

Forward Enterprise

The Platform for Safe Agentic NetOps, Built on Mathematical Certainty.

Overview

Your network should be the trusted foundation for AI and Agentic NetOps. Forward Enterprise builds a mathematically accurate digital twin of every router, switch, firewall, load balancer, and cloud instance across your hybrid environment, giving teams and agents a single verified source of truth to know what's true, predict what's next, and prove what will work. Read-only by design, Forward Enterprise never risks production and gives network, security, cloud, and compliance teams the certainty to act without guesswork.

The result is a network you can understand, predict, and trust. Network problems surface before production, not after users feel them. Changes move forward with evidence. Security and compliance run continuously. And AI agents' reason from verified truth at machine speed.

The Outcome

When your operations run on a mathematically accurate digital twin, everything changes. Not incrementally, but fundamentally. Change windows shrink because impact is verified before anything touches production. Security gaps close because every possible path is verified, not assumed. Compliance stops being a quarterly fire drill. Your teams and AI agents have the verified foundation to know what's true, predict what's next, and move with confidence.

Capabilities

Network Digital Twin

Builds a mathematically accurate model of every router, switch, firewall, load balancer, and cloud instance across your entire hybrid network, and predicts the impact of proposed changes before they reach production.

Change Verification

Tests proposed routing, firewall, ACL, NAT, and segmentation change against the digital twin and returns evidence of impact before anything reaches production.

Security Posture

Traces every reachable path and policy across your hybrid network to surface exploitable vulnerabilities, verify segmentation, and prioritize remediation by real risk.

Built-in, Trusted AI

Answers natural language questions and runs multi-step workflows against the digital twin, grounding AI in verified network truth and the predictive capabilities of the platform.

Why it matters

01 Replace assumptions with certainty

When teams operate from the same source of truth, response times shrink, troubleshooting cycles shorten, and the cross-team disagreements give way to faster decisions.

03 Continuously verify security and compliance

Audit readiness becomes a continuous state, not a quarterly project. Provable evidence for DISA STIGs, PCI DSS, HIPAA, ISO 27001, and NIST 800-53 reduces regulatory exposure and the operational cost of demonstrating control.

Forward Enterprise Use Cases

- **Accelerated Troubleshooting:** Eliminate the discovery phase of troubleshooting. Replace tribal knowledge and stale diagrams with a vendor-agnostic digital twin. Instantly trace packet paths, query complex policies, and resolve connectivity issues across your hybrid network using a mathematically accurate model of what is deployed.
- **Security Posture Verification:** Stop assuming isolation. Map every potential attack path to surface reachable vulnerabilities that scanners miss. Move beyond static audits to continuous path verification, proving whether your defenses actually block threats.
- **Change Management:** Turn the CAB from a subjective debate into a data-driven decision. Replace best-guess impact assessments with mathematical proof. Test routing, NAT, and ACL changes against the digital twin before production, identifying unintended consequences at design time, and providing clear evidence to move forward.
- **Agentic operations, without the risk:** Give teams and AI agents trusted network intelligence without putting production at risk. Investigate complex questions, run multi-step workflows, and predict the impact of proposed changes using a mathematically accurate digital twin, so AI operates from verified network truth rather than assumptions.

02 Accelerate delivery while reducing risk

Change velocity becomes a business advantage rather than an operational risk. Risky changes are caught at design time, not after deployment, compressing change cycles, and turning rollbacks into a rare exception.

04 Safe Agentic NetOps

Give teams the leverage of AI without inheriting a new class of operational risk. Ground AI in verified network truth and use the digital twin to validate proposed changes before they reach production.

Forward Enterprise: Capabilities in Action

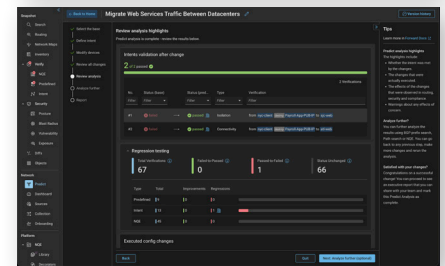
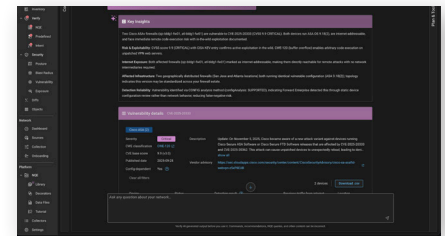
Safe agentic AI, built on verified network truth

Forward AI brings natural-language interaction and multi-step workflows to the mathematically accurate digital twin at the core of Forward Enterprise. Teams can ask complex questions and receive verified, evidence-backed answers in seconds, grounded in trusted network truth.

Forward MCP extends the same read-only network knowledge to external agents and MCP clients, so teams and their own agents can look up devices, trace paths, and query inventory, and reason over the network using the digital twin

Know before you act

Forward Predict runs proposed network changes against the digital twin at design time, before a single command reaches production. It models the impact of routing, ACL, NAT, firewall, and segmentation changes across the network, identifying potential connectivity, security, and compliance issues before deployment. Teams get evidence to support CAB approvals, compare current and predicted state, and move proposed changes forward with greater confidence. The same predictive insight can inform AI and agentic workflows before anything reaches production.



Capabilities

Network Query Engine

NQE turns fragmented multi-vendor CLI data into a normalized, vendor-agnostic model, so you can ask any question. across configs, state, and topology, and get a structured answer in seconds.

Security Posture & Blast Radius

Mathematically calculate every reachable path from any compromised asset. Map blast radius, expose hidden lateral-movement risk, and prove segmentation is intact, across on-prem and multi-cloud.

Path Search

Visualize every possible end-to-end path a packet can take across your hybrid network. Hop-by-hop, L2 through L7, on-prem and cloud, search by IP, MAC, VLAN, or application flow.

Network Verification & Intent Checks

Continuously enforce business rules against the digital twin. Custom intent checks validate forwarding behavior, segmentation, and policy alignment, proactively catching violations.

Behavior Diff

A network time machine. Side-by-side comparison of configs, policies, and behaviors between any two snapshots, pinpointing what changed and why it matters.

Vulnerability Management

Proactively detect CVE-affected assets across the global network and rank them by severity, reachability, and exposure. Move from what's vulnerable to what's exploitable, and from where.

30+ Supported Vendors

35+ Vendor Operating Systems

900 Versions of Operating Systems

4 Public Clouds



15+ Technology Integrations



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