

ESG SHOWCASE

# The Network Modernization Mandate:

## Ensure Critical Legacy Applications Are Included in the Transition

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**ABSTRACT:** Many organizations, especially those working in the federal government, employ legacy applications tied to TDM-based SONET networks. With much of this technology reaching the end of its life, these organizations are accelerating efforts to modernize to packet-based or Ethernet networks. While deploying all-new technology is attractive (offering many benefits), many organizations have to continue support for critical legacy applications. Fortunately, ViON and its partner Ciena offer managed services solutions to enable a smooth transition to a modern, packet-based ethernet environment, while still supporting mission-critical legacy applications.

### Current Environment

Organizations across all industries are accelerating their digital transformation initiatives and modernizing their IT environments. The federal government is no exception, with 69% reporting that they are in process or have a mature digital transformation initiative, and another 23% are just beginning. For virtually all these organizations, this means that new technology needs to be deployed, modern application environments are being adopted, and use of cloud services is increasing (see Figure 1).<sup>1</sup> However, in many instances, legacy applications will have to be maintained and supported along with the new environments.

**Figure 1. Current Federal Sector Environment**



**69%**

Cite being in process or having mature digital transformation initiatives.



**46%**

Report a significantly more complex IT environment compared to two years ago.



**50%**

State they have a problematic shortage of IT architecture and planning skills

*Source: Enterprise Strategy Group*

<sup>1</sup> Source: ESG Research Report, [2021 Technology Spending Intentions Survey](#), January 2021. All ESG research references and charts in this Showcase have been taken from this research report, unless otherwise noted.

This scenario is driving increased complexity for all industries, but especially in the federal government, as nearly half (46%) of ESG survey respondents report their IT environment is significantly more complex than it was two years ago—the highest percentage across all industries. To make matters worse, those working in the federal space are also more likely to cite that they have a problematic shortage of IT architecture and planning skills than any other industry, with 50% of government respondents stating that their organization is currently experiencing such a shortage. In addition, many agencies have budgetary challenges, and consistently struggle to obtain approvals for large capital expenditures. As a result, organizations are increasingly turning to leveraging consumption-based models, which enable organizations to consume on-premises infrastructure on a pay-per-use, operational expense basis.

For federal agencies striving to modernize their IT environments and, more specifically, their network environments, the combination of legacy applications, increased complexity, and lack of vital skills could significantly impact their ability to transform. A prime example is the need to transition from TDM-based SONET networks to packet-based Ethernet solutions. With TDM equipment reaching its end of life, organizations will find it difficult to locate parts and support to keep these networks available, yet, in many cases, there are critical applications that need to be maintained.

Organizations could rebuild those older applications to run on modern networks, but at what cost? Moreover, do organizations even have the time and resources to accomplish that? Organizations require a solution that enables network transformation in a cost-effective and operationally efficient manner. The solution must also possess the ability to streamline network operations by using cloud-based management and offer the option to consume on-premises networks as a managed service. ESG research validates that these are both popular options.

Fortunately, ViON, a trusted, proven cloud services provider, and Ciena, a networking systems, services, and software company have partnered to offer a managed services solution specifically designed to enable federal agencies to accelerate the transformation to a modern network, while ensuring mission-critical legacy applications are still supported.

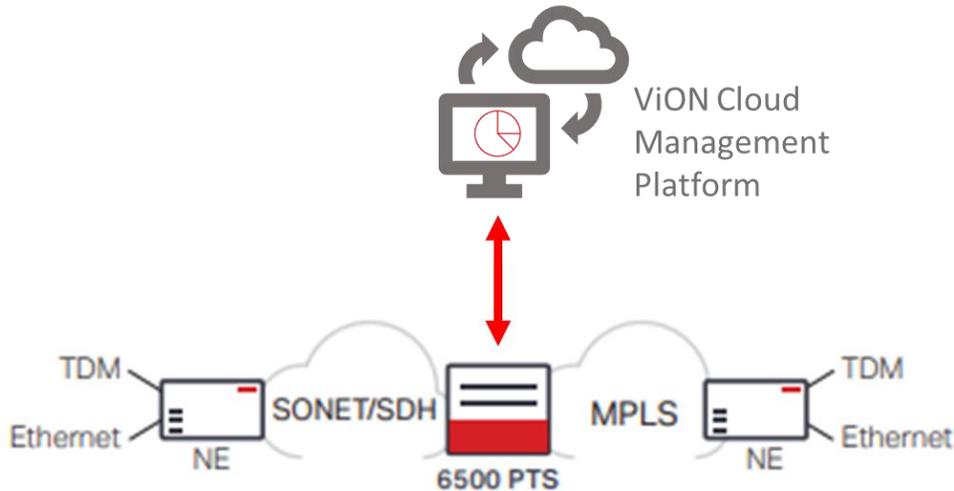
## How ViON Can Help

For more than forty years, ViON has been delivering custom IT solutions, working with numerous industry-leading technology partnerships (50+). For the last eighteen years, ViON has been delivering many of these solutions as managed services. Now, due to ViON's recent partnership with Ciena, federal agencies and private sector organizations are able to modernize their network and retain all applications. Together, ViON and Ciena deliver a managed service that provides the requisite services and network equipment that enable organizations to replace outdated TDM solutions with modern packet-based solutions—delivered in a consumption-based model (see Figure 2). The solution includes:

- Ciena network hardware, software, and services: This includes the Ciena 6500 Packet Transport System (PTS) to provide TDM to packet migrations, enabling organizations to modernize the network while retaining legacy applications. Zero-touch provisioning accelerates deployment times, and automation capabilities enhance day two operations. Ciena service professionals are available to assist with initial assessment, design, and implementation services.
- ViON services, cloud-management platform, and flexible as-a-service options: ViON wraps Ciena technology and services into a comprehensive consumption-based offering with SLAs, providing governance and reporting necessary for federal agencies. ViON's Ciena certified professionals work in a consultative approach to accurately map out an organization's current environment and future requirements, then design and implement a solution based on that organization's specific needs. Care is taken to ensure all upgrades are done seamlessly, with minimal or no disruption to existing services. Organizations have a single point of contact and can easily leverage ViON's cloud-based

management platform for visibility into the solution. ViON works with organizations to determine the desired level of interaction, from fully managed, to co-managed, to monitoring and alerting only.

**Figure 2. ViON Services for TDM Migration to Modern Networks**



Source: ViON

## The Value of the ViON Network Modernization Solution

ViON has recognized that legacy TDM network equipment is becoming a liability for many federal agencies, and a viable solution was required to enable these organizations to modernize their networks and migrate to a packet-based Ethernet environment.

Working together with Ciena, ViON can help organizations in the federal space seamlessly migrate to a modern network environment without impacting any of the capabilities required by the federal government to function effectively. The combined offering delivers the following value:

- **Consumption-based IaaS model.** This consumption-based model enables organizations to pay for what they use, scaling up or down as business needs dictate. Organizations can reduce capital expenditures, while more burden to deliver and demonstrate value is placed on the service provider. Organizations pay on a monthly basis for services consumed.
- **Cloud-based management streamlines operations.** Utilizing cloud-based management, organizations can streamline their network operations and drive operational efficiencies. A single pane of glass used for managing a modern network environment will reduce manual efforts and accelerate troubleshooting. Organizations can quickly determine if SLAs have been met.
- **Accelerates innovation.** Working with Ciena, ViON can rapidly assess current (including legacy applications) and future needs and deploy the appropriate solution to match these needs. Highly skilled and experienced engineers apply their knowledge to modernize the network environment.
- **Ensures compliance and reporting.** Agencies can leverage the ViON MarketPlace to view potential solutions. By leveraging established order management and service contract processing, organizations can quickly add new

services, while the cloud-based portal ensures effective governance by enabling organizations to view all of the data through its extensive reporting capability.

- **Offers ease of scalability.** Organizations that modernize their networks can take advantage of rapidly growing Ethernet capacity to meet demands for current use, and accommodate any future growth, especially from voice- or video-intensive collaboration applications.
- **Realizes sizable cost savings.** Migrating to packet-based Ethernet networks will enable organizations to reduce network infrastructure costs, and potentially take advantage of enhanced capacity levels. ViON has stated that organizations typically save between 20-30% on network costs in the new environment for like capacity.
- **Consume services via flexible management levels.** Based on the desired approach, organizations can consume these services as a fully managed solution or as a co-managed solution, or simply allow ViON to provide monitoring and alerting. ViON works to ensure they meet or exceed all SLAs.
- **Ensure the most effective migration strategy.** Collectively, ViON and Ciena possess the deep knowledge and experience to accurately assess an organization's current environment, often discovering significant information that the organization may not even be aware of. Armed with this knowledge, these ViON and Ciena teams are able to plan an effective migration strategy and quickly execute against it.

## The Bigger Truth

As federal agencies and private sector organizations embark on digital transformation initiatives, and seek to modernize their IT environments, it will be crucial to understand what services or applications can be transformed—and ones that must be maintained. This can be a challenging process, exacerbated by the fact that many legacy technologies have reached “end-of-life” status, making it difficult to find parts and support and then, ultimately, ensure the services remain available.

This is especially true for the legacy TDM network environment. Organizations must find a solution that will protect existing applications, while also enabling innovation and a modern agile environment. Fortunately, partners ViON and Ciena have created a solution to accomplish just that. In addition, the offering leverages the expertise of both companies to help organizations accelerate transformation and streamline network management via zero-touch provisioning and a cloud-based management platform.

Organizations facing the dilemma of wanting to move forward but having been held back due to the requirements of supporting legacy TDM services would do well to investigate how ViON's Ciena-powered Infrastructure as a Service (IaaS) can safely, efficiently, and cost-effectively migrate to a modern network environment.

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