



Highlights

- Customer-aligned insight is the key to improving the customer experience, but those insights need to be focused, prioritized, and enabled with cognitive capabilities
 - A cognitive Service Operations Center automates operations and improves business processes, not just for network operations but across the broader organization
 - IBM has partnered with Accanto Systems to provide an innovative architecture for service quality management and cognitive service operations
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A platform for Cognitive Service Operations

IBM and Accanto Systems provide an enabling platform to realize cognitive capabilities to enhance customer service operations

Transforming CSP operations to digital requires more than improved insight from analytics

Communications service providers (CSP) are looking to improve the customer experience while at the same time trying to take cost out of operations. A path on this journey is through the advanced use of analytics, and embedding cognitive capabilities in their service operations.

While the journey requires a unified set of instrumented network resources—for fault, performance and other operational management systems—these are not enough. Combining all of these sources of data to create better, customer-aligned insight is key to improving customer experience, but they need to be focused, prioritized and enabled with cognitive capabilities to optimize resources, reduce mean time to repair (MTTR) and avoid problems before they occur.

A Network Operations Center was traditionally sufficient to alert operations teams to network events and other elements that require action. However, more is needed in today's customer-focused world. Leading CSPs are incorporating Service Operations Centers (SOC) to look across silos of information, provide insight into customer experience and allow for improved focus on the customer. Innovative CSPs are learning to avoid service issues and rapidly scale expertise to resolve those that do occur.

A SOC provides service quality management, an analytics-driven environment that looks across these sources of data—from faults, performance, user traffic and network resources—to align network events with customers. By focusing on their customers and enhancing their experience, CSPs can improve their service quality metrics and overall operations of their network.



A cognitive Service Operations Center utilizes the power of cognitive computing to augment intelligence of CSPs on their service operations. Cognitive operations help determine how to prevent service issues and when issues do occur, scale expertise to help reduce the time to repair. Cognitive computing brings together immense amounts of network data with unstructured or dark data of the network like system logs, best practices, trouble tickets, change reports and vendor materials. Cognitive operations learn from interactions with operations and understand natural language to better enable operations.

Leading CSPs are implementing cognitive SOCs and service quality management solutions. In doing so, they have learned from these implementations how to use the various sources of network data, tools and advanced analytics capabilities to provide service quality, automate operations and improve business process not just for network operations, but across the broader organization, including network engineering and marketing.

To help enable and speed up this transformative journey, IBM partnered with Accanto Systems to bring an innovative architecture for service quality management and cognitive service operations. The solution provides a comprehensive, capable approach to address the challenges of introducing service quality management into a network operations environment.

IBM brings Accanto Systems StratOSS™, a customer-aware quality management solution that delivers advanced customer intelligence to the SOC, helping enable CSPs to proactively ensure that network and service infrastructure delivers against customer expectation. Network operations and engineering resources are optimized through automation and prioritization to deliver the most value to the business.

IBM, a leading operational support system (OSS) solutions provider and global systems integrator, is transforming service quality management, helping CSPs maximize the value of the network data they already have, while following IT best practices. Additionally, IBM brings deep competencies in service assurance, analytics and cognitive computing with a comprehensive portfolio of service management and operations solutions with IBM Netcool® Operations Insight,

IBM Operations Analytics for predictive insight and IBM Watson™ for Network Operations, using Watson cognitive computing innovation.

Poor network and service quality are estimated to contribute up to 40 percent of customer churn. The cognitive service operations solution provides the tools to allow operators to accurately recognize those customers who are at increased risk of churn, due to persistent poor service quality and proactively improve their experience before that happens.

