

# NETWORK DOCUMENTATION & TOPOLOGY REVIEW SERVICE BRIEF

## Simplify and Automate Your Network Documentation

While IT and network management teams understand that documentation will assist with critical management tasks that keep the network running smoothly, it can be very time-consuming and cumbersome for our customers. We help alleviate that pain by identifiying your underlying network design and to help keep a baseline topology and performance for reference as new projects come up. Many of our customers also use documentation for onboarding and training of personnel, to capture knowledge for succession planning and to institutionalize best practices. Lastly, but as equally important is the need to document your network as a critical tool in demonstrating adherence to regulatory compliance and security standards.



### how it works: THE ASSESSMENT

### Step 1: Define your Telnet/SSH credentials

Data will be collected from your network the same way you do, through the command line interface (using SSH or telnet). So you'll need to enter your SSH and Telnet credentials. Don't worry, everything will be safely encrypted.

# Step 2: Define your SNMP read-only community strings

Pinnacle will utilize NetBrain, which is a multivendor platform, it uses SNMP (v1, v2, or v3) to get the SysObjectID from each device it discovers. This helps to distinguish a Cisco Router vs. a Palo Alto Firewall. NetBrain needs this information so it knows the right CLI syntax to use when collecting configuration data.

#### Step 3: Enter a seed IP address to start scan

There are several ways to discover your network, but the most simple and powerful way is to leverage the neighbor-walking discovery algorithm. Just provide the IP address of a core router or switch and NetBrain will leverage CDP/ LLDP to discover and log into all connected neighbors recursively.

#### Step 4: Sit back, let Pinnacle do the heavy lifting

Pinnacle will utilize NetBrain's neighbor-walking algorithm which is incredibly efficient – discovering about 2,000 network devices per hour.

When the discovery is complete NetBrain will automatically create a mathematical model of the entire network. You're ready to map and automate!

#### Step 5: Schedule Recurring Benchmarks

A benchmark can be scheduled at any frequency – daily, weekly, monthly – to ensure the data model is always up-to-date. NetBrain will also collect detailed layer-2 data including MAC, ARP, CDP, STP tables and much more.

what comes of it: DELIVERABLES

#### 1. Dynanic Network Diagrams

Dynamic network diagrams are created on-demand, instantly. Because our network maps are data-driven from the live network, they are always up-to-date. Through this approach, there's no need to create and maintain a database of network drawings.

#### 2. On-Demand Mapping

On-demand mapping allows engineers to create a network diagram customized to the task at-hand. For example, to instantly diagram the path of an application, users can just enter the source and destination addresses. In this fashion, a dynamic network diagram tool is like GPS for the network – instead of an atlas of maps, users can get a customized map from simple input.

#### 3. Data-Driven Mapping

Traditional network topology diagrams are icon-driven so only a static image identifies each device. With dynamic network diagram software, every element correlates to a mathematical model. As a result, users can interact with the data behind the network map, diagrams can auto-update, and information can be dynamically displayed or hidden by zooming in.

#### 4. End-to-End Troubleshooting

Instead of using the CLI to interact with devices one at a time, users can interact with their network through a visual environment instead. This map-driven approach accelerates troubleshooting by allowing engineers to monitor performance data, analyze historical changes, and automate troubleshooting logic.

#### 5. Map-Driven Change Management

Network changes can be both risky and manual. To minimize outages, network changes can be defined with an automated network diagram tool. Through this environment, configuration updates can be pushed automatically and the impact can be instantly analyzed and documented.