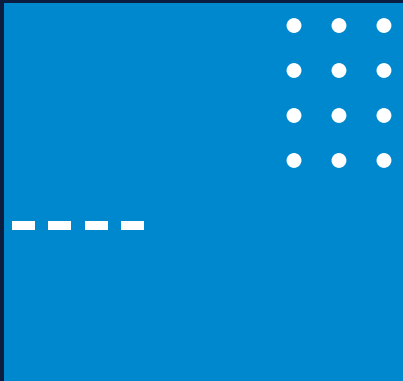
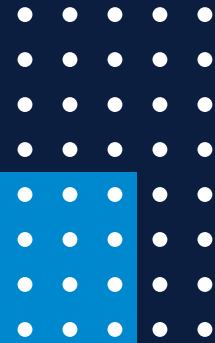
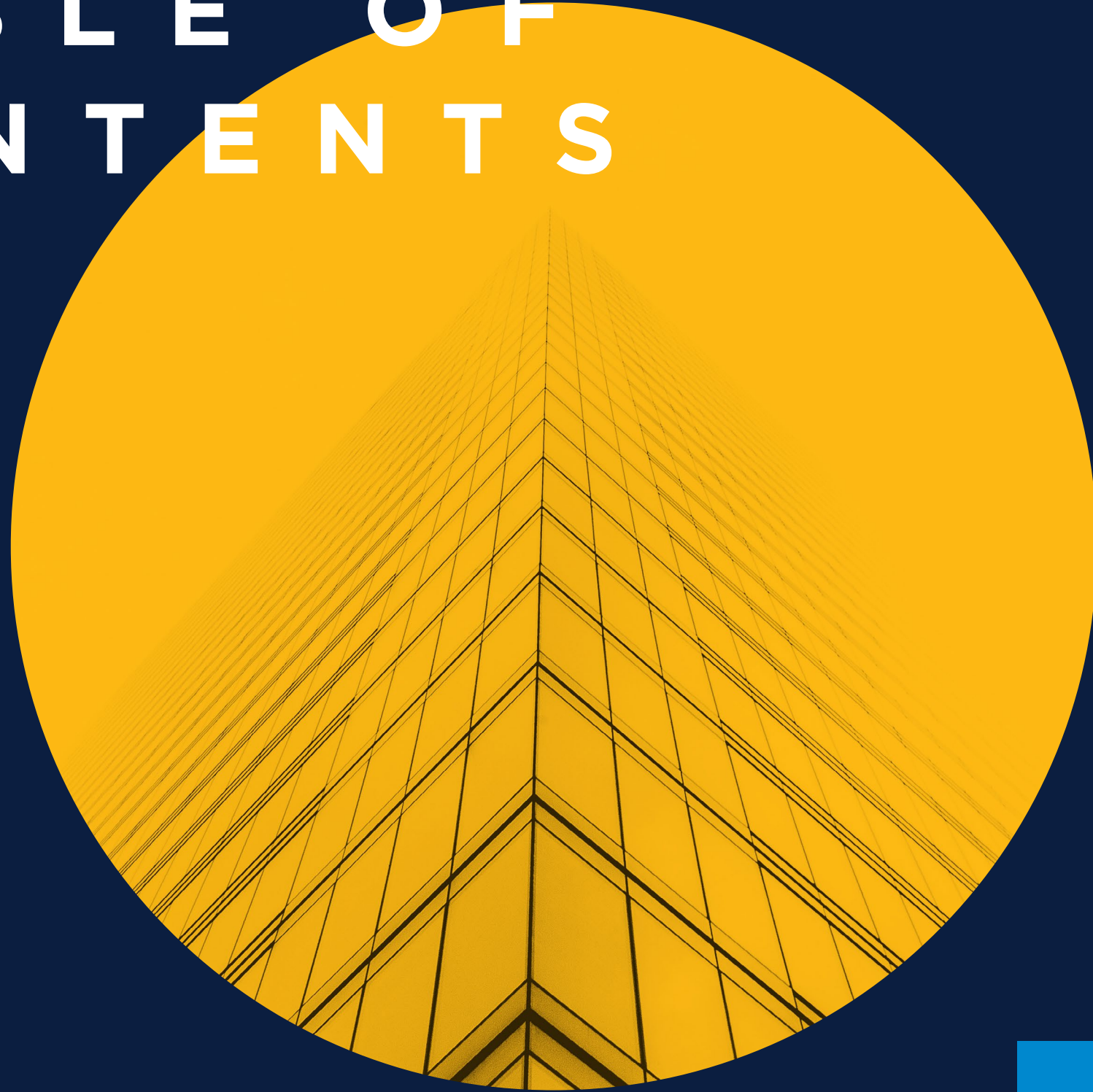




