

Cyber Warfare Webinar Series

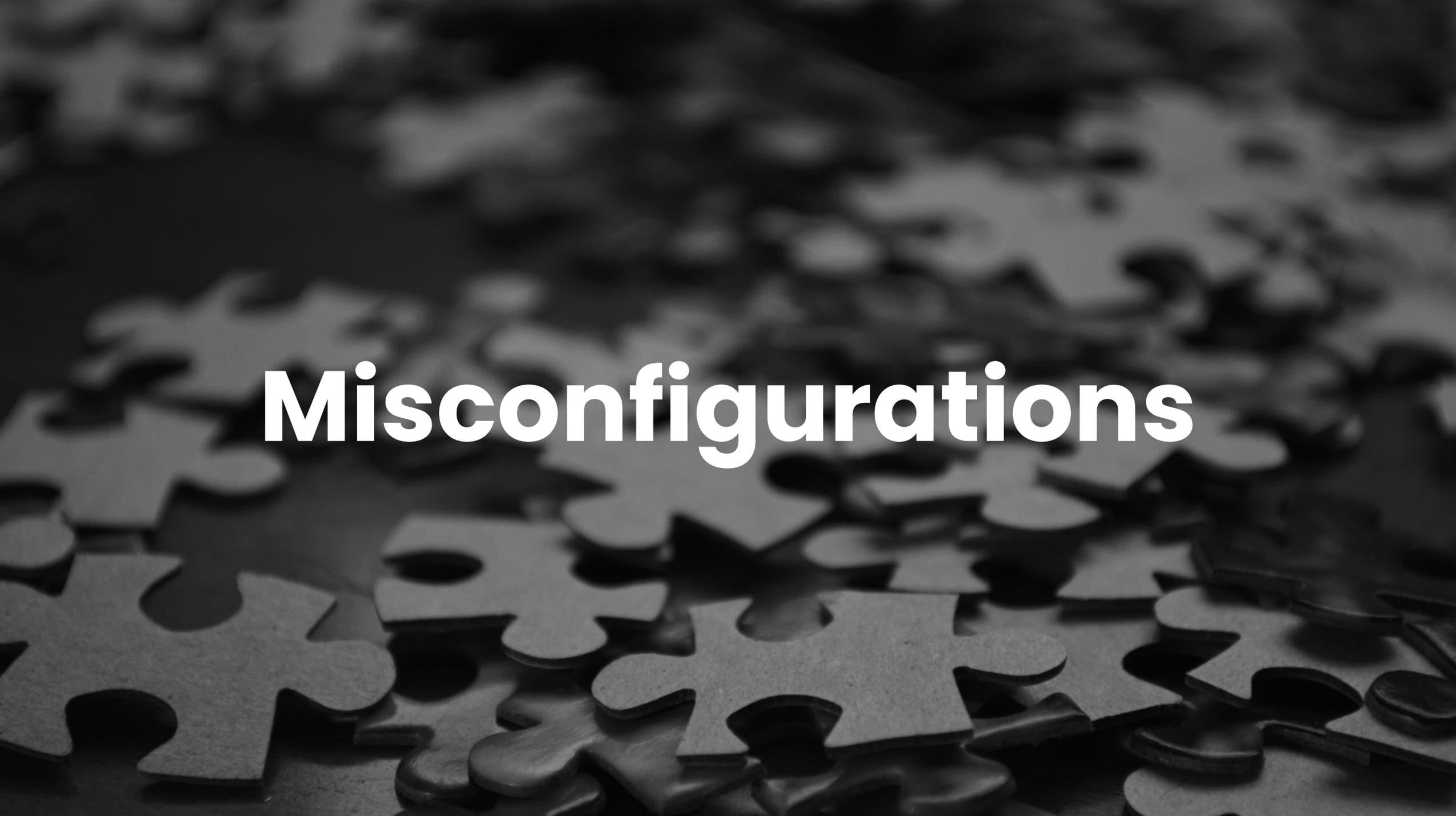
Achieving Resiliency Through the Cloud

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**According to Gartner,
what issue is responsible
for 80% of cloud-related
security breaches?**

A background of dark, scattered puzzle pieces, some overlapping and some separated, creating a textured, monochromatic scene. The pieces are in various orientations and positions, filling the entire frame.

