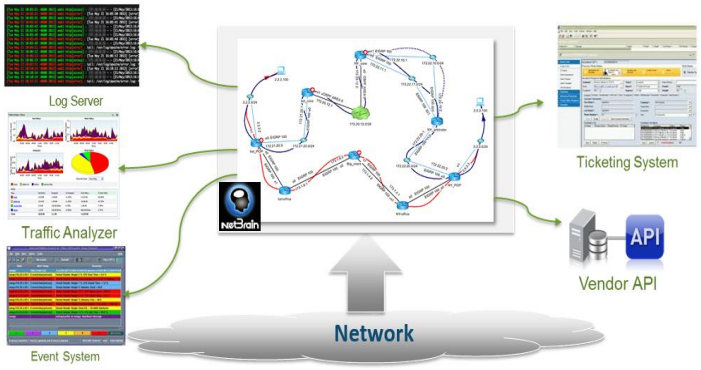
Integration with other Network Management Systems

OVERVIEW

- Integration with data sources allows data correlation, analysis, and provides on-demand visibility into any part of the network
- A single view into multiple data sources reduces complexity for end users and provides a higher level of data integrity
- When triggered by an alert system, fetch applicable data for analysis and effective troubleshooting. NetBrain's Dynamic Map and associated data serves as the basis for collaboration.



NetBrain's Integration model with different data sources

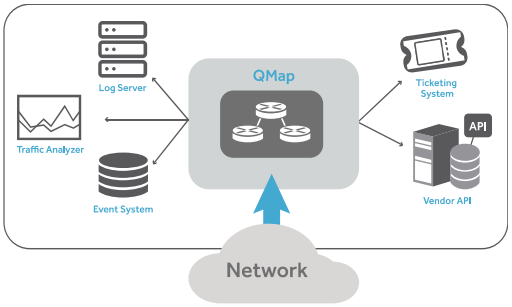
As the enterprise and service provider networks continue to grow, managing them is hard. It involves monitoring, provisioning, troubleshooting problems for optimum network performance, detecting security vulnerabilities, and accessing the impact of planned maintenance on existing services and customers. A majority of organizations have quite a few network management tools to help them manage and secure their networks. The challenge lies in combining these tools together and automating the entire workflow in order to bring higher efficiency and reduce operational costs. This means that all management functionality needs to be provided in one integrated solution, as opposed to providing the functionality in multiple separate parts. Integrating with the surrounding systems is critical to increase overall impact and network productivity.

NetBrain's API Integration with other NMS

NetBrain makes user's most critical workflows more efficient and effective. It integrates with the 3rd party systems, e.g., Service Now, Netcool, etc. providing a single management console. The device data from 3rd party systems will be displayed on the network map as different data views. NetBrain has comprehensive north-bound API support for flexible system integration, rich and extensible set of data adapters (e.g., REST API, SOAP API, JDBC, NETCONF, etc.) for easy integration of different data sources, and Qapp™ execution triggered by an event extends API functionality. For example, with NetBrain, users can:

- Conduct comprehensive network discovery and also synchronize with inventory data from network or asset management system
- Create an overall inventory report of all network elements and query network data (e.g., topology, device configuration)
- Build a map from the live network for an alert message received from the event system for monitoring and troubleshooting

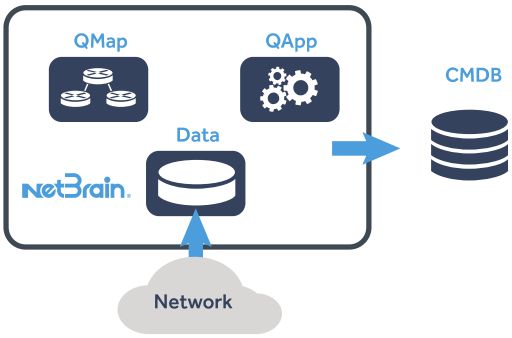
The key benefits of NetBrain's API Integration[1] are:



Map as a single pane of glass for all data sources

Single Pane of Glass

NetBrain integrates with different data sources in an enterprise and uses the "network map" as the single pane of glass for data correlation and analysis. It calls for on-demand data retrieval and periodic data synchronization (pull/push models) via Web Service APIs (RESTful, SOAP), Database inquiry (e.g. JDBC), HTTP/HTTPS based proprietary API, File import (e.g. file upload) and North-bound APIs. An effective single pane of glass view provides greater visibility of the enterprises' network environment.

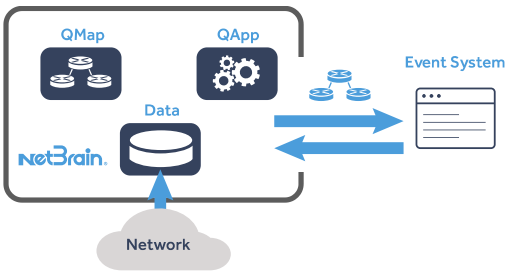


NetBrain as the central CMDB for consistency

Single Source of Truth

Having a centralized database to maintain basic information, e.g. IPAM or CMDB, of the enterprise networking assets as a single source of truth is key to success. The NMS systems use the data from this central system without conducting independent network discovery on their own because it improves consistency and reduces overhead to their network.

NetBrain is used as a centralized database providing network data to all NMS systems. In addition to the basic inventory information, it provides the data source, topology, path, and system information.



Create map for troubleshooting & collaboration based on an event

Holistic Troubleshooting

When there is a critical alert detected, the event system will automatically open a trouble ticket, e.g., via Service Now. It also issues an API call to NetBrain to trigger an automatic map generation based on its event information (e.g. impacted devices, link flapping, service down, etc.). Also, NetBrain starts a live monitoring session on the server to collect real time information for analysis and sends the map to the event system. This dramatically reduces troubleshooting times. Also, map serves as communication media for subsequent troubleshooting actions and collaboration.

As systems and tools have become more complex, and oftentimes fragmented, finding one piece of data becomes tedious. Moreover incorrectly linked data elements to a network event poses significant risk and is inefficient. NetBrain significantly simplifies the IT management landscape, allowing vendors to easily integrate with a common platform. APIs allow NetBrain to interact with third-party tools and applications. The benefits to end customers are tremendous as the map, also known as Dynamic Map, becomes the basis for all interactions and analysis.

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About NetBrain Technologies

Founded in 2004, NetBrain is the market leader transforming the network automation space. Its ground-breaking automation platform leverages the power of dynamic maps to provide CIOs and network teams with end-to-end network visibility while enabling adaptive automation across the organization's physical, virtual, and software-defined networks. Today, over 1,500 of the world's largest enterprises and managed services providers leverage NetBrain's platform to automate network documentation, troubleshooting, and change management. NetBrain is headquartered in Burlington, Massachusetts, with offices in Melville, New York; Sacramento, California; Munich, Germany; and Beijing, China. For more information, visit www.netbraintech.com.

[1] *Technical Requirement: This API Integration requires Enterprise Edition Release 7.0.*