



The bridge to possible

IP Fabric – Network Assurance in Action

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BRKPAR-2365

Network Assurance in Action

Four practical use cases

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Agenda:

1. Why Network Assurance?

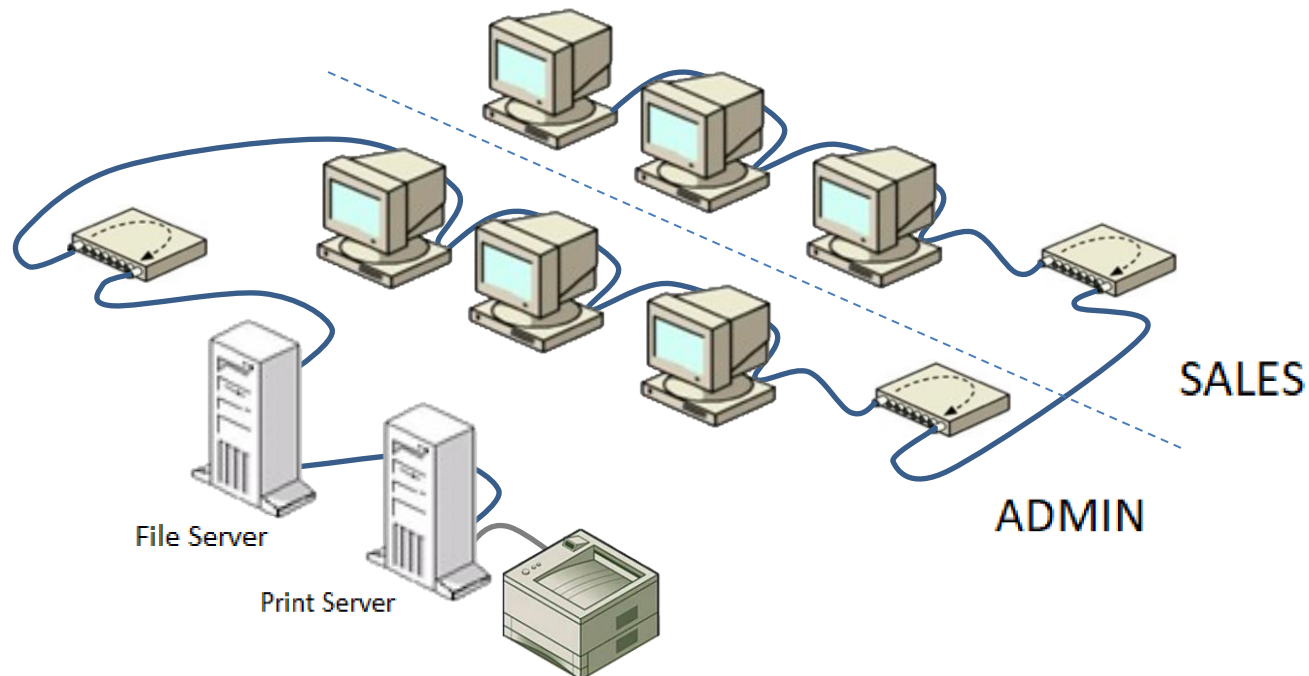
2. Use Cases

- 1. More Data for Faster Troubleshooting**
- 2. Better Visibility for Cloud Migration**
- 3. End-to-end Network Security**
- 4. A Foundation for Network Automation**

