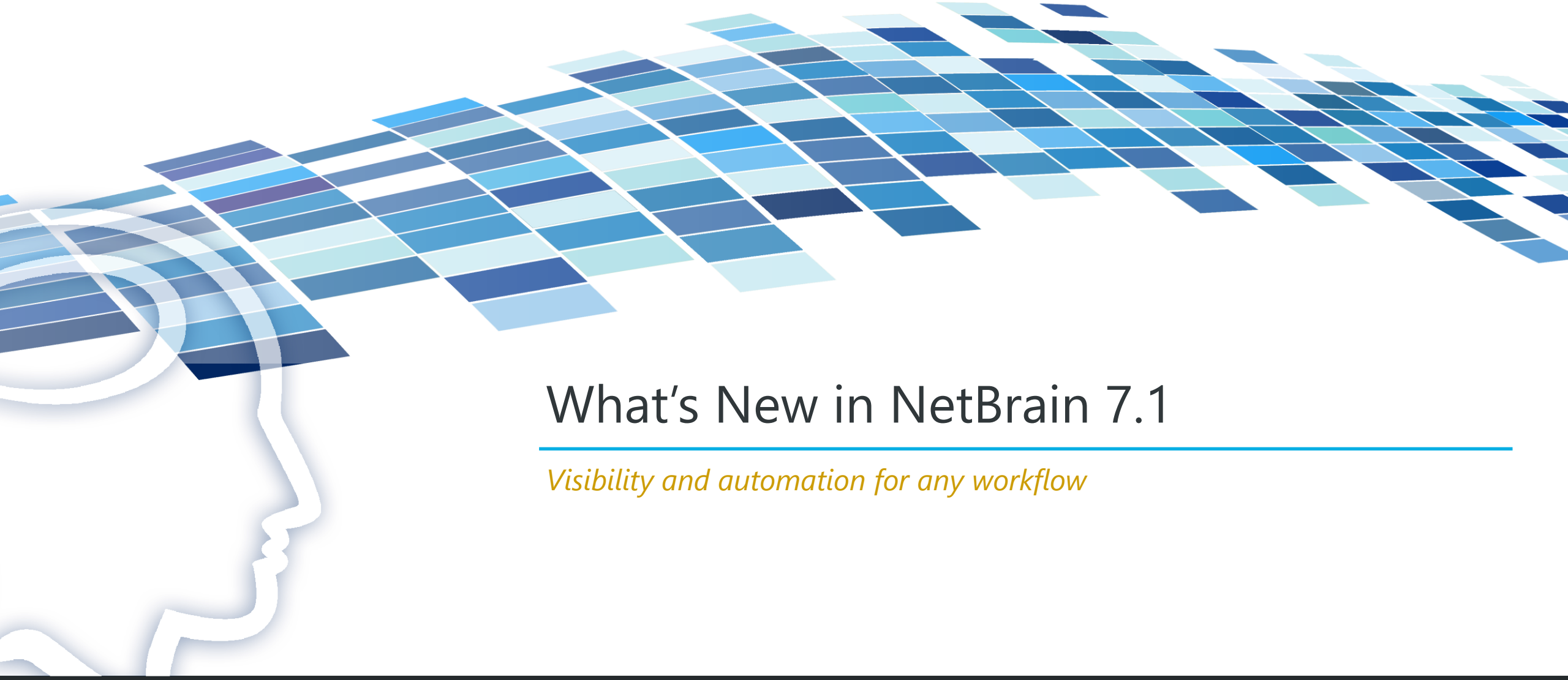

What's New in NetBrain 7.1

Visibility and automation for any workflow

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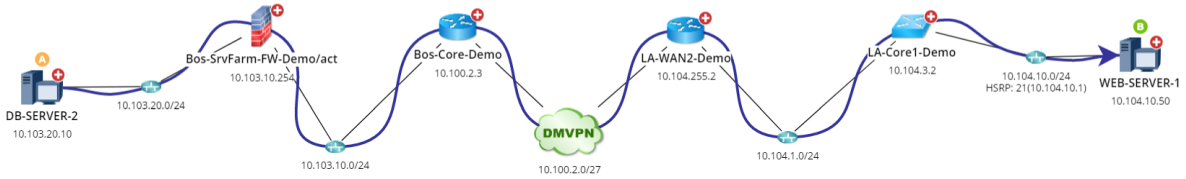
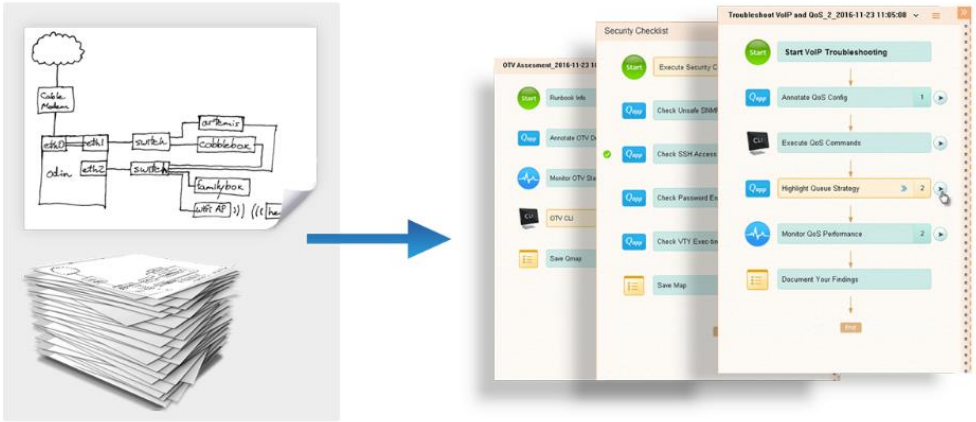
Enhance Existing Workflows with Visibility and Automation

Dynamic Map



A **Dynamic Map** is used to define the scope of any task, providing documentation of any IT data in a single pane of glass.

Runbook Automation



Runbook Automation documents any operational process to capture tribal knowledge and make it executable.

What's New in NetBrain 7.1

Better Visibility

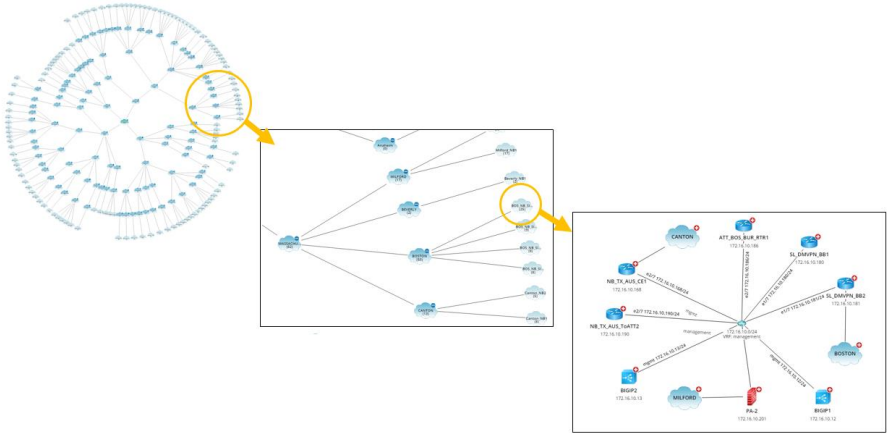
1	Visibility & Automation for SDN	End-to-end visibility across Cisco ACI and hybrid infrastructures
2	Network Context	Customizable views to document and share network knowledge
3	Tag-Based Auto Layout	Customize map layouts across many sites in a batch

Advanced Automation

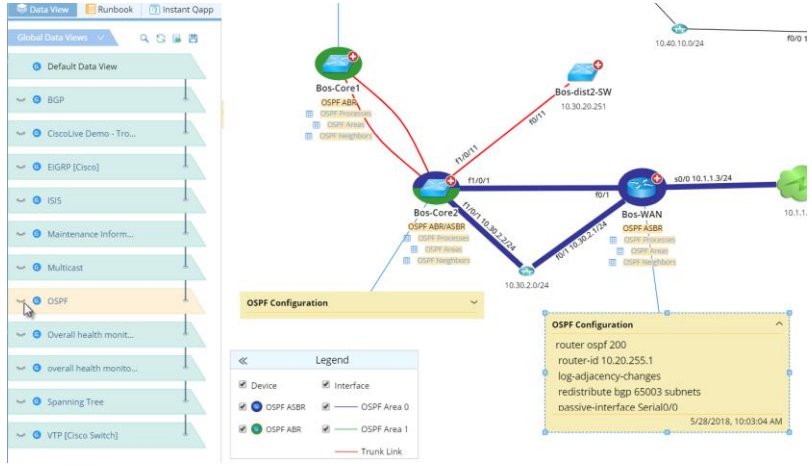
4	Introducing Gapp	Narrow down a problem scope with multistage automation
5	Introducing Qapp Scheduler	Enable problem-based monitoring and best practice enforcement
6	Enhanced Runbook	Automatically document user activity inside a runbook
7	Enhanced Change Management	Integrate with your existing change management process
8	Enhanced Qapp	More flexible, more powerful, easier to write.

Dynamic Map

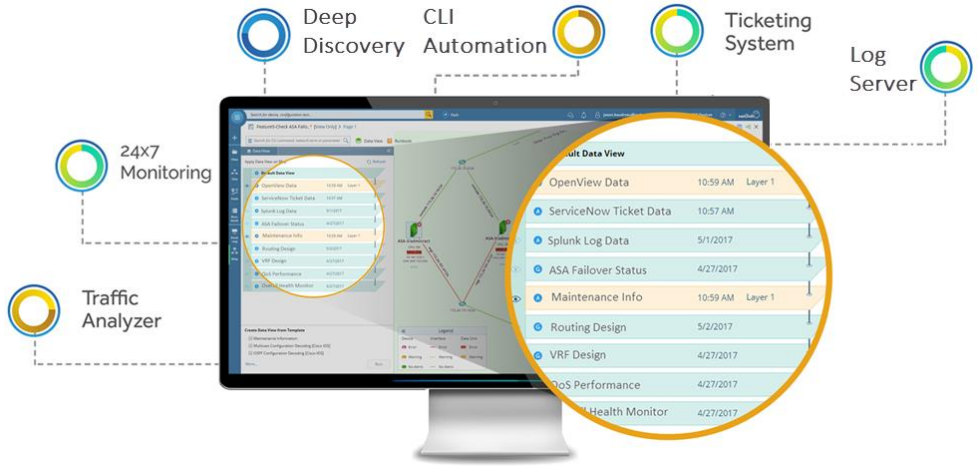
Review: Top Use Cases for Dynamic Map



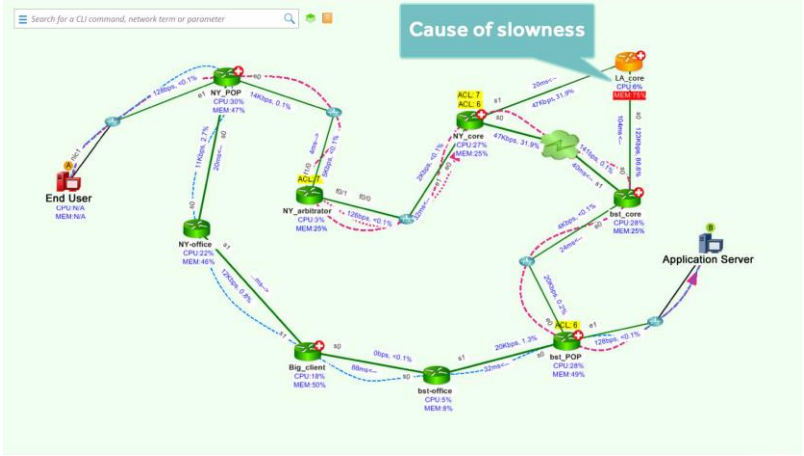
Automate Network Documentation



Share Knowledge about New Designs



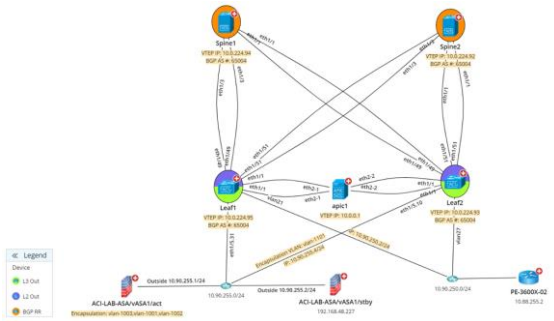
Eliminate Data Islands



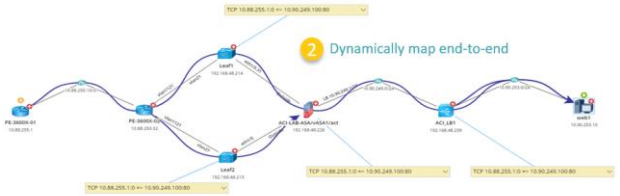
Isolate and Diagnose Problems

Visibility and Automation for SDN

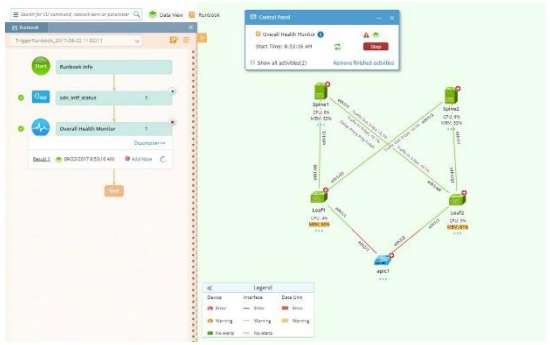
Visibility for SDN and Hybrid Networks



Map: Visualize SDN constructs alongside legacy networks and decode logical overlay/underlay dependencies.



