



swim

CASE STUDY

Optimizing Network Performance

Wireless Networks

*Network service providers
in the U.S. handle billions
of calls and texts every day*

*Immediate analysis of
network service quality
data enables proactive
network operations*

*Real-time scoring of
customer experience
helps create personalized
support service*

The competitive nature of today's telecommunication services make it vitally important to offer a reliable network, ensure customer satisfaction, and develop products and services that consumers want to buy. It's not a trivial effort as today's wireless service providers handle as many as 800 million calls and 9 billion messages per day. Success depends on a highly technical workforce with a deep understanding of how sophisticated networks are deployed and operated. Each piece of equipment in the network, from base stations to switching stations, generates an enormous amount of data that could be used to enhance the customer's experience - but only if the data can be immediately analyzed and used by that workforce.

The benefits of having access to real-time analytics and key performance indicators (KPIs) creates a meaningful impact on a broad set of business operations in a variety of scenarios. For example, real-time scoring of the customer experience can provide service and support personnel with the insights needed to address any issue while on the phone with individual customers, and at the same time helps to create a more proactive and personalized experience. In another scenario, IT departments and field service crews can implement configuration changes to their network equipment and get immediate feedback on whether performance was positively or negatively impacted and how it can be improved further.

For wireless service providers, having a full and contextual understanding of their network infrastructure is crucial to monitoring performance, ensuring service quality, and enriching the customer's experience. However, reducing latency when transforming, processing, and analyzing raw data is extremely complicated when it scales to several petabytes of data each day. Traditional architectures tend to centralize and store data, making the results and KPIs delayed by hours or even a day. Building real-time visibility into modern telecommunication networks has been impossible until today's advancements in continuous intelligence at scale.

Network Monitoring Solution

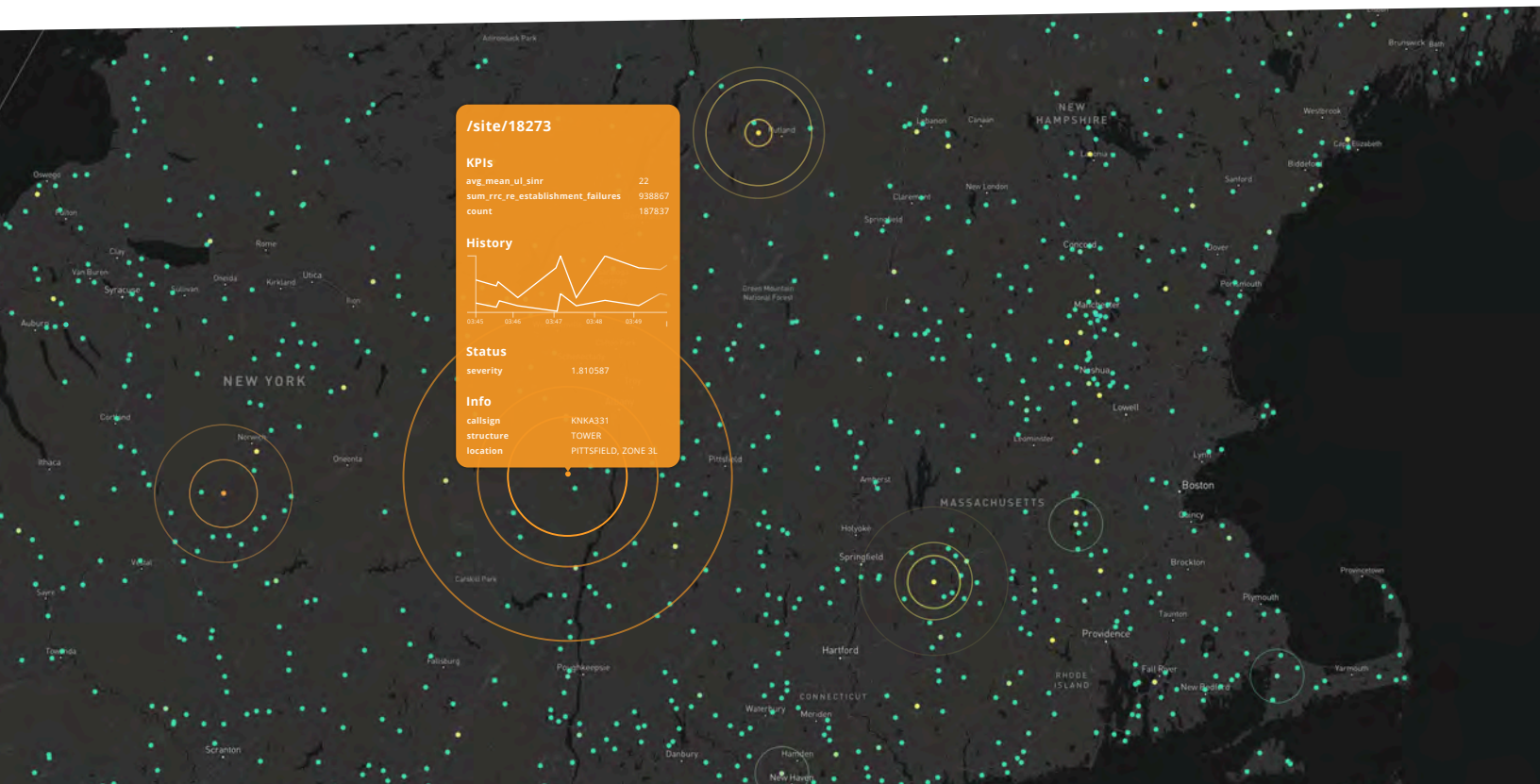
A major telecommunications service provider had limited visibility of their network infrastructure.