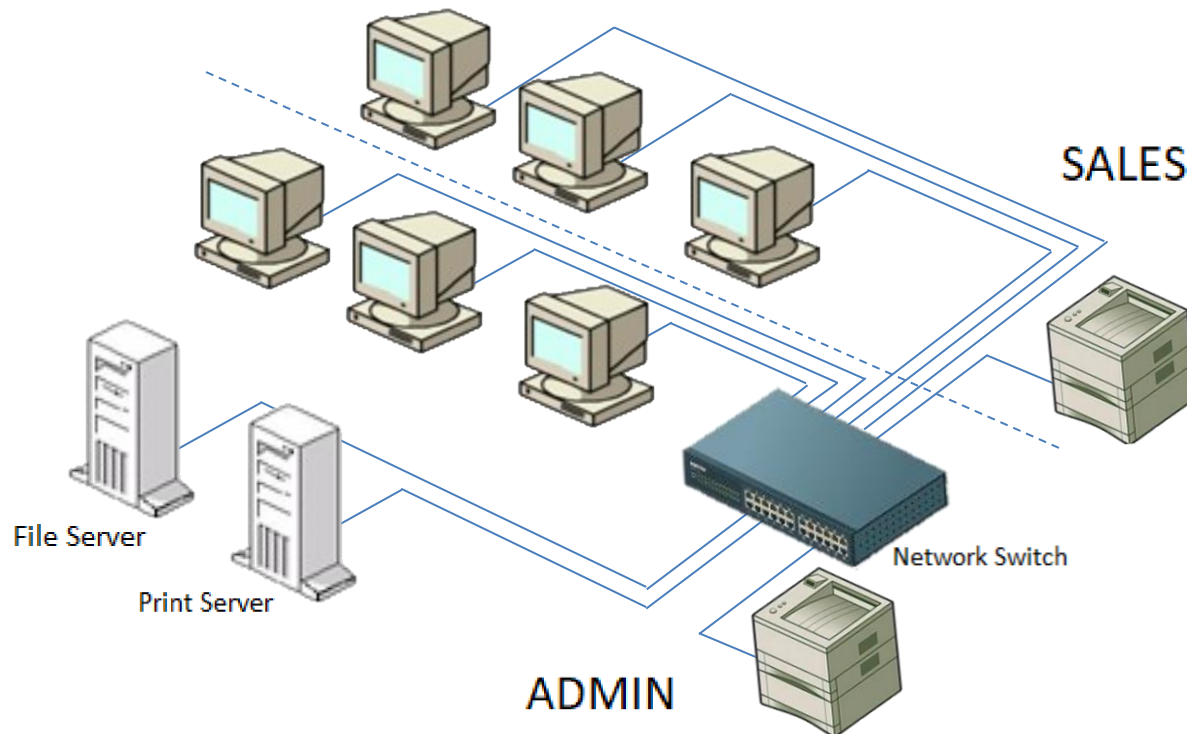
History



History



History



History

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MOSAIC
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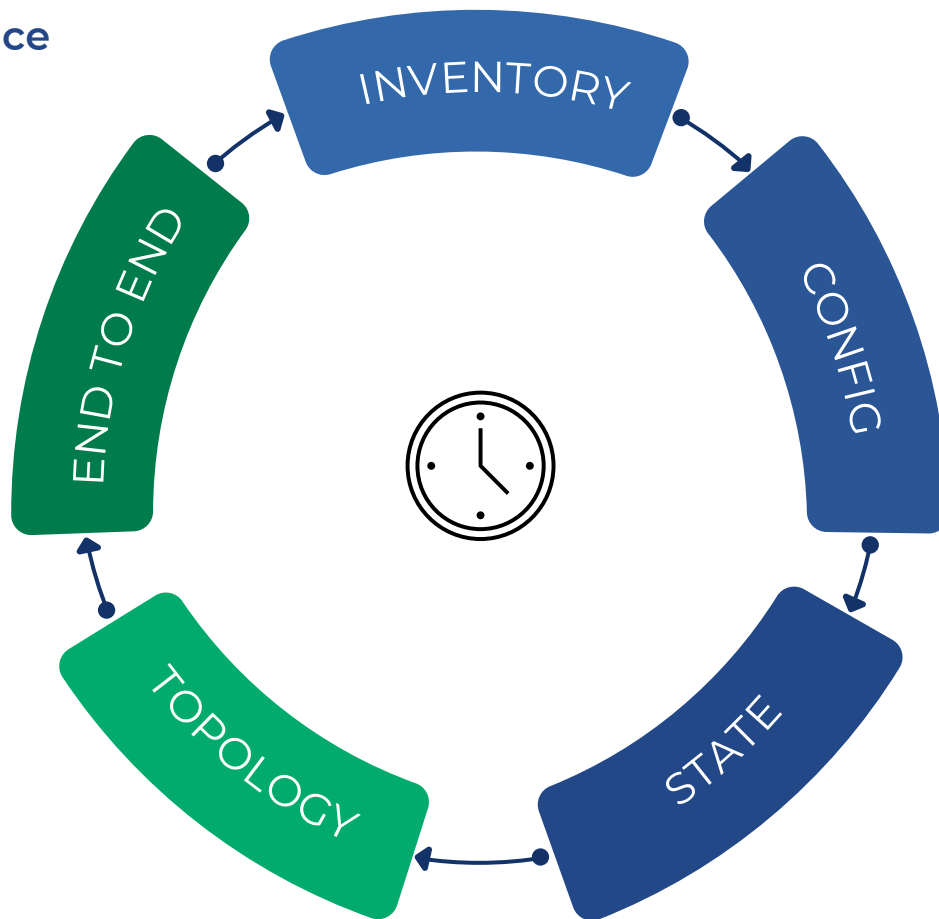
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Criticality