**THE POWER OF THE US SIGNAL NETWORK**  
**YOUR CONNECTION FOR**  
**DIGITAL TRANSFORMATION**

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# WHY THE NETWORK MATTERS

**Cloud-based services. Mobility. Big data. Artificial intelligence. Machine learning. Edge computing. The Internet of Things.** They're among the technologies changing the way business is done and driving digital transformation across just about every industry.

Successfully leveraging them requires fast, secure, always-on access to and between cloud providers, data centers, content distribution networks, sensors, endpoints, enterprises, employees, customers, suppliers and more. It requires regional placement of data in edge data centers for low latency connections to hosted applications.

In other words, it requires a powerful network that offers uptime, reliability, high-level security, access to connectivity-rich data centers and diverse peering partners with redundant paths to the public Internet. That's the US Signal network.



# POWERED BY US SIGNAL

**The power of the US Signal network begins with US Signal itself.** Founded in 2001 as a network services company, US Signal has evolved into the Midwest's largest debt-free, privately held data center services provider.

Without mergers or acquisitions, US Signal has grown organically. Its solution portfolio has expanded based on customer demand, emerging technologies, changing business requirements, and industry maturation.

The company continues to invest in its fiber network, ensuring its ongoing reliability, speed and resilience. As demand for colocation services and cloud technologies increased among Midwest companies, US Signal used its network as the foundation upon which to build secure data centers and cloud pods to meet those needs. It currently has data centers and cloud pods in eight Midwest cities — and is considering adding more to best serve its customers.

Adding to the company's strength is a staff of IT professionals whose technical acumen and knowledge base are equally matched by their abilities to develop efficient, cost-effective problem-solving IT solutions. Today, US Signal's solution portfolio includes customer-driven data center technologies, network services, cloud solutions and managed services. Services are backed by the company's 24/7/365 Technical Operations Center (TOC) and industry-leading SLAs — and further enhanced by a commitment to delivered extraordinary service and an equally exceptional customer experience.



# THE US SIGNAL NETWORK DIFFERENCE

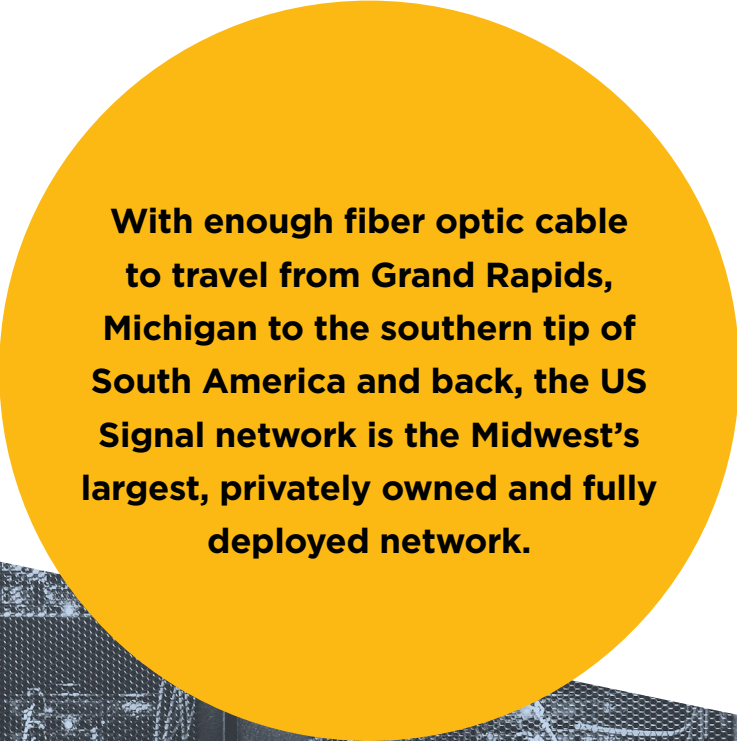
There are a lot of networks throughout the US. Among the attributes that make US Signal's carrier-grade network stand out is the fact that it's exclusively owned, operated and maintained by US Signal.