Misconfigurations

Potential Causes

- Inconsistent configuration standards
- Missing training and education
- Change control procedures
- Poor access rights management
- Not understanding roles and responsibilities

“Tech giants have fought new oversight. When the government weighed new cybersecurity standards in 2017, Amazon lobbied against them. Cloud companies, it argued, simply sell a system and turn over the job of running and securing it to their clients.”

Hoffman, L., Mattioli, D., & Tracy, R. (8/1/19). *Fed Examined Amazon's Cloud in New Scrutiny for Tech*. Retrieved from <https://www.wsj.com>

Reducing Misconfiguration Risk

- Establish configuration standards
- Use centralized configuration tools
- Run routine vulnerability assessments
- Understand your applications
- Augment product and design expertise

Product and Design Expertise

Product and Design Expertise

Per the U.S. Treasury's recent Cloud Adoption report...

- Staff shortage with cloud expertise
- General IT and cybersecurity skills may not translate to cloud
- Cloud service offerings can be highly complex for financial institutions to implement, design, and manage.

How can a technology partner help?

- Scarcity of cloud expertise
- Accessibility to enterprise services
- Continuously evolving regulatory requirements
- Enterprise architecture perspective



What is enterprise architecture?

- Art and a science
- Holistic approach to tech
- Workload distribution
- Helps achieve resiliency through design



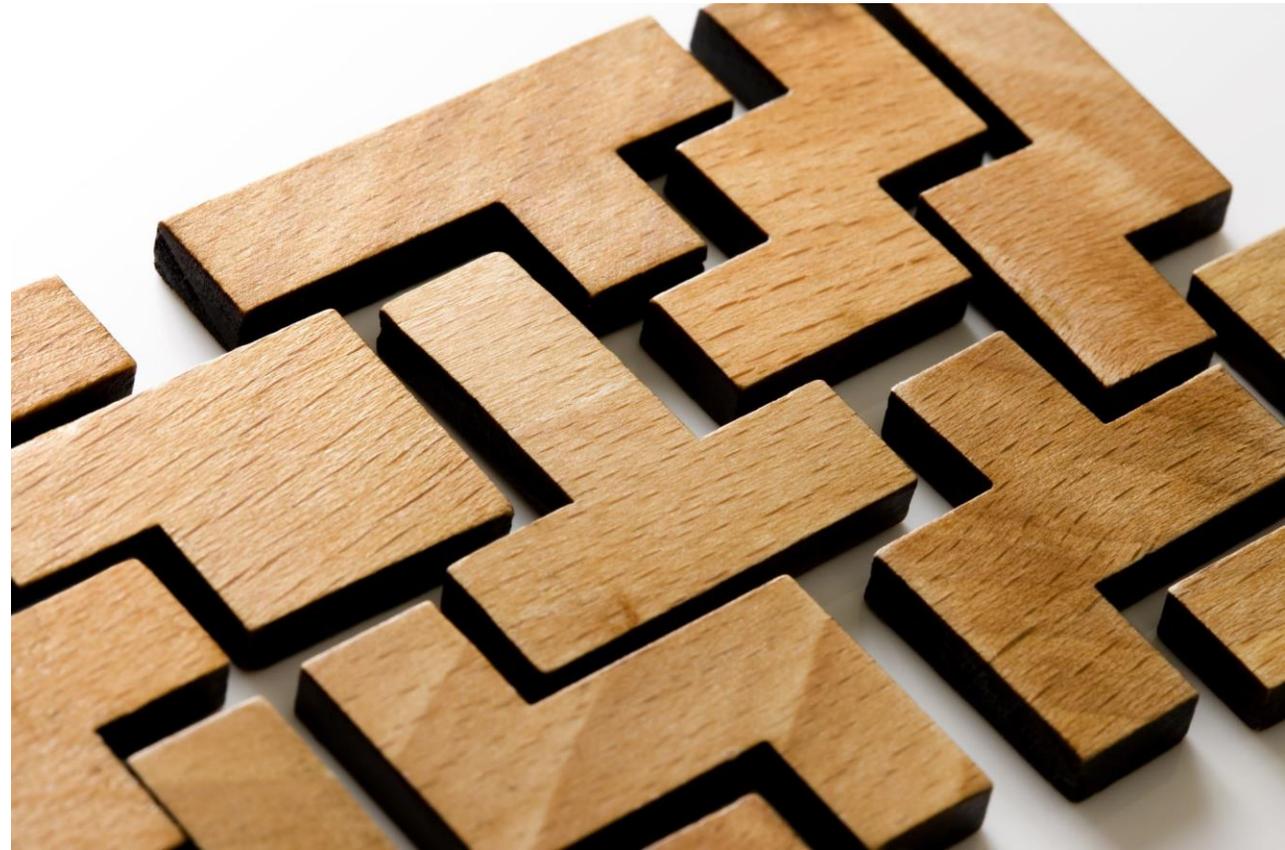
- How does an enterprise architecture (EA) viewpoint help?

