NILE: A NEW AND MODERN APPROACH TO ENTERPRISE NETWORKS

EXECUTIVE SUMMARY

Increasingly, enterprises of all sizes are embracing as-a-service consumption models for network infrastructure (IaaS) and software (SaaS) — and for good reason.

Campus and branch networks delivered as a service with cloud-native principles provide many advantages. Among them, low- to zero-touch configuration, provisioning, and deployment; continuous feature updates; and the ability to treat the underlying technology as an operational expense. However, the most compelling consideration is the ability for IaaS principles and SaaS models to be deployed at an organization's network edge.

IT operators can take advantage of improved connectivity performance at the point of data creation, enhanced by service levels that mimic cloud infrastructure. Tedious network upkeep, software upgrades, and daily maintenance tasks can also be offloaded, freeing teams to provide more value-added, line-of-business support. At the same time, AI is poised to radically transform these operational models, enabling full automation of lifecycle management services and leading to optimized business outcomes. However, there are many solutions to choose from, and many are solely operational expense-oriented and aimed at offering procurement flexibility.

Because enterprise networks are not created equal, organizations seek guidance in determining which connectivity IaaS offerings deliver simplicity in operational workflows, agility in software innovation, resilience across different domain environments, service level guarantees, and the highest levels of security. IaaS is clearly a more flexible and cost-effective deployment consideration than managed service provider models, but many solutions are refactored legacy architectures. The latter is often a result of acquisitions made by larger networking providers aimed at shortening product development cycles and time to market. This manifestation presents challenges to integration, scalability, AI innovation, automation, and interoperability.

Conversely, Moor Insights & Strategy believes that Nile is well-positioned to deliver what enterprises require today from an AI-infused, modern IaaS connectivity offering. The company offers a ground-up, modern, highly containerized, and microservices

software architecture that delivers a single networking and zero-trust security service backed by performance guarantees.

A New Set of Requirements Necessitate a New Approach

As-a-service consumption models for software have revolutionized the manner in which enterprises enable new levels of productivity regardless of employee location. IT infrastructure is quickly following the same path, given the agility and flexibility to treat the underlying hardware and software as programmable assets given IT and business intent. Benefits include operational expense advantages realized through the elimination of large, upfront procurement and installation costs, and avoidance of longer-term asset depreciation considering current macroeconomic inflationary headwinds.

Furthermore, network consumption services eliminate the need for time-consuming configuration, provisioning, and deployment of individual network elements — an effort often fraught with human error, resulting in poor connectivity performance and inconsistent availability. This frees time for networking professionals to dedicate more value-added efforts to the lines of businesses supported. Additionally, one of the most compelling considerations in deploying consumption services centers on its ability to tightly integrate security into the connectivity stack. This is inherently a more robust approach and provides improved network assurance and observability realized through a single policy construct, dramatically reducing the likelihood of security gaps that bad actors can exploit.

Finally, from an ongoing management perspective, consumptive network services have the potential to reduce and often eliminate network-related end-user trouble tickets to IT, improve external issue resolution time, maintain continuous security compliance, and automate system care and upkeep based on a continuous integration and delivery pipeline.

With all of this said, a new set of requirements necessitates a new approach. Moor Insights & Strategy believes that Nile delivers enterprises of all sizes and industries a modern, differentiated, and highly agile network and security service for the modern era. It does so through an end-to-end technology stack that delivers full-cloud orchestration for scale, closed-loop automation powered by AI for lifecycle management, ongoing self-maintenance and healing, service level guarantees for availability, coverage and capacity, and zero-trust for hardened security.

WHY NILE

Nile's network and security access service is comprised of the Nile Service Block architectural foundation, Nile Services Cloud, and two suites of AI applications — Nile Copilot and Autopilot. First, Nile Service Block is designed to support both wired and wireless LAN deployments. It is purpose-built to be delivered as a service in the same way datacenter infrastructure is built to support hybrid and multi-cloud environments. A standardized, single network construct also incorporates zero-trust security, ensuring the isolation of every single connected device by default, safeguarding against malicious activity. Furthermore, Nile Service Block is based on a modern, microservices-based software architecture that is highly containerized, providing exceptionally high availability and scale. It incorporates physical and virtual sensors across its design to enable continuous and comprehensive network, environmental, and contextual data collection spanning user, device, and application.

Nile Services Cloud delivers a single cloud onramp and utilizes a unified data format across the entire wired and wireless LAN technology stack. Powered by the data collection facilitated by Nile Service Block, it provides deployment and ongoing management simplicity and edge-to-cloud security. With real-time data collection and automation, it enables cognitive decision making with usage data and model-centric AI technologies across Nile's entire customer footprint. An integrated data model also ensures that the Nile Services Cloud delivers on the true promise of closed-loop automation instead of only relying on it to summarize network status.

As part of Nile's AI application suite, Nile Copilot for IT admins enables network operators the ability to orchestrate Nile Service Blocks, simplifying provisioning, ensuring zero trust security, and providing full-stack control and visibility quickly. A filtered view of the same application is also available for end users, providing an easy-to-access dashboard with personalized visibility to network availability, self-diagnosis of device quality of connectivity, submission of trouble tickets with valuable context, and the ability to self-onboard IoT devices and provide Wi-Fi guest access credentials to visitors.

Nile Autopilot's suite of applications is designed for Nile production engineering and customer success teams to monitor performance against service level guarantees and automate traditionally manual network operations. It also serves to offload system and software maintenance functions and applies automated remediation against deviations in network performance baselines.

It is worth noting that network performance guarantees are included with the Nile Access Service. This sharply contrasts with other network service solutions that offer incremental and costly SLAs. Nile claims that it is the only enterprise network infrastructure provider that does so, and the customer benefit cannot be overstated.

Nile's performance guarantees also indicate the company's confidence in its architectural design. Additionally, the Nile Access Service supports extensions powered by a growing ecosystem of integrations and its own service extensions that support cloud-based secure guest access and cloud-based dynamic host configuration protocol (DHCP). This provides a highly flexible deployment path that accommodates a host of deployment use cases.

Moor Insights & Strategy believes that Nile's early success in delivering highly resilient and performant network infrastructure is evidenced by its rapid growth since its general availability, with 300% year-over-year results to date. Recent Nile wins include the University of Denver, Stanford University, Jackson National Life Insurance, Carta, Sprinklr, and Baptist Health System representing a broad spectrum of adoption from higher education, healthcare, financial services, manufacturing, and technology.

Call to Action

Organizations of all sizes are embracing the principles of IaaS and SaaS to unlock efficiencies in connectivity services across campus and branch locations. Many enterprise network infrastructure providers simply reconstitute existing hardware and software into a financial service that provides only procurement flexibility.

In contrast, with its Access Service, Nile is aligning a modern technology stack to meet a new generation of network requirements. Consumed in a single step, on a per square footage or per user basis, Nile Access Service eliminates the need for upfront capital expenditures given its monthly or annual billing. Its pricing flexibility and consumption models also potentially provide Nile with a wider market reach, given the ability to help organizations avoid current macroeconomic inflationary headwinds tied to capital expenditures.

By bringing together cloud orchestration, service level guarantees, as-a-service software delivery, zero trust security, AI automation, and wired and wireless connectivity under a single solution, Nile offers a new and modern approach to enterprise networks.

IMPORTANT INFORMATION ABOUT THIS PAPER

CONTRIBUTOR

Will Townsend, Vice President & Principal Analyst, Networking & Security Practices at Moor Insights & Strategy

PUBLISHER

Patrick Moorhead, Founder, President, & Chief Analyst at Moor Insights & Strategy

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