The lack of real-time information made it difficult for field service crews, IT departments and customer service representatives to work collectively towards improving customer experience in a highly competitive market.

The service provider's network support team was exceptionally familiar with the latest software technologies, including streaming platforms, like Kafka and Pulsar, and big data platforms, like Spark and Hadoop. However, integrating and utilizing these technologies together still resulted in hours of delays due to the enormous volume of data being generated and collected. In searching for additional software technologies that could move them closer to real-time, the telecommunications service provider discovered Swim - the first provider of an open core platform that enables continuous intelligence at scale. Offered as a single, enterprise-grade platform, Swim Continuum helps organizations transform their business operations by using the most accurate, relevant data possible from real-time and contextual data sources to continuously augment human decision-making at every moment.

Swim Continuum enables a new class of continuous intelligence applications that lets businesses focus on insights and applications rather than infrastructure and integration. Unlike big data or stream processing platforms, Swim Continuum has the unique, distributed architecture to scale and provide frequent data analytics and real-time visualizations. The result is a single pane-of-glass for managing and operating continuous intelligence applications at massive scale.

Swim Continuum enables a new class of continuous intelligence applications



Real-Time Data Analytics

In just a few months, the wireless service provider has built several continuous intelligence applications on Swim Continuum that support a range of needs across their business operations and deliver results in minutes instead of hours. The solution aggregates and analyzes several petabytes of data streaming across the wireless infrastructure each day over thousands of cell towers that connect millions of devices in the U.S. alone. Architected for massive scale and unprecedented efficiency, Swim Continuum uses the paradigm of a Swim Web Agent to create a smart, interactive model of each element in the wireless network and transforms data into streaming hyperlinks that continuously update information at the speed of change.

Through this enterprise-grade platform, each element on the network is able to dynamically calculate hundreds of KPI's and performance metrics and stream those updates in real-time to the business applications running across their organization.

The service provider continues to operate one of the most sophisticated networks in the world with greater situational awareness and improved service quality thanks to the solution enabled by Swim Continuum. Their journey to continuous intelligence has helped them use real-time analytics to deliver customer-driven solutions that make a meaningful difference in people's lives each and every day.

About Swim

Swim offers Swim Continuum, the first open core, enterprise-grade platform for building, managing and operating continuous intelligence applications on-premises, in the cloud or at the edge. It provides businesses with complete situational awareness and operational decision support at every moment. Built upon the open source SwimOS core, Swim Continuum provides unprecedented performance and efficiency for operationalizing high-frequency, contextual data analytics and real-time visualizations of massive amounts of streaming and batch data. Its single, production-ready platform monitors and manages all Swim operations, creates engaging, connected user experiences and seamlessly interoperates with existing enterprise systems. For more information, visit www.swim.ai and follow us on Twitter @swim.

Real-time network performance monitoring for millions of network elements

Hundreds of KPIs and performance metrics per network element updated in real time

Operational responsiveness reduced from hours to seconds