How does an EA viewpoint help?

- Improve data flows
- Improved application integration
- Optimal end user experience
- Improve business continuity strategy
- Maintain resiliency as new services are adopted

Providing Resiliency Through Design

- 4 categories make up the big picture:
 - Network & security infrastructure
 - Server infrastructure
 - Desktop strategy
 - Applications strategy



Network & Security Infrastructure

**You start by
building a solid
foundation**



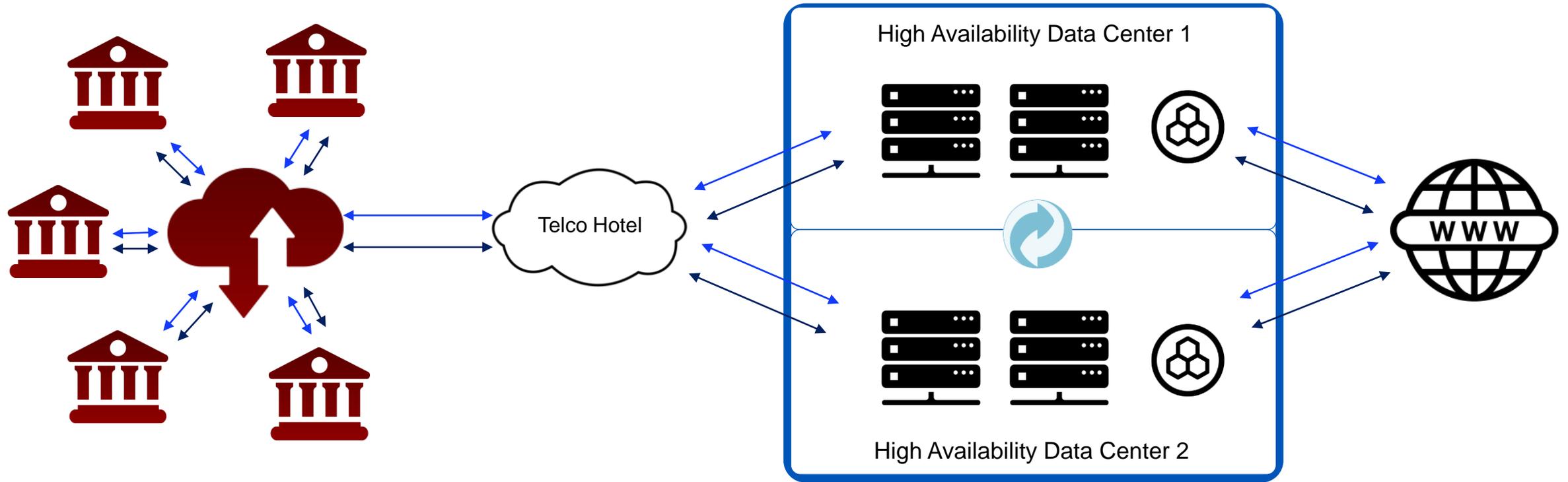
Network & Security Infrastructure Challenges