Path: End to end path for the entire application traversing through both legacy networks and SDN fabric.

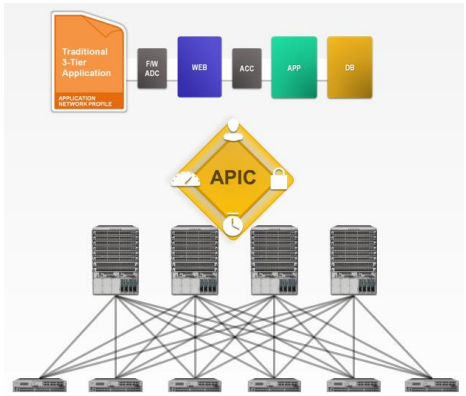


Runbook Automation: Achieve “just in time” diagnostics by triggering runbook execution based on an APIC event.

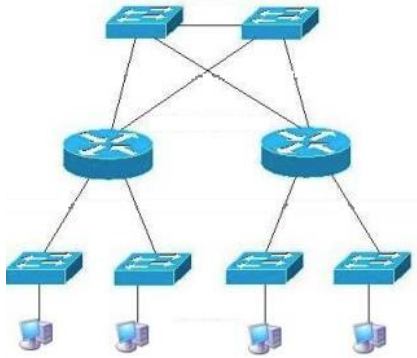
Visibility for SDN and Hybrid Networks

How it Works

Cisco ACI Fabric



Legacy Network



Hybrid Network

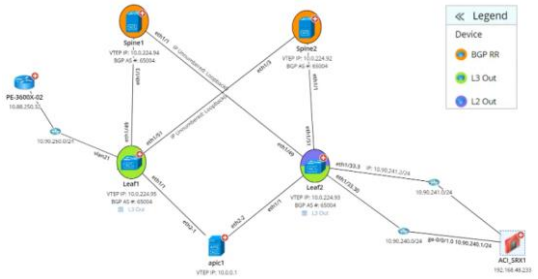
REST APIs

Telnet/SSH

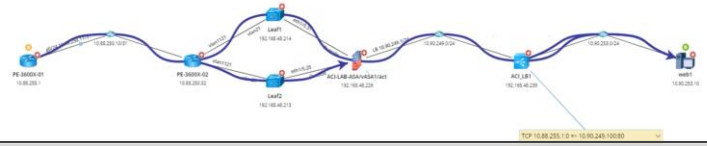
NetBrain

Discovery & Modelling Engine

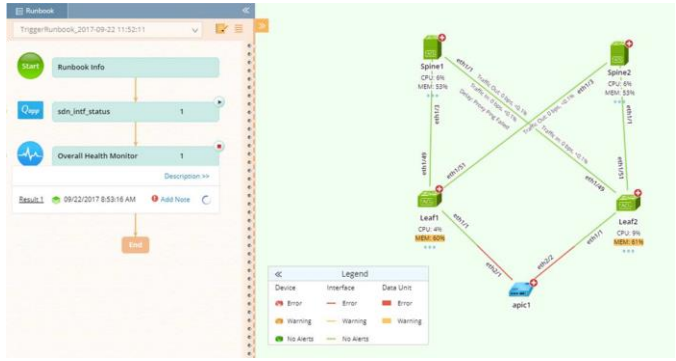
Hybrid Map



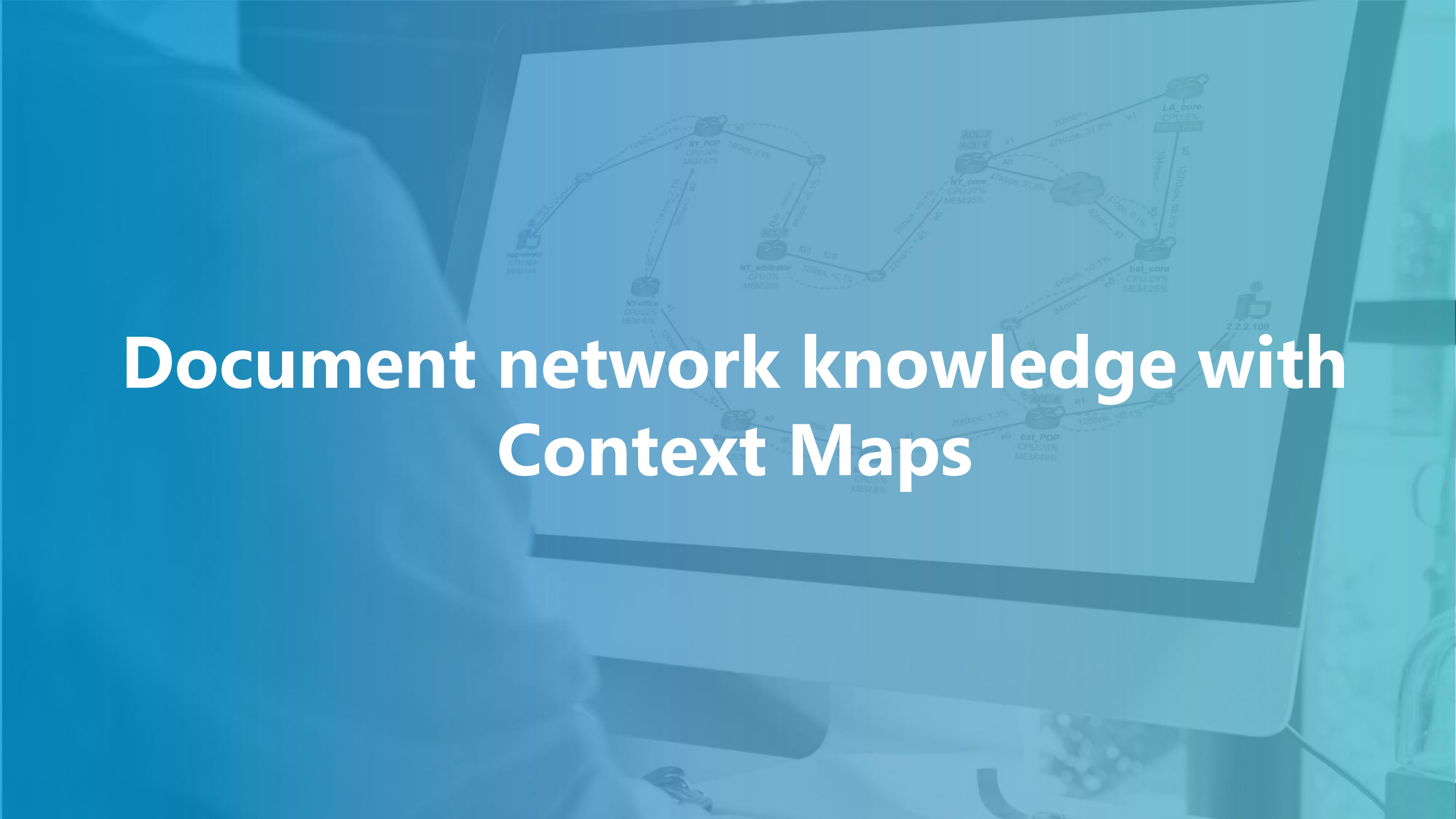
End-to-End Path



Runbook Automation



Mapping & Automation

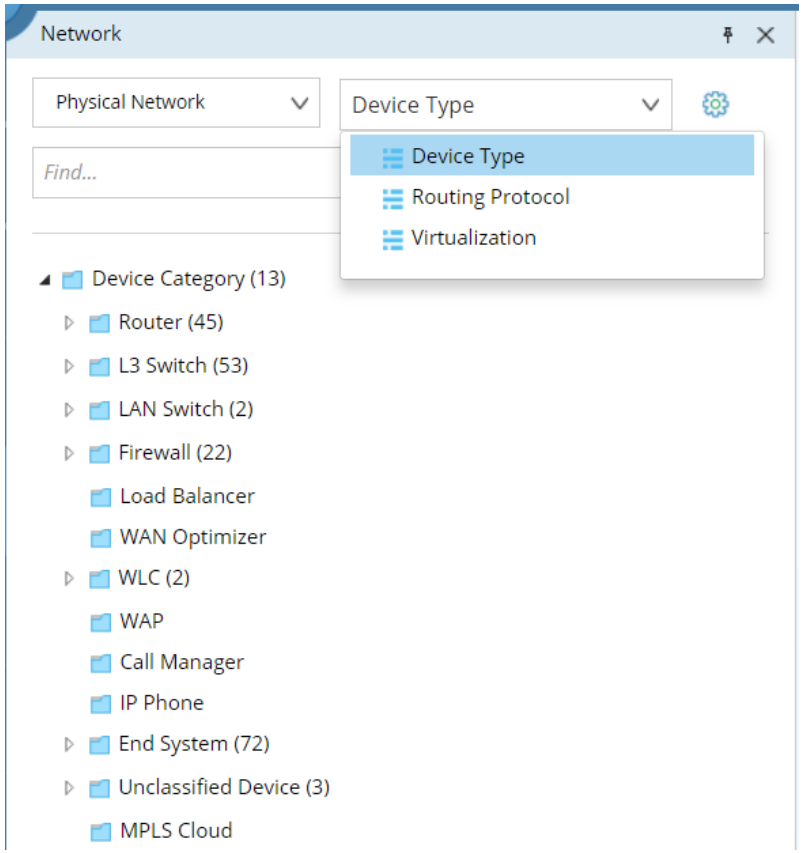


Document network knowledge with Context Maps

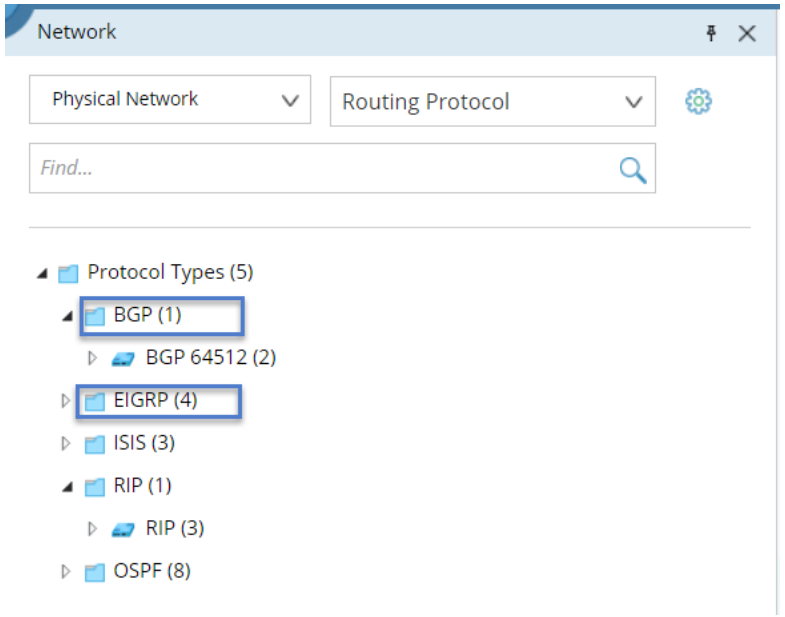
Network Context

Different views to organize and contextualize your network devices.

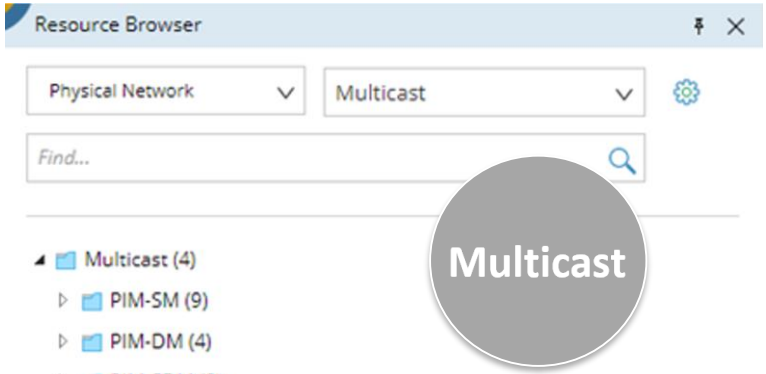
By device type (built-in)

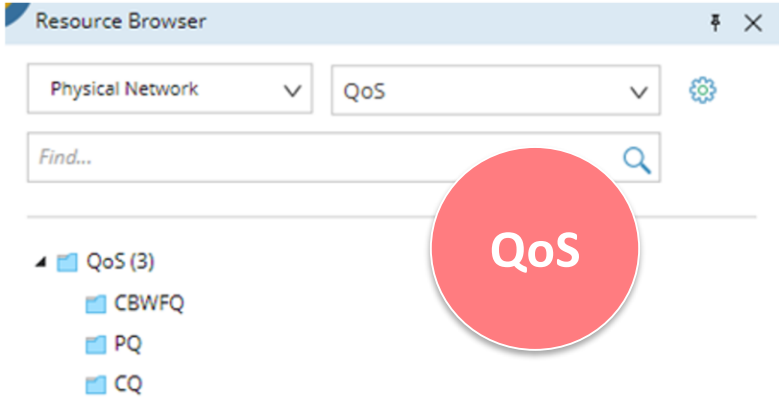


By routing protocol (built-in)



