



IP FABRIC



IP Fabric | Itential

Integrated Network Discovery & Automation



Challenge

Everybody has heard of network automation, and most want to implement network automation projects, but very few are doing it successfully, and at a pace that suits their network growth.

It's resource intensive, there's plenty that can go wrong – all in all, a daunting task, made worse if network team don't have visibility into the state of their ever-growing, increasingly complex network.



Solution

IP Fabric is a Network Assurance Platform that automates discovery and documentation – an immediate win that knocks out 90% of the manual work you need to even start an automation project. From there, IP Fabric continuously validates that your automation workflows align with your intent.

The Itential Automation Platform is a low-code solution that seamlessly connects IT systems with network technologies for rapidly designing deploying end-to-end network automation workflows.

Together, they allow teams to forge ahead on automation projects without distrust in change processes, without the fear of network unknowns, and with a clear picture of how every deployment will affect your network as a whole.

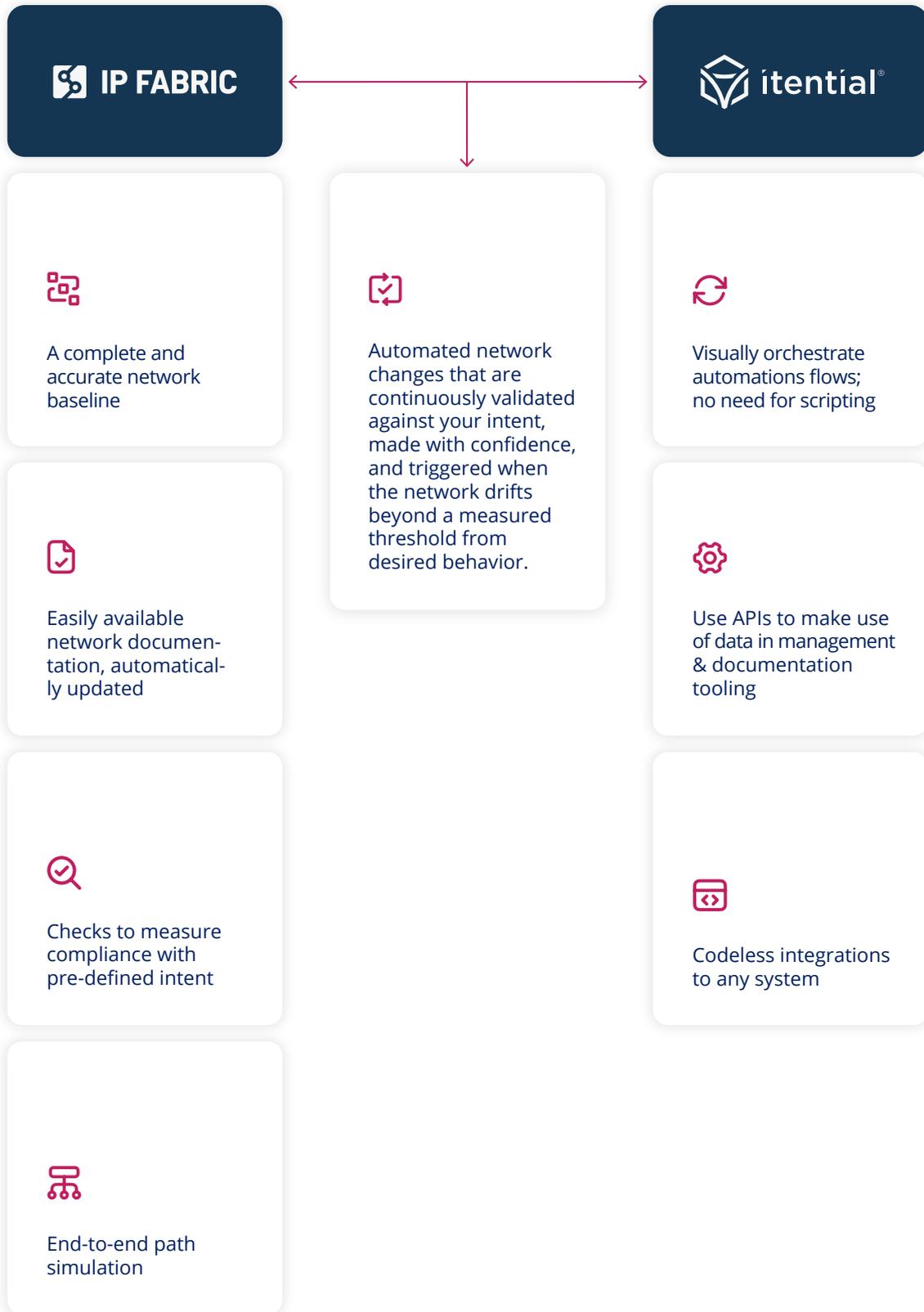
Accelerating your network automation with confidence - buoyed by network assurance - sets you up for a smooth road to the eventual self-driving network.



