

# EMPOWER THE GRID

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**Renewable energy is crucial. However, harnessing it threatens the reliability of SCADA data transmission.**

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The accelerated adoption of solar, wind and other renewable energy sources continues. So does the increase in distributed renewable generation facilities.

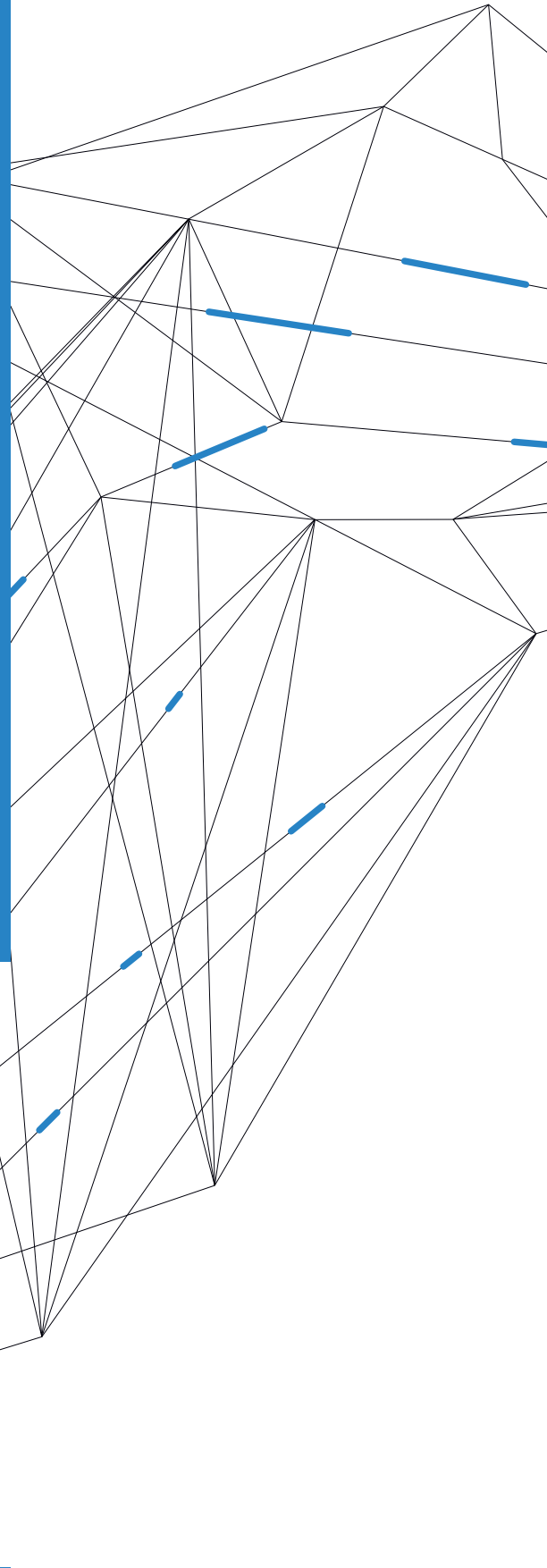
All this has necessitated the regionalization of the power grid.

Securely and reliably connecting these resources to the grid requires a flexible and adaptable network, especially where limited communications infrastructure is available. Yet most approaches to transporting SCADA data—telemetry, metering, ICCC and phasing—rely on technologies more than 20 years old.

They don't easily scale. They're costly. They're challenging to procure. And they're difficult to manage.

New challenges demand new solutions. In this age of distributed generation, the power industry must have maximum visibility and control over the power supply and source quality. The industry must be able to deliver the secure, reliable, high-performance and cost-effective connectivity its participants need.

It's time to empower the grid.



## Connect via the Internet in weeks, not months

A Dispersive™ Critical Infrastructure Software-Defined Network (Dispersive™ CISDN) delivers security, reliability, and resiliency for power grid data communications.

And it does it over the Internet.

Now generating units and load participants can connect to the grid in weeks, not months. Dispersive™ CISDN is a true software solution available as a VM instance. You or your integrator can easily install it. Or, for drop-in, zero-touch provisioning, we will pre-install the software on commodity hardware and ship it to you.

Dispersive™ CISDN offers private network functionality without private network drawbacks. The network overlays the Internet to give you:

- Award-winning security
- Better reliability
- Improved resiliency

Plus, there's the flexibility of serving participants—wherever they are—with an Internet connection.

## Secure, reliable, and resilient connectivity

Legacy networks have a fatal flaw: they rely on only one path to transfer data.

If that path degrades, packet loss is inevitable. One path also means congestion slows transfer speeds and causes connections to drop.

And that solitary path creates an easy entry point for hackers.

Dispersive™ CISDN takes a different approach. Rather than transfer data along one path, it splits data into multiple independent packet streams. It then sends each stream on a different path that constantly changes.

By dispersing data in this way, the network delivers enhanced security, more reliable connectivity and increased resiliency.

## Adding key advantages to industry communications

To meet mission-critical SCADA application demands, Dispersive™ CISDN:

- Encrypts each path with a unique key
- Segments the network by participant and device via a built-in software firewall
- Uses off-network, two-factor authentication
- Reduces the attack surfaces by using call-out only to eliminate the need for firewall holes
- Rolls away from network problems to ensure more reliable connections
- Aggregates multiple physical connections into one logical connection for improved reliability
- Routes around denial-of-service and distributed denial-of-service attacks for increased resiliency

## No more network management headaches

Network administration can eat up a lot of your time and patience.

Time-consuming setup and configuration. Complicated routing rules. The challenges of 24/7 management.

Dispersive™ CISDN changes all that because we manage the network for you.

We also simplify security compliance by eliminating the need for PKI certificates. As a result, you're free to focus on what you do best: generate and sell electricity.

## In short

The electric industry cannot rely on antiquated networks and technology to meet its data communications needs.

A new networking platform is required. A platform that meets critical security, reliability, and resiliency requirements. A platform that capitalizes on the availability and cost advantages of the Internet.

Dispersive™ CISDN is that platform.

The California ISO uses Dispersive™ CISDN to secure direct telemetry throughout its service area. The ISO plans to test the platform's use for other SCADA streams, including metering, ICCP and phasor data.

Let's talk.

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