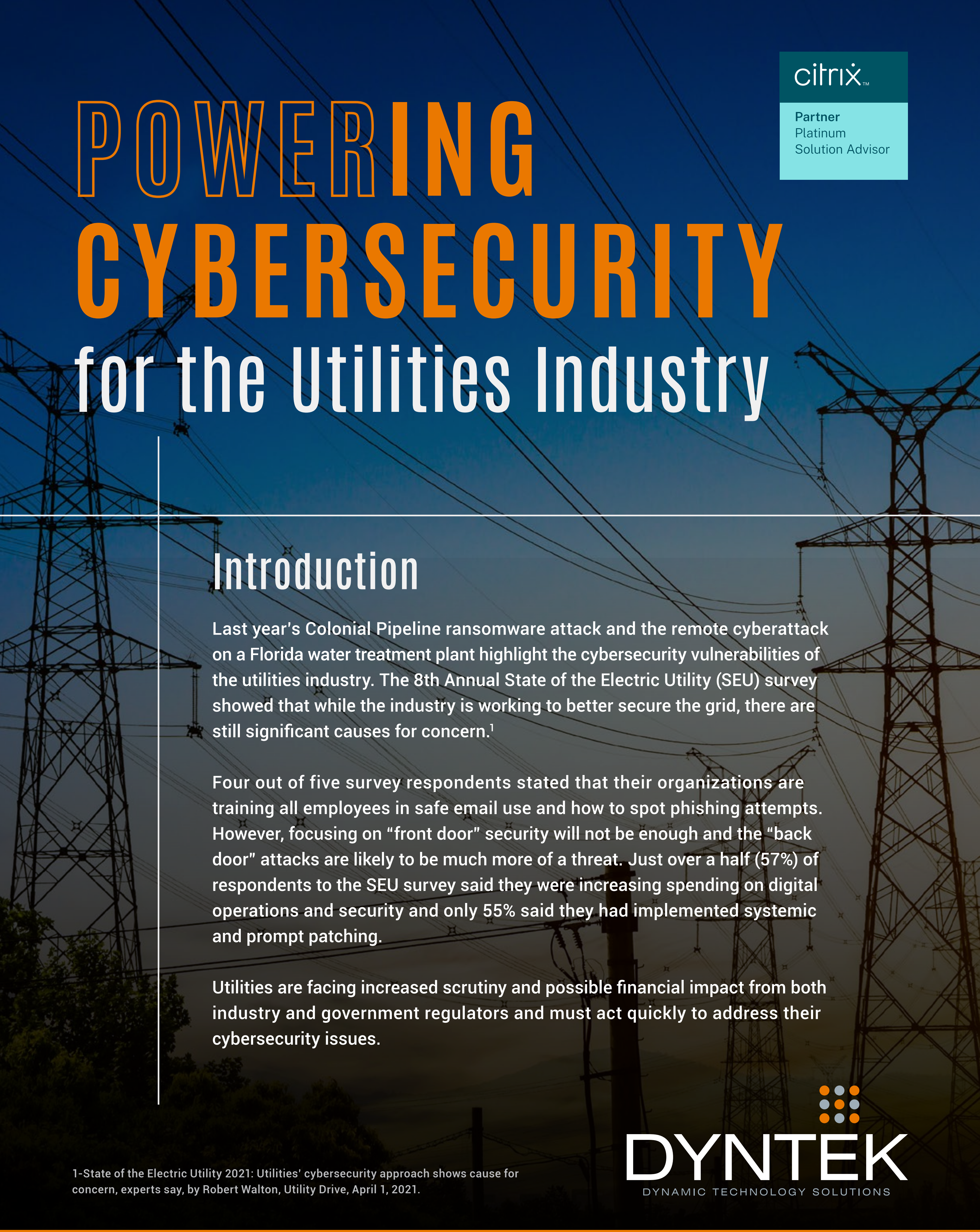

citrix
Partner
Platinum
Solution Advisor

POWERING CYBERSECURITY for the Utilities Industry

Introduction

Last year's Colonial Pipeline ransomware attack and the remote cyberattack on a Florida water treatment plant highlight the cybersecurity vulnerabilities of the utilities industry. The 8th Annual State of the Electric Utility (SEU) survey showed that while the industry is working to better secure the grid, there are still significant causes for concern.[1]

Four out of five survey respondents stated that their organizations are training all employees in safe email use and how to spot phishing attempts. However, focusing on “front door” security will not be enough and the “back door” attacks are likely to be much more of a threat. Just over a half (57%) of respondents to the SEU survey said they were increasing spending on digital operations and security and only 55% said they had implemented systemic and prompt patching.

Utilities are facing increased scrutiny and possible financial impact from both industry and government regulators and must act quickly to address their cybersecurity issues.

