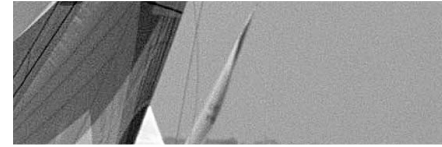




# Improve service quality and enhance the customer experience.



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## Contents

- 2 Overview**
- 2 Move to a competitive business model**
- 3 Achieve end-to-end service quality management**
  - 3 Visualize service quality*
  - 4 Prioritize service efforts*
  - 5 Communicate service intelligence*
- 5 Improve service quality and business growth with IBM Tivoli Netcool software**
- 7 Improve service quality and enhance customer satisfaction**
- 7 For more information**
- 8 About IBM solutions for enabling IT governance and risk management**

### Overview

Quality of service and the ability to attract and retain customers dictate the success or failure of next-generation communications service providers. In today's competitive environment, customers are quick to abandon services that do not meet expectations. The ease with which customers can switch from their current service to another demands that providers deliver the highest possible levels of service quality and performance. To be successful, communications service providers must deliver positive customer experiences with rich, value-added services supported by comprehensive service quality management.

This paper outlines some of the most common impediments to service quality management and explores the steps service providers need to take to help improve service quality, increase customer satisfaction and gain a competitive advantage.

### Move to a competitive business model

Significant changes are occurring in the communications services industry that affect how providers run their businesses as well as what services they offer. The need to attract new customers, find new revenue sources, reduce operational costs and increase customer satisfaction is compelling service providers to move from regulated, network-centric utility business models to customer-centric, competitive business models. The change from monolithic, mass-market approaches to service- and customer-specific microsegmentation has led to the introduction of new individual services such as video on demand, interactive gaming and digital music, as well as converged services such as triple-play packages that include video, voice and data. The evolution from legacy to next-generation networks and evolving technologies such as IP Multimedia Subsystem (IMS) and Web 2.0 complicates the situation even further.

## Highlights

Successful quality management of next-generation services requires end-to-end service management across complex, multitechnology, multivendor infrastructures

In effect, providers need to be able to visualize service quality, prioritize their efforts and communicate relevant information to all stakeholders

Making matters worse, a visibility gap often exists that prevents service providers from successfully managing across device, network, service and customer levels. The inability to have a consolidated view into service quality and the customer experience across an end-to-end network that spans multiple access technologies, value-added services and core networks can prevent service providers from understanding when a service impact occurs, determining who it affects and how it impacts the business. It can impede a provider's ability to respond in an efficient and timely manner to service issues, and to prioritize responses in a way that offers the most positive contribution to business success.

### **Achieve end-to-end service quality management**

Successful quality management of next-generation services requires end-to-end service management across complex, multitechnology, multivendor infrastructures. Providers need to be able to quickly assess the impact of events on the performance and availability of revenue-generating services, establish and ensure aggregate service quality levels, and provide a detailed analysis of an individual subscriber's experience that correlates back to broader service quality trends. In effect, providers need to be able to visualize service quality, prioritize their efforts and communicate relevant information to all stakeholders.

### **Visualize service quality**

To effectively visualize service quality, providers need to be able to determine what makes up a service (for example, which applications, routers and switches are involved). This means they need to consolidate key data from disparate systems and from multiple vendors. They need to be able to model relationships and dependencies between the network, applications and databases so they can see what resources are critical to their service.

## Highlights

Providers need to be able to quickly assess the impact of events on service performance and availability, as well as how the business is affected

By bridging operational and business views, providers can see how service issues and their responses affect the business, and identify which issues are truly most important

When issues do occur – and they will – providers need to quickly identify the issue and its root cause, and link the service to the infrastructure so they can see what services are running over which components. If a particular network component happens to fail, this enables them to know which services were tied to it.

In addition to understanding service status and pinpointing service-affected issues, providers need to effectively measure performance – both current and historical. They need to establish and ensure aggregate service quality levels (service level agreement [SLA] and service performance management).

Providers also need a real-time view to understand the customer experience. How many customers are experiencing the service? Who is impacted by service issues? Providers need to be able to quickly assess the impact of events on service performance and availability, as well as how the business is affected. By providing a detailed analysis of an individual subscriber's experience and correlating it back to broader service trends, providers can better manage the overall customer experience.

### ***Prioritize service efforts***

Service providers need to make business-smart decisions when deciding where to focus their efforts. If multiple issues are identified, which one will they respond to first? Which SLAs are most critical and/or carry the largest penalties? What is the financial impact of different priorities? By bridging operational and business views, providers can see how service issues and their responses affect the business, and identify which issues are truly most important. This allows them to prioritize service efforts in a way that delivers the greatest value and benefit to the customer and business.

