

Case Study

Bouygues Telecom

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As a full-service electronic communications operator, Bouygues Telecom stands out by providing its 20.5 million customers access to the best technology has to offer on a daily basis. The very high quality of its 4G mobile network, which now covers 99% of the French population, and of its fixed and Cloud services provides customers with simple solutions enabling them to fully enjoy their personal and professional digital lives wherever they are.

www.bouyguetelecom.fr

Technical landscape

Bouygues Telecom operates a centralized 'evolved packet core' (EPC) architecture that runs on multi-vendor mobile networks and collects billions of granular performance data measurements daily to detect congestion, packet loss, and quality of service (QoS) issues. As 4G traffic is prone to bursts in traffic, the network team relies on real-time, microsecond-level performance visibility in order to optimize mobile network performance and assure services.

Business issue

Bouygues requires a deep, real-time understanding of network, application and service behavior. Their analytics solution must be able to ingest and process the performance data in real time, visualize the results, and enable deeper troubleshooting on where and how to solve problems. This is needed to successfully meet more stringent service level agreement (SLA) guarantees for new 5G business-critical services. Bouygues were struggling to do this manually with existing tools.

Their requirements for an analytics solution:

- Real-time, with the ability to easily correlate performance data with other relevant data
- Identify when to increase the granularity of KPIs for effective, accurate troubleshooting of potential QoS issues
- Support diverse purposes including QoS optimization, alerting and performance monitoring and reporting
- Flexible, customizable reporting and visualization options

Business challenges

Bouygues had blindspots in its network, including ‘invisible,’ persistent network issues and traffic bursts that were impacting performance. These were previously hard to detect and fix without lengthy manual investigations and pulling network data from up to three different systems into Excel.

The main challenges for the team at Bouygues:

- Lack of real-time visibility into network and service performance
- A time-consuming manual troubleshooting process to pull topology and performance data together
- Difficulty getting an aggregated view of the entire network or a subset of the network, down to the site level
- Inability to drill down to compare, understand and determine the root cause of issues
- Limited report customization for different use cases (e.g. monitoring, investigating, or optimizing QoS)
- Metadata correlation was challenging; for example, correlating location data with performance issues to understand whether issues across a region were related in any way

Solution benefits

Bouygues Telecom deployed Skylight™ performance analytics, which ingests timely performance data together and updated network topology data. Skylight is uniquely capable of analyzing high volumes of performance data across all network domains, applications, and services.

In just a few clicks, Bouygues Telecom can see a macro view of network performance at a regional or global level or zoom in on what’s happening at a single site or service—all in real time. They can then drill down further to understand the root cause of issues or compare issues by adding relevant metadata on router and port or Class of Service configuration. Machine learning algorithms detect patterns, flag anomalies, and can be trained to automate service quality adjustments in a closed-loop.

Why did Bouygues choose Skylight?

Top criteria

Skylight performance analytics

Real-time



Supports operations



Metadata correlation



Zone analysis



KPI reporting



Web-based interface



Big data analytics



Benefits for Bouygues:

- Real-time view of the entire network topology and performance in a single analytics solution
- Macro-view of network issues and ability to drill down to service layer or customer site to proactively solve them
- Troubleshooting on the fly using rich metadata for correlation to pinpoint the focus area when investigating issues
- A web-based user interface that allows teams to customize reporting, analytics and visualization
- Continuous improvement of network performance using dynamic baseline KPIs
- Ability to assess fiber backhaul performance across shared cell towers for SLAs
- Optimized network planning for 5G capacity upgrades by understanding where the infrastructure is falling short
- Skylight is a software as-a-service (SaaS) solution with continuous and immediate access to new features and fixes

Business value

- Skylight performance analytics helped Bouygues identify 'undetected' network capacity issues that were impacting service performance
- Bouygues has reduced the number of customer-impacting issues to zero and saved time and resources spent on manual troubleshooting and multiple tools
- Skylight's valuable real-time operational intelligence provides Bouygues with an immediate 'end-to-end' macro view across its entire network, as well as the micro detail of understanding performance for each individual customer site and service level - all in a single cloud platform
- The Skylight performance analytics user interface is flexible and easy to use and a single platform supports a large number of users, diverse use cases, and workflows

"With Skylight performance analytics, Bouygues Telecom now has a complete 'telescopic and microscopic' view of network and service performance in a single tool. We can look at network performance at any level, from a single site to a single service, and from a regional network level up to a national network level. At a macro level, we can detect cycles, trends and events such as network failures, modifications and upgrades. Network engineers can also drill down to previously undetected issues and using metadata correlation, we can pinpoint the root cause behind these issues."

André Ethier, Telecom Engineering at Bouygues Telecom

About Accedian

Accedian is a leader in performance analytics and end user experience solutions for service providers and mid-to-large size enterprises. The Accedian Skylight platform offers granular end-to-end visibility within "the massive multi" – multi-layer, multi-cloud, and multi-vendor networks. Accedian's open and scalable platform removes roadblocks to innovation, enabling cloud-native analytics and empowering customers to launch new assured services based on 5G, SD-WAN and edge technologies. Power your future with secure network performance. To learn more, visit accedian.com.

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