**As the Midwest's largest privately owned fiber network, the US Signal network is comprised of 14,000 miles of fast, reliable fiber optic connectivity.**

It extends throughout 10 states, including Virginia — home of the US capitol of the Internet and Ashburn's "data center alley."

The US Signal network also encompasses eight US Signal data centers in key Midwest cities, metro rings in 20 Midwest markets, access to over 225 data centers and POPs, and redundant Tier 1 peering relationships.

For companies doing business in the Midwest, US Signal puts reliable, fast, far-reaching network services at their service.



**With enough fiber optic cable to travel from Grand Rapids, Michigan to the southern tip of South America and back, the US Signal network is the Midwest's largest, privately owned and fully deployed network.**

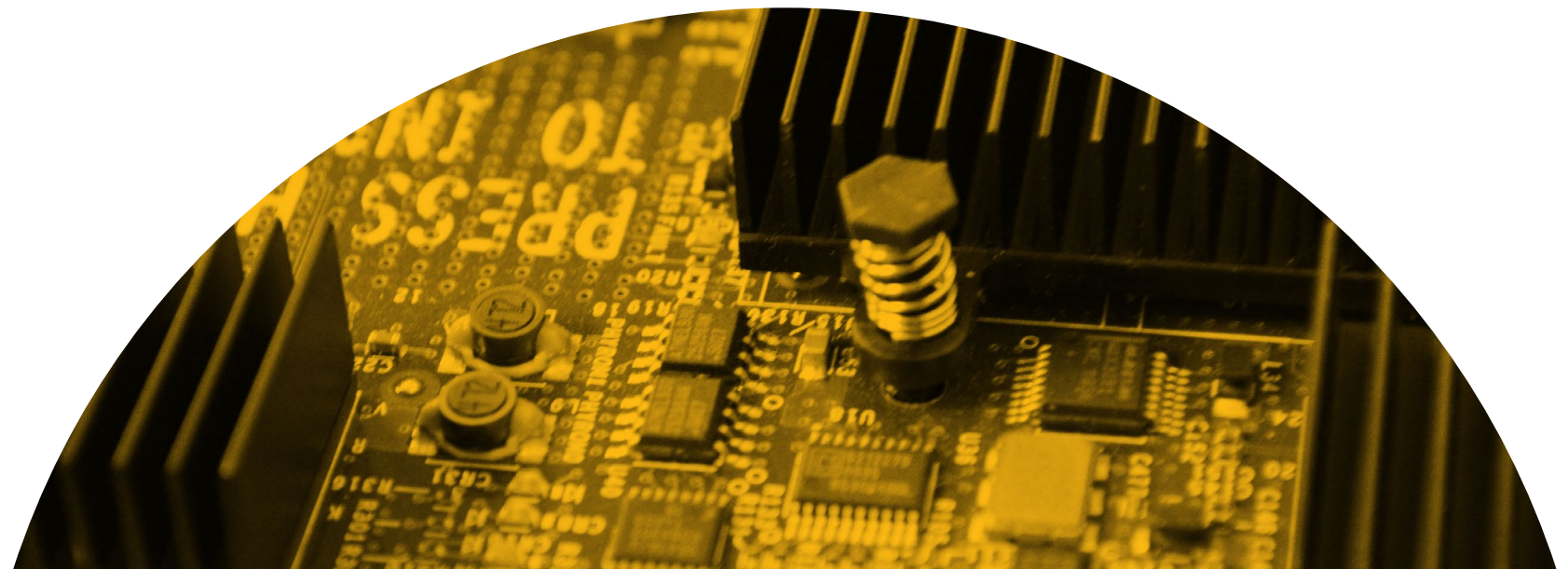




# RELIABLE BY DESIGN

**Built entirely on industry-leading Cisco® Dense Wave Division Multiplexed (DWDM) technologies, US Signal's network is designed to handle failures before they affect your business.** It features a redundant architecture with a network topology and protocols that ensure no single point of failure.

As a result, US Signal can maintain service level agreement-backed uptime and performance — even if traffic spikes or a disaster strikes.



