NetBrain® for VMware NSX

Mapping and Automation for SDN Management

Business requirements are continuously changing, requiring rapid and continuous delivery of new services and applications causing the shifting of communication needs within the data center. Today's applications are highly virtualized, run on multiple hypervisors, and are distributed more than ever. Devices that we used to be able to see and touch are now virtualized.

With the adoption of virtualization and a paradigm shift to SDN solutions such as VMware NSX, network teams can no longer manage their networks in the same way. The network is highly dynamic with real-time changes occurring in an instance. This constantly evolving network with layers of abstraction and complex traffic flows causes gaps in visibility, making it more difficult to troubleshoot and secure the modern data center.

Mapping and Automation for NSX and Hybrid Infrastructures

NetBrain's Dynamic Maps provide the ability for teams to visualize and manage the NSX environment and the connected network in a consistent and familiar way. By integrating with VMware NSX and utilizing a RESTful API framework to collect network data, NetBrain's deep discovery and modeling engine creates a data model that serves as a foundation for automation, analytics and workflow enhancement for operational IT tasks. NetBrain makes it possible to quickly understand and support the deployed heterogeneous infrastructure in the following aspects:

- **End-to-End Visibility Across NSX**
  A Dynamic Map becomes a single pane of glass for data correlation, across both SDN and non-SDN environments.
- **Document and Share NSX Subject Matter Expertise**
  Maintain a clear understanding of the highly virtualized environment and make NSX troubleshooting know-how executable, with runbook automation.
- **Simplify and Streamline Troubleshooting**
  Integrate NetBrain with an event management solution to trigger "just-in-time" diagnostic automation. Use a Dynamic Map as a collaboration console for troubleshooting and escalation.
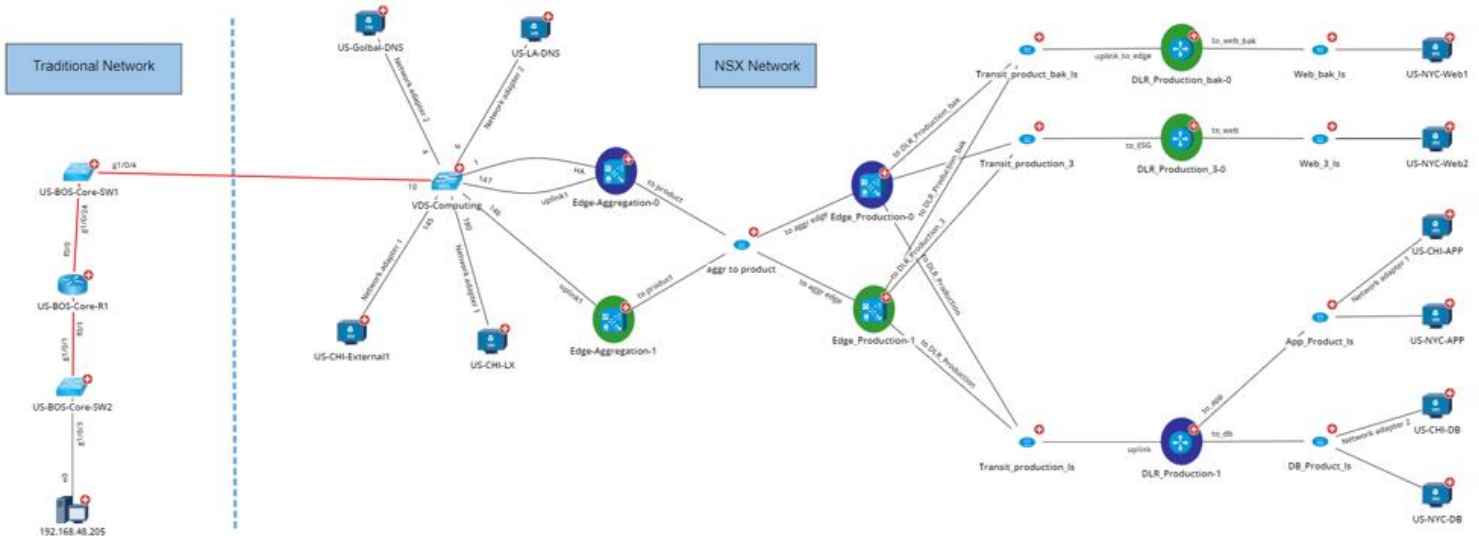

Automatically Map the Hybrid Network in Seconds

Automate NSX Mapping

A Dynamic Map is an intelligent user interface for accessing virtually any network data and is where you define, execute, and visualize network automation. Engineers who manage the hybrid infrastructure need not worry about the method used to retrieve information from the network, whether from CLI, SNMP or API to NSX Manager. When it comes to operational tasks, like troubleshooting or cyber defense, NetBrain's Dynamic Mapping and automation platform provides network teams with effective tools to manage an evolving heterogeneous network in the following ways:

▪ **Map NSX Alongside the Traditional Network**
Obtain accurate and up-to -date visibility into the NSX environment, and the external network it is connected to.