Complexity

Compliance

Network Assurance



Criticality

Complexity

Compliance



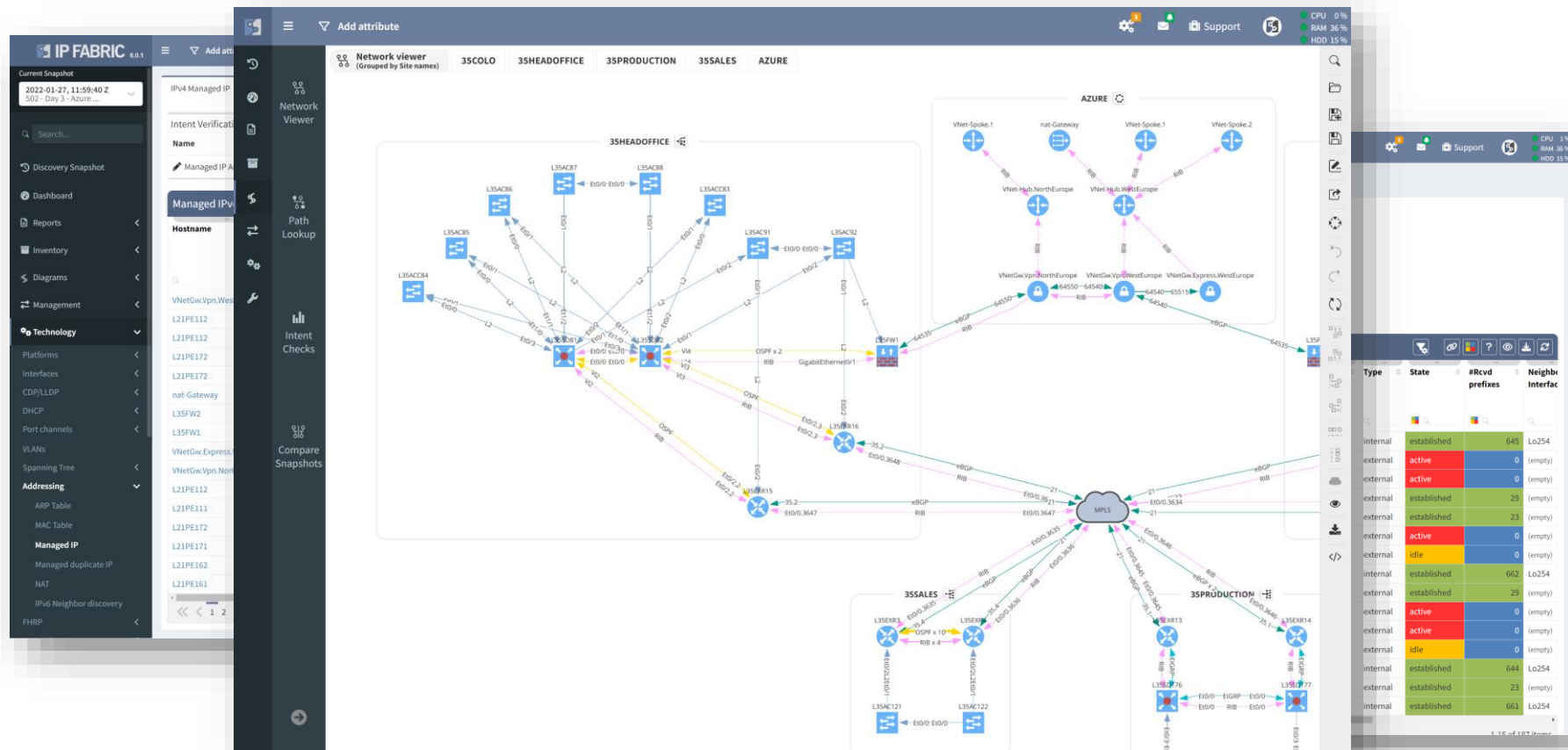
Use Cases



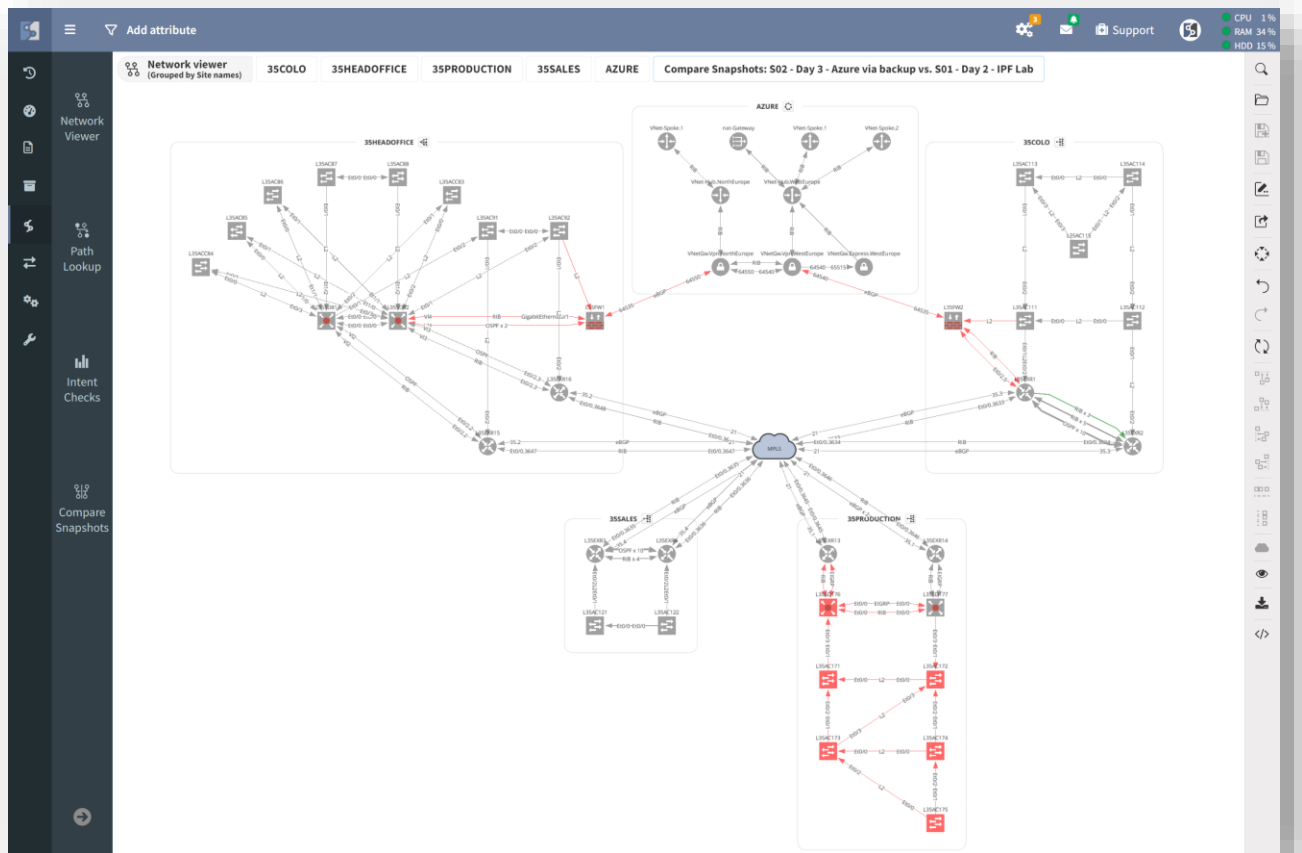
—• Faster Troubleshooting

- When an issue arises, is my documentation **complete**? Can I **trust** it?
- Do I know that I will see **problems** when they occur?
- Where do I **start** looking when something breaks?
- What **changed**?
- Can I prevent issues arising **proactively**?

- **Faster Troubleshooting**



What Changed?



