Unshackle Your Network Team From Cost and Capacity Constraints With Network-as-a-Service Solution From Alcatel-Lucent Enterprise

EMA

*IT & DATA MANAGEMENT RESEARCH,
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Executive Summary

Network managers and engineers are mandated to support a broad set of new digital initiatives, but they must do so within the constraints of a limited budget and with minimal personnel. To meet the demands of the business, the network infrastructure team needs solutions that allow them to build and manage networks that are flexible, affordable, and easy to implement and manage.

This paper explores these challenges in depth and also reviews Alcatel-Lucent Enterprise's new Network-as-a-Service solution, a suite of network hardware and management software that addresses all of these challenges. Enterprises can consume the entire suite of hardware and management software on a pay-as-you-go model with subscription fees based on actual network consumption or on an installed capacity.

Network Engineering and Operations Must Support New Digital Initiatives

In today's digital economy, an enterprise requires a network that is dynamic enough to serve as a strategic asset rather than a static cost center. Countless new technology initiatives are challenging the enterprise network infrastructure team's ability to meet this requirement. Enterprise Management Associates (EMA) research has found that network team decision-making is increasingly driven by next-generation initiatives. Those initiatives include mobility, internal cloud services transformation, the Internet of Things (IoT), software-defined data center architecture, cross-domain security projects, and digital business transformation.

Legacy enterprise networks weren't designed to serve such a diverse set of technology mandates, so the infrastructure team will need to modernize. For instance, EMA research has found that nearly half of the network teams who support an IoT initiative have built out new LAN infrastructure capacity specifically for IoT connectivity.[1]

Unfortunately, the typical network infrastructure team faces its own set of systemic challenges that constrain their ability to support new technologies. According to EMA research, the primary challenges to networking teams are a lack of end-to-end network visibility (25% of all network teams) and a lack of resources, both people and budget (24%).[2] The lack of resources is a significant threat to a network team's ability to address the digital initiatives that the enterprise pursues.

These constraints are evident in how network managers evaluate organizational performance. While they say the top business benefits of successful network operations are reduced downtime (49%) and end-user satisfaction (42%), cost savings are also business imperatives. Thirty-eight percent (38%) of network managers say reduced operational expenses is a top business goal, and 34% say reduced capital expenses is a top goal.[3]

Cost constraints also influence how network teams implement their management systems. Network managers say the most valuable characteristics of network management solutions are low maintenance cost (35%), low total cost of ownership (33%), and rapid return on investment (31%). They also value management systems that are available in SaaS form (27%).[4]

Network infrastructure teams must balance the needs of new digital initiatives with their fundamental challenges and goals. To meet this goal, they need network solutions that are flexible, affordable, and easy to implement and manage. In terms of flexibility, enterprises need the ability to add network capacity with limited disruption to network operations and IT services. Network teams can achieve affordability by shifting heavy capital investments to operational expenses whenever possible. To achieve ease of network implementation and operation, IT organizations will require simpler cost models, high-quality infrastructure, and unified management systems for end-to-end visibility, particularly across wired and wireless infrastructure.

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[1] EMA, "The Internet of Things and Enterprise Networks: Planning, Engineering, and Operational Strategies," April 2017.
[2] EMA, "Network Management Megatrends 2016: Managing Networks in the Era of the Internet of Things, Hybrid Cloud, and Advanced Network Analytics," April 2016.
[3] Ibid.
[4] Ibid.

Alcatel-Lucent Network-as-a-Service: Flexible Subscription-Based Networking

Alcatel-Lucent Enterprise has introduced a "Network-as-a-Service" (NaaS) solution aimed at addressing the need for flexibility, affordability, and ease of use. The NaaS solution includes Alcatel-Lucent Network-on-Demand (NoD), Alcatel-Lucent OmniVista® Cirrus, and Alcatel-Lucent Proactive Lifecycle Management (PALM) solutions for enterprise LAN/WLAN infrastructure.

The Alcatel-Lucent Enterprise NaaS solution is a subscription-based network technology suite that includes NoD hardware such as Alcatel-Lucent OmniSwitch® LAN switches and Alcatel-Lucent OmniAccess® Wireless LAN infrastructure. The cloud-based OmniVista® Cirrus, a unified wired and wireless infrastructure network management system, is bundled in the NaaS solution. The solution also includes ProActive Lifecycle Management (PALM), a cloud-based application that provides asset and lifecycle information pertaining to the infrastructure installation. This final piece enables the transition from a CapEx to OpEx model by tracking network consumption, but it also offers additional operational and asset management benefits.

ALE offers two subscription fee structures for its NaaS offering. Enterprises can pay by the network capacity actively consumed or by capacity actually installed. The choice in subscription pricing will depend on the needs of the individual enterprise. In either case, IT organizations no longer have to finance the capital costs of new infrastructure. They pay a monthly subscription fee instead.