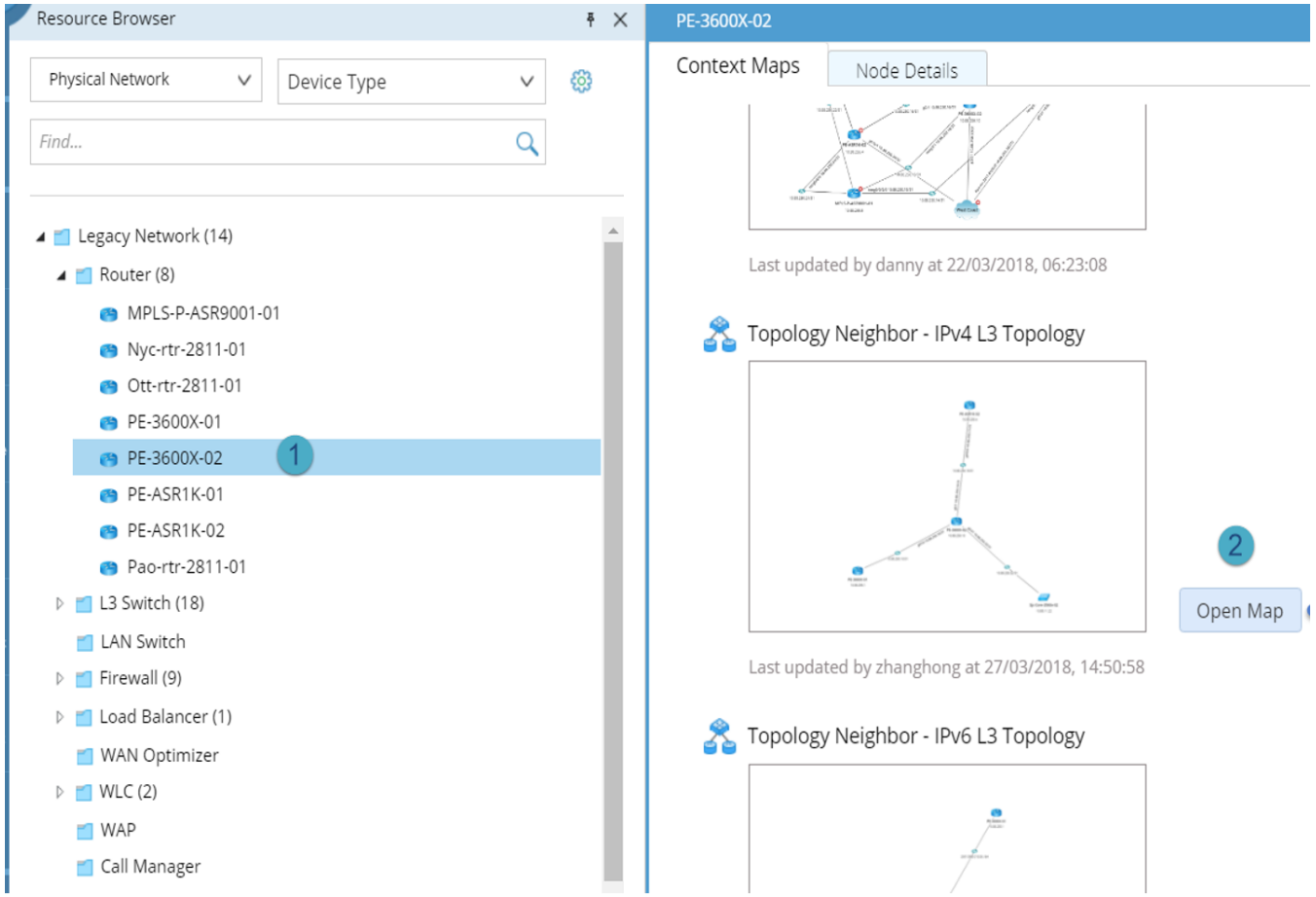
Some ways to customize your own





Network Context

Get more context around a particular device



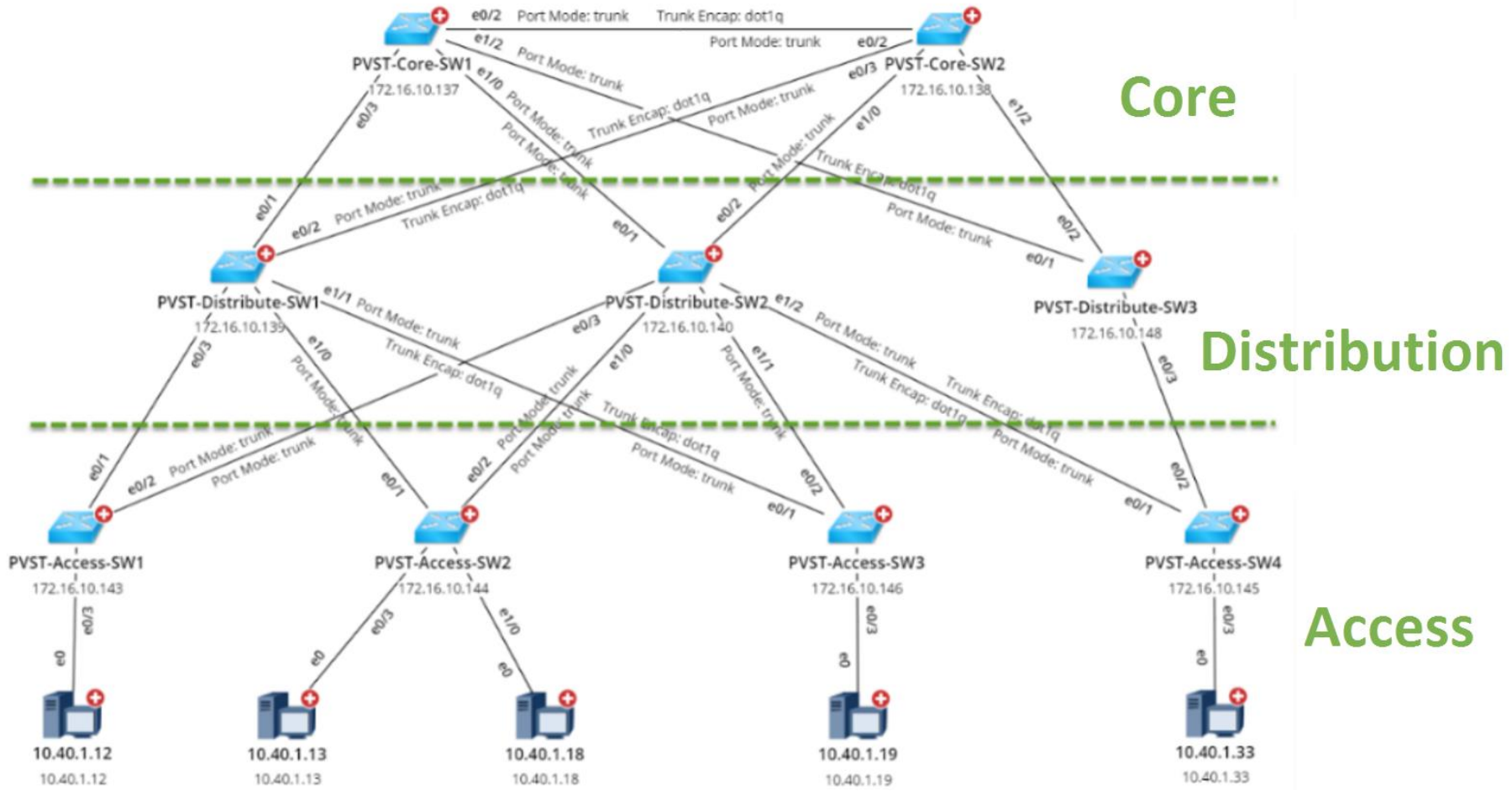
Built-in Context Maps

- IPv4 L3 neighbor topology
- IPv6 L3 neighbor topology.
- L2 neighbor topology
- Site Map which device belongs to.
- Device Group which device belongs to.

Automatically organize maps with tag-based layouts

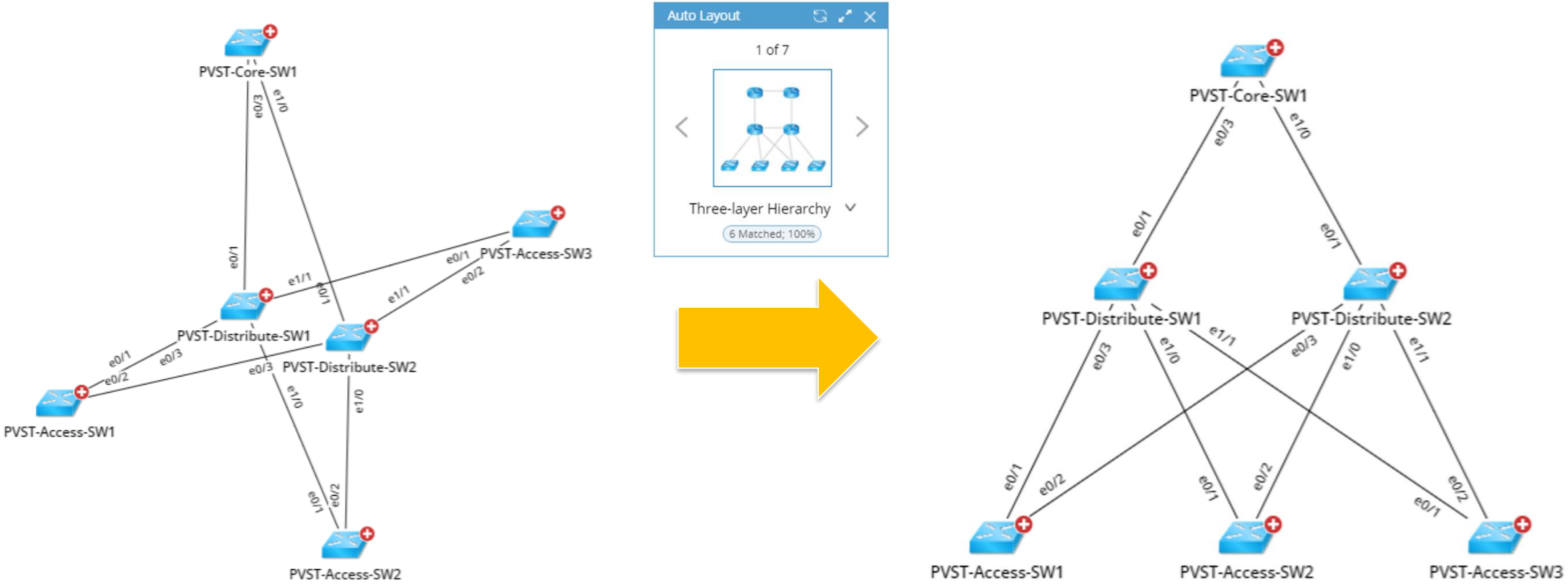
Tag-Based Auto-Layout

Create a layout, save it as a sample, and associate the sample with several sites automatically



Tag-Based Auto-Layout

Apply customized layouts to a map



Tag-Based Auto-Layout

Defining a template

1 Assign tags to devices

Layout Style | Assign Tags | Layout Association

By Device Group | **By Search Term** | Import Device Tags

2 Devices Found Delete All Tags

Device Name	Layout Tags
PVST-Core-SW1	Core
PVST-Core-SW2	Core

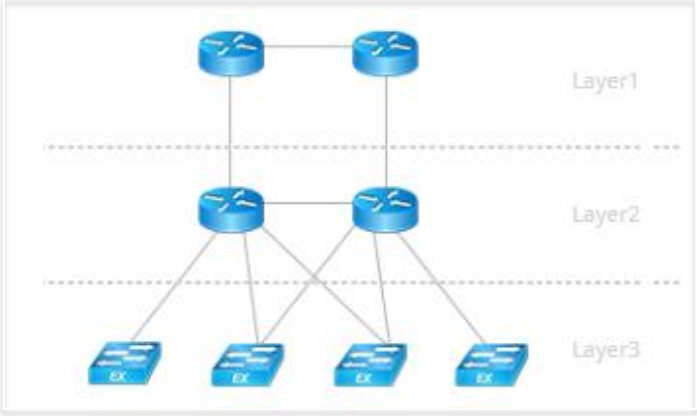
4 Devices Found Delete All Tags

Device Name	Layout Tags
PVST-Distribute-SW1	Distribution
PVST-Distribute-SW2	Distribution
PVST-Distribute-SW3	Distribution
PVST-Distribute-SW4	Distribution

5 Devices Found Delete All Tags

Device Name	Layout Tags
PVST-Access-SW1	Access
PVST-Access-SW2	Access
PVST-Access-SW3	Access
PVST-Access-SW4	Access
PVST-Access-SW5	Access

2 Divide map into layers



3 Use tags to assign devices to each layer

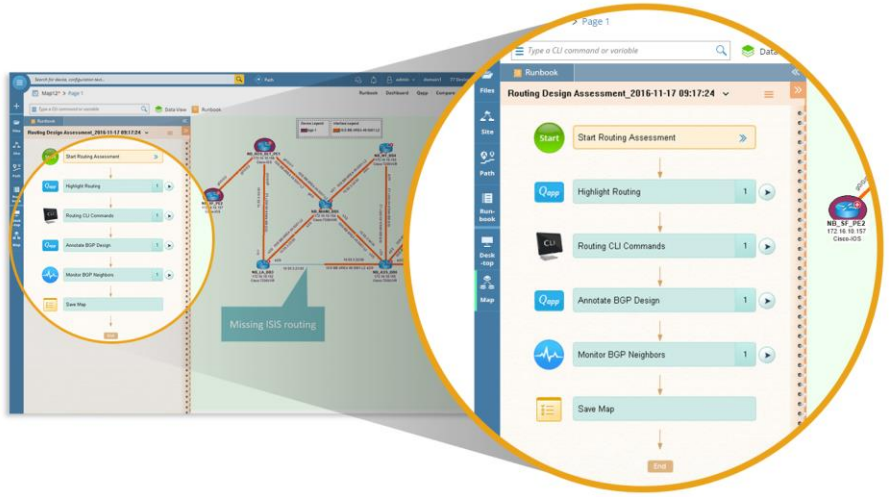
+ Add Layer

Layer	Associated Tags	Maximum Devices per Row	Device Icon Size
Layer 1	Core	8	Medium(100%)
Layer 2	Distribution	12	Medium(100%)
Layer 3	Access	20	Medium(100%)

