stolen a march over the wireline business. According to the Telecom Regulatory Authority of India, in October 2007, India had 217 million mobile connections, against 40 million wireline connections. A year ago, the subscriber bases were 98 million and 42 million respectively.

The blurring of target markets extends to other technologies as well, as telcos step into each other’s territories:

- Digital Subscriber Line (DSL) is facing a threat from mobile broadband
- Multiple System Operators (MSOs) are challenging existing carriers through innovations beyond voice and data services. For instance, Cox/Comcast is offering advanced features such as caller ID on TV through its triple play service - broadband, phone and TV.
- Companies like Skype and Vonage are taking increasingly larger bites of the market pie and impacting the profits of long-distance carriers
Next-generation products and new markets

Since customers have an array of innovative and niche services to choose from, they unhesitatingly switch to a player offering newer and better products at a lower cost. Faced with decreasing customer loyalty, CSPs are chanting the quad play mantra, heralding the convergence of voice, video, broadband and wireless services. It ensures that a single provider blends these services in a seamless environment, thus fulfilling customer needs and reducing churn.

Quad play has led to the three-screen strategy - reaching out to customers through their personal computer, TV and mobile devices. Thus, most telcos are rushing to roll out new services like Internet Protocol Television (IPTV). British Telecom has launched BT Vision, Verizon has FiOS, while AT&T has launched UVerse.

The competitive pressures in a flattening world are forcing CSPs to launch their products in newer markets and geographies at a scorching pace to remain competitive. For example, Verizon plans to roll out its FiOS service across the US in the next 12-15 months.

Even as CSPs speed next-generation products to the market, they must continue to support existing services. While an increasing number of users are signing up for services like IPTV and mobile broadband, CSPs must continue offering POTS (Plain Old Telephone Service). BT provides enterprises with global connectivity through a world-class Multi Protocol-Level Switching platform, but still continues to support analogue circuits.

Mergers and Acquisitions

Convergence, the search for new markets and technologies, and the need for economies of scale are driving telcos toward mergers and acquisitions. Consolidated entities need to be agile to face challenges, lead technological changes and win in the marketplace.

The need for agility demands that telcos migrate to an NGN that is supported by interoperable system architecture, and embrace integrated and flexible business processes. Operational changes must accompany network and system transformations. In telecommunications, where there is no room for error, only agility ensures that neither service levels nor profitability are impacted adversely.

What are the hurdles to becoming an agile enterprise?

If CSPs are to profit from the world of opportunities that convergence offers, they must transform their business models and IT landscape at a rapid pace. Business and technology silos keep them from responding to the changing demands of convergence and customer expectations. If industry players want to harness the potential of convergence, they must eliminate the following silos in their business structure:

- **Network and IT infrastructure**: Many CSPs have disparate systems that do not communicate with each other, leading to revenue and cost leakage
- **People**: CSPs have separate organizations and personnel for varied services. This leads to high costs and makes scalability difficult
- **Processes**: Sub-optimal and fragmented processes with a low degree of standardization are impediments to scale and flexibility. Integration makes it possible to streamline operations and automate processes for rapid response and to offer new and competitive services at low cost

CSPs are responding to this challenge by working with a number of partners, who have the expertise and agility to help launch new products and services, reduce costs, increase customer satisfaction, unify processes, and integrate systems to help CSPs focus on core competencies.
The Infosys approach to becoming a nimble-footed CSP

Infosys recommends a four-pronged approach to help CSPs reap the benefits of convergence and win in the dynamic communications marketplace.

This approach entails making the following strategic shifts:

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**Being the China Price**

In the converging and flattening telecommunications landscape, it may help if your answer to the following questions is 'yes':

- Can you reduce your cost structure by defining core processes, phasing out processes that do not add value and eliminating non-core processes?
- If your average ARPU (Average Revenue Per User) is 1/10th of what it is today, will you still be profitable?
- If you no longer charge for connectivity, will you continue to make money?

While responding to technological and consumer imperatives, CSPs must deal with increasing margin pressures. With plain voice getting commoditized and large investments needed to introduce new products and retain customers, CSPs must keep costs low and maintain margins to ensure profitability.

Telcos can move to lean and globally competitive cost structures by:

- Re-engineering processes to remove non-value-generating activities
- Defining harmonized processes that are scalable and flexible, and also increase utilization and productivity
- Automating to the extent possible to reduce time and delivery cost
- Outsourcing non-core activities to leverage a cost-efficient labor pool
- Mass personalization through self-service portals

CSPs in India, the world's fastest growing mobile market, ensure competitiveness through outsourcing. Its leading mobile operators have been adding more than 2 million subscribers every month, for the past 40 months. Despite having the lowest call rates globally, they have healthy bottom lines.

The following examples illustrate how Infosys enabled telecom majors across the world to 'Be the China price'. Infosys has helped:

- A leading access provider benefit significantly through a strategic assessment of its reporting organization that helped eliminate redundancy and drive enterprise-wide standardization and improvement. Infosys is working on automating the company's reporting systems and utilise the freeup resource to focus on value-added analytics
• A global telecom major by presenting a roadmap to transform its service delivery engine to reduce headcount and cost through process harmonization and automation, while improving service levels and customer experience
• The retail arm of a major UK-based telecom service provider, by clearing over 6.6 million additional transactions without any increase in headcount. This resulted in an estimated savings of £3.6 million over a 2 year period through a combination of process improvements and business transformation.

Similarly, Infosys’ Scenario-Based Customer Service (SBCS) solution helps to build a superior customer service experience while creating a lower operating cost base for service and network operations. Through a process, technology and organizational change framework, the solution helps telcos transform the customer service experience by injecting operational service knowledge into key systems and processes. Problems are resolved rapidly and cost-effectively by empowering customer service agents with diagnostics and recommended resolutions at the point of customer contact.