This subscription model addresses the budget constraints that many network infrastructure teams struggle with today, since ALE NaaS shifts the cost of infrastructure from a large capital outlay to a monthly operational expense. The subscription approach also introduces flexibility, since enterprises only pay for the infrastructure they need. In the case of a capacity-consumption-based subscription they pay fees based upon number of devices that are connecting to the network each month. In the case of a capacity-installed-based subscription, they pay only for the amount of capacity installed. If their capacity needs drop, they can remove infrastructure from service and reduce their costs. Services and support are included in the monthly fee for both subscription models, so there is no separate line item required.

Enterprises can operate an ALE NaaS installation themselves or they can consume the whole solution as a managed service from ALE partners. By leveraging the network as a managed service, enterprises can reduce the need for internal staff. They also have the assurance of improved end-user satisfaction with service-level agreements that guarantee uptime and performance.

The Core Benefits of the Alcatel-Lucent Enterprise NaaS Solution

There are three key benefits of the ALE NaaS solution. The first is integrated and unified wired and wireless management. Second, enterprises enjoy strong investment protection since they can consume the solution as a service. When the hardware becomes obsolete, they simply refresh their infrastructure at no added cost. Enterprises also gain access to the most advanced technology ALE offers as it becomes available. Finally, enterprises only pay for capacity they need since subscription fees are tied to consumption or installed capacity.

Alcatel-Lucent OmniVista® Cirrus Management offers several important added values. OmniVista® Cirrus is cloud-deployed, so it has no onsite footprint and supports instant activation service. The cloud deployment supports elastic management capacity, access from any location, and high availability.

In addition, OmniVista® Cirrus enables unified and centralized LAN/WLAN network management, with workflows for end-to-end network policy management and advanced provisioning options. And the management solution provides network analytics features for proactive operations and direct support of new business initiatives. OmniVista® Cirrus analytics identifies network bandwidth and traffic patterns and provides insight into which applications consume the most bandwidth. It also tracks user application traffic to fine tune network efficiency and troubleshooting. It provides quick insight into network health with graphical presentations of the most problematic switches based on device state. And it enables automatic generation of business-centric analytics and reports for network planning. OmniVista® Cirrus also offers predictive analytics for improving network health by providing capacity trending on port utilization and port anomalies. It provides threshold alerts on trend projections and network anomalies as well.

The OmniVista® Cirrus dashboard is customizable to the enterprise's specific needs. It can streamline operations via real-time monitoring and analysis of critical network performance problems through visual widgets. OmniVista® Cirrus also supports guest access management via a customizable captive portal.

The Alcatel-Lucent PALM delivers value by ensuring the network is running the most current versions of ALE software and hardware. Since upgrades are included in the license, enterprises can take advantage of new capabilities immediately. PALM also makes sure that the network is covered by valid warranty and support services, which provides additional investment protection and a stronger guarantee of uptime.

PALM can also support capacity management and budget planning for the network team. It reveals areas of the network where upgrades are required based on usage patterns. It will also alert on support service and hardware lifecycle issues well in advance.

EMA Perspective

ALE NaaS is a unique approach to subscription-based network infrastructure. EMA has observed the emergence of other subscription-based networking solutions in the past, but ALE NaaS is one of the only such solutions whose fees are based on actual infrastructure consumption, in addition to installed capacity. This approach will be especially valuable to enterprises that experience seasonal variation in network utilization, and it also brings flexibility since enterprises can build out extra capacity and only pay for it when it's needed.

The cloud-based Alcatel-Lucent OmniVista® Cirrus management platform is also a differentiating factor for the ALE NaaS solution. First, it is bundled with the solution, so there is no additional cost to leverage it. But more importantly, it offers unified management across wired and wireless infrastructure. As noted earlier, the biggest operational challenge in the network today is a lack of end-to-end visibility. EMA research has also found that many network managers tend to use large sets of discrete tools to monitor and troubleshoot their networks and this tool fragmentation diminishes operational effectiveness. OmniVista Cirrus addresses these issues in the corporate LAN at no additional cost to the customer by delivering end-to-end visibility and eliminating tool fragmentation.

EMA recommends that enterprises evaluate ALE NaaS to determine whether a subscription-based network infrastructure model can work for them.

About Alcatel-Lucent Enterprise

We are ALE. Our mission is to make everything connect to create the customized technology experience customers need. We deliver networking and communications that work for your people, processes and customers from your office, the cloud or in combination.

A heritage of innovation and dedication to customer success has made ALE, marketed under the Alcatel-Lucent Enterprise brand, an essential provider of enterprise networking, communications and services to over 830,000 customers worldwide. ALE has a global reach and local focus with more than 2200 employees and 2900+ partners who serve over 50 countries.