Network Function Virtualization (NFV) ▶▶

Assuring carrier grade performance and agility

sumerian®▶▶
capacity planner

The challenge

Network Function Virtualization (NFV) is one of the biggest technology trends sweeping through the networking and telecommunications sectors. It is an important part of the realization of Telco over Cloud (ToC), and involves the virtualization of network functions (VNF) such as routing and operating policies, running these functions on virtualized, commodity server platforms rather than dedicated hardware appliances.

For those who gain first mover advantage it offers a paradigm shift in market competitiveness and opportunity to differentiate. Delivering a new level of agility and flexibility it will change the game in enabling speed to market with new services—and is heralded to significantly reduce infrastructure operating costs at the same time.

NFV is a natural extension of the established trend of server virtualization, and now SDDC, within Enterprise IT. Where similar business drivers are leading to the wide scale adoption of virtualization technologies to deliver highly agile and cost effective Infrastructure as a Service (IaaS).

The concern for operators, given that technologies and platforms like ESX and Openstack are relatively immature or unfamiliar to the network team, is how to safeguard and assure carrier grade network and service. Especially against the backdrop of today's highly competitive and unforgiving marketplace, where perceived performance, reliability and security are paramount.

In order to safeguard service performance and enable the rapid rollout of new services, leading service operators are also recognizing the need to adopt a new approach to service management, beyond the basic Element Management System (EMS) in place for each virtual function. It is vital for service operators to be able to rapidly assess current infrastructure utilization levels and capacity headroom across their entire infrastructure, and quickly understand the impact of future proposed change (e.g. with the roll out of a new service).

Sumerian solution

Sumerian has over a decade of expertise working to support similar virtualization programs to NFV in Enterprise IT.

Applying advanced predictive analytics to help leading Global Fortune 200 and FTSE companies to:

- Accurately baseline current infrastructure resource utilization and headroom for growth.
- Model and assess the impact of multiple, complex options for changes, e.g. physical to virtual transformations, new service rollout and growth in demand.

- Produce detailed transformation plans, detailing step by step implementation timelines.

Sumerian now offers this leading-edge predictive capacity planning capability as a cloud-based service—Capacity Planning as a Service (CPaaS). Sumerian's CPaaS, Sumerian Capacity Planner, is geared to be extremely easy to get up and running and to quickly deliver the accurate insight needed to de-risk large scale transformation plans.

It leverages the low level data that already exists across server environments and installed tooling, so there's no time-consuming agents to roll out and deploy. Using this data, it creates an accurate statistical model of even the most complex, highly performant, large scale IT environments (for example, many of our customers have environments numbering many tens of thousands of servers).
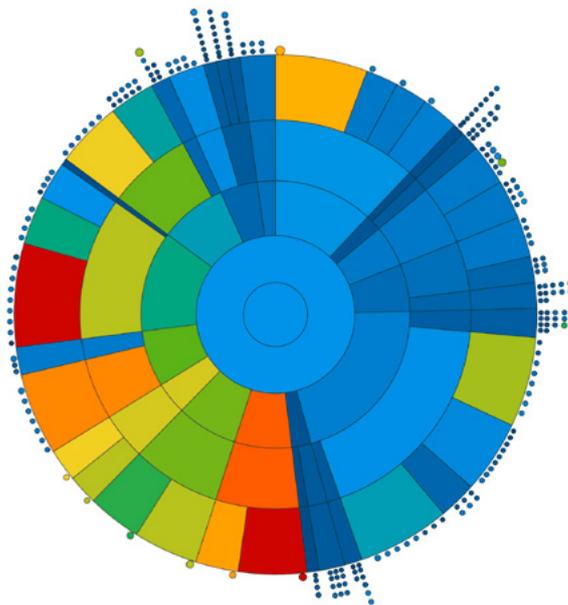
Sumerian Capacity Planner Sunburst

Sumerian Capacity Planner's 'Sunburst' offers a high impact visual representation onto the modeled data. It provides instant 'Baseline' visibility across the current environment, in its entirety, both physical and virtual. It's also acts as the foundation for the powerful 'what if' scenario modeling capability that lets users quickly play out multiple future scenarios for change.

Capacity Planner also offers the latest in advanced predictive forecasting, giving users early visibility of potential capacity-related issues—days, weeks and even months ahead.

This powerful cloud-based service can be applied at all stages of an NFV implementation:

Plan:

- Understand current infrastructure utilization and headroom.

- Scenario model multiple options for virtualization (e.g. different hardware platforms, service roll out/growth scenarios).

- Define a detailed implementation plan.

Implement & run:

- Continually update data models and provide instant visibility of latest status.

- Continually adapt and de-risk plans through re-modeling.

- Gain advance insight into potential future capacity-related issues (weeks/ months in advance).

Client results and value

Sumerian's high performance, carrier grade capacity planning service has an established track record of delivering successful virtualization outcomes.

It provides today's leading global enterprises with the assurance they need to maintain the performance of their business critical services by:

- De-risking major technology transformations.

- Gaining the agility needed to rapidly deploy new services with confidence.

- Providing early warning of potential threats to the ongoing performance and reliability of enterprise infrastructures and services, so that proactive action can be taken.

To learn more about the typical outcomes Sumerian delivers please read the following client stories:

www.sumerian.com/resources/client-stories/from-physical-to-virtual/

www.sumerian.com/resources/client-stories/from-15-to-4/

▶▶ More information

If you are interested in finding out more about how Sumerian can help address your NFV challenges, and assure the future performance and agility of your infrastructure, contact Sumerian at sarah@sumerian.com or by calling +44 (0)131 226 9300.

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