**Building Loyalty through Faster Innovation**

To build customer loyalty in a flat world, CSPs must be able to answer these questions:

• How can you create and deliver new products with agility and fewer fixed costs?
• How can you become an aggregator of thirdparty content and enterprise services by collaborating and co-creating with other third parties?

The need for innovation in the industry has never been greater. Competition is fierce, technology is changing by the day and customer expectations are high. As voice revenue comes under pressure, telcos need to increase revenue from non-voice streams such as data, video and broadband in the following manner:

• Capture customer imagination by turning into a content aggregator and provider from being just a connectivity provider. CSPs can create interactive customer portals for self-service and content preview, co-creation, sales and download. For example, Telekom Malaysia offered download of a ‘World Cup’ graphical user interface (GUI) on customers’ handsets during the 2006 Soccer World Cup. The GUI-embedded score update button was a huge revenue spinner
• Constantly improve the speed and quality of service delivery. It is only when providers ‘de-silo’ services that cross-network product and content delivery is effective. Integration helps telcos manage the network and IT infrastructure from one platform and enjoy a holistic back-office view. Modularizing workflows, as opposed to monolithic workflows for each service, allows the system to aggregate services through components quickly and cost-effectively
• Strengthen customer touch points to create delightful experiences through targeted products. This is enabled by mining the available - though scattered - customer and service data. CSPs can also deliver content to the 3 screens: Desktop, TV and mobile. Infosys can help repurpose content to provide it cost-effectively across channels

**Making Money from Information**

To cash in on information, you need to understand:

• How do you change from a “service” organization into one that proactively up-sells/ cross-sells premium services based on the customer's unique preferences?
• How do you distil customer information held in billing and network provisioning systems to increase ARPU and intervene to prevent customer churn?

With the numerous and varied products on offer, and customers expecting personalization, a telco needs to differentiate itself through mass customization. Success is decided by a CSP’s ability to deliver presence-sensitive and personalized services to a wide and diverse customer base.
How does a service provider offer customers the products they want?

CSPs spend valuable dollars to collect and maintain ever-increasing bytes of data. While information on customers, service, billing and networks is available, it is scattered across the enterprise. To collate and leverage the data, CSPs must build customized analytical models for a 360-degree view of the customer and his/her behavior and needs. This will enable:

- Conducting on-going customer needs analysis
- Targeted segmentation of customers
- Serving customers based on value and preferences

Infosys is developing a framework that will leverage business intelligence to ensure customer-centric operations. This includes:

- Targeted marketing: CSPs need to anticipate customer needs and offer custom-built solutions. They must especially identify and profile high-value customers to offer appropriate services
- Pro-active churn management: With new players offering niche services, customer churn is high.
- Service delivery segmentation: Optimizing the cost to serve a client based on his contribution to ARPU
- True customer loyalty programs

CSPs can plug revenue and cost leakage by analyzing internal information. Infosys has developed a solution framework for optimal network revenue and access cost management. Through data cleanup, validation and synchronization between the various data stores - such as CRM, billing, order management and provisioning systems - it helps maintain a comprehensive and accurate:

- Master Circuit Inventory with relevant provisioning detail for financial auditing of facility access
- Customer billing database to corroborate billing
- Network cost database to manage, audit, dispute and pay vendor invoices

Winning in the Turns

To overtake the competition in the fast-changing market-place, it is critical to answer these questions:

- How soon and to what extent can you convert fixed costs into variable costs by adopting a managed service model?
- How do you ensure that declining legacy businesses do not become a drain on the overall organization during market downturns?
Telcos need to equip themselves to turn the change to their advantage. Players must adopt predictive capabilities through analytical models that help plan and develop a future-ready enterprise. Infosys can help:

- Create data models for an enterprise-wide data warehousing system. Using advanced analytical tools and techniques, Infosys provides inputs on trend analysis and forecasting. This can help CSPs perform product and customer analysis and activity-based costing.
- Develop statistical models to forecast demand and validation of existing models. These models can be used for budgeting and resourcing.
- Analyze data for competitive structuring and pricing of products.

Agility demands that CSPs cut fixed costs constantly. Moving to a variable cost structure provides a natural hedge during industry downturns. CSPs can ensure this by outsourcing activities to lower-cost geographies across the globe.

Infosys runs shared service centers in a managed service mode, thus helping integrate processes, achieve operational efficiency and ensure economies of scale. The centers handle the following functions:

- Order-to-Cash
- Procure-to-Pay
- Hire-to-Retire

Infosys’ framework for success in the flat world

The graphic above illustrates how the Infosys framework helps CSPs take on various challenges in the flat world. With technology advancing at a breakneck pace, services and devices fulfilling varied communication and entertainment needs, and a host of new players meeting niche requirements, customers are spoilt for choice. They expect new products, faster service introduction and improved quality at decreasing prices. Faced with increasing competition and margin pressures, CSPs need ways to improve user experience to gain and retain customers.

Infosys’ approach and solutions enable CSPs to plan, prepare and execute a road map that integrates processes, allows organizational flexibility, reduces time-to-market, lowers costs, and helps meet customer expectations.

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This viewpoint has been prepared by Amit Ahuja, Abhay Chauhan and Gagan Vohra who are part of Infosys BPO’s Solution Design team for the CSP practice. They work closely with CSPs globally to understand their challenges in the Business Process Management domain and help design comprehensive solutions to meet their business objectives. They have been part of teams to provide operational transformational solutions for leading CSPs in the UK and US.

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