

Knowledge@Wharton – Wipro

**Future of Industry: Telecom Network Services**

# Building Service Intelligence to Achieve Customer Centricity



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# Building Service Intelligence to Achieve Customer Centricity

Rapid technology developments and disruptive innovation are blurring the boundaries across the telecom, IT and media industries. Service providers are bundling voice, data and video offerings along with mobility to achieve differentiation in this hyper-competitive environment. Yet, customers do not seek technology – they want anytime, anywhere, any device connectivity. In this new model, service providers need a customer-centric approach to succeed, says Sriram T.V., vice president at Wipro Technologies, and Gerald R. Faulhaber, a Wharton professor emeritus of business economics and public policy. The two discuss how network service providers can remain competitive in this white paper, produced by Knowledge@Wharton and sponsored by Wipro Technologies.

The telecom, IT and media industries are transforming rapidly and their boundaries have blurred quite considerably. This convergence is being driven by advances in technology and changing consumer preferences, and to stay competitive players need to redefine their focus areas, says Sriram T.V., vice president and business unit head of Telecom Network Services at Wipro Technologies.

“Earlier, telecom service providers had a network-centric, inside-out approach,” notes Sriram. “Their priority was on deployment and they focused on increasing their network footprint, coverage and creating capacity.” But coverage and capacity are no longer the differentiators. Achieving differentiation in today’s hyper-competitive market requires delivering a “superior user experience. The new focus area is end-to-

end customer experience. It has to be an outside-in, customer-centric approach.”

**Gerald R. Faulhaber**, Wharton professor emeritus of business economics and public policy, agrees. “The competitive landscape is changing rapidly and completely. All service providers like telephone or cable companies are going to have to learn how to listen to their consumers. If they have to win this battle, they have to be consumer-centric.”

Sriram and Faulhaber point out that irrespective of their primary service offering, be it telecom, cable, Internet or video, service providers are now trying to bundle all the services together. Most telecom operators, especially in the U.S., are offering voice over Internet Protocol (VoIP). “Two decades ago, we said that eventually we will all go to one network and that network

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will be data," Faulhaber says. "We are pretty much there."

Faulhaber further notes that earlier Internet service providers in the U.S. leased the infrastructure from telecom firms, but businesses like Comcast now have their own networks and Google too has a nationwide transmission network. "The issue now is how players interact across these boundaries. For instance, how does Google interact with Comcast? What is the point at which they communicate? These are the issues which are being worked out in the market today."

Customers on the other hand, says Sriram, are not buying technology. They are buying the experience of using it. What they want is anytime, anywhere, any device connectivity. "Therefore, the important question for service providers is, 'What are we doing to deliver the best customer experience and how can we implement different policies and different packages to make this happen?'"

### Existing challenges for the Telcos

There have been significant capital investments that the telecom companies have made in the last few years embracing next generation telecom technologies. With the uptake in data and video traffic in both matured and developing markets, offering seamless experience has been a major challenge for telecom companies. While data traffic in telecom networks has grown exponentially, revenues have not kept pace. One reason for this is competition from non-traditional telecom players like Google, Facebook and Yahoo, and the subsequent decoupling of networks and services, says Sriram.

Unlike in the past, when networks for voice, data, Internet and others were in silos, with one network for each service, today all services have to run on a common multi-service converged network. This raises new challenges. For instance, how do you prioritize between all the services? What policies should you adopt for enforcing fair usage? How do you migrate different services? New capabilities are needed for addressing this evolving paradigm.

### Need for New capabilities

So how can one overcome these issues? "By having a good and clear understanding of the end-to-end service flows across different domains like networks, IT and media," says Sriram. "All service providers have experts for voice, optical, IP, transport and wireless domains. However, very few or none of them have a service expert. This is the new white space." According to Faulhaber, network service providers need to be close to customers and understand where the services are needed. "And they need to know it ahead of time because they need to communicate it to their hardware partners"

Sriram believes that a good understanding of IT systems at a holistic level and of individual tools like inventory systems, performance management systems and alarm-monitoring systems, is also vital. While service providers have invested a lot in network assets and IT systems and tools, "these need to be stitched together across the domains to derive business value."