The US Signal network also incorporates features to deliver the bandwidth, performance, security, agility, and network speed organizations need to meet business requirements and build future-ready capabilities. Among them:

- + **Multiple paired-core routers with diverse paths to the Internet**, including diversity from Chicago, Illinois; Ashburn, Virginia; Indianapolis, Indiana; and Detroit, Michigan
- + **Redundant paths to the Internet** via diverse locations to avoid single geographic points of failure like Chicago, Illinois
- + Synchronous Optical Network (SONET) with circuit bandwidths from DS1 (1.54 MB) through OC192 (9.95 GB)
- + **Dedicated, low latency circuit bandwidths** from 1 GB through 100+ GB
- + Path-protected circuits across the core network that, in case of primary path interruption, switch to backup paths in less than 50 milliseconds for minimal disruption
- + **Reliable and robust Cisco-powered optical transport networks** connecting over 250 sites in eight states (99.999% availability SLA)
- + 100 GB-capable DWDM routes; 200 GB and 400 GB trunks with multiple 100 GB customer handoffs on selected routes
- + Option to protect primary point-to-point DWDM circuits with **a geographically diverse backup circuit to protect critical high bandwidth circuits**

## Superior IP Bandwidth

- + Flexible and dedicated bandwidth options up to 100 GB
- + Guaranteed SLA
- + 14,000 miles of fiber coupled with dedicated bandwidth and fully meshed MPLS routing
- + Over 125 peering partners and five transit up-stream providers
- + Tier 1 peering relationships with multiple transiting partners



# IT'S ALL ABOUT CONNECTIONS

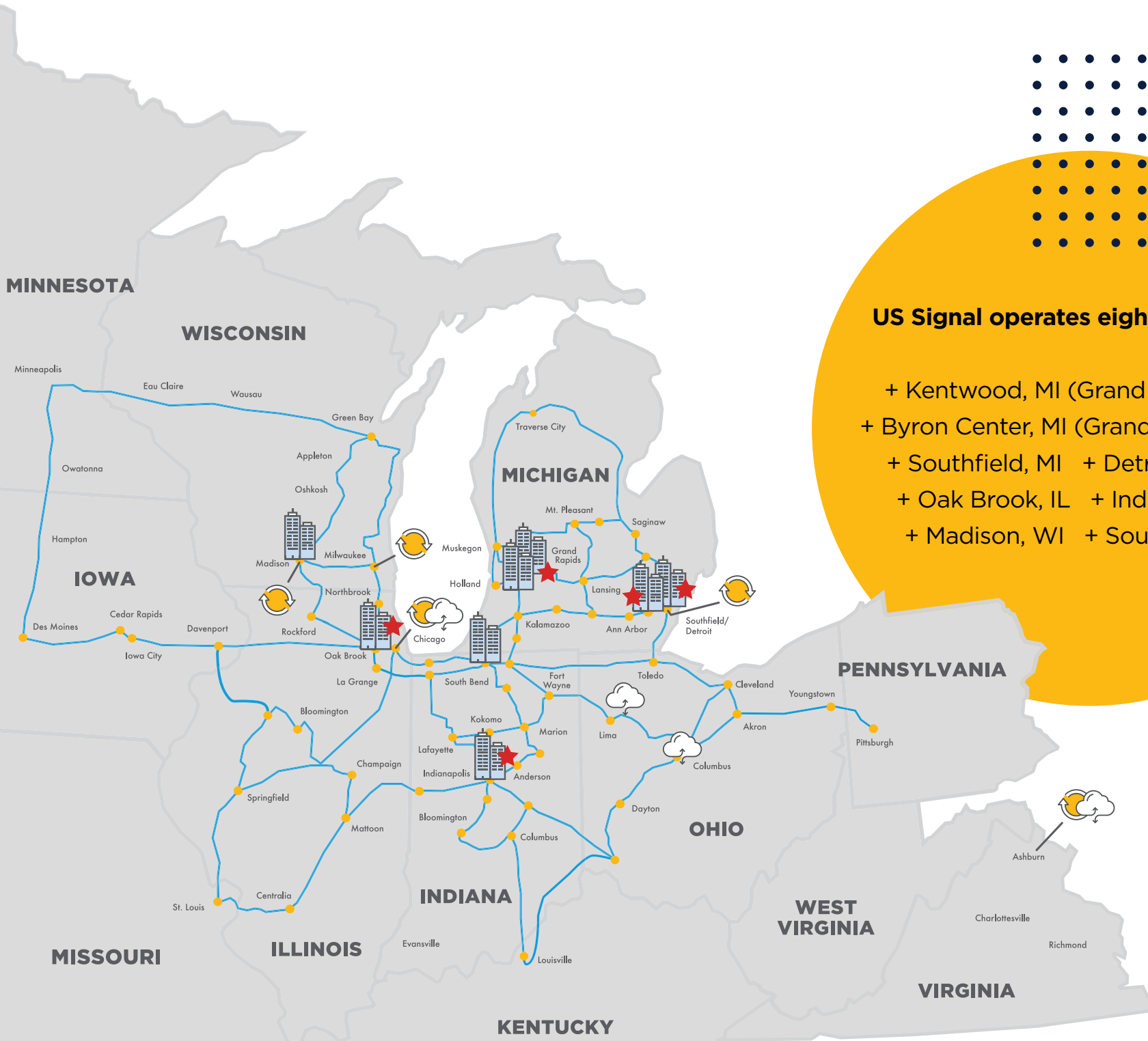
Extend geographic reach. Ensure secure and rapid communication between mission-critical infrastructure, cloud, and SaaS solutions. Connect to more content providers. Increase resiliency. Improve network performance.

