

THE PATH TO NETWORK TRANSFORMATION

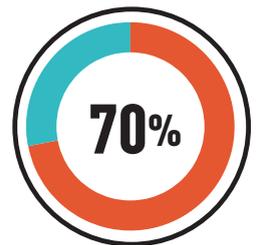
The only way to reduce costs, increase security and prepare for the future is to modernize the network. Modernization requires transformation. And transformation includes not only upgrades to the network infrastructure, but also changes in operational business practices.

NETWORK TRANSFORMATION IS CRITICAL

THE GOOD: Transforming network systems could save the federal government \$1.05 billion in a year¹.

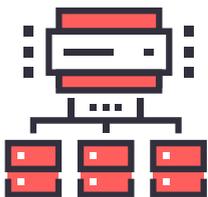


THE CHALLENGE: But agencies are still allocating a large portion (**70%**) of their budgets to maintain existing technology.²



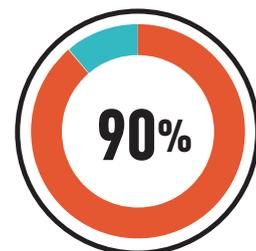
SDN/NFV IS THE DRIVER FOR INNOVATION

THE GOOD: **88%** Say it is important or mission-critical to find a network virtualization solution within the next 2-5 years.³



- Network flexibility and better service provisioning are the top drivers for SDN⁵
- Top drivers for NFV include agility, flexibility and reduced operational expenditures⁶

More than **90%** cite improved scalability of network services, lower TCO of network hardware infrastructure, and improved automation as major benefits of network virtualization.



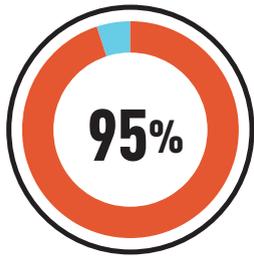
¹ Brocade's report, "The Necessity of Network Modernization." ² Q4 CTL/Ciena Survey. ³ Brocade's report, "The Necessity of Network Modernization."

⁴ Q5 CTL/Ciena Survey. ⁵ Tech Pro Research. ⁶ <https://www.sdxcentral.com/wp-content/uploads/2016/05/SDxCentral-Mega-NFV-Report-Part-2-VNFs-2016-B.pdf>.

⁷ https://govwin.com/corp/library/detail.cfm?ItemID=28240&sourceid=11&utm_source=press-release&utm_medium=media&utm_campaign=PR&partnerref=media_press-release_PR. ⁸ Q12 CTL/Ciena Survey. ⁹ Q6 CTL/Ciena Survey. ¹⁰ Q7 CTL/Ciena Survey.

NETWORK SECURITY IS IMPERATIVE

THE GOOD: Agencies recognize the importance having a security policy for an evolving network, **94%** are concerned about the impact of change to their network infrastructure and at least **80%** are evaluating different security tools.⁹



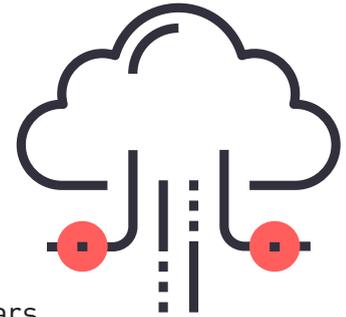
THE CHALLENGE: Federal agencies score particularly poorly on network security.¹⁰ And **95%** are burdened with maintaining legacy networks and systems.⁴

HOW AGENCIES GET THERE

THE GOOD: The top federal IT priorities are cloud, big data, mobility and data centers.⁷

THE BETTER: **86%** of agencies are planning to incorporate software-defined networking in the next five years.

THE BEST: Now is the time. Transformation requires agencies to collaborate with industry partners. **82%** are looking for a proven leader that can help with IT services and integration. Industry partners such as CenturyLink and Ciena are poised to help agencies get there.⁸



For more information on how CenturyLink & Ciena help government agencies transform their networks, visit www.TransformingNetworks.com