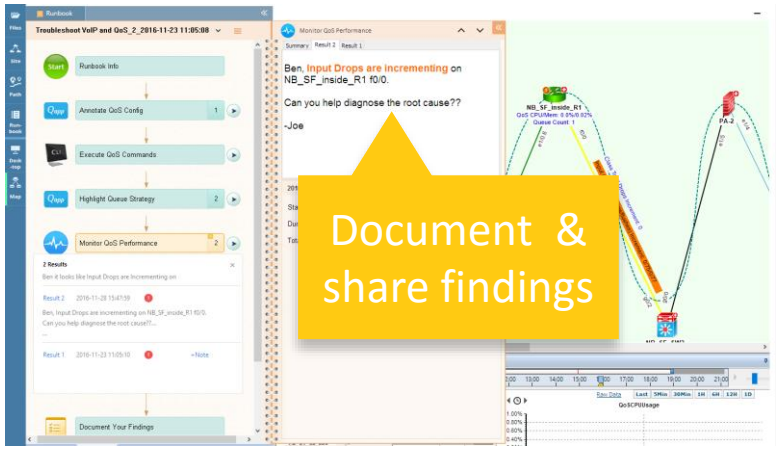
Adaptive Automation

NetBrain™

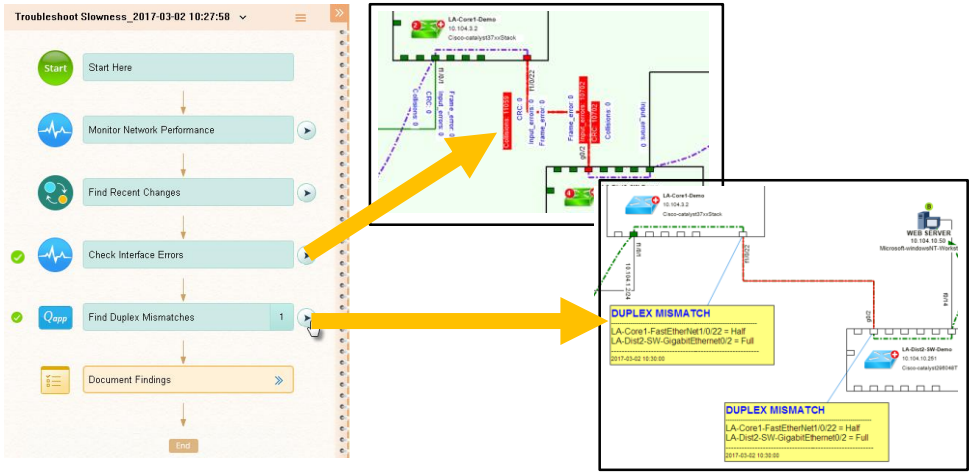
Review: Top Use Cases for Adaptive Automation



Share network know-how

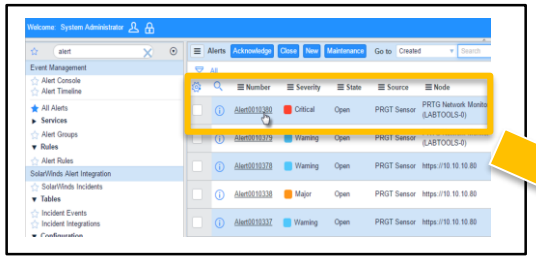


Document processes for collaboration & hand-off

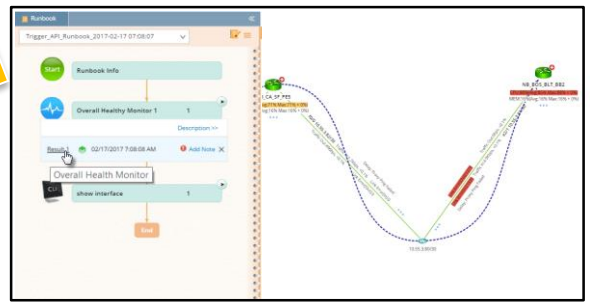


Write once, execute anywhere

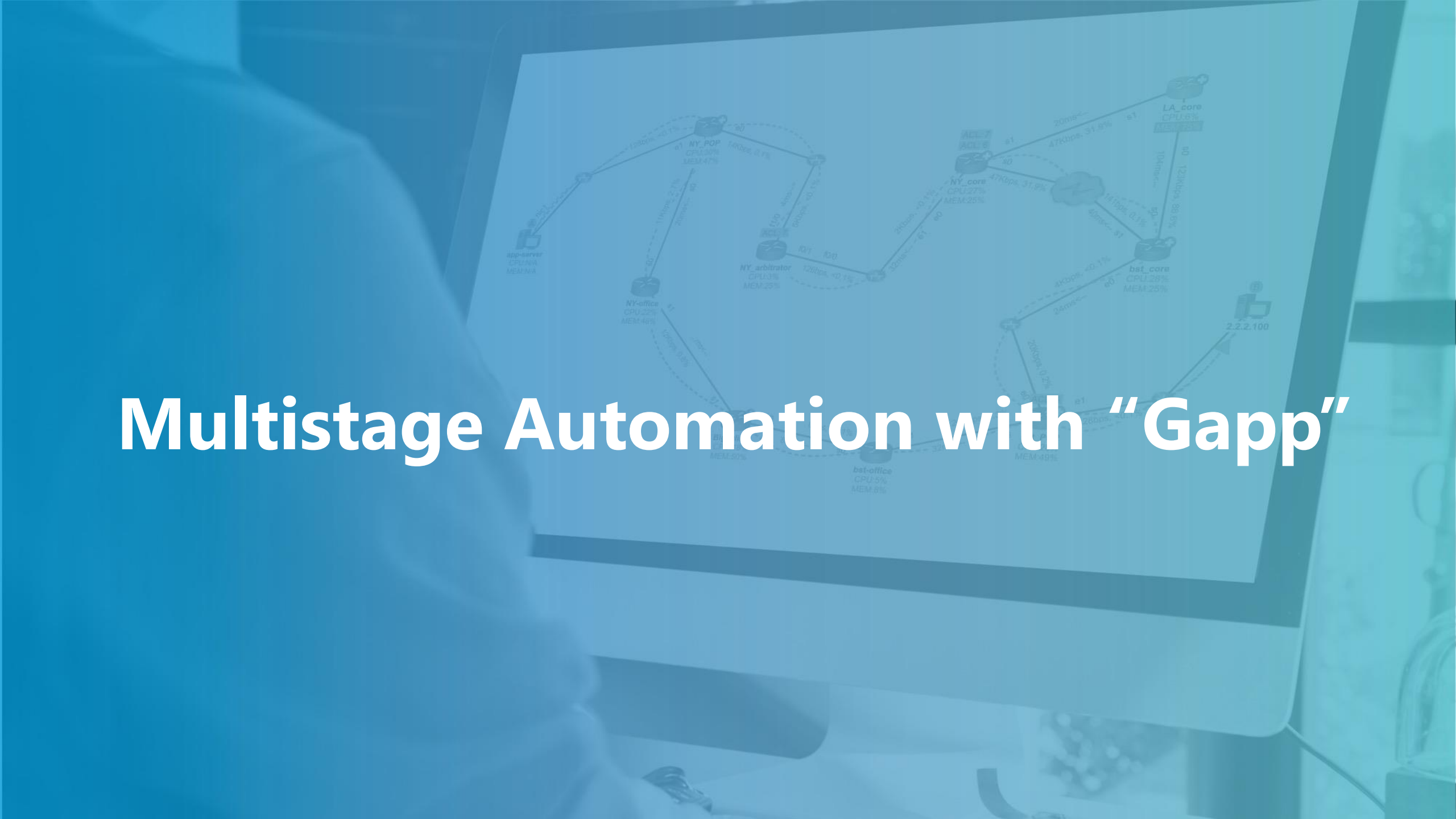
1 Ticketing system alert



2 API-triggered diagnosis



Achieve “just in time” automation, triggered by an event



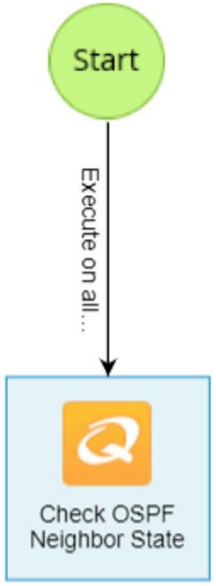
Multistage Automation with “Gapp”

Multistage Automation with **Gapp**

Gapp: Daisy-chain Qapps in a logical manner. Downstream Qapps only runs against devices with upstream alerts

Example: Identify root cause of OSPF neighbor issue, based on common checks

Step 1: Start with all devices in the problem scope. Triage diagnosis based on detected neighbor state.



Step 2: If Qapp detects neighbors in *Init* state, pass device to downstream Qapp which checks whether network types match.

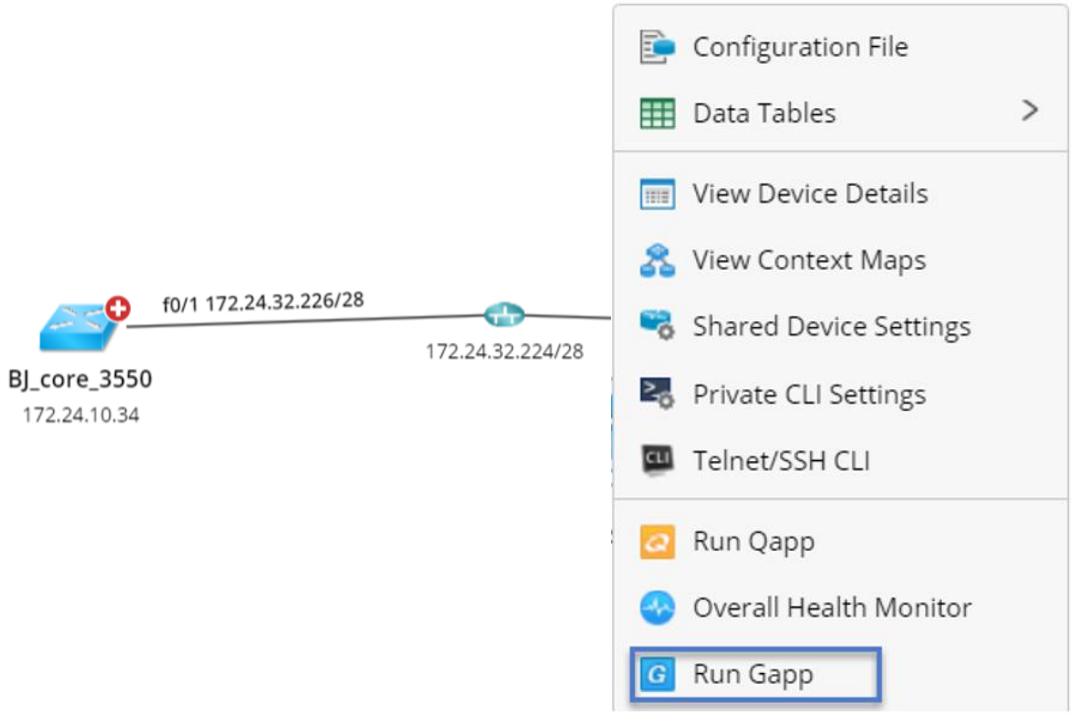
Step 3: If network types match, continue diagnosis... Next Qapp will check OSPF authentication...

Etc...