It's all possible by leveraging the US Signal network to access numerous carriers and content providers. US Signal helps customers make the right connections with:

- + **Multiple access options** to meet needs for flexibility and scalability including direct Tier 1 peering, cloud exchanges, full rate GigE External Network to Network Interface (ENNI)
- + **Carrier-neutral data centers** with meet-me-rooms (MMRs)
- + Carrier hotels/peering exchanges in 50 third-party data centers with participation in five peering exchanges
- + **Geographically diverse routes** between carrier interconnection locations across the network for maximum uptime
- + Cloud and ethernet exchanges via Equinix Cloud Exchange™ and other large neutral data centers
- + **Direct network access** to multiple hosted partner applications housed in US Signal data centers and US Signal cloud
- + Protected Metro fiber rings in 20 Midwest markets
- + The **ability to utilize Carrier Ethernet and MPLS protocol** for fast recovery and low latency data transmission



# LOCATED FOR CONVENIENCE. BUILT FOR RELIABILITY.



**US Signal operates eight data centers**

- + Kentwood, MI (Grand Rapids East)
- + Byron Center, MI (Grand Rapids South)
- + Southfield, MI + Detroit Metro, MI
- + Oak Brook, IL + Indianapolis, IN
- + Madison, WI + South Bend, IN

**LEGEND**

- US Signal Data Centers**
  - ILLINOIS**
    - + Oak Brook
  - INDIANA**
    - + Indianapolis
    - + South Bend
  - WISCONSIN**
    - + Madison
  - MICHIGAN**
    - + Grand Rapids East
    - + Grand Rapids South
    - + Southfield
    - + Detroit Metro
- Peering**
  - Network Exchanges:**
    - CHICAGO, IL
    - DETROIT, MI
    - MADISON, WI
  - Internet Exchanges:**
    - CHICAGO, IL
    - DETROIT, MI
    - INDIANAPOLIS, IN
    - COLUMBUS, OH
- Cloud Connect Sites**
  - CHICAGO, IL
  - COLUMBUS, OH
  - ASHBURN, VA
- Cloud Pods**
  - SOUTHFIELD, MI
  - DETROIT METRO, MI
  - GRAND RAPIDS EAST
  - INDIANAPOLIS, IN
  - OAK BROOK, IL

# REACH THE CLOUDS

**For business agility, improved customer experiences, greater cost efficiencies and more, the cloud is where businesses are going.** The US Signal network gets them there —and helps them make the most of what the cloud has to offer with fast, uninterrupted, secure, and well-designed connections.

US Signal provides direct, dedicated network connections to major cloud providers without having to peer directly or collocate networking equipment in a provider-supported data center. Customers can use US Signal's Virtual Cloud Connect to establish layer 3 connectivity between a private data center or a US Signal cloud service to other cloud providers, including AWS, Azure, and Google.

