



IP FABRIC

IPF 7.11

DATASHEET



SOLUTION

- Automated documentation & compliance
- End-to-end visibility & validation
- Unified source of truth



PLATFORM

- Features & functionalities
- How discovery works
- How IP Fabric fits into your ecosystem





Overview

Imagine never having to ask “What is this?” or “How did this get here?” when it comes to your network. Minutes after deploying, IP Fabric generates a snapshot of every device, connection, and configuration from core to cloud to edge. From there, the platform builds a digital twin that can simulate actual network behavior at a given point in time using end-to-end path lookups. With a built-in MCP server, IP Fabric also enables AI applications and agents to interact with network data through a governed interface — making it a source of truth for both human operators and AI-driven workflows.

Unified by a single source of network truth, organizations can automatically:



“ IP Fabric is a tool that pulls the data that you need from every device in your network for quick analysis; it doesn't stop at letting you analyze the data easily, but actually allows you to plug it into your processes and workflow. That can be applied to anything — automation, troubleshooting, hardware refresh planning — and it gives you that contextualized insight into your network, both from a high level and down to the details.

— Martin Moucka, IT Manager





End-to-end visibility & validation

When validating security and compliance controls, the only reliable documentation is the network itself. IP Fabric can build a digital twin of your entire infrastructure in just a few minutes, and can automate snapshots to run several times per day, so you always have an accurate and stateful view of your network behavior.

These snapshots also enable end-to-end path lookups, so organizations can determine the impact of a change before or after it's made. This visibility not only accelerates troubleshooting, but also de-risks digital transformation projects like [SD-WAN](#), [M&As](#), and more.

“ IP Fabric helps us meet deadlines more effectively, de-risk changes, and reduce hidden costs caused by errors or redundancies. It's essential for anyone who wants to regain control of their network.

— Frédéric Machado, **Network Administrator**



Build a digital twin of your entire infrastructure in just a few minutes.



Automated documentation & proof of compliance

In every snapshot, IP Fabric runs 160+ built-in compliance checks that are based on best practices for all major security and regulatory frameworks, including NIST, ISO 27001, CIS, NIS2, DORA, PCI DSS, HIPAA, and more.

Organizations can also create custom compliance checks without needing advanced knowledge of coding or query languages. The results of any built-in and custom compliance checks are presented in a normalized, user-friendly GUI that can be easily exported to executives and auditors alike, for continuous evidence of compliance.

“ Who wants to spend weeks doing an audit by hand? Who wants to go through and check optics one by one? Now you click export and you're good.

— Chris Hammond, **Manager of IT Network Operations & Engineering**

U+HAUL



Run 160+ built-in compliance checks in every snapshot.



Unified source of truth

IP Fabric is a single source of network truth. Any team can collaborate with another using this shared — and normalized — view of the network.

Network insights can be shared easily with the tools that are already in your stack via [API-first](#) integrations with [ServiceNow](#), [NetBox](#), [Nautobot](#), [Infoblox](#), [Itential](#), [Ansible](#), [Nornir](#), and [more](#). Through these integrations, IP Fabric can ensure CMDB accuracy, automate IPAM, enrich ITSM tickets, and more.

Release 7.11 also introduces a hosted MCP (Model Context Protocol) server, enabling AI applications and agents to query network data, run path lookups, and trigger workflows through a secure, structured interface — without exposing raw APIs or internal data models.

“ IP Fabric provides visibility into firewall configurations and their components, such as APIs, VRFs, VLANs, and more. Using Nautobot’s SSOT (Single Source of Truth) app, it’s possible to onboard all necessary data from IP Fabric into Nautobot. This onboarding process enables the definition of applications and allows enforcement of security constraints required by regulatory policies.

— Federico Olivieri, **Solution Architect**

```
>>> network .toCode()
```



Does your SoT match your network reality?



Platform

FEATURES & FUNCTIONALITIES

- Dynamic network visualization
- Change & configuration management
- Automated documentation
- Historical snapshots
- Automated audit prep
- Network risk analysis
- Custom functions
- AI extensibility (hosted MCP server)

DYNAMIC NETWORK VISUALIZATION

- Diagrams are entirely interactive and automated
- Leveraging ARP, STP, CDP, LLDP
- Routing diagrams (RIBs; RIP, OSPF, OSPFv3, EIGRP, IS-IS, BGP, PIM)
- Switching diagrams (STP), MPLS diagrams (LDP, RSVP)
- VXLAN topology maps
- Complete host-to-gateway application path simulation (MAC, STP, ARP)
- Complete end-to-end path simulation (inc. FEX, VSS, MAC, STP, ARP, MPLS, Multicast, VXLANs, VARP)
- Simulate using customizable packet headers with path inspector on the path
- Analysing end-to-end for subnet reachability
- Analysing end-to-end for port ranges, applications, regions inc. TTL
- Wired and Wireless users and IP Telephony connectivity maps (*inc. MAC, STP, ARP*)
- AWS Cloud WAN/Core Network support with topology and path visualization, including routing between VPCs and core segments
- Azure vWAN support with ExpressRoute and VPN Gateway discovery, topology visualization, and path lookup across virtual networks
- Meraki SD-WAN (Auto-VPN) and third-party IPsec VPN support (overlay connectivity in diagrams, end-to-end path lookup)
- GCP Classic VPN gateway support (topology and path analysis)