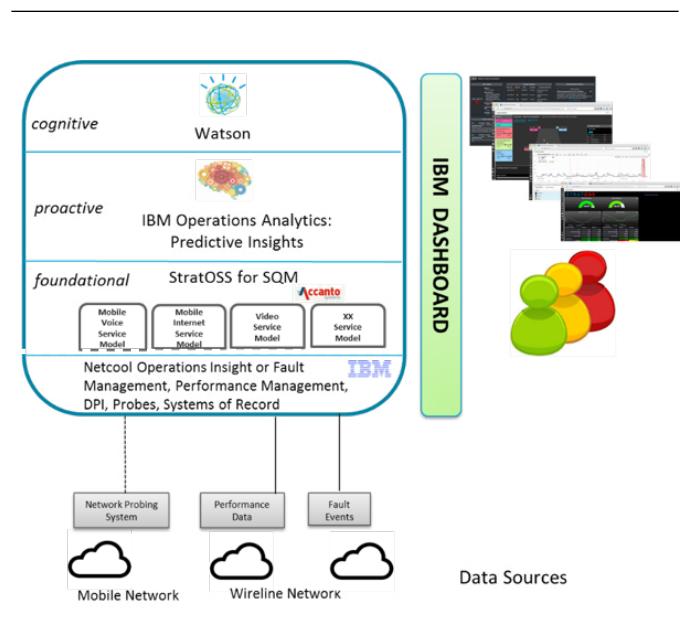


Figure 1: The IBM cognitive service operations solution brings the power of cognitive computing and reinvents operations

The SOC is the keystone between all the stakeholders and operational departments, compiling and analyzing subscriber information from multiple sources. Service providers receive detailed, real-time information about the service quality their subscribers are receiving to make fast and timely decisions to optimize their network. Integrating with cognitive computing allows an operator to identify seasonal trends in network performance that can be then used for predictive anomaly detection. They can then rapidly scale expertise to bring results within seconds of the network event happening or avoid an event all together.

The solution combines proven expertise in operating carrier-grade networks with deep competencies in cloud, analytics and Watson cognitive tooling to deliver an agile, intelligent and highly automated service operations solution.

Examples of what migration to customer or service operational focus has produced in CSP operations

- Fifteen percent year-on-year reduction in cost savings
 - More than 30 percent reduction in trouble ticket management through automation and integrated analytics
 - Fifteen percent reduction in incoming calls due to pro-active monitoring
 - Greater than 45 percent MTTR reduction
 - Five percent decrease in churn in only six weeks
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Built on the cloud

The solution is a cloud-native platform, built on open cloud and big data technologies, delivering a flexible solution designed to run on public and private cloud infrastructures and to more easily integrate with other big data and analytics applications. The out-of-the-box network and service models accelerate the time to business value from network big data projects.

Along with underlying cloud technology, the solution accommodates the industry trend of Network Function Virtualization (NFV). Dynamic service and resource topology changes, and the real-time addition or removal of data sources by the solution support the transition of service providers to a software-based telecommunications cloud environment.

Summary

The business advantages of a fully integrated, customer aware, predictive and cognitive-enabled platform are significant—including improved customer quality of service, lower operational cost, greater innovation, faster time-to-repair and better resource utilization. The transition, however, requires a thoughtful strategy and design to prepare the organization and infrastructure.

IBM offers the knowledge, methods, experience and services to help develop the necessary skills and facilitate the transformation. The IBM approach for service quality management, built together with Accanto Systems, uses operational analytics and cognitive tools for improved customer experience. We offer customers an end-to-end full stack solution that can span the physical and virtualized networks and IT. The solution approach delivers faster time-to-market with a validated and pre-tested solution, to support CSPs in their journey.

For more information

For more information, contact your IBM representative, or visit: ibm.com/industries

Authors

Steve Laufer

Associate Partner, Global Business Services, Network and OSS Transformation IBM Telecom, Media & Entertainment Industry
StephenLaufer@us.ibm.com

Steven Teitzel

Global Solution Executive, Network and OSS Transformation IBM Telecom, Media & Entertainment Industry
steitzel@us.ibm.com

About Accanto Systems

Accanto Systems is a global provider of service quality management solution StratOSS. StratOSS is a customer aware quality management solution designed to deliver advanced customer intelligence to the Service Operations Center.



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Software Group
Route 100
Somers, NY 10589

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