US Signal's Cloud-to-Data Center (CDC) connection provides dedicated access between collocated IT assets and US Signal public cloud resources when housed in the same US Signal data center. The CDC connection provides optic and switch redundancy while stretching Layer 2 network from collocated gear and virtualized resources with US Signal.

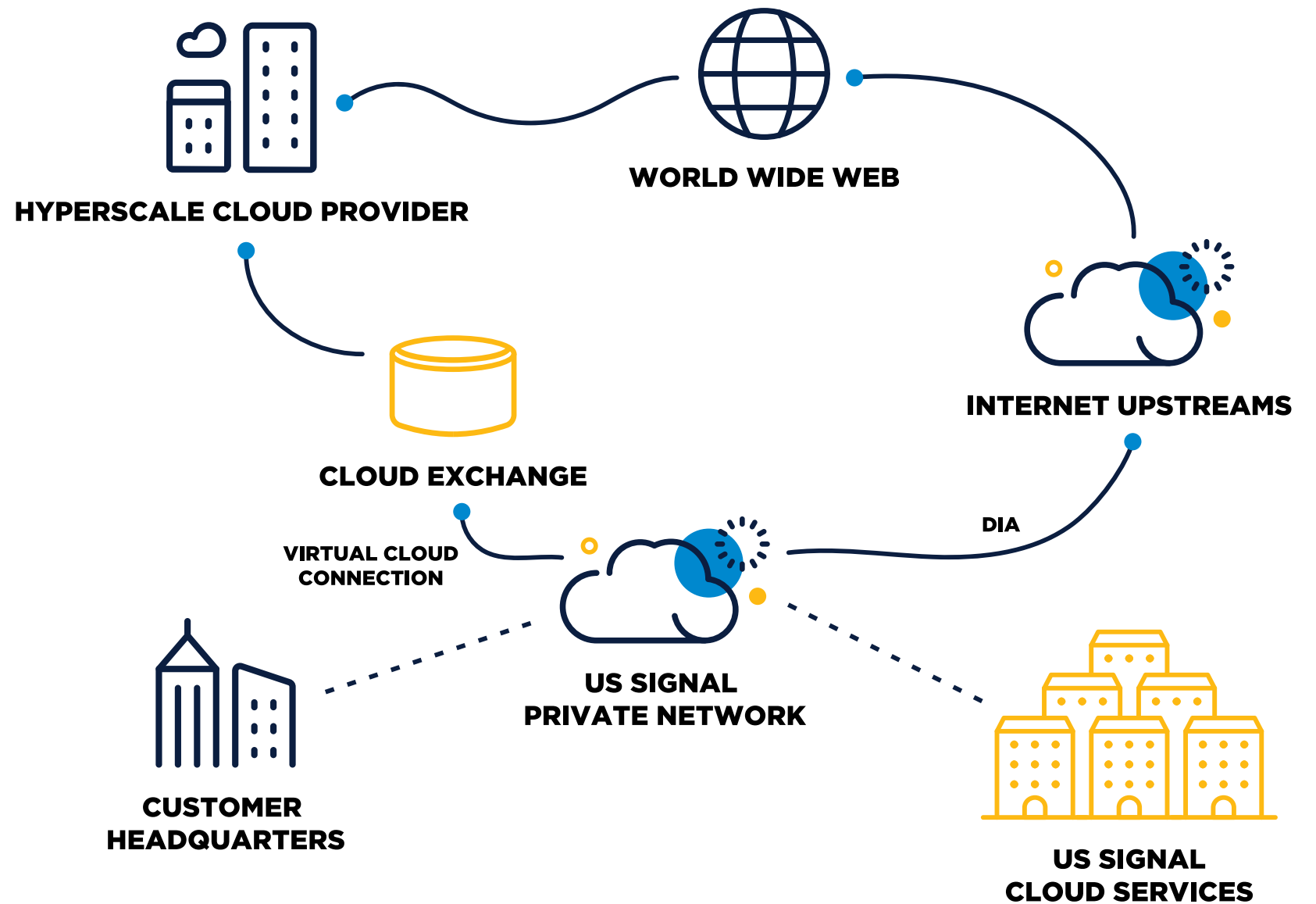
Plus, the speed and bandwidth capabilities of US Signal's fiber network means faster access to data and applications stored in the cloud. Being able to synchronize cloud data with on-site data through US Signal's high-speed connections ensure efficient data restoration after an outage. Because US Signal can provide its fiber network from doorstep to cloud, it can offer end-to-end solutions that decrease issues like downtime and latency while allowing for increases like redundancy and reliability.