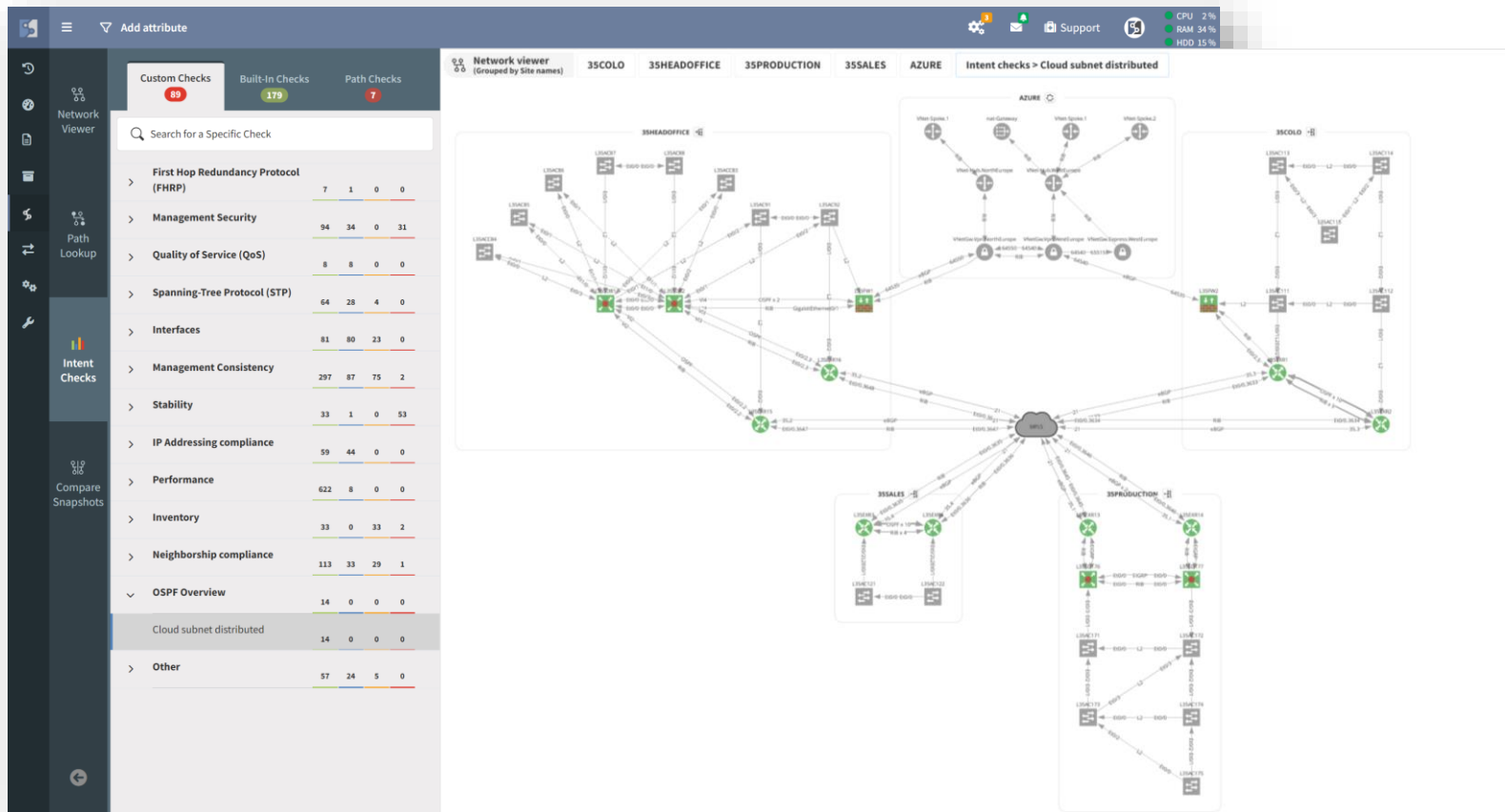
Proactivity



• Multi-Cloud Migration

- What does **migration** to the Cloud involve?
- Do I have full **visibility** to and in my Cloud environments?
- Can I **collaborate** with my Cloud team colleagues?
- Are the Cloud instances appropriately **secured**?