▪ **Visualize Data from Multiple Sources on a Map**
Turn on and off layers of information with Data View, including data from 3rd party IT management solutions.

▪ **Understand the Mapping Between Virtual and Physical Components**
NetBrain can help you abstract and maintain clear visibility of the virtual object to physical server mapping.
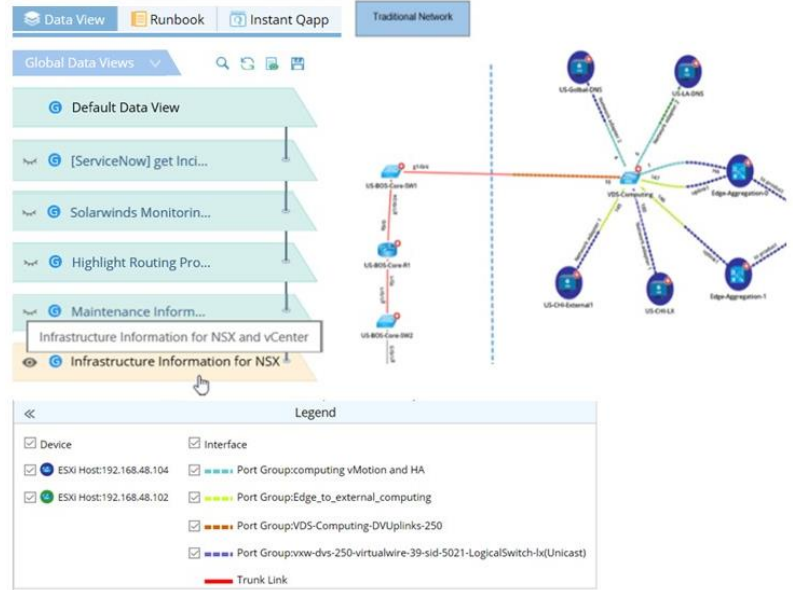
Data Views Toggle between Different Types of Data on a Map

Automate NSX Troubleshooting

With Executable Runbooks, network teams can share their NSX knowledge and expertise. An Executable Runbook is an interactive workflow where each node corresponds to a step of a network task. The runbook takes the map data as input and the results are displayed on the map.

▪ **Automate Troubleshooting Diagnostics**
Automate data collection analysis across physical and virtual environments leveraging programmable CLI automation.

▪ **Document Workflows Automatically**
Troubleshooting steps performed are recorded automatically in a runbook for improved collaboration and escalation.

▪ **Trigger "Just-in-Time" Diagnostics from an Event**
Capture all the data and analytics about an event in real time and visualize the results within a dynamic map.
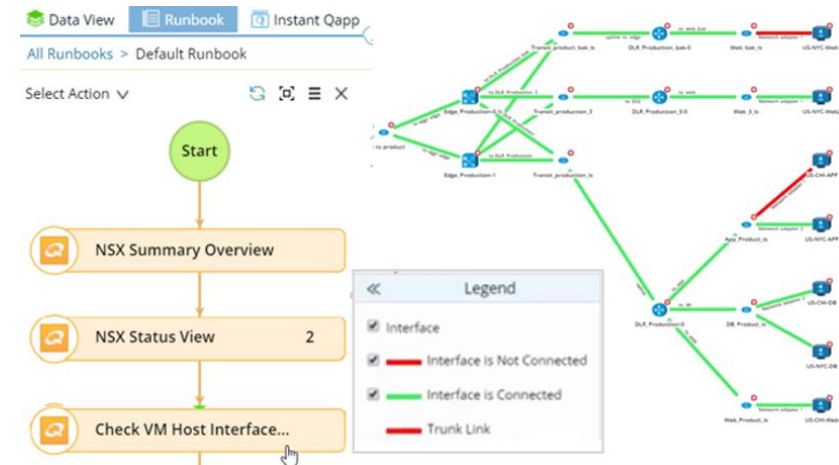
Embed Automated Workflows into Dynamic Maps

Summary of NetBrain Solution for VMware NSX

The evolving network is complex, changing constantly and is requiring a new set of skills, tools and agility from network teams. NetBrain reduces complexity, providing visibility and automation tools for network teams to understand and manage their hybrid network the same way they always have. By effectively equipping engineers to visualize and troubleshoot the modern data center, teams can more quickly adapt to maintain agile network operations and meet changing business demands.