

Use Case

# Instant and Reliable Micro- and Macro-Failover

Peer-to-peer connectivity and superior availability with real-time routing for critical systems without disruption

## What Our Customers Experience:



**50% Lower CapEx and OpEx**  
through network simplification



**Connect and Revoke  
Devices 97% Faster**  
with little to no network changes



**<1 Second Failover and DR**  
that's non-disruptive and verifiable

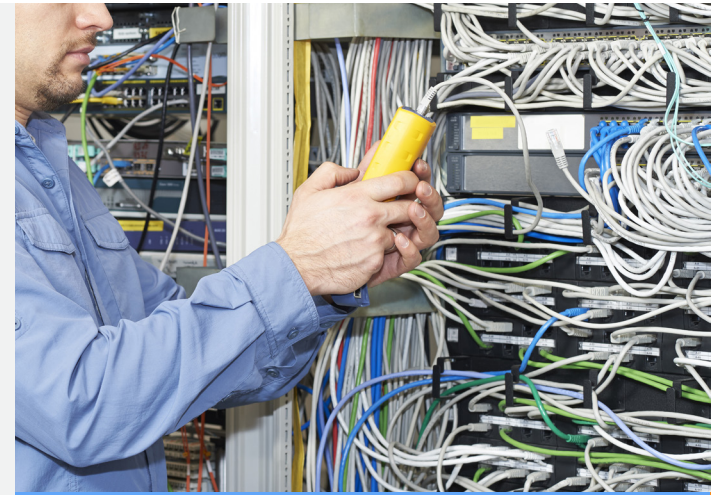
## Challenge Overview – Failover is Unreliable and Unpredictable

IT agility is essential and downtime is expensive, so reliable system failover is vital for IT staff. System and device failover, however, is riddled with complexities and can make IT teams feel slow and exposed. An effective failover strategy is critical to ensure that when a disruptive event takes place—be it a service interruption, inclement weather or any other outage—the company can sustain its usual processes, with minimal disruption or damage.

The main challenge our customers encountered when designing a failover architecture was the dependence upon slow routing convergence or complex DNS configuration and maintenance. Failover was typically configured at a network (macro) level and not at the device, server, or application (micro) level, due to the networking complexity involved. In addition, testing and verifying that system failover works was equally as complex and time-consuming, and rarely done.

## Tempered Networks – Instant and Verifiable Failover

Identity Defined Networking (IDN) for disaster recovery sets a new standard for network resiliency and mobility; making it easy to redirect or failover traffic. With IDN, our customers get peace of mind that their system failover solution will support their business continuity requirements. Unlike traditional IT solutions, failover is now instant and verifiable, and can easily be applied to a single device, service, an entire datacenter, and public cloud. And even better, the cost is a fraction of those traditional IT alternatives.

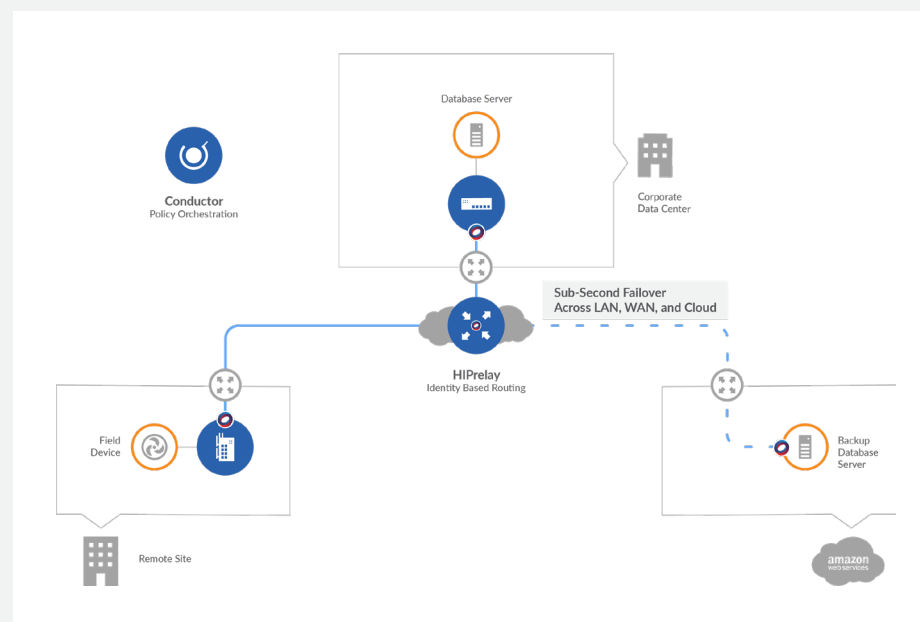


### Network Challenges:

- IP and DNS Namespace limitations drive availability issues
- Routing table convergence is slow
- Testing failover is complex and disruptive
- IP addressing issues and conflicts across the network
- Moving resources requires significant network changes
- Cloud failover requires complex route configurations
- Link failures across wired cellular and radio impact availability

“IDN allows us to quickly move traffic flows from one physical server to another, so we can deal with software upgrades and ensure high availability without relying on DNS.”

