IP FABRIC

AUTOMATED NETWORK ASSURANCE PLATFORM

IP Fabric | Network Automation

You don’t have time to “not have time” to automate.

Gartner

COOL VENDOR 2022

Your Challenge

As your network grows in complexity and becomes more dynamic, your tooling must be able to handle this complexity and create order from chaos. There's also the challenge of confidence; teams cannot be aggressive in their automation approach if they don't trust the change process.

Our Solution

Our automated network assurance platform gives you up-to-date, contextualized insight into your network infrastructure in minutes. This should not be considered a luxury, but rather a core component of a network engineer's toolbox and the first step toward larger network automation efforts.

Benefits

- Foolproof automation processes gain you back time and confidence
- Validate your network source of truth
- Enhance automation workflows
- Augment your toolset with powerful integrations

Use cases

01

Data Collection & Modelling

Eliminate 90% of the manual work behind network automation scripting

Discover
We automatically create a network baseline containing every device, path, configuration, and security policy. Know the actual state of your network at any point in time.

Document
Remove the need for manual documentation updates every time you make a change. This tedious work, often outdated by the time it's complete, is now done daily, and effortlessly.

Verify
Our robust insight into your network state allows you to verify that your network is behaving as intended with built-in or custom intent verification checks.

02

Validate your Network Source(s) of Truth

IP Fabric provides the actual truth of your network state, a critical element to effectively work toward your desired state.

A valid Network Source of Truth is the key element of a network automation project.

IP Fabric helps validate that intended state data on an ongoing basis through automated verification checks and simulated path lookups.

Using IP Fabric in conjunction with a SoT, you can ensure that your intended state database is populated with accurate state data, and measure operational compliance with intent.

Now that you have clear insight into your network's state, you decide what to do:

- Update SoT
- Change config to restore intended state
- Trigger work to decommission inventory

03

Change Validation

Automate network changes with confidence

Prepare for changes using actual network data

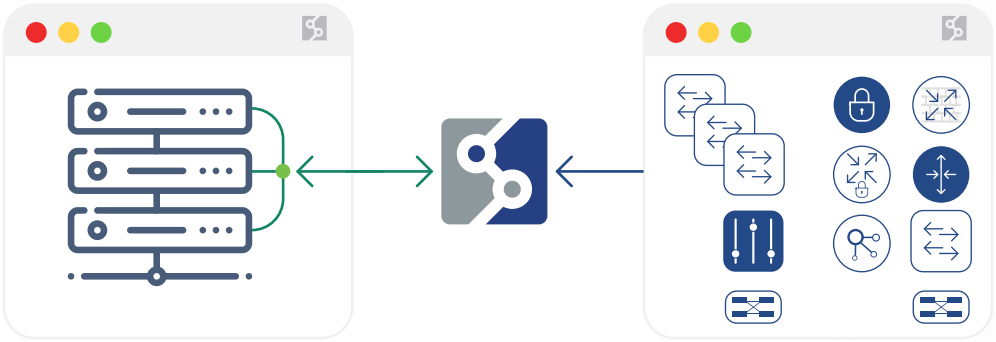
Perform pre-checks to understand "known good" state of network

Provide input to the logic of the automation process, eg:

- Upgrade all the Cisco IOS-XE switches running 3.6.6S
- Fix the SNMP config for all misconfigured routers
- Change policy in every firewall in the path from A to B

Validate your changes through

- Topology changes
- Intent checks
- Path check



04

Enhance your automation workflows

Enterprise workflow automation made easy

An IP Fabric snapshot contains all the inventory, configuration, topology and state data from your network of networks, across all vendors and domains.

And the data is available as structured JSON, accessed using simple REST API calls – no need to retrieve it yourself, no need to parse it and no need to model it.

Using this, you can

- Combine data from different sources
- Determine devices that need to be automatically configured
- Validate the outcome of executed changes

Event Triggers: When IP Fabric completes a snapshot - whether it is scheduled or ad hoc - and when it updates or completes its intent checks, it is able to send a webhook to an external system to notify that activity has completed. This in turn can then be used to trigger some automation activity, perhaps:

- Check inventory to see if anything has changed and update CMDB or SoT DB
- Validate that application paths that worked before continue to work and if not, why not
- Start a "daily check" process of ensuring that network state and configuration remains as expected.

05

Augment your toolset with powerful integrations

> Airbus Aircraft was able to integrate IP Fabric's REST API efficiently into our tooling ecosystem and use collected information as a data source for other tools.
>
> **AIRBUS**

Complex networks bring an inevitable sprawl of operational tooling – monitoring, configuration and policy management, inventory, ticketing, automation, and more.

They often leave you with questions, like:

- Are you certain you're monitoring your whole network?
- Are you sure the security policy you're pushing out will actually be enforced?
- Do you have to process a support renewal and need to validate that your network inventory is complete and accurate?

With IP Fabric integrated into your tooling ecosystem, the answers are there before you get the chance to ask. How does this work?

The data in IP Fabric originates from the network itself, and its authenticity can be leveraged by feeding the data from IP Fabric into other tooling, for example:

- Ensuring inventory and location data is synchronised with the CMDB
- Matching SNMP configuration with monitoring platform at onboarding time
- Querying IP Fabric data via Chatops

Here’s what our customers say

“

The source of truth and accuracy of data that is comes through the snapshot from IP Fabric empowers our developers to deliver on our self-service network automation.

Guruprasad Ramamoorthy,
Global Head of Network Architecture at S&P Global

“

If I had the budget to buy only one product that would immediately benefit both traditional network engineers and accelerate network automation projects it would be IP Fabric.

Major League Baseball

More resources

- Learn more about our journey toward the self-driving network.
- Listen to a podcast: From Design to Source of Truth.
- Read about our API programmability to enhance automation workflows.

About **IP Fabric**

IP Fabric is solving Network Assurance for large enterprises by creating a digital twin of the entire network infrastructure, containing information about every technology and protocol, and capable of simulating forwarding and security scenarios. IP Fabric's network model is also used as a Network Source of Truth for network automation initiatives, serving as an API for the entire network. IP Fabric was recognized by Gartner as Cool Vendor in Network Automation for 2022.

Don't take our word for it and try our

Self-Guided Demo

Discover for yourself how you can increase your network's visibility and maximize your time efficiency.

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