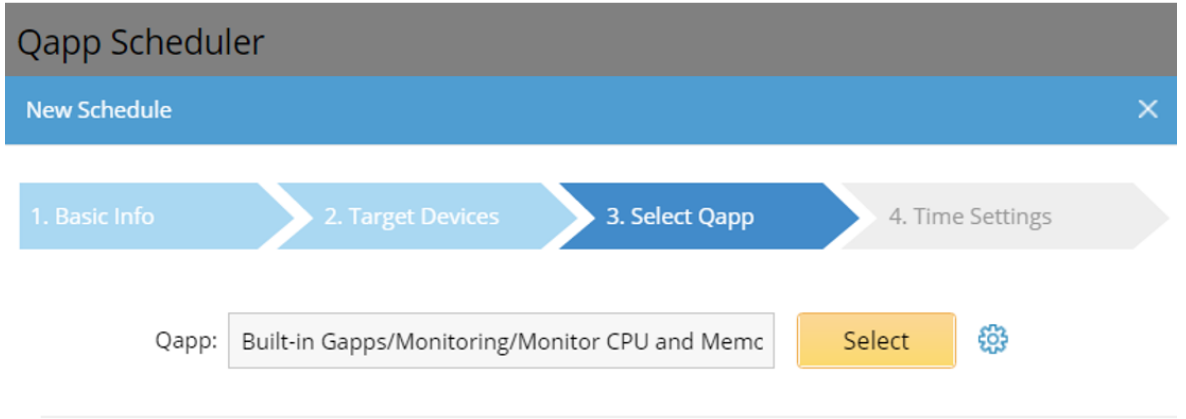
Multistage Automation with **Gapp**

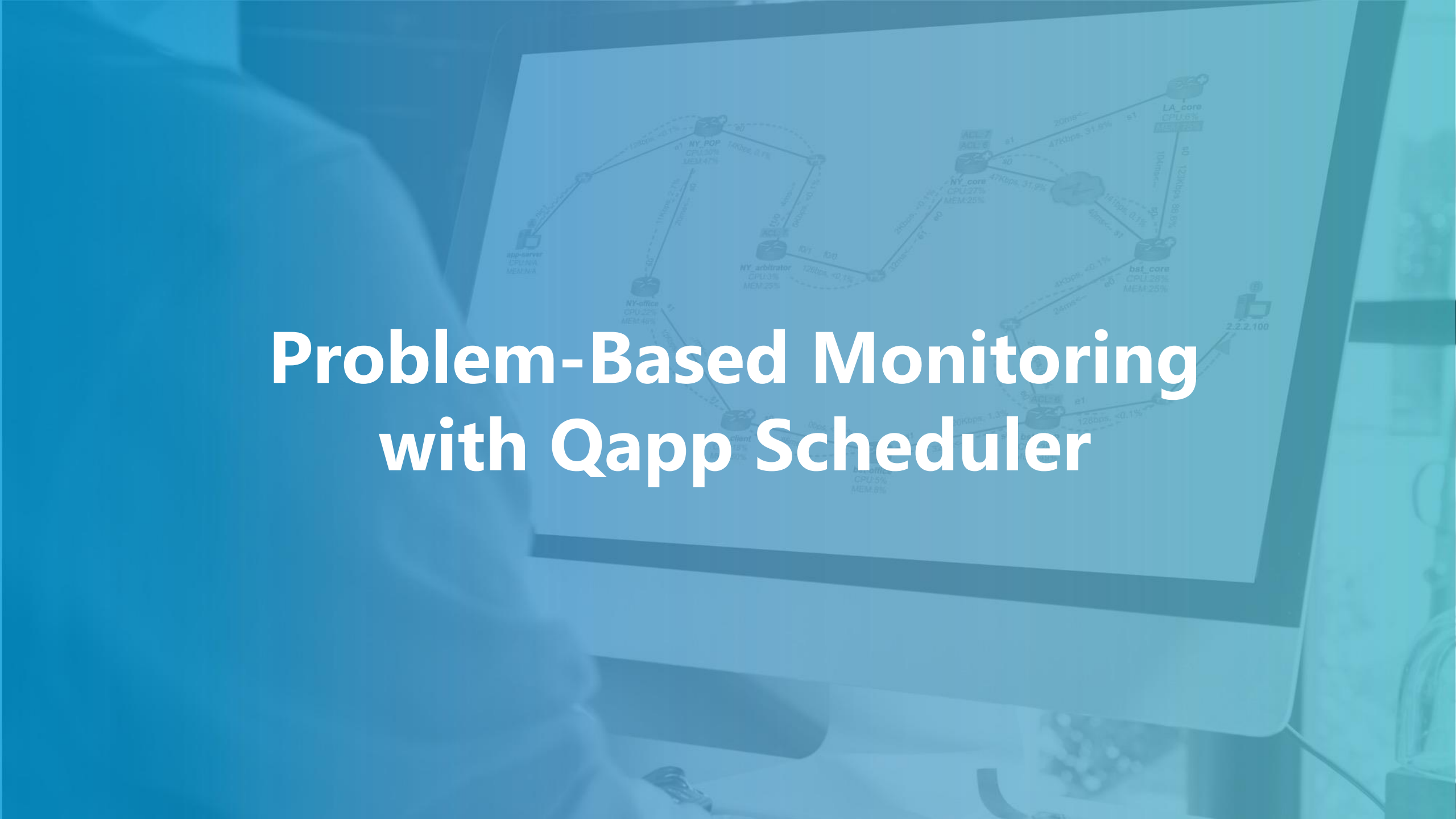
Two ways to run a Gapp:

Run from any map



Schedule to run on a set of devices



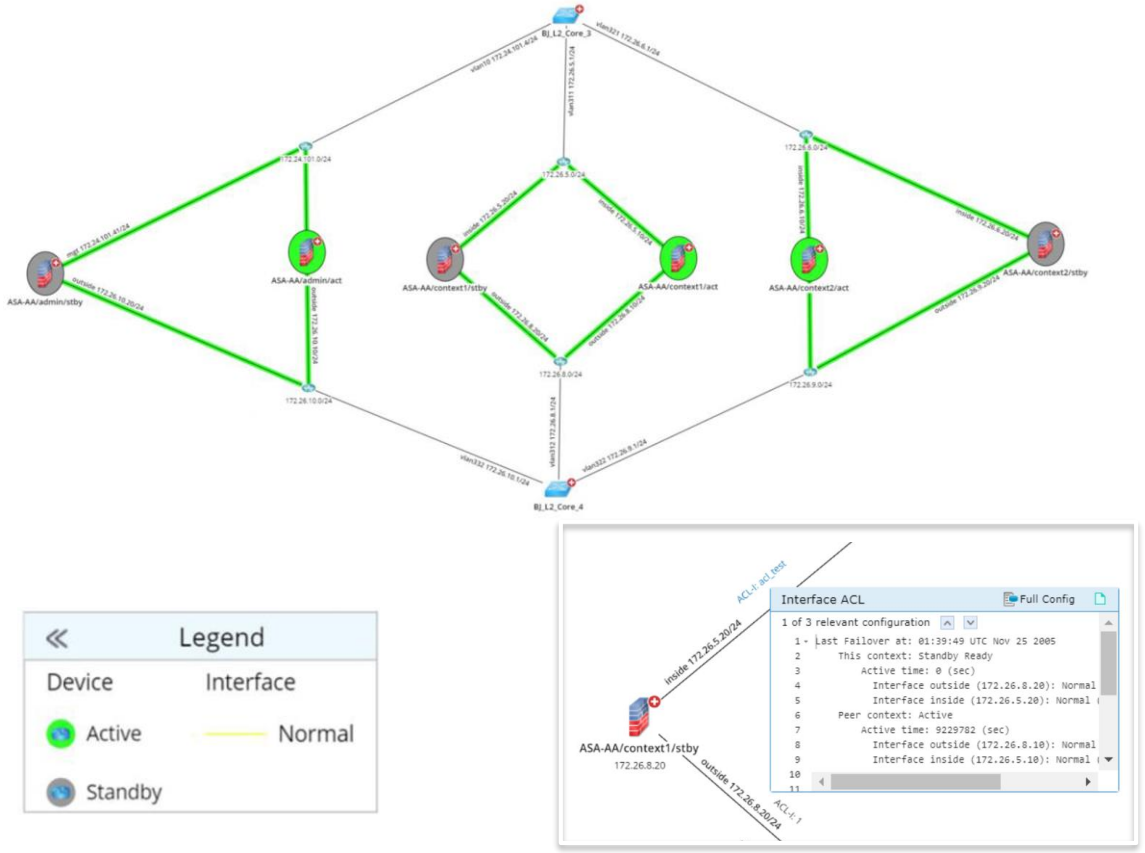


Problem-Based Monitoring with Qapp Scheduler

Problem-based Monitoring with **Qapp Scheduler**

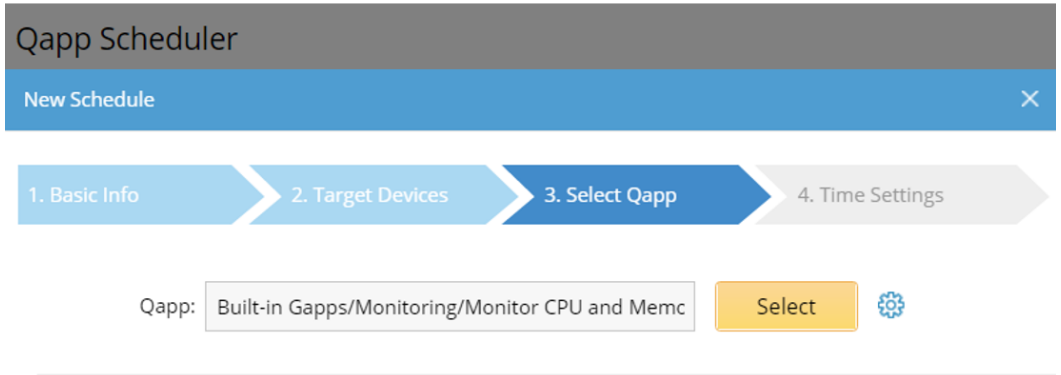
Suppose last month there was a 10 hour outage.

Cause: Bad ACL on an ASA that failed over



How can you minimize the impact next time?

Schedule a Qapp to monitor for this problem proactively



Step 1: Target devices in a potential problem area

Step 2: Schedule automation based on previous known problems

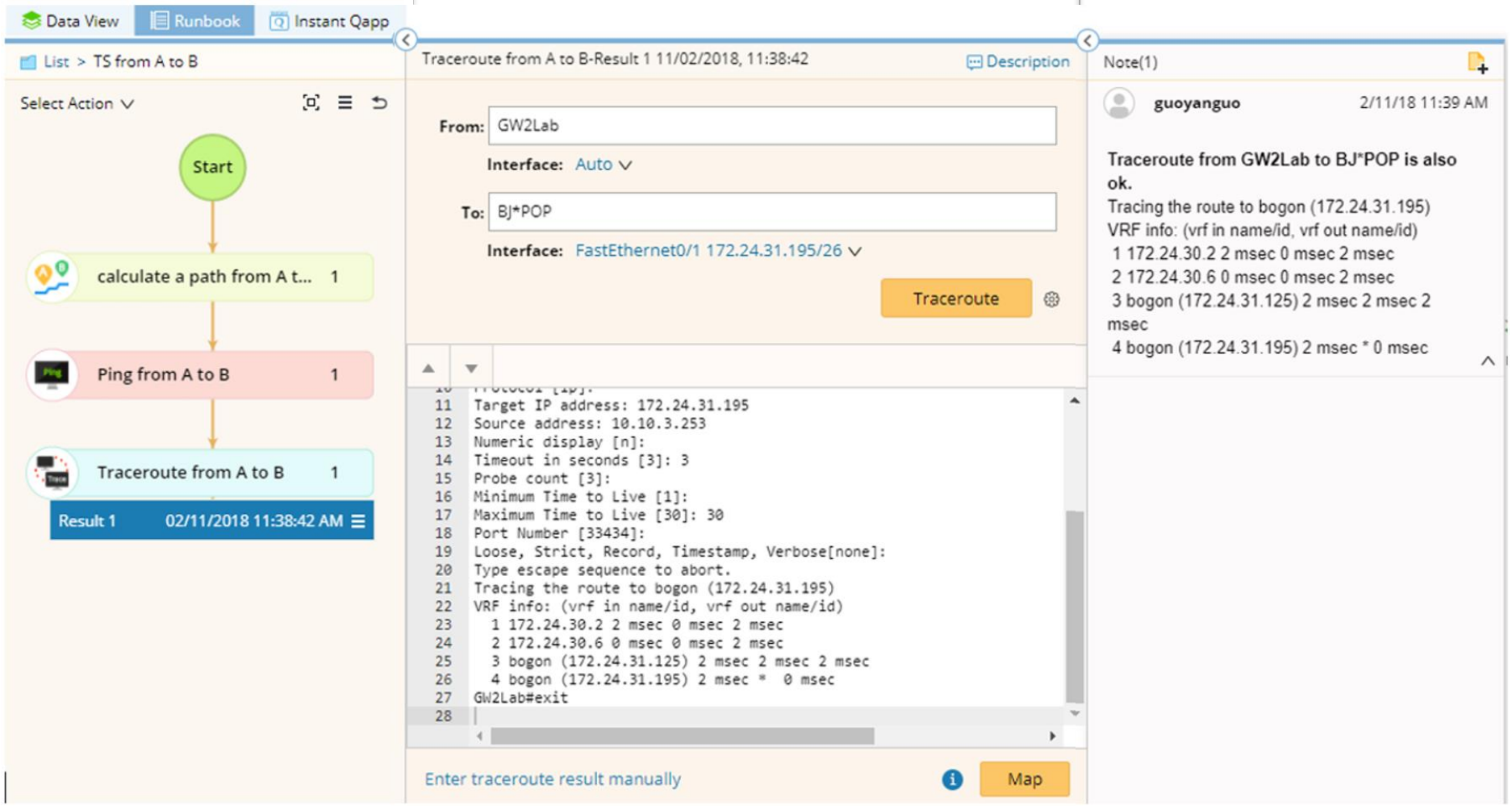
Step 3: Customize schedule and frequency