- Maintain both availability and security
- Have no single points of failure
- Navigate complicated data flows
- Optimize performance for applications
- Ensure adequate monitoring of all network devices

Improve Resiliency Using Internet

- Improve resiliency while reducing expenses
- Dependable, high-speed, and cost-effective
- Evaluate firewall and router architecture
- Consider future Server, Desktop, and Application strategies

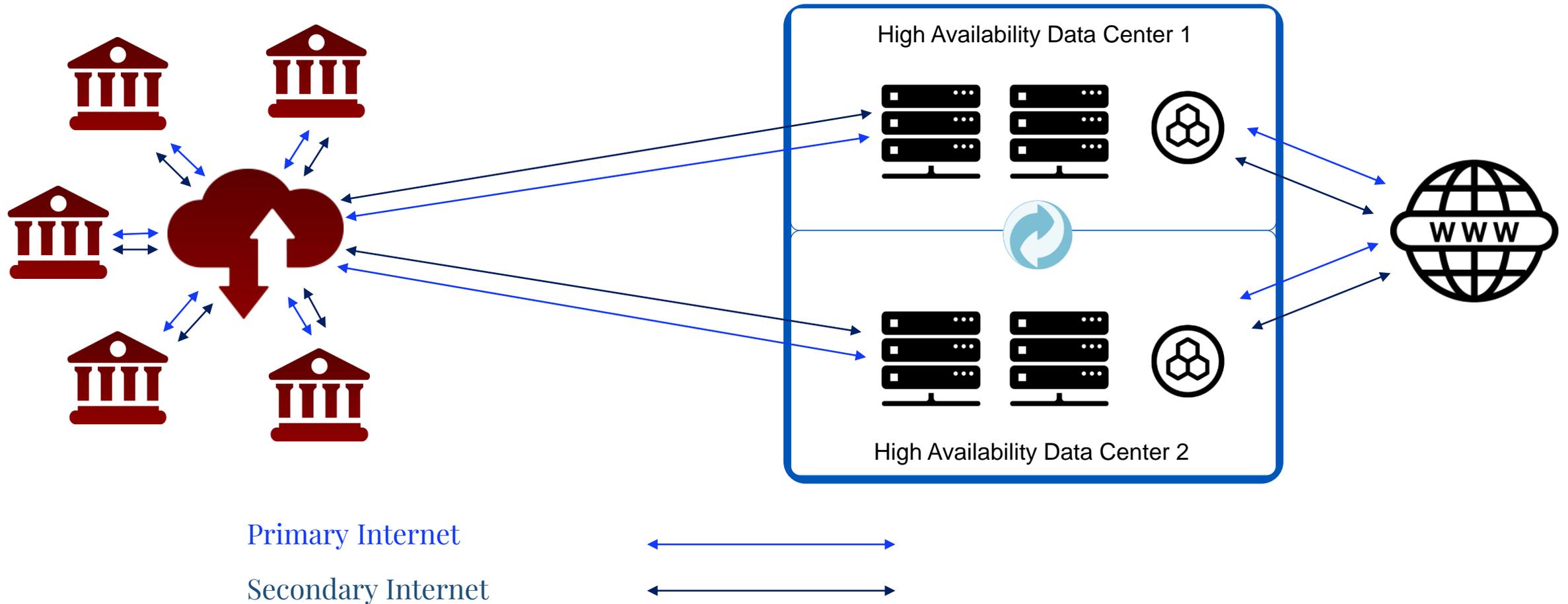
Private Circuit WAN



Private WAN (MPLS, Metro-E) 

