

Converged Industrial Edge Solution Architecture



The Converged Industrial Edge was developed in response to the ever-growing demand for cybersecurity and converged connectivity for critical infrastructure. It solves for overly complex network architectures that limit visibility, increase operational costs, and expose cyberattack surfaces.

Utilities and other critical infrastructure providers can reduce time-to-value by automating the engineering, deployment, testing, and surveillance of critical infrastructure communications.

Overcoming Challenges, Both New and Old

Growing Cybersecurity Risk



Utilities rose to the **#3 most-attacked** industry in 2020 after financial services and manufacturing¹

Improved Resilience Is a Priority



\$1 billion
5X increase in losses due to extreme weather over the last decade³

A Focus on Delivering Clean and Reliable Power



45%
of utility executives say renewables, sustainability, or the environment are their top issues²

Aging Infrastructure



40%
of utility executives consider aging assets or technology to be a major challenge⁴

5 Reasons to Build a Converged Industrial Edge

1

Create an ultra-resilient, secure network from control centers to substations

Easily engineer communication circuits to meet precise OT requirements

2

3

Automate network service creation to reduce human error and truck rolls

Actively detect and prevent cyber threats protect against service disruptions

4

5

Simplify audit reporting and reduce risk of noncompliance

Modernize and Simplify IT and OT Infrastructure at the Edge

Industry leaders Juniper, SEL Inc., and Dragos have engineered the Converged Industrial Edge solution architecture to automate the orchestration of IT-OT communications and simplify information exchange to achieve business outcomes for critical infrastructure and industrial IoT without compromise.

Programmable Forwarding Plane



Build a resilient, deny-by-default, Zero Trust network fabric from control centers to the industrial edge (such as substations)

Automation Plane



Automate network service creation, deployment, testing, monitoring and assurance

Cybersecurity Plane



Create a threat aware network, end-to-end. Actively detect and mitigate malicious threats within the OT industrial controls systems environment

Build Your Converged Industrial Edge Faster and with Less Risk



To learn more about the Converged Industrial Edge solution architecture from Juniper, SEL, and Dragos, contact your Juniper account representative at Converged-Industrial-Edge-Juniper-Info@juniper.net or visit www.juniper.net/convergedindustrialedge.

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NETWORKS

1. "X-Force Threat Intelligence Index," IBM, 2021
2. "State of the Electric Utility," Utility Dive, 2021
3. "Billion-Dollar Weather Events and Climate Disasters: Overview," NOAA, 2021. There were five times more \$1 billion weather events from 2018 to 2020 than during the 2000s.
4. "State of the Electric Utility," Utility Dive, 2021