# US Signal Network-Powered Cloud Benefits

- + **Direct connections** to AWS, Azure and Google hyper-scale cloud providers for hybrid deployments
- + **Ability to support customer premise-to-cloud workload migrations** and cloud-based backup and replication strategies
- + Private layer 2 cloud to data center direct connection
- + Workloads in US Signal **cloud pods can transfer data over private US Signal owned and managed network** without going to the Internet, improving latency and security
- + **Multi-tenant and private cloud availability** to address workload performance, compliance or security needs
- + Data centers and cloud pods meet HIPAA, PCI, NIST 800-171, and FBI CJIS standards



# BETTER DATA PROTECTION

**With total control over its network, US Signal ensures both network security and reliability.**

Around-the-clock monitoring and trouble-shooting by the US Signal Technical Operations Center (TOC) helps stop issues before they ever occur. Cloud-based, managed firewalls and other leading-edge measures and protocols further help keep the network fortified and protected from existing and emerging physical and cyber threats.

The US Signal fiber optic network is more reliable than copper wire-based networks for withstanding severe weather, temperature changes, and high humidity. In case of cuts or other physical cable damage, US Signal maintains its own crew of skilled technicians to handle repairs quickly. There's no waiting for a third party.

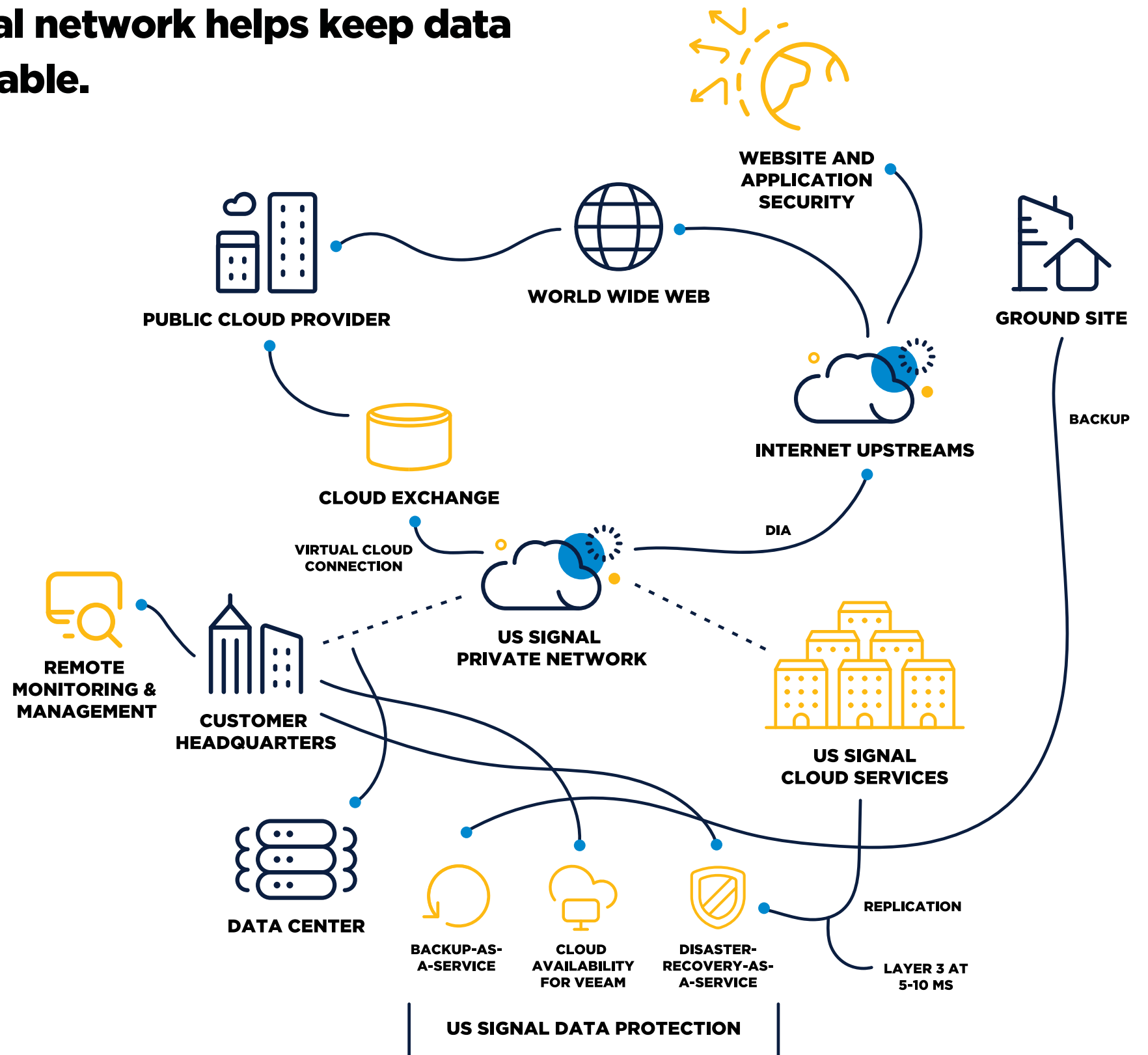
In addition, the US Signal network and all its data centers and cloud pods are located in the high-population density, low-disaster risk area of the Midwest. With multiple data centers located at least 200 miles apart, customers can choose from geographically diverse target destinations on separate power grids for disaster recovery (DR) and backup.