Another boundary for interaction lies between the infrastructure layer and the customer layer, according to Sriram. Problems arise when there is disconnect between the two. Joining these two layers in telecom, for example, requires a "service

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layer” in between to provide end-to-end visibility. “Otherwise, you will not be able to understand the gaps between the network performance and the user experience.”

It is equally important to stitch together people, processes, platforms and partner ecosystem. Today, applications are consumed by end users across devices and in order to monetize them it is important that telecom companies standardize at the backend and differentiate at the front end while keeping the customer at the core, Sriram notes.

## Impact of these changing trends

Focusing on business benefits needs to be a top-of-mind theme for CTOs because their role in the organization is fast-changing. “CTOs are now becoming business enablers and they need to make a business impact. Are they contributing to cost reduction or faster time-to-market of new products and services? Are they helping to drive innovation and enhance customer satisfaction?”

Sriram lists some other key priorities for CTOs in this field: Running lean operations through shared services and/or the factory model to lower costs; handling legacy and next-generation networks; deploying multiple-access technologies; and transitioning to IPv6, the next-generation Internet Protocol.

Developing the right sourcing strategy will also be very important, Sriram adds. “How much and what to outsource, co-source and insource, turning vendors into business partners and developing a strong supplier ecosystem will be critical.” And regarding the transition to IPv6, Faulhaber

notes, “Managing two separate systems is a challenge. There are going to be huge coordination problems, and every manager is going to have to deal with this. In the next five years, 90% of the networks will be on IPv6.”

Sriram also points out that networks of the future will be constructed in a very disruptive manner because of emerging technologies like the cloud, virtualization and software-defined networks. These technologies bring new challenges. For instance, the Internet has always been “best effort” [there is no guaranteed quality of service level] while telecoms have always been “carrier grade” [high reliability of 99.999%].

“So players will have to map what is the right trade-off between reliability and cost.” Sriram says. “They will also need to look at developing new business models like risk and revenue sharing, and a new partner ecosystem. Partners who can give value-added services, or revenue-generating applications or the intelligence are the ones that will move up in the value chain.” These emerging partners will add value by occupying the white space and eventually lead to the emergence of a new value chain for the telecom industry.

Managed services got a boost from the hyper-growth in emerging markets like India. But it is no longer about deploying base stations and managing networks. “It is an engagement model,” says Sriram. “The questions now being asked of a managed services partner are: ‘How will you take me to the next level of network construct? How will you ensure my business continuity? What value-adds will you bring? How will you ensure differentiation, and how will

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you build service intelligence? All these demands are business- and end-customer driven.”

Faulhaber suggests that in markets like the U.S., the trend is towards telecoms like Verizon, Sprint and T-Mobile “moving out of the business of buying land and going through the local governing bodies to put up their towers.” Instead, a lot of the towers are going to be owned by third parties and the telecoms will put their antennas on these. “I think we are going to see more and more of this. The telecoms will focus primarily on the service and user experience.”

Will analytics play an important role in helping service providers get closer to the customer? Yes, says Sriram. “There is a whole lot of customer information available, and analytics can help generate insights that can help give the customer an optimal user experience and achieve optimum network utilization, and the emergence of disruptive technologies like SDN and analytics is bound to bring in fresh set of challenges for the telcos.”

Faulhaber, however, is cautious. He notes that while analytics may help, it is more important for service providers to understand how critical it is to connect with customers. “You may use analytics to get there, you may use focus groups, and you may use market research. There are a number of things you can do. But the important thing is to change the mindset from not caring about the customer to caring a whole lot about them.”

## Summary

Rapidly evolving technologies and disruptive innovation are challenging the prevailing ways of delivering telecommunication services. That is having the biggest effect on the balancing of priorities, business models, partner ecosystem and related areas. A new value chain is emerging, with fresh and unconventional players assuming critical roles. It all points towards the need for a higher level of collaboration among stakeholders and an environment in which the customer – not technology – is king.

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