Internet Backup 

Internet-Only Hosted SDWAN



Server Infrastructure

**Build on
your
foundation**



Server Infrastructure Challenges

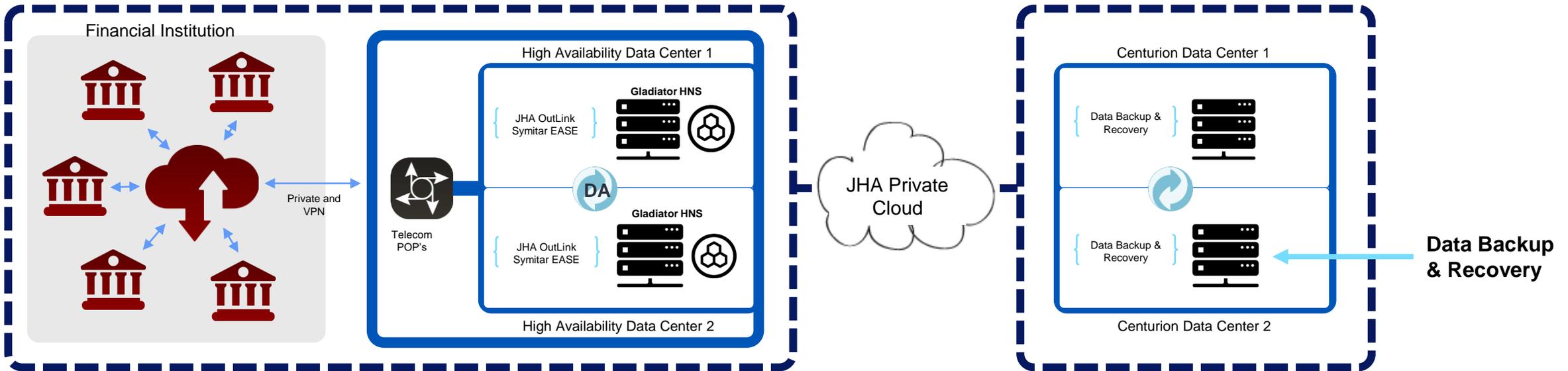
- Server refreshes
- Ongoing training needs
- Capacity planning
- Maintaining a secondary site
- Business continuity and disaster recovery (DR)
- Aligning hardware depreciation cycles



How can the private cloud help?