CHANGE & CONFIGURATION MANAGEMENT

- Change tracking for network connections, topology, and IP addresses
- Configuration change tracking for managed network devices
- Compare any two network snapshots, determining network state differences over time
- Compare different configuration files
- Flexible, complete snapshot comparison inc. over API
- IPv6 configuration support across configuration tracking and snapshot comparison

AUTOMATED DOCUMENTATION

- Detailed network inventory, including devices, modules, interfaces, and components
- Fast and complete network infrastructure discovery
- Low-Level Design (LLD) documentation for each site in MS Word format
- User location and endpoint connectivity mapping
- Flexible API-to-PDF reports
- Export diagrams to SVG, PNG, or Visio (VSDX) files
- Graph exports now include view name, site, path lookup IPs, and timestamp in file names for easier identification

HISTORICAL SNAPSHOTS

- Each network discovery creates a digital snapshot of the network
- Snapshots can be compared, exported, imported, cloned, or archived elsewhere
- Analyze the historical correlation between past and present states
- Easily share specific snapshots and tables via URLs from the GUI

AUTOMATED AUDIT PREP

- Assurance dashboard with 150+ out-of-the-box intent rules
- Detailed analysis of dynamic network protocol behavior
- Analyze the historical correlation between past and present states

DEEP NETWORK ANALYSIS

- Network analysis reports in MS Word format
- Verify network stability, resiliency, compliance and risk (inc. CVEs for NOS's)
- Transmission verification for loss / errors inc. interface counter details
- Lifecycle milestone tracking inc. end of sale / maintenance / support, for hardware
- Additional IPv6 coverage in routing and protocol discovery (e.g. Cisco IOS-XE IS-IS IPv6, Cisco ASA BGP IPv6)
- SSL certificate visibility for cloud load balancers (AWS, Azure)

CUSTOM FUNCTIONS

- Generate custom reports (e.g. DORA)
- Transform data in real-time (custom tables)
- Enrich data through external source integration
- Implement business-specific processing logic (global search)
- Deploy extensions with source code or containers
- API enhancements enable header-based versioning for easier external integration



How Discovery Works

IP Fabric uses CLI commands and APIs to collect live configuration, state, and topology data from your entire hybrid multicloud environment. After gathering a complete inventory of devices and connections, IP Fabric builds a digital twin of the infrastructure: an interactive, vendor-neutral model that makes it easy to visualize dependencies, simulate behavior, and validate security and regulatory controls.

For example, IP Fabric understands/provides visibility of the following.



→ **Core networking concepts/technology**

VLANs, trunks, interfaces/sub-interfaces (counters/errors), MTU, switch ports, virtual ports, link aggregation (inc. multi-chassis, vPC), PoE, QoS, ACLs, VRFs, clustering (inc. VSS), stacking, virtual contexts (inc. VSYS, VDOM, VDC)

→ **Fundamental protocols (inc. resolution & discovery)**

ARP, DHCP, IPv4, IPv6, NAT, SNMP, NTP, AAA, Syslog, CDP, LLDP, MPLS, LDP, RSVP, DMVPN, flow exports

→ **Layer 2 loop prevention**

STP, rSTP, mSTP, PVST

→ **FHRP (First Hop Redundancy Protocols)**

HSRP, VRRP, GLBP

→ **Multicast**

PIM, IGMP snooping, PIM, RPs, multicast route/MAC tables

→ **Overlay/layer 2 VPN services**

VXLAN, EVPN, VPLS, VPWS, CCC

→ **Routing protocols**

BGP, EIGRP, IS-IS, OSPFv2/v3, RIP

→ **Load balancing**

Virtual servers, pools, nodes, F5 partitions

→ **Cloud networks**

virtual machines / networks / interfaces / vWAN hubs / VPN gateways / load balancers / SSL certificates

→ **Wireless**

Controllers, AP (Access Points), radio/BSSID, clients

→ **Security URL Filtering**

Part of path lookups



How IP Fabric Fits Into Your Ecosystem

IP Fabric's [Vendor & Platform Compatibility Matrix](#) is always expanding. Now it includes the following:



READY TO TAKE CONTROL OF YOUR NETWORK?

Network assurance is the key to reducing risk, driving efficiency, and streamlining spend. Have questions?

Reach out to our team today



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