[1] 1-State of the Electric Utility 2021: Utilities' cybersecurity approach shows cause for concern, experts say, by Robert Walton, Utility Drive, April 1, 2021.

DYNTEK
DYNAMIC TECHNOLOGY SOLUTIONS

8 Cybersecurity Challenges for the Utilities Industry

As a solutions provider we understand your crucial areas of concern:

01 Compliance and security audits that could result in substantial fines

02 Cybersecurity risks and threats

03 End user experience (UX)

04 Limited scalability of the solution

05 Difficulty of administration

06 Restricting access to applications

07 Restricting access to NERC assets

08 Sufficiently protecting the data center Electronic Security Perimeter (ESP) boundary

One of the greatest challenges utility companies face is the struggle to provide user resources for both NERC and non-NERC use cases. The data center is a company's most powerful asset, and in many utility companies, there are two separate IT infrastructures: the corporate side, which handles the company operations, and the grid side, which handles the actual power distribution. The two sides must be treated as separate entities to meet security guidelines.

The corporate side requires a high level of security because of the critical nature of the data being handled. The grid side is considered super secure — requiring the highest level of security imaginable. Because of the high potential for attack, both the physical security and cybersecurity of the grid side are of prime importance.

The challenge comes when attempting to enable remote users to access the non-NERC assets while protecting the security of the NERC data center. Ensuring your IT team can securely access and manage that data center is crucial.

Many utilities are still using legacy technology, which presents security vulnerabilities. For example, some organizations still leverage jump box terminal servers within their organizations. This technology establishes a clear tunnel for traffic to pass to an organization's infrastructure. Although this approach offers ease of use after login, it exposes organizations to enormous risks. Once users breach the perimeter, they potentially have access to all the networks in the organization, including the grid infrastructure. The security risks make jump server technology inadequate for protecting the grid.

The DynTek Utilities Cybersecurity Solution

Many utilities facing these unique challenges have engaged DynTek to upgrade their grid infrastructure and initiate a digital transformation program that enables highly secure remote access. DynTek leverages secure, highly available Citrix Virtual Apps and Desktops (CVAD) (formerly known as XenApp and XenDesktop) and Application Delivery Controller (ADC) (formerly known as Citrix NetScaler) solutions for NERC production to upgrade utility grid infrastructures to the highest level of security possible.

The DynTek/Citrix solution provides you with both NERC and non-NERC applications hosted on segmented networks and session hosts. This same solution provides non-NERC resources to authenticated users while maintaining high-level security of the NERC infrastructure.

In addition to enabling secure remote access, DynTek and Citrix can help you realize additional benefits by consolidating datacenters using Citrix ADCs and leveraging load balancing to enhance remote work productivity by providing a reliable connection and always-on availability.

Finally, the DynTek/Citrix solution offers high availability thanks to a seamless failover capability that enables reliable disaster recovery and business continuity.

citrix™

Partner
Platinum
Solution Advisor

The DynTek Utilities Cybersecurity Solution in Action

CUSTOMER USE CASE

A major utility company, which was facing increased scrutiny and possible financial impact, needed to modernize their grid IT infrastructure. The head of cybersecurity and the head of power systems sought a company with the experience and expertise to handle the complex project. Because of their long-term, trusted relationship, they chose DynTek to handle the project.

DynTek designed, built, and deployed an entirely new Citrix-based environment that secured the company's highly sensitive NERC data center, yet enabled secure remote user access for NERC and non-NERC applications. DynTek built the modernization project on the secure, highly available Citrix Virtual Apps and Desktops and Application Delivery Controller solutions for the NERC production environment to upgrade utility grid infrastructures to the highest level of security possible.

The resulting solution used a full array of Citrix components and was designed across two geographically dispersed data centers configured in active-active mode. Following the implementation, the company had a modernized NERC-CIP compliant enterprise solution that provided high levels of protection, while providing secure remote access for authorized users. The organization subsequently went through two separate security audits with zero findings.

Why DynTek?

citrix™

Partner
Platinum
Solution Advisor

In a word: **EXPERIENCE**. DynTek has the deep-rooted experience to conduct complicated grid modernization and digital transformation projects for the utilities industry. DynTek has successfully tackled extremely complex requirements with a design and implementation to overcome all challenges. Because of our extensive security knowledge and expertise in the utilities sector, we can uncover and solve issues before they cause delays and expensive budget overruns. DynTek's broad experience in complex utility environments enables us to help companies rapidly and successfully complete upgrade and modernization projects that meet the stringent requirements of the utility industry.

Please reach out to one of our team members to learn more.

DYNTEK
DYNAMIC TECHNOLOGY SOLUTIONS