Runbook Improvements

Runbook Improvements

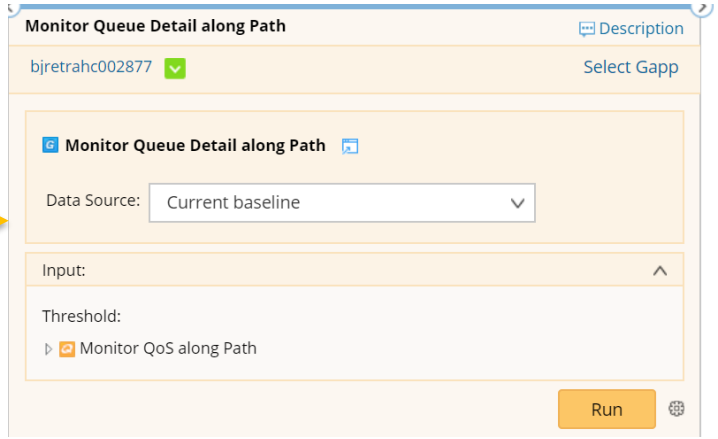
New streamlined runbook interface

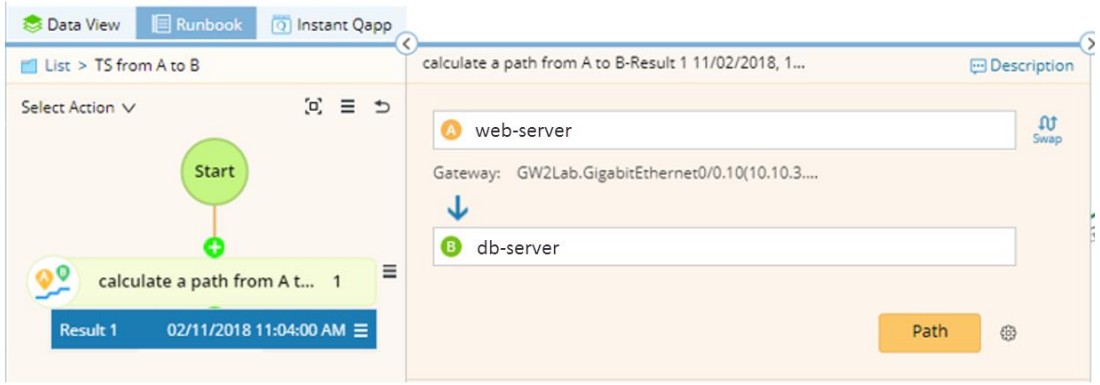
Runbook Process | Runbook Results | Custom Notes



Runbook Enhancements

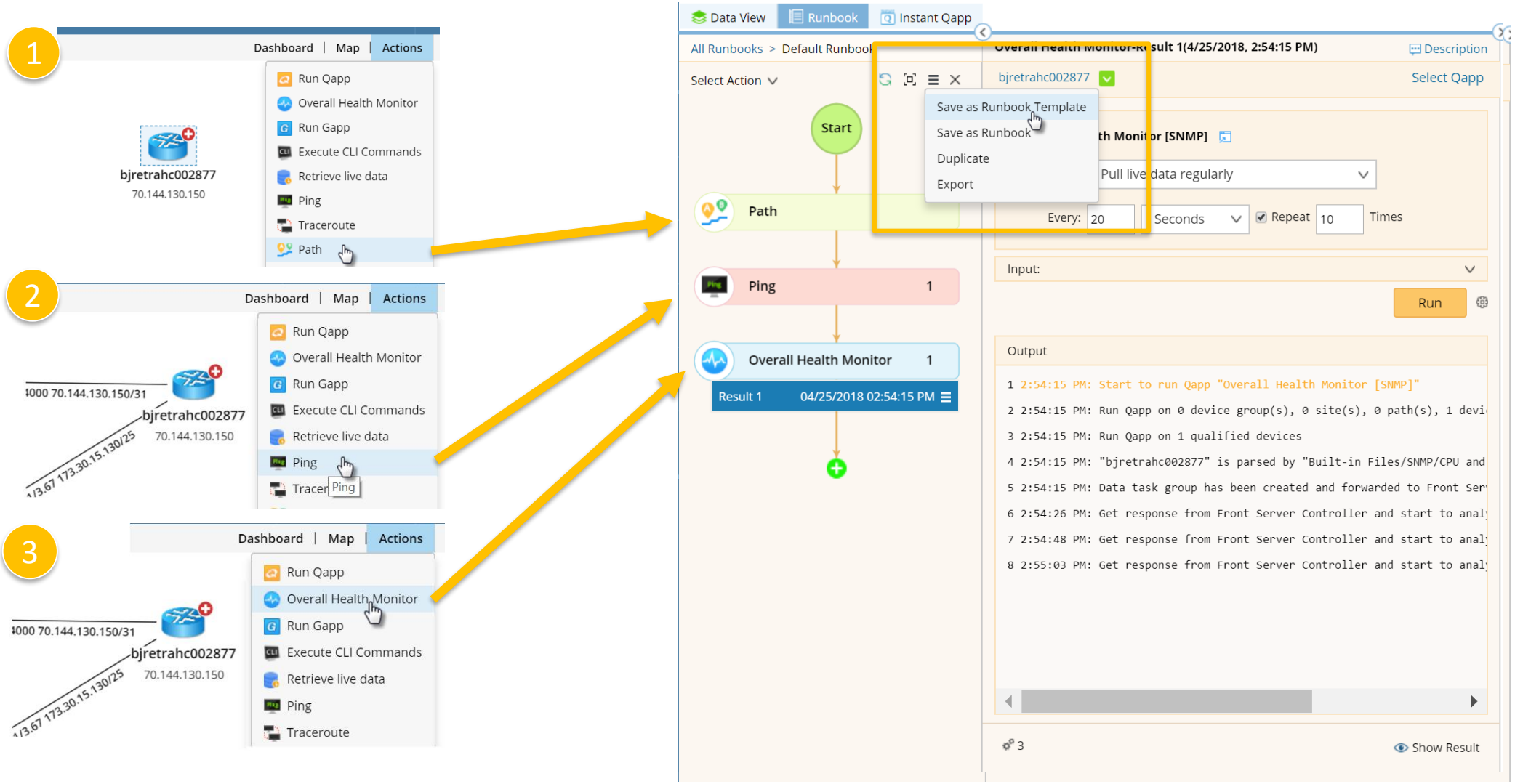
Two new actions integrated into runbook





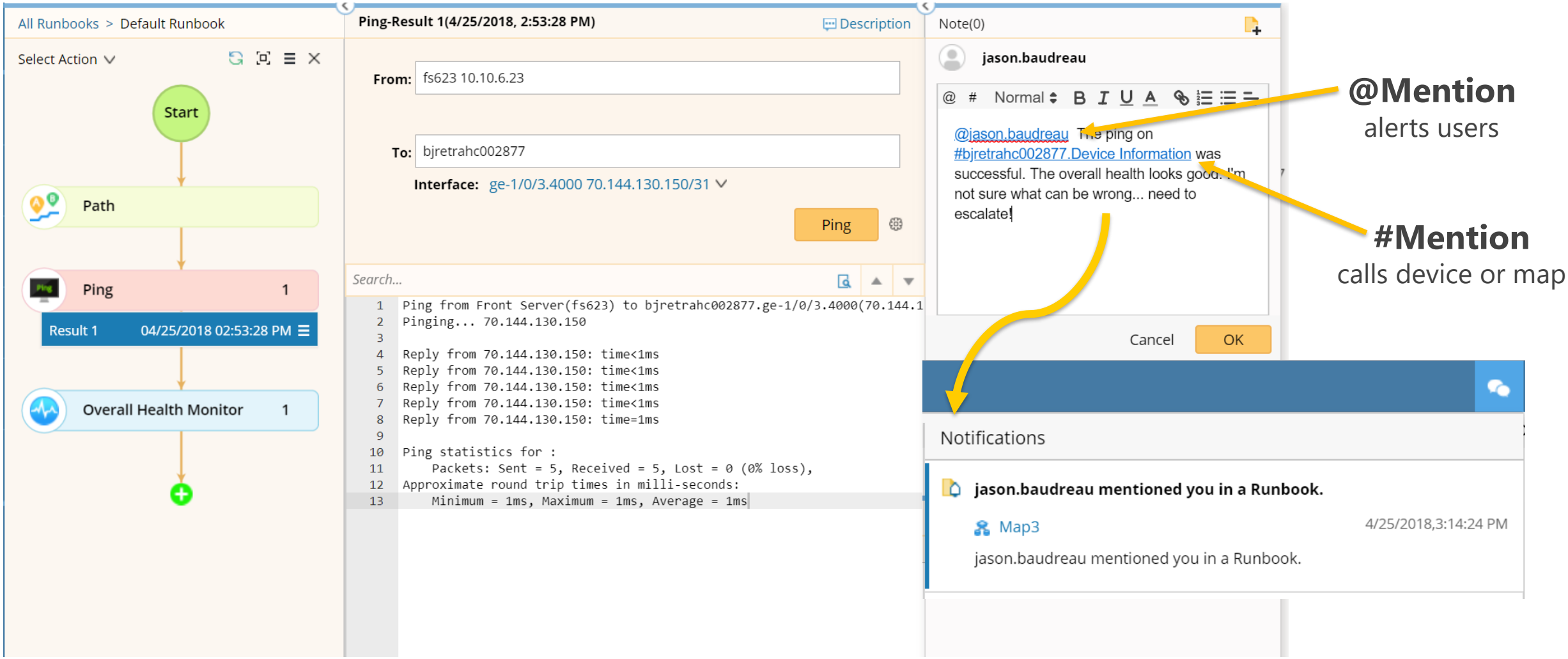
Self-Documenting Runbooks

Automatically document every action as a node inside a runbook, to easily share your process and findings.



Runbook: Improved Data Sharing & Communication

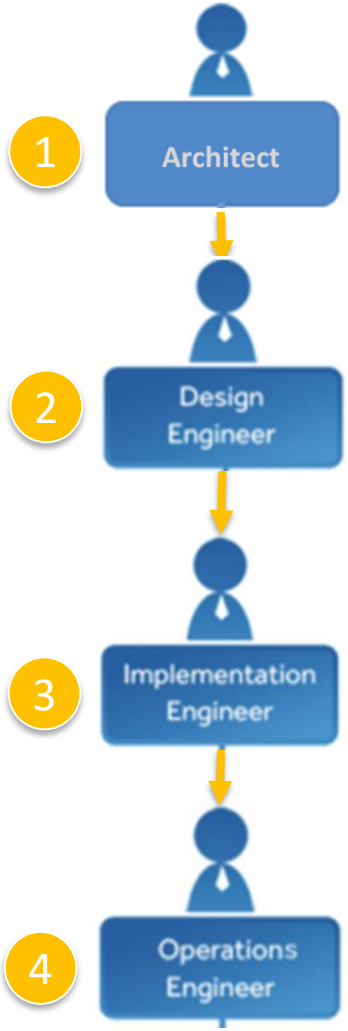
When you collaborate during an event, it's easier to share insights and ask for help.

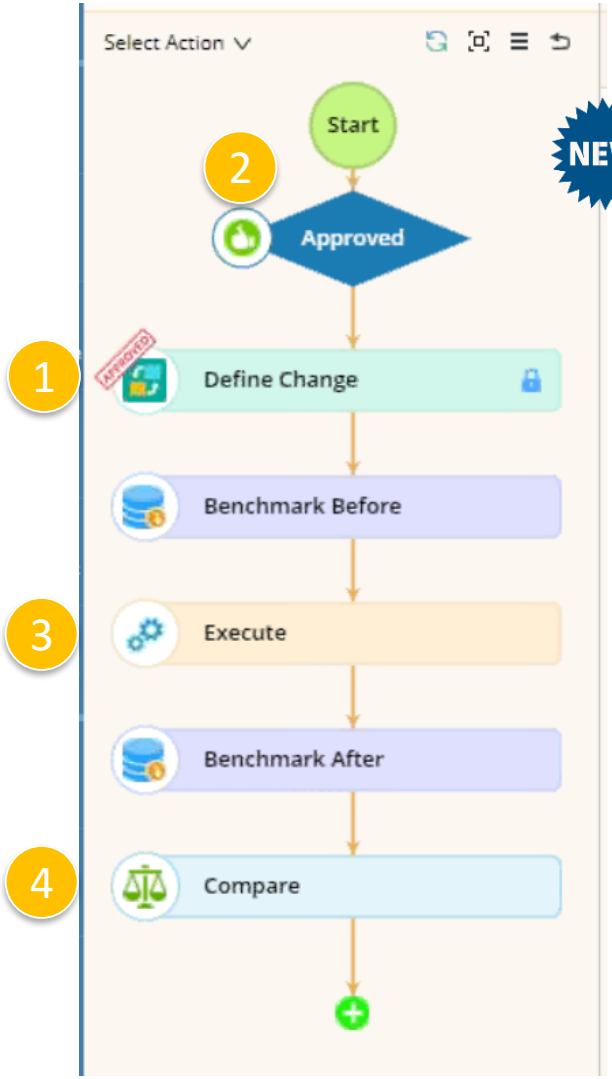


Change Management Improvements

Enhancements to Change Management

Integrates with your existing change workflow





NEW!