# From ground-to-cloud backups to replication and recovery, the US Signal network helps keep data protected – and available.

Replication and backup data paths are available via layer 3 connectivity on the US Signal owned and operated backbone. They enable low latency data transfer of 5-10 ms between US Signal data centers for production, backup, and DR workloads with a single provider.

US Signal also offers customers managed security services including web application security, vulnerability management, and remote patch management services for greater peace of mind.





# SECURE, COMPLIANT DATA CENTERS

**Like the network, US Signal's data centers are designed and operated for maximum security.** All use multiple physical and operational security protocols and iron-clad security policies.

While they vary across data centers, security features include 24/7 video surveillance, RFID readers on doors, vehicle forced intrusion prevention, and prefabricated concrete construction with steel reinforcement. All cabinets and cages include combination locks. Biometric scanning is available at select facilities.

**Designed for reliability and cost savings, US Signal's data centers also feature best-of-breed equipment and technologies for maximum reliability.** All critical facility components are redundant. Efficient cooling solutions keep temperature and humidity levels consistent.

The data centers are also strategically located in business-friendly, mid-sized cities throughout America's heartland — considered one of the safest geographical areas. Most are at least 200 miles apart, and all are on separate power grids to minimize the effects of natural disasters.

## US Signal's Partners:

Zerto

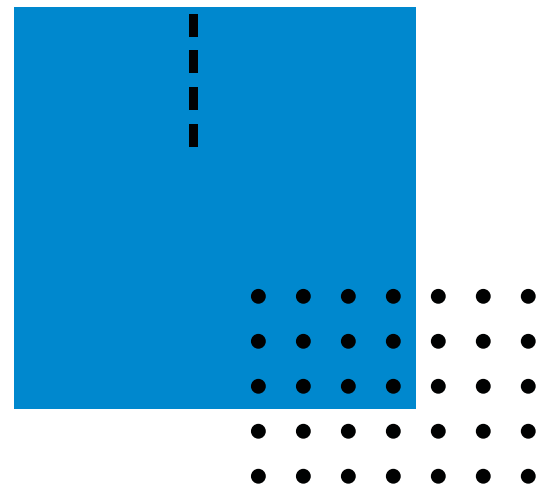


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Situated in areas protected from weather-related events, the data centers are easily accessible from main transportation routes. Tested storm and emergency preparedness plans and multi-faced recovery plans are in place to help minimize service disruptions and ensure continued operation in the event of manmade or natural disasters.

In addition, all US Signal data centers are regularly audited for compliance with the stringent security and data privacy requirements of a wide range of governing agencies.

## **US Signal is audited for compliance with or holds certifications for numerous regulatory requirements and industry standards. Among them:**



# EXPERIENCE NETWORK POWER

**Support your organization's digital transformation  
with the power of the US Signal network.**

To learn more about the benefits of the US Signal network and the services it powers, contact  
**US Signal at 866.274.4625 or [info@ussignal.com](mailto:info@ussignal.com).**