

Realizing the benefits of Network as a Service (NaaS)

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Network functions virtualization (NFV) and software-defined networking (SDN) characterize the telecommunications industry's path to the future, enabling CSPs to offer a bevy of new value-added services at a time when prices for standard connectivity are beginning to bottom out. Among these offerings are commercial-grade network-as-a-service (NaaS) products that can deliver fast, on-demand service activation, all in the pursuit of delivering the best possible customer experience.



But this switch to a fully virtualized, software-defined network, enabling the digital telecommunication industry of the future, isn't going to happen overnight, as full adoption is still projected to be four or five years out.

As CSPs launch “as-a-service” network products, they should not lose sight of customers’ QoS

As we know, service-level agreements (SLAs) bind CSPs to delivering a consistent standard of service over a given term. A CSP cannot upend an existing network architecture – even if the end goal is an improved suite of services – without taking into consideration how this evolution effects existing SLAs and quality of service.



Performance visibility and SLA monitoring is a prerequisite to any network transformation, especially when CSPs will have to offer new innovative services in tandem with the ones they are already delivering to customers. As next generation services will be instantiated dynamically, OSS solutions will have to align in real-time with changes happening within the service delivery chain. This means that, to realize the benefits of NFV and SDN, a fully orchestrated service assurance platform will be required.

Network transformations require service

performance orchestration

Orchestrated service assurance is an especially important solution when it comes to offering the value-added services that CSPs need to retain and grow their customer base. For instance, without having complete visibility and understanding of current end-to-end network performance, how can a CSP offer network connectivity with specific SLAs through a self-service portal? This lack of insight is equivalent to a box office selling tickets to a show without having any idea whether the venue has met capacity or not, inevitably resulting in a slew of paying customers not enjoying the experience they paid for.

Similar visibility is also crucial for those leveraging network controllers to automatically configure virtual and physical functions. How, for example, can an SDN controller reconfigure a network function without an understanding of how these changes will impact a customer's QoS? While automatic configurations may help cut operational expenditures, controllers could inadvertently ignore how they affect customer service. This would be like designing a building in a way that cuts costs and completes the project as quickly as possible, but neglecting to consider critical safety codes in the process.

Orchestrated service assurances – the missing link

As many CSPs have come to realize, service assurance is the missing link to bringing commercial-grade products to market that can continue supporting existing SLAs. They are also realizing that when service assurance is offered as a commercial application visibility product, it can complement CSPs' NaaS portfolio, allowing them to increase the monetization potential of their business services.

In order to maintain customer satisfaction, and ultimately secure a successful transition to NFV-based services, companies that are armed with a carrier-grade, multi-tenant, elastic and open performance assurance platform will be best positioned to capitalize on this disruptive industry transition. However, it is important to bear in mind that performance management tools designed for the enterprise IT market lack the unique capabilities required by CSPs, including having technology that can scale in real time. Meeting these demands requires CSPs to partner with companies that focus on designing and continuously enhancing solutions that mirror their precise requirements.

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Service performance assurance requirements are maturing

The adoption of NFV/SDN will push service performance assurance requirements even further. For

starters, these solutions must be able to dynamically model CSPs' and MNOs' services and monitor end to end SLAs established on-demand and delivered over complex multi-vendor hybrid network infrastructures. In that context, an innovative vendor-agnostic solution to process KPIs and KQIs in real-time becomes a must. A carrier-grade performance assurance platform must also include RESTful APIs that allow automated and real-time exchange of network intelligence with orchestrators, controllers and other OSS and ETSI MANO components.

As CSPs' businesses integrate in a world of distributed computing services, they need to support Service APIs and align with information models defined by industry standards such as TM Forum and MEF.

As CSPs and MNOs move ahead with NFV/SDN, service assurance strategies must sit at the center of their preoccupations. Successfully launching NaaS services will rely on the ability to understand which services can be offered at a given time (based on current infrastructure utilization levels), and their ability to monitor complex SLAs. With orchestrated service assurance, CSPs can effectively bring these innovative services to life.