### Highlights

Providing relevant service intelligence to those who need it — such as operations, IT, executives and customer care — helps providers rapidly resolve issues and minimize service impact on customers

#### ***Communicate service intelligence***

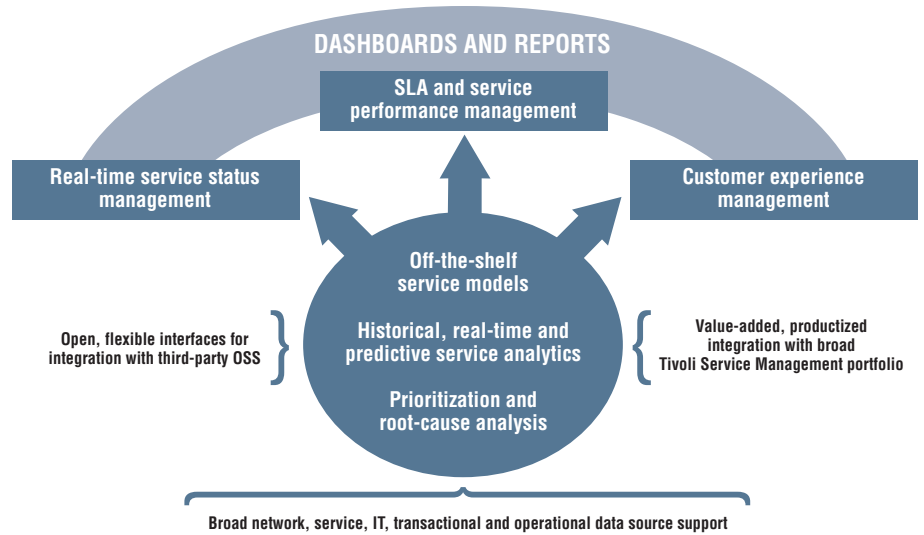
Communication plays a vital role in managing overall service quality. Providing relevant service intelligence to those who need it — such as operations, IT, executives and customer care — helps providers rapidly resolve issues and minimize service impact on customers. They can quickly relate performance to business metrics. They can get a real-time view to better understand the customer experience. By improving communication across all levels of the value chain, they can help improve overall service quality and customer satisfaction.

#### **Improve service quality and business growth with IBM Tivoli Netcool software**

IBM Tivoli® Netcool® software delivers comprehensive service quality management and customer experience management that help communications service providers differentiate through improved service quality and lower operational costs. It gives them the ability to monitor and manage — from a single, central location — the availability, performance and quality of legacy and next-generation services. Tivoli Netcool software equips them with a holistic view of all the resources that comprise a service, from the physical infrastructure to the application layer — all the way to the customer. It provides advanced, next-generation service management capabilities that include:

- **Real-time service status management** via a dashboard that correlates service indicators across business and technology components.
- **SLA and service performance management** that compares current and historical quality levels to established targets; discovers and analyzes the root cause of quality issues throughout the service path; and provides comprehensive life-cycle management of internal, external and third-party SLAs written against these quality targets.
- **Customer experience management** that analyzes individual subscriber transactions and compares these to service quality aggregated by service, location, subscriber group and device type.

**Highlights**



*Tivoli service quality management provides a holistic view for better visibility, prioritization and communication.*

With Tivoli Netcool software, communications service providers can gain a real-time, end-to-end view of service quality and the customer experience

With Tivoli Netcool software, communications service providers can gain a real-time, end-to-end view of service quality and the customer experience. They can measure and report against key metrics to more effectively monitor availability, health and quality of virtually any communications service, including voice, video and data. The software’s powerful root-cause analysis enables detailed analysis, down to the network element counter level, for rapid problem identification and resolution.

Both real-time and historical views on operational and business impact enable providers to effectively prioritize service efforts. Dashboards tailored to specific users extend service information to customer care, marketing, service operations, enterprise sales and executives.

The extensive, pre-established service models that Tivoli Netcool software includes, such as Internet Protocol television (IPTV) and Voice over Internet

## Highlights

By improving the ability to visualize, prioritize and communicate service information, Tivoli Netcool software can help communications service providers improve overall service quality

Protocol (VoIP), enable fast deployment of the solutions. Based on an open, scalable architecture with adherence to TeleManagement Forum (TMF) standards, Tivoli Netcool software helps provide a future-proof environment for today and tomorrow.

### Improve service quality and enhance customer satisfaction

By improving the ability to visualize, prioritize and communicate service information, Tivoli Netcool software can help communications service providers improve overall service quality. They can quickly identify, isolate, diagnose and resolve service problems to help maximize responsiveness. They can leverage existing and next-generation networks, enable fast access to new content and applications, and incorporate evolving technologies. It also allows them to minimize cost and risk through improved operational efficiencies.

Tivoli Netcool software helps providers drive customer satisfaction by enabling services to work right the first time, and every time. By delivering new, high-quality services to market, they can attract new customers and generate new revenue streams. By enabling an improved customer experience, providers can help reduce churn, positively affect the uptake of that particular service and impact a subscriber's willingness to try new services.

### For more information

IBM offers solutions that help communications service providers manage the entire service life cycle, with integrated service creation, service execution and service management. The Tivoli Netcool software portfolio helps them assure service quality, enhance customer satisfaction and build on the revenue growth that comes from increased customer attraction and retention.

To learn how IBM service management solutions for communications service providers can help improve service quality and gain competitive advantage, contact your IBM representative or IBM Business Partner, or visit [ibm.com/itsolutions/servicemanagement/comm-service-providers.html](http://ibm.com/itsolutions/servicemanagement/comm-service-providers.html)



### **About IBM solutions for enabling IT governance and risk management**

IBM enables IT organizations to support governance and risk management by aligning IT policies, processes and projects with business goals. Organizations can leverage IBM services, software and hardware to plan, execute and manage initiatives for IT service management, business resilience and security across the enterprise. Organizations of every size can benefit from flexible, modular IBM offerings that span business management, IT development and IT operations and draw on extensive customer experience, best practices and open standards-based technology. IBM helps clients implement the right IT solutions to achieve rapid business results and become a strategic partner in business growth. For more information about IBM Governance and Risk Management, visit [ibm.com/itsolutions/governance](http://ibm.com/itsolutions/governance)

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