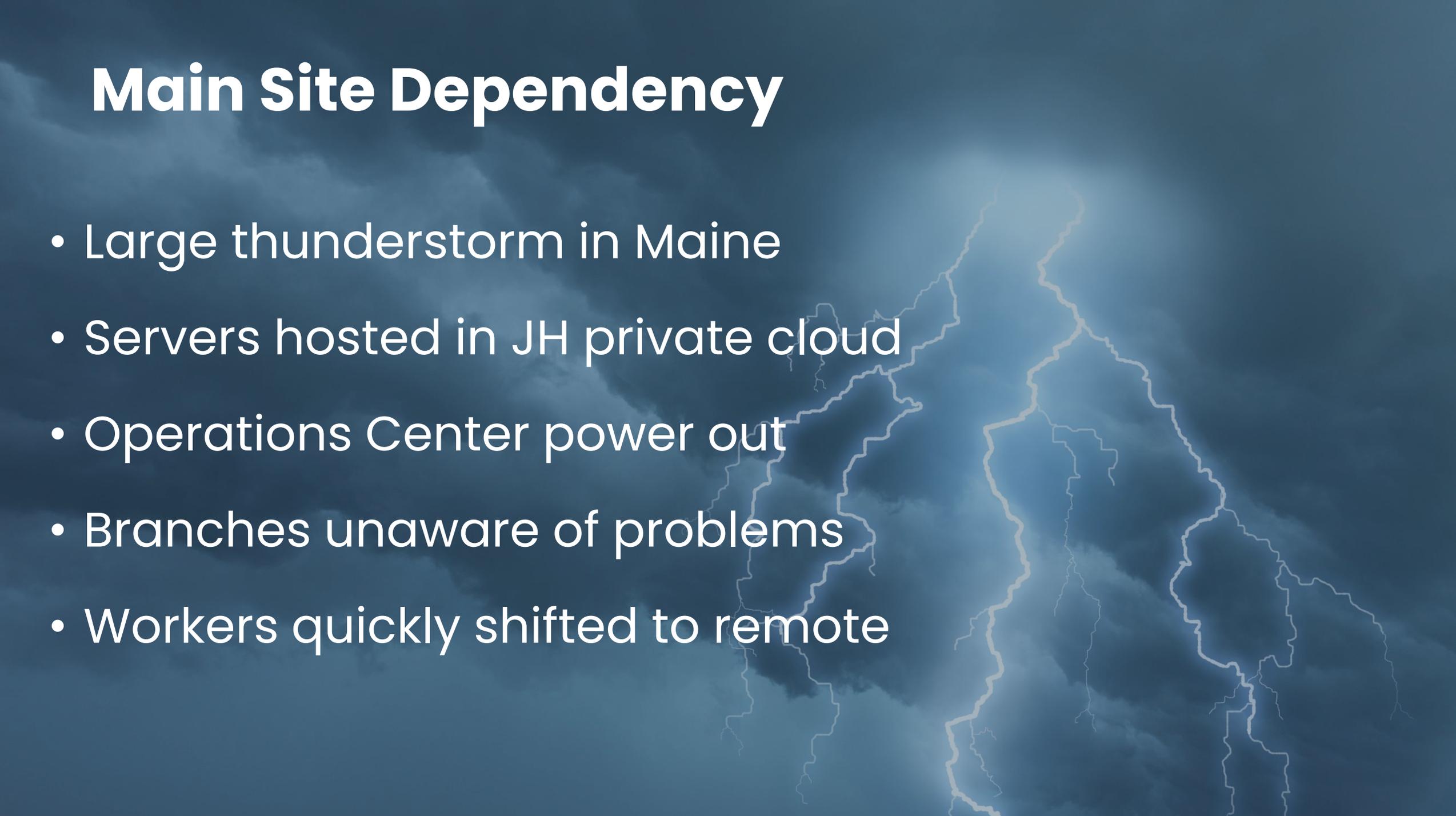
- Scale up or down without large up-front costs
- Provide expertise unique to financial institutions
- Achieve greater system uptime
- Help implementing enterprise technologies
- Improve and simplify disaster recovery

Backup Architecture



- Air gapped from client network
- Granular restoration capabilities
- Ransomware Resilient
- Immutable

Main Site Dependency

The background of the slide is a dark, stormy sky with several bright, jagged lightning bolts striking downwards. The overall color palette is dark blue and black, with the lightning providing a stark white and yellow contrast.

- Large thunderstorm in Maine
- Servers hosted in JH private cloud
- Operations Center power out
- Branches unaware of problems
- Workers quickly shifted to remote

Desktop Strategy

**Make it
usable**



Virtual Desktop Infrastructure

- Non-persistent desktops
- Single parent image maintained
- Parent is cloned into children VMs
- 1:1 versus 20+:1 user to system ratio
- Centralize configurations, apps, and updates
- Session isolation for enhanced security