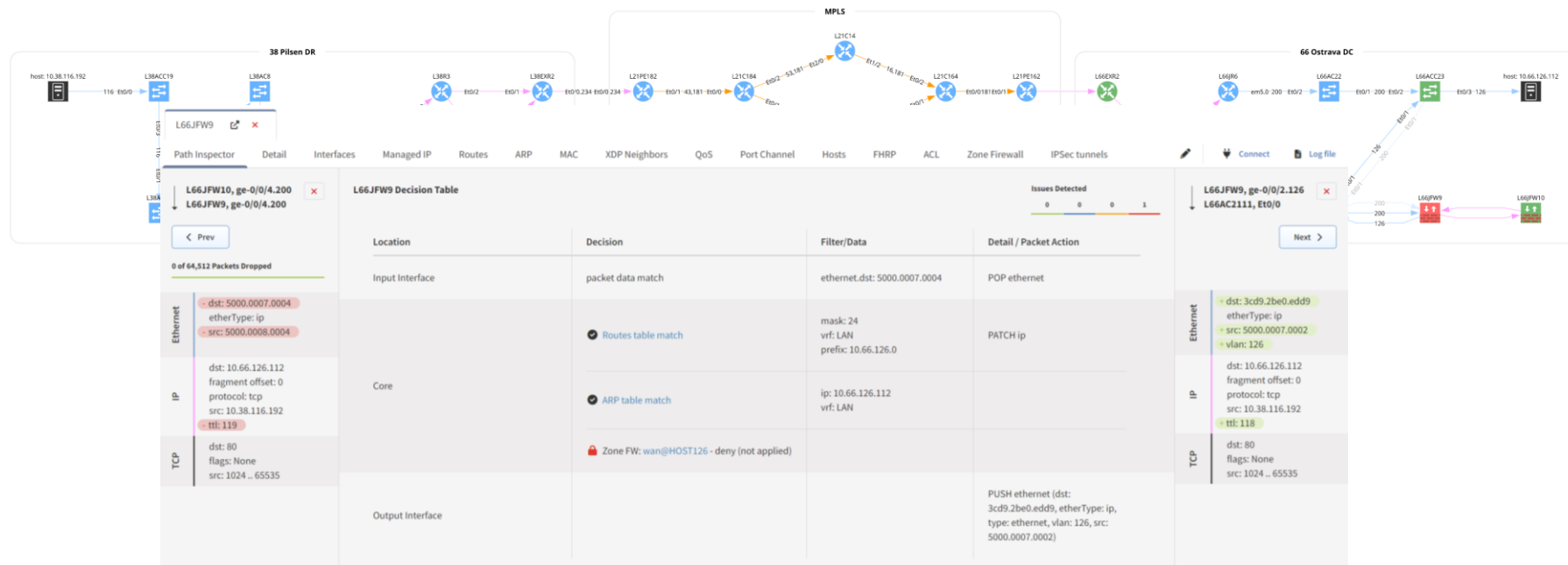
Routing check



• End-to-End Security

- Am I adequately protecting **access** to my network?
- Is my infrastructure **hardened**?
- Does my network **segmentation** protect against lateral movement?
- Do my security **policies** help prevent data theft?

- End-to-End Security



Automation Foundation

- Do I need to **gather** network data, **parse** it, **normalize** it, **structure** it, so I can **consume** it?
- Is my **Source of Truth** accurate and up to date?
- How do I spot **misconfigured** or **misbehaving** devices that need remediation?
- Can I **validate** that a workflow has delivered an outcome across the network?
- Can I **share** the data, insight and validation across my tooling ecosystem?

Automation Foundation

The screenshot displays the Postman application interface. The top navigation bar includes 'Home', 'Workspaces', 'API Network', and 'Explore'. A search bar is present with the text 'Search Postman'. The main workspace shows a REST client request for the endpoint `https://demo1.eu.ipfabric.io/api/v6.0/tables/routing/protocols/bgp/neighbors`. The request is a POST method with a JSON body. The body is expanded, showing a JSON object with the following structure:

```
1 {
2   "attributeFilters": {},
3   "columns": [
4     "hostname",
5     "siteName",
6     "localAs",
7     "localAddress",
8     "neiHostname",
9     "neiAddress",
10    "neiAs",
11    "state"
12  ],
13   "filters": {
14     "state": [
15       "color",
16       "eq",
17       "30"
18     ]
19   }
20 }
```

The response section shows a status of 200 OK, with a time of 309 ms and a size of 3.05 KB. The response body is expanded, showing a JSON object with the following structure:

```
1 {
2   "data": [
3     {
4       "hostname": "Branch-8",
5       "siteName": "VIPTELA",
6       "localAs": 200,
7       "localAddress": null,
8       "neiHostname": null,
9       "neiAddress": "10.2.1.245",
10      "neiAs": 200,
11      "state": {
12        "data": "active",
13        "severity": 30
14      }
15    },
16    {
17      "hostname": "L71P49/ipf",
18      "siteName": "L71",
19      "localAs": 4760846071
20    }
21  ]
22 }
```

• Ecosystem

ANSIBLE



netboxlabs

>>> network `.toCode()`

splunk®>

servicenow



Take aways

1. Need for structured, normalized data across whole network
2. Provide measurable insight into config, state, topology and behavior
3. Compliance and audit daily
4. Query and visualize
5. UI and API



Questions?



BOOTH B03

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Thank you

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ALL IN