

The Changing World of Telco Assurance

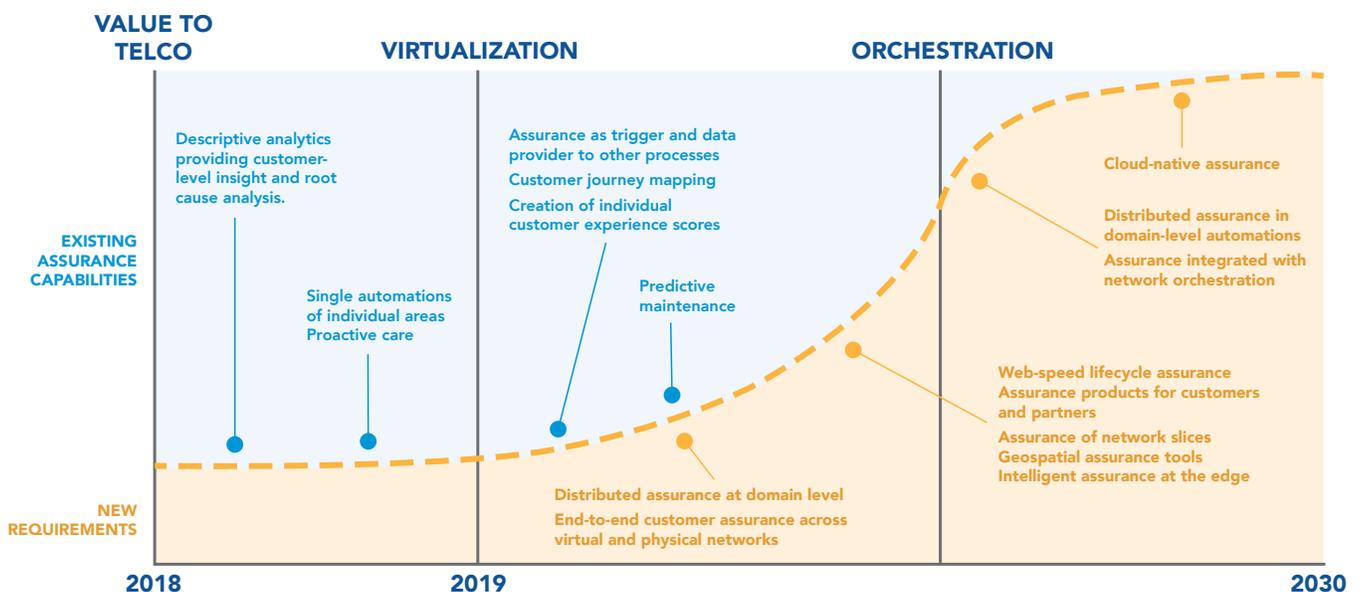
Assurance solutions track the performance of the services, devices and applications running on a telco's network at an individual level and rolled up to customer segments or for all traffic. This provides insight into the customer's experience and the performance of the telco's network and related systems to the network and operational teams, as well as marketing, sales and care teams.

Requirements in A Changing World

Assurance is entering a new phase ushered in by 5G and technologies such as SDN/NFV:

- The deployment of 5G and creation of a hybrid network environment generates significantly more data to be analysed and multiple new assurance needs.
- The network, OSS and operational teams are under budgetary pressure to support these new networks and the services running over them at low cost. This leads to a focus on automation and new machine learning capabilities to reduce costs.
- Customer experience will be under increasing threat from other telco priorities, including the need to support new low-margin products like IoT which will require low-cost assurance. Also, a reduced product development cycle creates multiple new products that need to be assured.

The figure below shows an expected roll out of assurance capabilities during the next 5-10 years. Divided into (above the yellow line) existing capabilities which are, in many cases, still relatively immature and new requirements (below the line) for 5G.



The yellow line demonstrates the expected financial benefit for a telco from deploying assurance capabilities. To date, we have seen good value from assurance projects – mainly around improved fault finding and resolution, plus some capital savings from better cell site planning. This is expected to continue in the early days of SDN/NFV but then rise significantly as assurance products become an integral part of the push towards a self-healing network (which has a much higher potential to reduce capital and operational expenditure in the telco).

The Assurance Solution of the Future

To fully realize the financial value shown by the yellow line:

- Telcos first need to focus on building assurance solutions which create a “single pane of glass” into the new complexities of hybrid networks.
- Significant sunk cost and technical debt, plus a variety of potential network builds, act as barriers to this seemingly straightforward requirement. Assurance solutions will need to be flexible, modular and integrate easily with existing solutions.
- As it becomes too costly to monitor all of the increasing amounts of traffic, assurance will need to find more sophisticated ways to measure user experience and then search for potential causes that enable resolution of customer experience issues.
- It will also need to be provided using a microservices-based architecture that enables a more elastic and cost-efficient provision of assurance.
- AIOps solutions will bring more real-time analytics, machine learning and automation to detect and understand issues as well as moving towards a self-healing network.
- Other upcoming requirements will come from the development of new product types such as IoT and accompanying ecosystems. Enterprise customers and ecosystem partners will need assurance products.
- Assurance products will be used to build the trust of these new entities by bringing transparency around the performance of the network, services and applications. These services will need to be provided at low-cost, given the low margins for telcos of servicing individual IoT modules.
- Lastly, new assurance products will be needed for the significant increase in new services which will be deployed by telcos on 5G. Capabilities include monitoring of network slices, assurance at the edge for IoT and increased focus on assuring the lifecycle of new products which need rapid deployment.

Introducing Vitria



Vitria provides a next-generation AIOps platform to support telcos in this next phase of their network development.

We focus on providing a light-weight, flexible solution that enables telcos to understand their customer’s experience across domains through the increasing noise and complexity of new network builds. The solution identifies symptoms and the possible root cause of customer-impacting issues, which enables automation, self-healing and continuous transformation.

With the VIA AIOps Platform:

- Baselines are generated on-demand for immediate visual representation of anomalies.
- Shared characteristics of any group of events can be analyzed to determine what the events have in common.
- At-a-glance insight gained into key performance indicators (KPIs) and process exceptions highlighted.
- Processes can be managed and visualized end-to-end in real time by correlating process data that resides in underlying applications, databases, and log files.
- Citizen developers are enabled with a low code environment using an extensible library of reusable drag and drop building blocks.
- Asset life can be extended with reliable predictive maintenance.

Implementing the VIA AIOps platform increases efficiency, lowers cost, and improves the customer experience through higher availability and better performing applications and infrastructure. At Vitria, we believe we can make self-healing a reality by bringing the power of artificial intelligence and machine learning to IT operations.