- Approve inside NetBrain
- Approve inside service management solution

- Target devices
- Commands
- Rollback commands

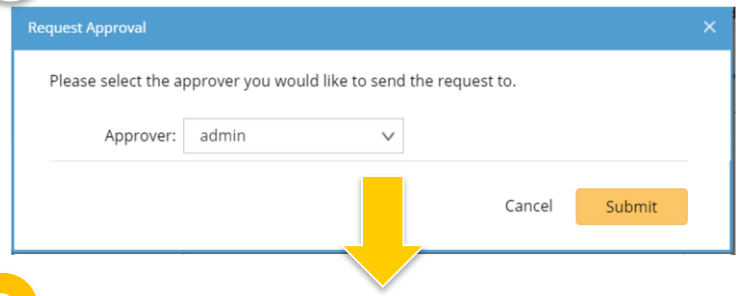
- One at a time
- Sequential
- Simultaneous

- Config files
- Show commands
- Route tables

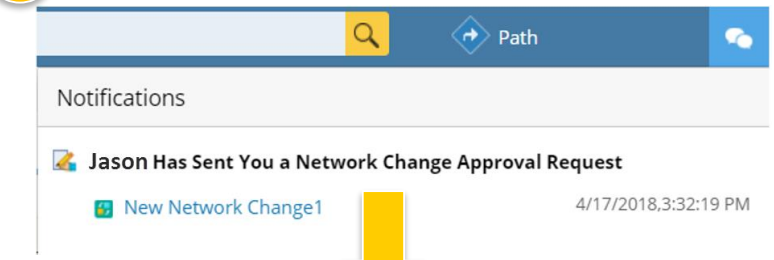
Enhancements to Change Management

Request and approve changes inside NetBrain

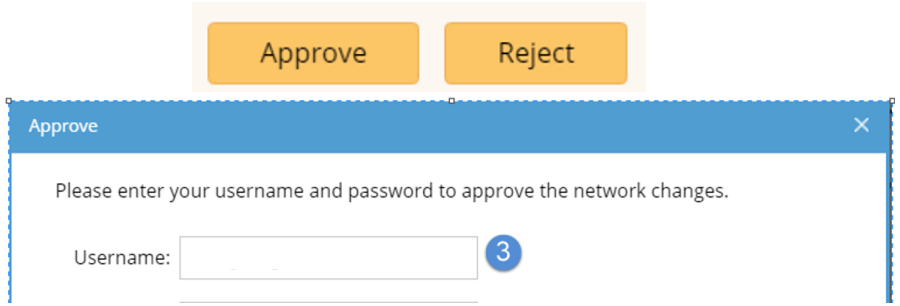
1 Design engineer requests change approval



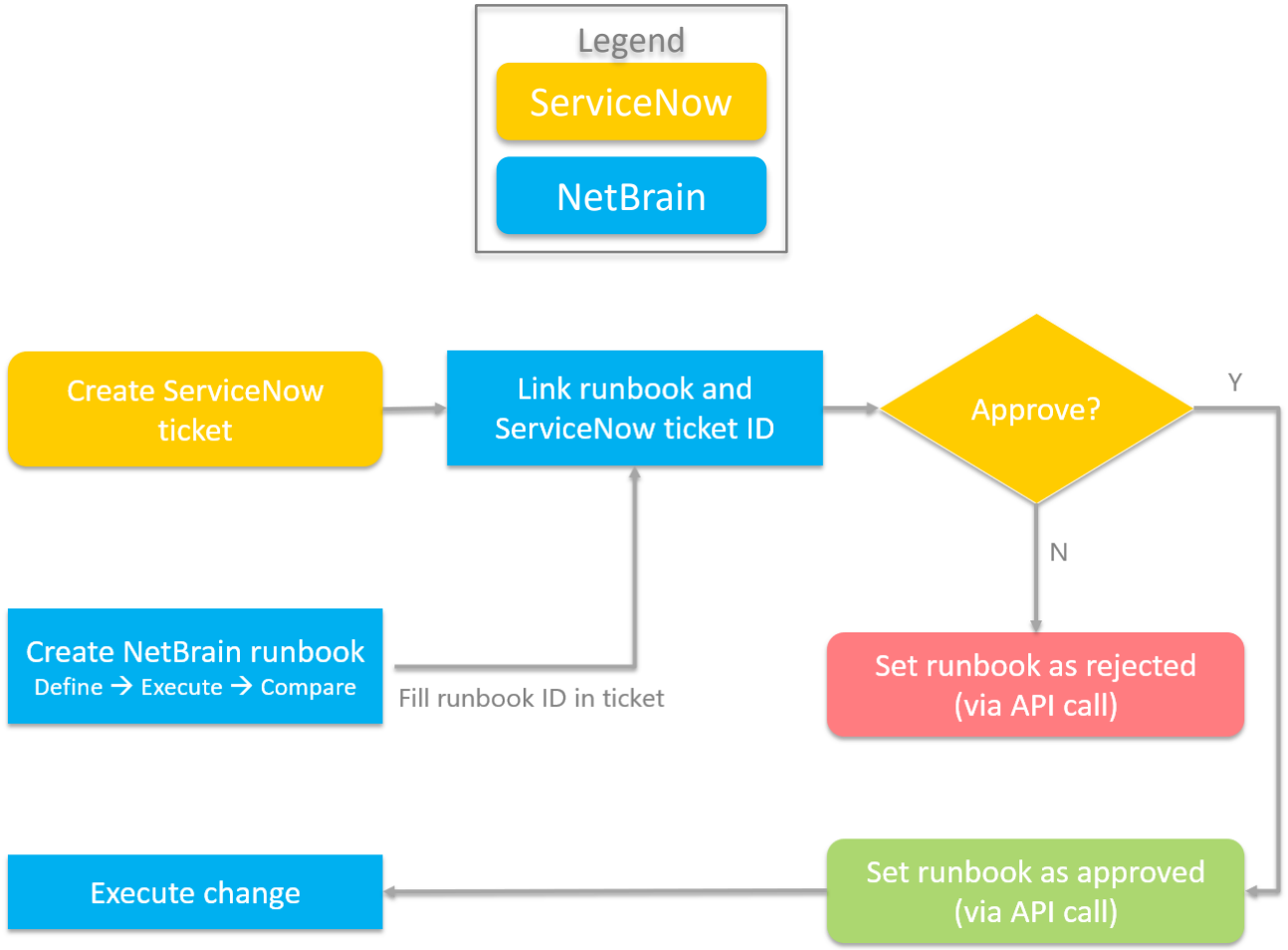
2 Approver receives notification



3 Approver approves or rejects change



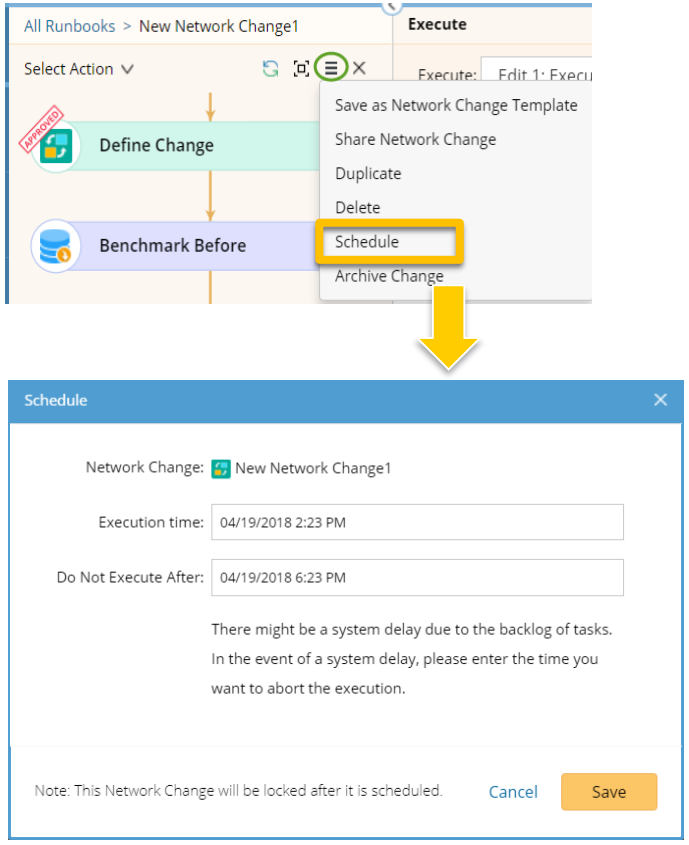
Request and approve changes via external service management system



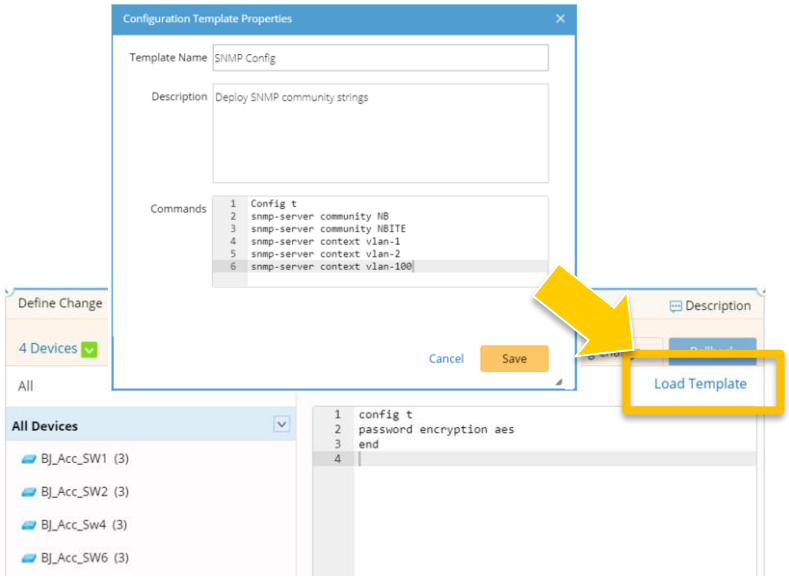
Enhancements to Change Management

Other Enhancements

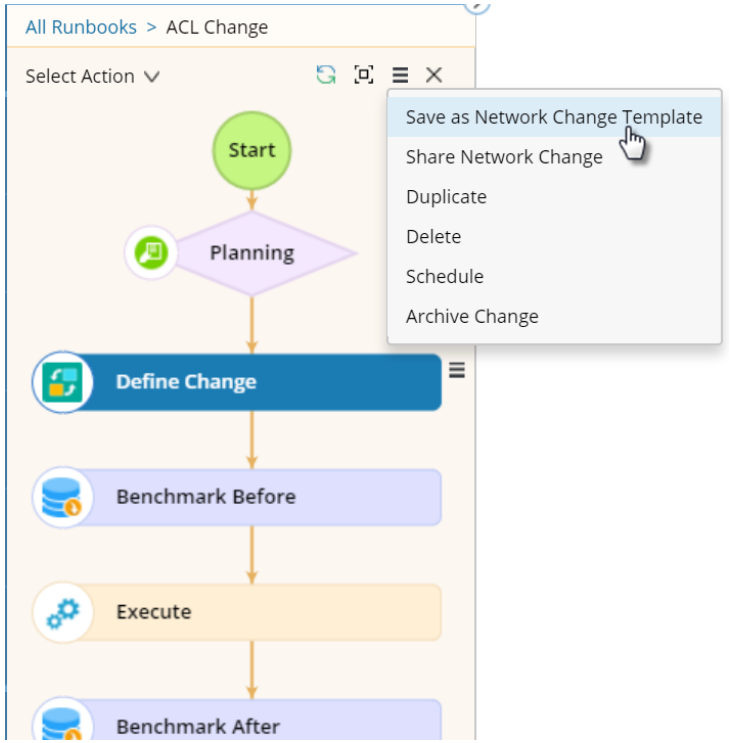
Schedule a Change Task



Save frequently used configurations as a template



Save a runbook for reuse as Network Change Template



Qapp Improvements

Qapp Enhancements

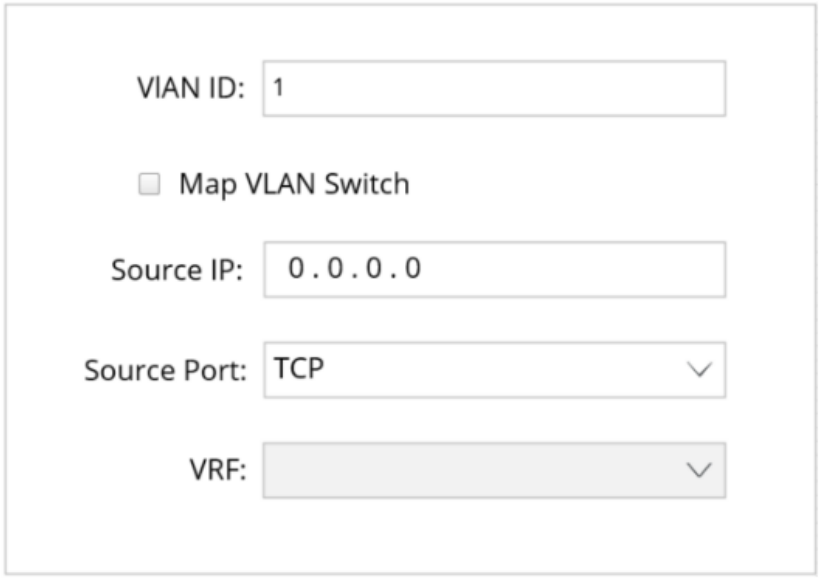
Run Qapp Against Historical Data Sources

Data Analysis Type	Data Source Option	Description
Historical Data Analysis	Current Baseline	Use the latest device data saved in the database.
	Select a Time Point NEW!	Use the saved data, which is nearest to the specified time point.
	Select a Time Period NEW!	Use the saved data between the specified time points.
Live Data Analysis	Pull Live Data Once	Log on to the device instantly to retrieve live data for once.
	Pull Live Data Regularly	Log on to the device to retrieve live data regularly based on the customized frequency.