Benefits

- Increase the pace of your automation efforts
- Automate 90% of automation effort
- Add an intent-based approach your network management
- Proactively understand your network connectivity, configuration, and compliance
- Make automation tooling more accessible to teams with different skills sets

IP Fabric | Intential





What is Network Assurance?

01

Inventory

Have an accurate and complete inventory of your network, always up-to-date through automatic discovery and documentation.

02

Configuration

Know where all devices are in the network and know that the appropriate configuration is applied.

03

State

See, through point-in-time snapshots, that configurations are being interpreted by all devices correctly to deliver forwarding behaviour on each device as expected. No matter the device vendor, this data is normalized for a unified view.

04

Topology

See exactly how each device sits in the wider context of the network, giving you a 'big picture' perspective. By making use of the state information, we infer the relationships between devices across multiple layers.

05

Forwarding Behavior

Using all the data from these layers of interpretation to create a network model; insight into forwarding behavior end to end. This enables monitoring of application behavior across the entire network.

What can you do with all this information (provided by IP Fabric) in your automation workflows (built using Itential)?

- Use IPF in your automation workflow to identify the devices, for example, you want to target in an automation workflow, adding a targeted approach and nuance to your workflow building.
- Test the workflow after implementation to ensure the network is behaving as expected
- Validate your network source(s) of truth
- Use snapshots of the network to trigger automation projects should your network behavior drift from desired intent.

The Source(s) of Truth with IPF & Itential

On this oft-debated topic, Itential and IP Fabric both takes the stance of there being multiple sources of truth that are considered when applying an intent-based networking approach.

Network automation generally - and intent-based networking specifically - requires that you can express an intent against which you build and test your network state. It is rare that intent is represented in a single system or "Source of Truth" especially as the network continues to grow in size and complexity. Large enterprises will typically use a plethora of systems and tools which are incredibly difficult to keep consistent and updated. Itential's Automation Platform has API access to all of these systems and thus can use them to provide data to the automation process; and IP Fabric fetches the same data from the network itself - regardless of domain and vendor - and so can be used to validate that those Sources of Truth contain accurate representative data.

Use Cases

- Network changes
- SD-WAN Migration
- Deployment of a New Service
- Service Assurance Inventory Sync & Reconciliation



More Resources

- IP Fabric: Automate & Innovate 2022. Watch the presentation [here](#).
- NFD at CLUS2022 - Automation with Assurance. Watch the presentation [here](#).
- Kristen Rachels: Redefining Network Automation as a State of Mind. Read the post [here](#).
- Daren Fulwell: "Network Automation is a point solution". Read full article [here](#).



About IP Fabric

IP Fabric is a vendor-neutral network assurance platform that automates the holistic discovery, verification, visualization, and documentation of large-scale enterprise networks, reducing the associated costs and required resources whilst improving security and efficiency.

It supports your engineering and operations teams, underpinning migration and transformation projects. IP Fabric will revolutionize how you approach network visibility and assurance, security assurance, automation, multi-cloud networking, and trouble resolution.



Don't take our word for it

See how assurance can transform your approach to network management.

[Access the demo](#)



Support & Documentation
<https://docs.ipfabric.io>



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