Case Study

AssureNow Wireless Performance Management Capabilities

Manx Telecom

Manx Telecom is the leading communication solutions provider on the Isle of Man. The company offers fixed-line, broadband, mobile and data centre services. Manx has a growing portfolio of innovative global hosting and Smart SIM solutions. Manx has a record of innovation, it was the first European operator to launch a 3G mobile service and the first in the world to launch 3.5G. 4G was launched in 2014, while the company's high-speed VDSL broadband service is available to over 80% of homes on the island.

The Challenge

Since Manx operates a complex and diverse network including wireline telephony services and the latest 4G wireless services, the operations team had a high number of element management systems and disparate views from their existing systems. This amalgamation of content and data resulted in a lack of visibility of an end-to-end service management capability.

The rapid growth in mobile demand meant that Manx had to simultaneously build and deploy new technologies, whilst still managing its existing services. The continuous reorganisation of priorities resulted in limited operational success and service quality. A key challenge was the incapability to process all the metric data being produced by the network. As a result, Manx needed a solution to better visualise data in dashboards and reports.

It was necessary for Manx to view relevant performance statistics across their Radio Access, Mobile Switching and Packet Switched Core Networks. The Huawei M2000 network element manager provided some of this functionality. However, Manx needed to present statistics on a single platform viewable by all levels of support and management. These challenges were met with AssureNow and Galileo Vision.

The Solution

Eirteic partnered with Manx to provide an end-to-end mobile service assurance platform through the implementation of AssureNow and Galileo Vision. Eirteic configured AssureNow to collect all faults and vital radio access stats including 2G, 3G and 4G cell level, packet switch core and mobile switching metrics from the element managers and directly from devices. This solution enabled Manx to unify and simplify the data into a single view. AssureNow's proactive alerting enabled Manx to identify systemic issues in the mobile environment before they impacted their services and users.

Figure 1- Sample KPI performance metrics

In order to provide Manx with an optimised performance management solution, metric data was collected from the network and condensed into KPIs (Key Performance Indicators). Eirteic created categories for these metrics using the ARIAM approach (Accessibility, Retainability, Integrity, Availability and Mobility). AssureNow for mobile service assurance utilises best practices to create and maintain mobile KPI formulas.

The key to great service views is the availability of data, from all network resources, being presented through easy to use reports and dashboards. AssureNow dashboards gave Manx a unified high-level view of their mobile network, whilst still enabling a user to drill drown to specific faults or metrics.
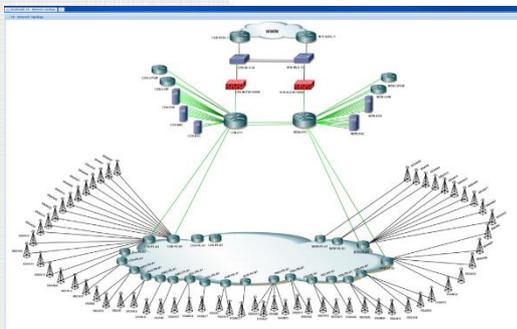
Figure 2- Centralised Dashboard View

Galileo Vision was deployed to enable the visual correlation of infrastructure and service issues (fault, performance, usage and service status) based on location and environmental factors such as adverse weather and electrical outages. At Manx, Galileo Vision was configured to visualise the status and coverage of each eNodeB indicating current fault, performance and usage status.

The Result

This solution enabled Manx to improve its mobile-user experience by highlighting the existence of and assisting in investigating the root cause of potential service outages and degradations. Fault and performance data was unified into a single mobile service assurance solution. The solution presented administrators with a simplified, real-time view of service quality indicators. This enabled proactive problem resolution and prevention, even in complex, cross-domain scenarios e.g. from the RAN to the backhaul to the core. The adoption of a multi-technology, multi-vendor solution from AssureNow has enabled Manx to optimise TCO and reduce Opex through the consolidation of OSS tools whilst refocusing users and staff.

Figure 3- Galileo Vision eNodeB centralised view for fault and performance

About Galileo Vision

Galileo Software is the software development arm of the Eirteic Group. The Galileo Vision solution is a Visual Analytics solution, enabling users to correlate infrastructure and service issues. The product is highly configurable and can visualise thousands of objects of differing types. Galileo Vision is at home both in the Network and Service Operations centres of telecommunications and large enterprises but equally in the control centres of emerging smart cities.

Galileo Vision can be deployed as part of an existing Service Assurance platform to enhance the visibility and level of understanding of infrastructure monitoring, the services being provided and the impact to customers.

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