**Chief Infrastructure Architect**  
Global Transportation Company



## Challenges with Traditional IT Solutions

- Moving an IP resource requires changing the IP or DNS policy
- Complex firewall rules, ACLs, VLANs, certificates, and VPN tunnels across distributed systems
- Cascading dependencies between network and security teams expose the network to errors and hackers
- Configuring failover across separate cellular providers is significantly difficult

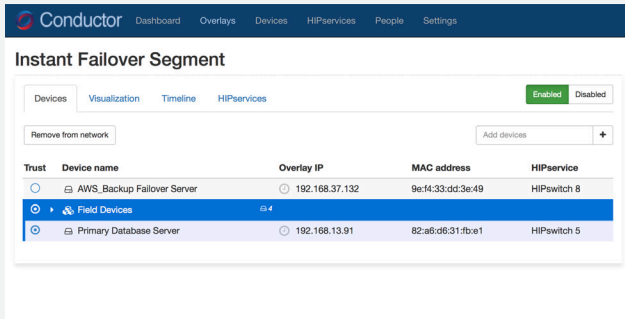
## Native Security and Network Simplification with Tempered Networks

- Failover can be easily applied to a single device, service, or to an entire datacenter and public cloud
- Failover can occur in less than 1 second across the LAN, WAN, and cloud
- Failover can occur between separate cellular providers
- Enables real-time application-aware traffic routing
- System failover testing and verification for DR becomes simple and non-disruptive
- Eliminate IP addressing issues and conflicts, without having to re-IP devices

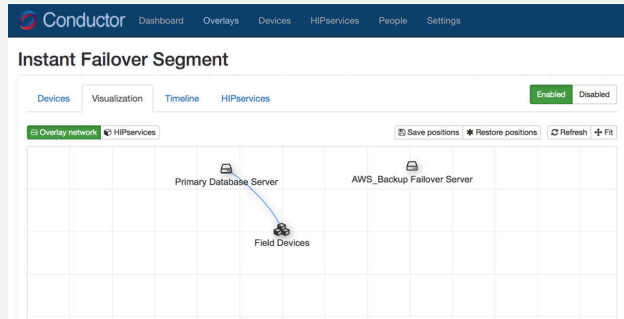
With IDN, IT teams can eliminate network complexity and securely connect any device, over any network, across any location, with little to no changes to the underlying network infrastructure. You can now significantly increase your organization’s security posture, minimize business disruption, enhance application mobility, and improve application availability. With IDN, it’s easy to seamlessly move critical systems and re-route them according to real-time business needs—without taking systems down.

## Trust-Based System Failover Across the LAN and WAN

Tempered Networks' scalable orchestration engine was designed to be extremely easy to use with no advanced technical training. Unlike the many complex, fragile, and time-consuming steps associated with traditional IT solutions, our customers eliminate human error through simple point-and-click policy orchestration. All system-level network connections are automatically authenticated and authorized between every endpoint through trusted and verifiable machine identities that can't be exploited.



With one-click, any device or groups of resources can be easily orchestrated for sub-second failover



The Visual Trust Map verifies that the device or resources have successfully been re-directed

## Business Impacts of Traditional IT Solutions vs. Tempered Networks

The benefits below are based on a typical customer scenario implementing a secure and instant failover architecture for systems spanning multiple sites and networks. Unlike traditional IT solutions, with Tempered Networks every system can failover instantly across its own encrypted and segmented overlay network that can't be violated.

IMPACTS		TRADITIONAL IT SOLUTIONS	TEMPERED NETWORKS SOLUTION
EQUIPMENT COST	\$	\$100,000+	\$35,000
DEPLOYMENT TIME	🕒	85 FTE DAYS	3 FTE DAYS
ADDITIONAL HEADCOUNT	✓	~ 1 NEW ADMIN	0 NEW ADMINS
RECOVERY TIME	🔄	SLOW: DAYS OR WEEKS	INSTANT: MINUTES OR HOURS

\*Traditional IT Solutions include: Firewalls, VPNs, Routers, Modems, VLANs, ACLs, NAC, Port Lockdown, etc



Have us prove it to you in less than 30 minutes.

Visit [temperednetworks.com/failover-fast](https://temperednetworks.com/failover-fast) to request a demo or call us at 206.452.5500