

## Look through the fog – Visualization of Networks

As demand and increased data pressure is put on communication service providers' (CSP) networks, a pragmatic approach to crystalizing and analyzing this data is called for, otherwise the fog sets in.

The role of the CSP network has changed dramatically over the past decade. End users are eating up data as they use new innovative services, or watch video on the go. It is not only the end user who has changed habits.

Corporations require more digital services to increase efficiency and reduce operational expenditure. The rise of advancing technologies, such as the internet of things (IoT), has further increased data quantities. CSPs have also faced financial pressure to monetize their networks, taking revenues from third-parties, to stop the emergence of the so-called 'dumb pipe'.

### Weight of the fog

With the network in so much demand, with thousands of events from an array of sources, how can CSPs effectively manage all this data and still provide an excellent service?

By distilling network data into manageable, graphically-represented information, CSPs can limit disruptions, as well as optimize operations and provide service assurance. Network visualization is still an issue for CSPs who have traditionally only visualized parts of their network.

This fragmented approach limits CSPs in effectively managing their entire network. Especially, as the interaction between the layers of the network has far-reaching, knock-on effects.

### Look to blue skies – network visualization

A visualization solution minimizes disruptions, as network changes are tested, so the full impact can be identified and managed, before anything is implemented. Each network visualization should be tailored specially for each CSP to account for unique network elements, providing a clear picture of a particular network.

When a network is disrupted by planned network changes, such as maintenance or integration of new equipment, or even an unplanned change, innovative visualization solutions enable CSPs to rapidly identify the impacted areas and quickly rectify the issue.

### **Turbulent weather**

As technology innovation continues even more pressure is put on the network and things will become increasingly complex. We know some trends will happen – rise in data from video usage as end-users push for better deals on data packages, and IoT is predicted to soar – but there will be many more challenges as technology evolves.

According to Telecoms.com intelligence [annual industry survey](#), 86% of operators state they are not yet ready for IoT, demonstrating that we have yet to see the full impact of this technology. To cope with the influx in data and network demand, CSPs must get ready now. Many are already investigating how network visualizations can support their complex operational abilities.

Already acknowledged as an essential solution to quickly integrate new technologies and services, network visualization will help CSPs adapt to the constant changes and ensure a robust and efficient network for customers.

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