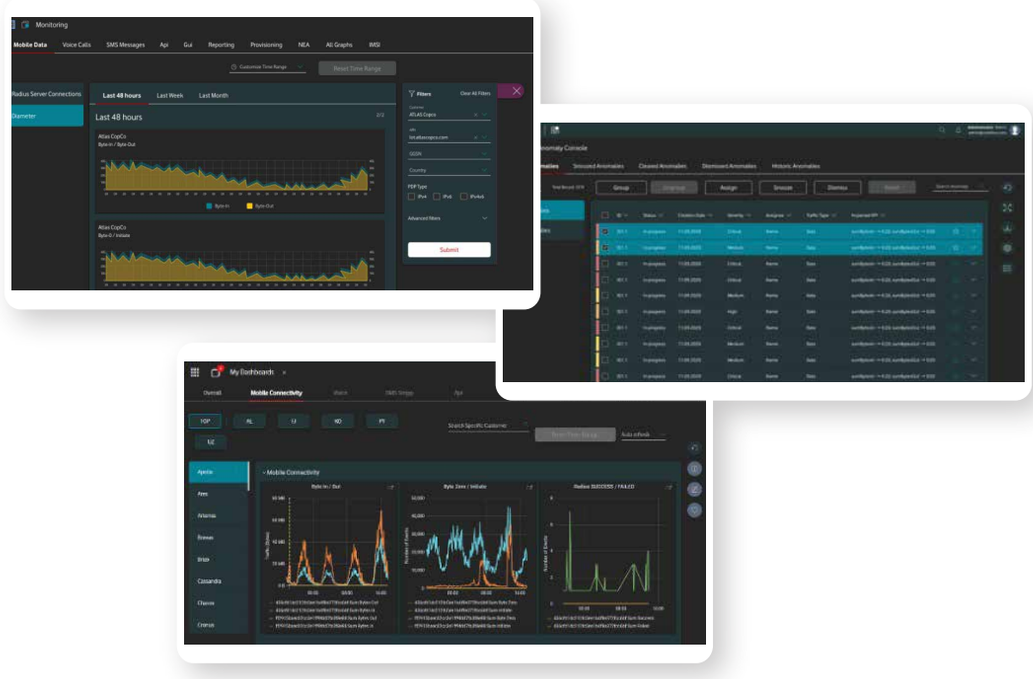
powered by CELFOCUS

CASE STUDY

Enabling fully autonomous solutions for Intelligent Assurance

IoT Next Generation Monitoring (NGM): The journey to a self-healing network

Vodafone Group IoT and Celfocus are driving a cognitive intelligence revolution through Artificial Intelligence & Machine Learning automation technologies, enabling autonomous solutions for zero-touch operations and intelligence augmentation towards proactive and predictive assurance.



CHALLENGE

Vodafone Group IoT aimed to detect, communicate and resolve service-impacting anomalies in a better and faster way, in order to increase the quality of the IoT service and customer satisfaction.
The goal was to be able to detect anomalies in less than 5 minutes with a false positive rate of less than 5%, supporting 1 billion devices.

SOLUTION

Celfocus developed a solution to improve service monitoring efficiency & healing capabilities through cognitive intelligence and automation platforms. Leveraging a data-driven model, a Machine Learning framework for proactive and predictive network and service insights, and AI that augments human decision-making for reliable decisions at scale, NGM provides a single pane of glass to manage and monitor the network and services.

CELFOCUS AUTONOMOUS NETWORKS KEY KPI'S

82% Zero-touch
Internally within Vodafone Ireland and across other

87% Success
Failure prediction up to 60d ahead for predictive maintenance

80% Success
Traffic and congestion prediction up to 28d ahead

93% Success
Prediction of tickets remotely solvable (truck roll reduction)

>25% Revenue
Optimal policies maximizing revenue for 5G network slicing

80% Success
Tickets classification for automated claims management

3-10% Forecasting error
Calls/WOs volume forecast +28d for workforce optimization

BENEFITS

NGM models keep real-time track of the expected traffic trend of over **100k time-series**.

- Centralised Service Usage & Resource Monitoring
- Real-Time Data Streaming & Machine Learning
- Service anomaly/incident detection and root cause(s)
- Automation for increased efficiency (auto-ticketing & self-healing network)

- 2B+ CDRs per day
- 30k CDR/sec in BH
- Sub-second latency integration

<5%
False positives
Down from >90%

<5 minutes
Anomaly detection
Down from hours

WWW.CELFOCUS.COM