Qapp Enhancements

Qapp Input Variables

Some Qapps may require user input at execution time. The *Input Variables* node defines the parameters which require manual input. This will automatically generate a GUI for parameter input when the Qapp is executed

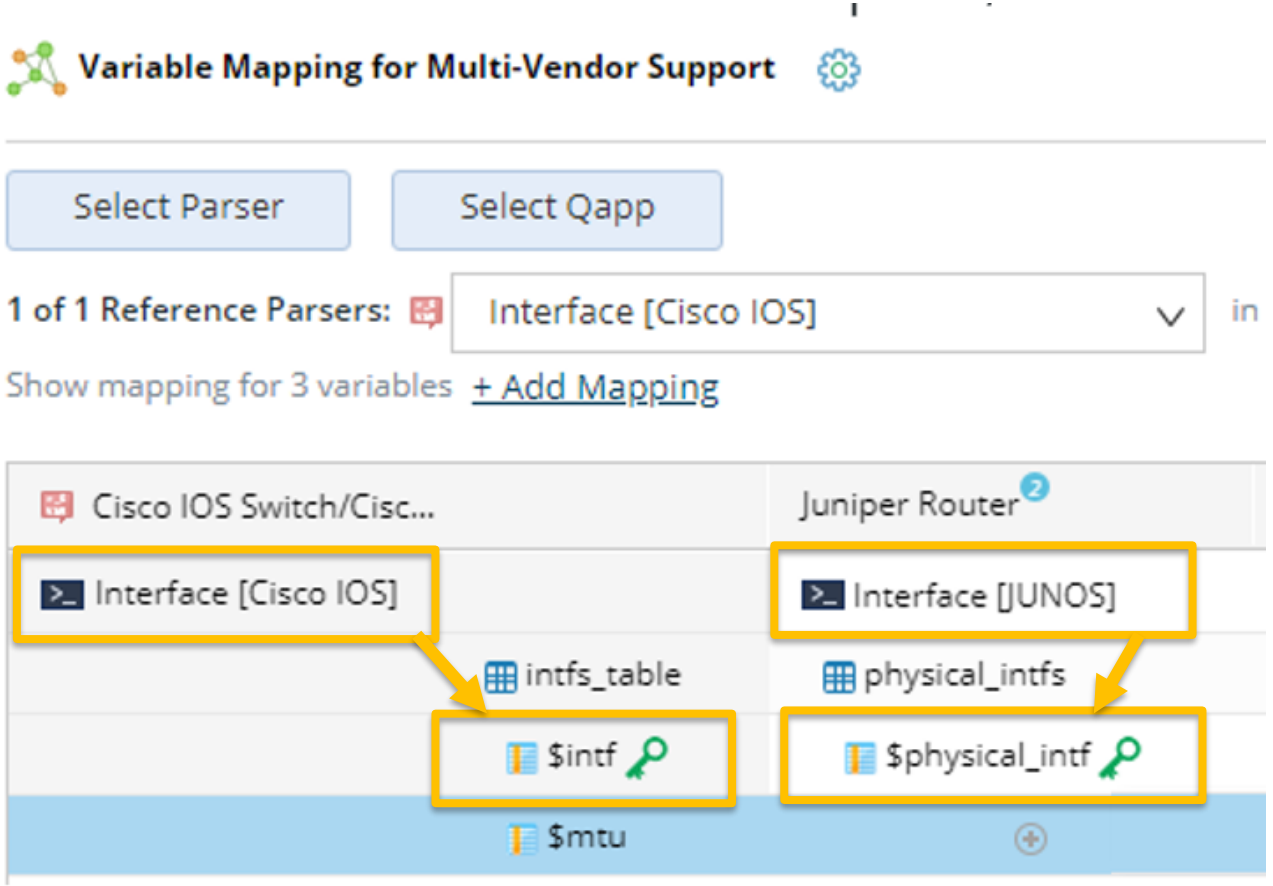


Property Name	Description
name	The name of the variable
type	The value type of the variable. The supported type includes string, int, bool and double. The variable in the bool type is displayed as checkbox at the GUI.
label	The display name of the variable at the GUI generated at the Qapp start.
value	The default value of the variable. This property is optional. The value of a variable in the bool type is **false** or **true**.
items	Displayed as a drop-down list with candidate values.

Qapp Enhancements

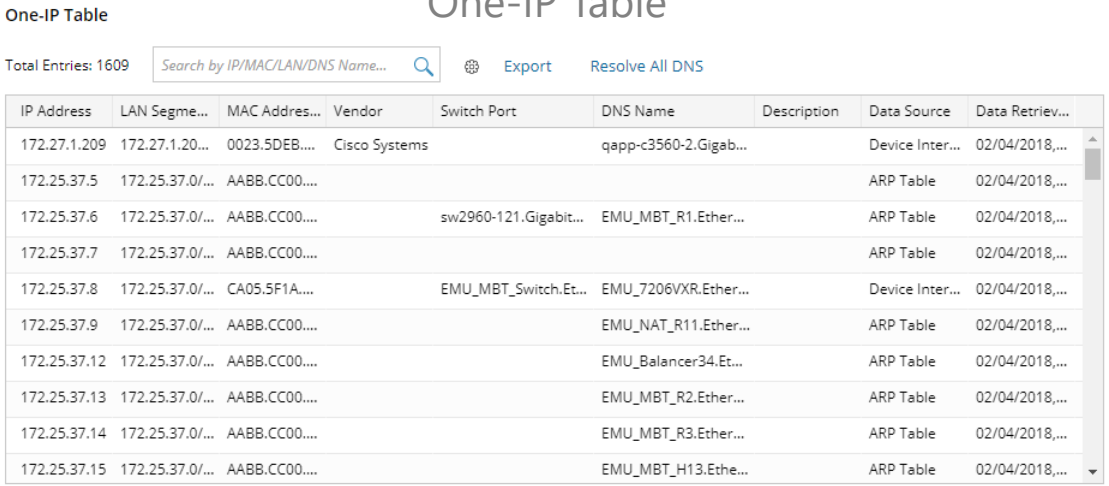
Variable Mapping of Qapp commands for different vendors and device types

- ✓ **More Extensive Multivendor Support**
  After running a Qapp, add new parser variable mappings to fulfill the missing records for the required vendor model.
- ✓ **Integrated data sources**
  Add multiple access methods (CLI/SNMP/API) for a vendor model. Data sources can be consolidated and prioritized.
- ✓ **Writing a Qapp is easier.**
  Qapp authors can write a Qapp for a single vendor without worrying how to expand it for more device types.

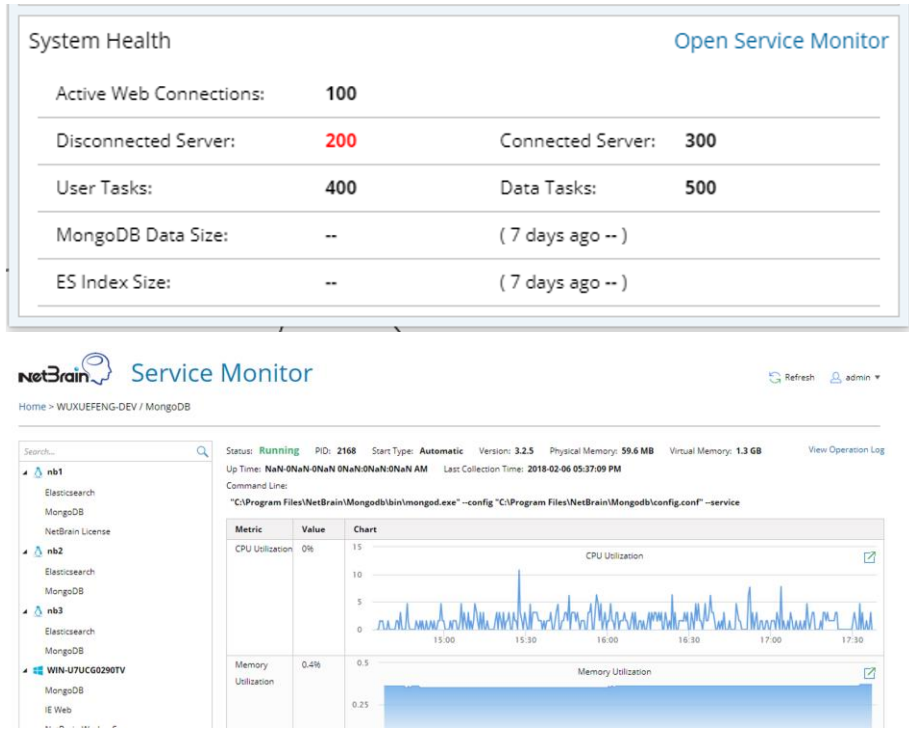


Other Enhancements

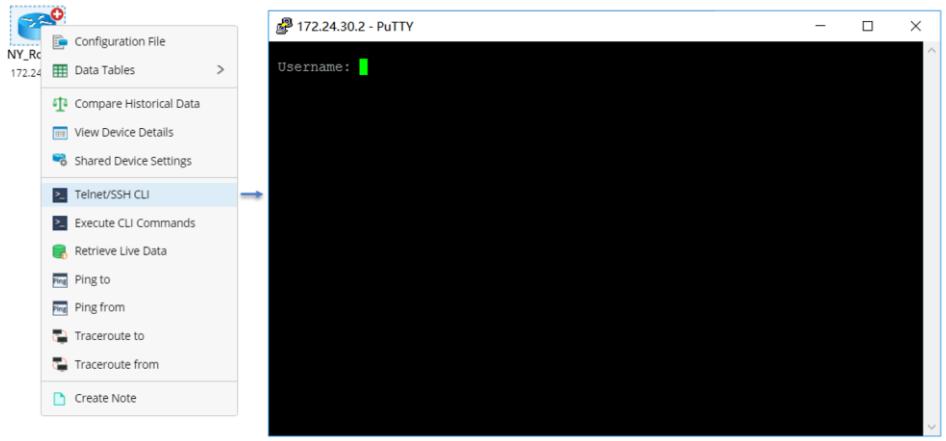
One-IP Table



Service Monitor for NetBrain administration

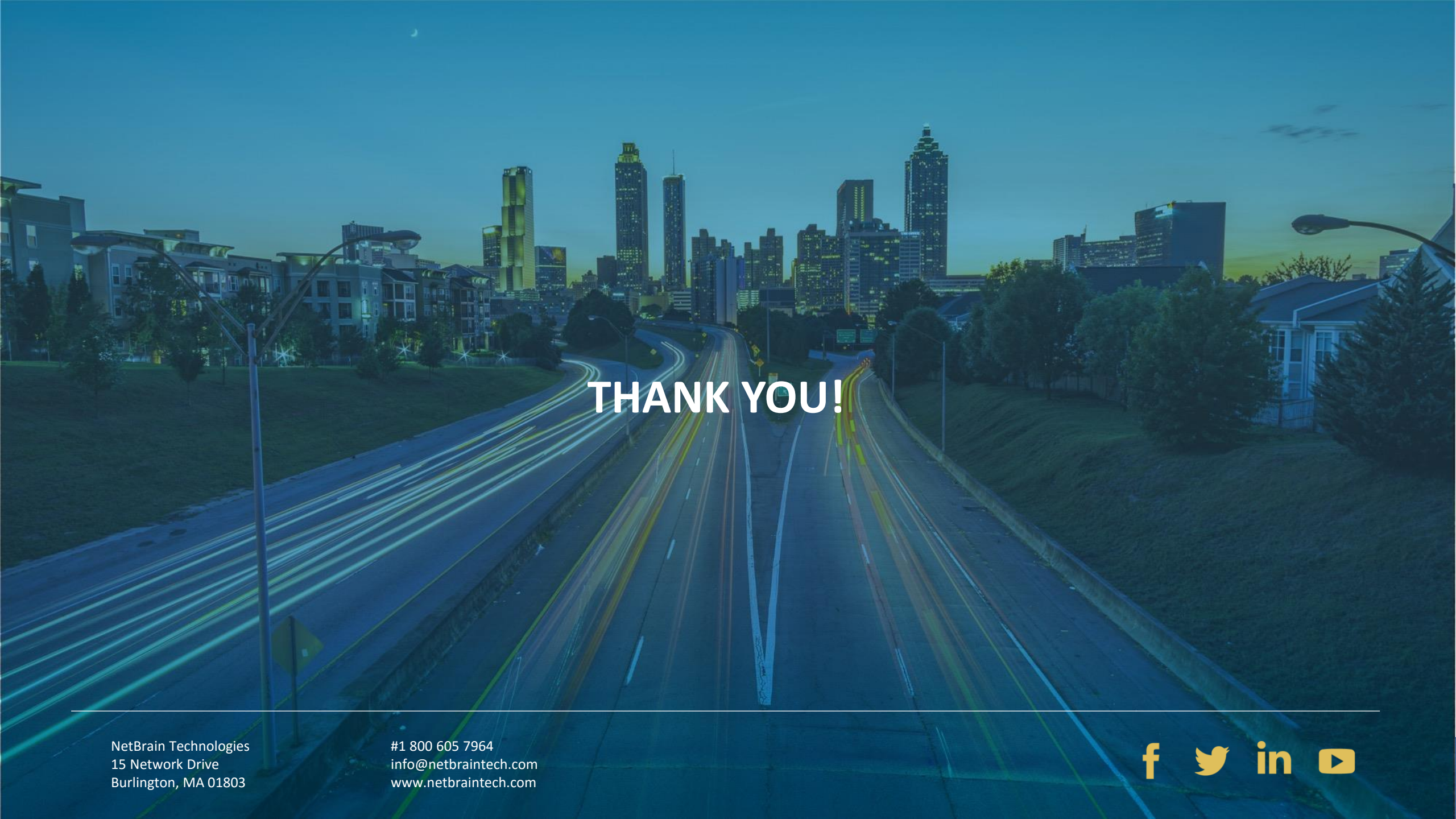


Telnet/SSH From Map



Even more enhancements...

- ✓ Search
- ✓ Map
- ✓ Data View
- ✓ Qapp/Instant Qapp
- ✓ Word Document
- ✓ Cloud Deployment



THANK YOU!

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