CSP network infrastructure services

Deliver a more profitable, customer-focused experience with smarter networks

Highlights

- Helps reduce costs through a more holistic approach to network optimization

- Facilitates new revenue streams by applying advanced analytics to build more dynamic and intelligent networks

- Helps improve customer retention and satisfaction by providing a better service experience

Dramatic business forces across the communications industry have created many new challenges—and opportunities—for communications service providers (CSPs). The growth in mobility and data services, as well as the convergence of fixed, mobile, voice, video and data services, have significantly increased network traffic and driven up network operational costs. At the same time, competition from new and disruptive providers unencumbered by network costs and constraints has driven down profits. Consumers today are also more empowered than ever before and demand a superior communications experience "anywhere, anytime" and on any device.

To better meet these challenges, CSPs need to transform their communications network infrastructures and migrate to Internet Protocol (IP)-based next-generation networks (NGN). IBM Communications Service Provider Network Infrastructure Services (CSPNIS) help you turn current challenges into opportunities that can increase revenue, profit and market share. Our smarter network services are vendor independent and are optimally designed to integrate and deploy communications network assets and technologies more efficiently and quickly. (See Figure 1.)

Architect, design and deploy networks with each of these services, tailored to your specific mobile and wireline environment				
IP NGN	**IP Voice**	**IP Video**	**Dynamic policy management**	**Service assurance and monitoring**
• IP network infrastructure • Converged mobile core and mobile backhaul networks	• Carrier-grade TDM to IP voice migration • Integration of IP voice infrastructure with voice applications	• IPTV (managed network) • Over-the-top (OTT) video (unmanaged network)	• Policy control and enforcement • Deep packet inspection (DPI)	• Service assurance infrastructure monitoring (probes) • Integration with service management systems
Key features:	**End-to-end network integration**	**Vendor-independent solution**	**Analytics-based approach**	

Figure 1. A portfolio of solutions and services provides an end-to-end smarter network infrastructure tailored for the CSP's environment.

Helping reduce costs through a more holistic approach

CSPs have long understood the need to address increasing demands for innovative services. But after years of expansion of networks, equipment and management applications designed to introduce these services, CSPs are increasingly seeing the decoupling of data and revenue growth. Additionally, many CSPs now face disparate technologies that are costly and inefficient to maintain.

IBM can help you reduce costs by transforming legacy networks into an optimized next-generation, IP-based network infrastructure capable of transporting multiplay services more efficiently. Our holistic approach to network optimization encourages a deep understanding of your entire network infrastructure from end to end. Through this approach, we can help you:

- Analyze your current network infrastructure to determine any constraints, redundancies and potential performance issues
- Identify and implement ways to reduce capital and operational expenses by consolidating existing networks
- Build a more intelligent and dynamic infrastructure that aligns to business requirements
- Optimize your return on your investment (ROI) through service assurance technologies

Facilitating new revenue streams by applying advanced analytics

Somewhere among the grim realities of declining revenue and increasing network costs lies another option for CSPs: unlocking the revenue potential of their network assets. Although the only certainty with customer preferences and service requirements is that they will change, applying advanced analytics to build a more intelligent infrastructure can position you to take advantage of future opportunities.

A highly flexible and intelligent network infrastructure can support more rapid provisioning of new premium services customers expect, such as IPTV and unified communications. Incorporating technologies such as dynamic policy management and deep packet inspection (DPI) can help you go beyond the

expected to extract new value. IBM can help you apply advanced analytics and supporting technologies to build a more intelligent infrastructure that can help you more effectively:

- Offer personalized customer experiences to build customer loyalty
- Maintain higher quality of service and tighter control of your infrastructure
- Extract much-needed revenue streams by monetizing new or existing services
- Launch new services and pricing models with incremental value such as an on-demand video subsystem or tiered service options

Helping improve customer retention with a better service experience

The ability to offer premium services to customers is critical, but consistent, high-quality delivery is just as critical. Exponential growth in data traffic puts tremendous pressure on networks, which can impact the customer experience. With notoriously high churn rates, sustaining competitive advantage hinges on the ability to provide a superior customer experience.

IBM can help you plan, design, implement and integrate effective ways to control and monitor the user experience. We offer a range of solutions designed to help you pinpoint errors and inefficiencies in your service delivery that can contribute to poor quality and increased expenses. With our solutions, you can more quickly identify potential issues, diagnose their root causes and take the necessary steps to address them before they impact the end user. Solution capabilities can include:

- Service assurance infrastructure monitoring to support service-level objectives
- Video optimization to help manage data traffic and offer one of the highest quality experience possible
- Integration with service management systems to help improve overall network performance, quality and reliability

Why IBM?

IBM offers time-tested capabilities as a vendor-independent systems integrator, delivering consulting services to support complex communications network environments. We focus on making networks smarter by designing them to be dynamically adaptive to the needs of applications and end users.

The service provider reference architecture from IBM is based on nearly a decade of experience working with IP NGN and multiplay infrastructures. We offer a strong portfolio of services around network analytics, intelligent data services and network optimization to better address service provider needs. With our depth and breadth of local and global communications industry resources, our communications expertise and our strategic alliances with major technology providers, IBM can support multi-vendor network environments and build leading-edge infrastructure solutions.

For more information

To learn more about IBM Communications Service Provider Network Infrastructure Services, please contact your IBM representative or visit the following website:
ibm.com/services/us/en/it-services/integrated-communications-services.html

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