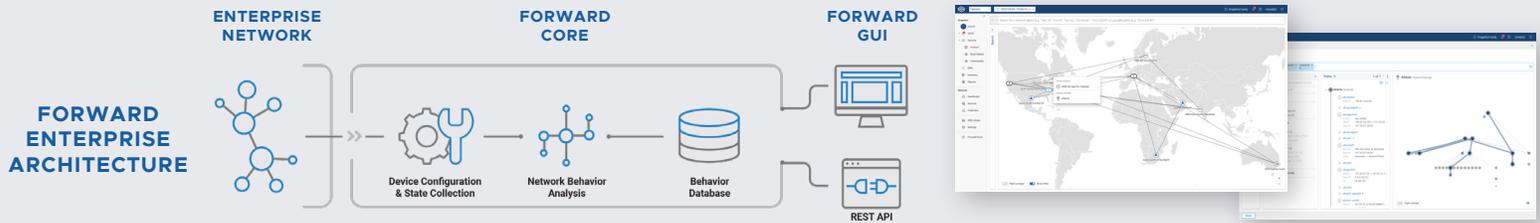# WHY YOU NEED A NETWORK DIGITAL TWIN

Modern enterprise networks are vast, distributed, and mission-critical—spanning data centers, clouds, and thousands of interconnected devices. Forward Networks delivers the industry's first mathematically precise digital twin that models every device, configuration, and behavior across your global network. It creates an authoritative inventory and a single, trusted source of truth for IT and Security teams. With AI-driven analysis and automation built in, Forward eliminates guesswork, exposes hidden risks, and enables proactive prevention before issues reach production—turning network complexity into clarity so enterprises can operate securely, reliably, and at scale. Forward Networks is trusted by Fortune 500 enterprises and global leaders including Goldman Sachs, PayPal, S&P Global, IBM, and Dell.

FORWARD ENTERPRISE ARCHITECTURE

ENTERPRISE NETWORK → FORWARD CORE → FORWARD GUI

Device Configuration & State Collection — Network Behavior Analysis — Behavior Database

REST API

Forward Enterprise collects device configuration data and state information across the entire enterprise network from every device, including switches, routers, load balancers, firewalls, and cloud networking instances.

THE CHALLENGE FOR GLOBAL ENTERPRISES

▼ RISING COMPLEXITY + SHRINKING TEAMS = GROWING RISK

▼ INEFFICIENT RESOURCE USE LIMITS BUSINESS PERFORMANCE

▼ MANUAL PROCESSES DRAIN TIME, BUDGET, AND MOMENTUM

Enterprise IT teams are increasingly challenged to keep pace with constant change—responding to data demands, planning modernization initiatives, and maintaining security and compliance across complex, hybrid environments.

GREATER EFFICIENCY THROUGH AUTOMATION

Forward Networks reduces operational complexity by replacing manual effort with a mathematically accurate digital twin of the network. Software now does the heavy lifting, delivering immediate OPEX savings. The platform continuously maps the live network, normalizes authoritative data, and performs millions of compliance and security checks each day—providing accuracy and efficiency that manual processes simply can't match. The OPEX savings are real:

▲ **$2.9M** IN STAFF PRODUCTIVITY BENEFITS

▲ **$500K+** IN REDUCED SUPPORT CONTRACTS WITH HARDWARE VENDORS

▲ **5 FTEs** REPURPOSED AFTER ELIMINATING NEED TO MAINTAIN HOME-GROWN INVENTORY DATABASES

AUTHORITATIVE DATA FOR DECISION MAKERS

Authoritative data is essential for CIOs and CISOs to make timely, high-impact decisions that support the business. Forward Networks provides accurate, vendor-neutral insight that enables leaders to act in seconds, not days—accelerating modernization plans, optimizing resources, and improving operational agility as business demands evolve. Customers across industries are realizing measurable impact:

▲ **33%** FEWER UNPLANNED DOWNTIME INCIDENTS

▲ **55%** FASTER TO RESOLVE UNPLANNED DOWNTIME INCIDENTS

▲ **71%** FASTER DEPLOYMENT OF NETWORK HARDWARE, SOFTWARE AND SERVICES

▲ **44%** FASTER TO IDENTIFY AND RESOLVE NETWORK PROBLEMS

CONTINUOUS COMPLIANCE & SECURITY

The authoritative data from the Forward Networks digital twin dramatically increases the effectiveness of Security and Compliance teams. As threats and vulnerabilities accelerate, leaders must be able to prove and maintain their network security posture at any moment. A digital twin continuously validates segmentation, configuration, and access policies against standards such as PCI DSS, SOX, NIST, and DORA—keeping organizations proactive, audit-ready, and resilient. The results are substantial:

▲ BEST CCRI SCORE IN UNDER TWO WEEKS AT A LARGE FEDERAL AGENCY

▲ VULNERABILITIES ANALYZED MULTIPLE TIMES PER DAY, SAVING HUNDREDS OF FTE HOURS

▲ AUTOMATED COMPLIANCE VALIDATION REDUCED MANUAL AUDIT EFFORT BY 99%

THE FOUNDATION FOR MODERN IT OPERATIONS

Forward Networks' delivers measurable value across every function in IT. CIOs gain the data foundation needed to drive performance-based outcomes and manage against objective metrics. CISOs and security teams can respond instantly to audits, compliance checks, and risk assessments with verified data. The digital twin also accelerates onboarding and knowledge transfer, giving teams deep situational awareness of how the network operates and behaves. The result is a more capable, resilient organization—one that's no longer dependent on a few individuals who "know how everything works," but empowered by shared intelligence and verified insight.