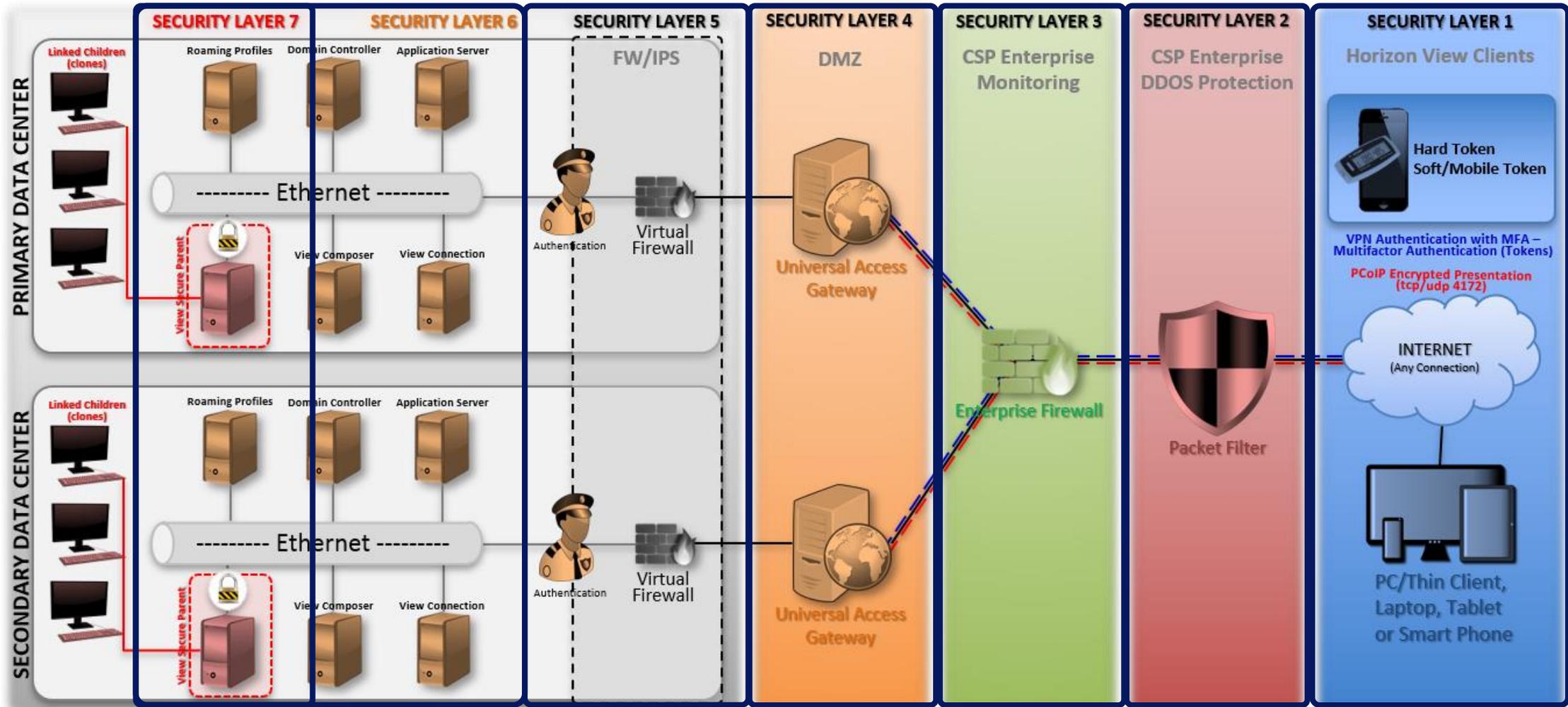
Virtual Desktop Infrastructure

- Enhanced remote user experience
- Improved application performance
- Portable user profiles
- Supported on nearly any device
- Potential for BYOD if desired
- Reduces importance of desktop hardware

**Secure your
new home**



Hosted Network Solutions **Layered Security**



Thick Desktop Infrastructure

- Persistent desktops
- Applications installed and updated on each PC
- Preferred for complex user setups
- Still can be centrally managed
- Majority of security layers still apply

Application Strategy

Add the finishing touches



Application Strategy

- Fit for purpose
- Place the application where it makes sense
- Traditional client-server versus cloud-based
- Consider data integration and workflows
- Identify limitations and/or enhancements
- Understand all costs to operate the application

JH Core and Express products

- JH Private Cloud paired with other JH products provides best-case architecture
- Product support and industry expertise
- Simplified architecture
- Optimized data flows
- Enhanced mobility and security

Move in!



**How you
assemble your
technology
stack is just as
important as the
technologies you
choose.**



Next in our Webinar Series

Avoid Landmines with Your Backup and Recovery Strategy

Wednesday, March 29, 2023

1:00 p.m. CT

Register Now:

<https://www.jackhenry.com/resources/events>

Questions?

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