What is It?

NerveCenter is a Network Monitoring Solution that addresses the 20% gap inherent in other solutions. It enables network operators to customize their monitoring and management of network devices, servers and applications. Powered by finite state modeling logic, NerveCenter enables network operators to quickly and easily build specific knowledge of their environment into a unique monitoring solution to provide the exact desired functionality. *NerveCenter improves network up-time*.

Why Use NerveCenter?

Most network monitoring solutions are developed as "one size fits all." They are built to handle the common monitoring use cases that will face the majority of IT operations. They typically will listen for traps and do some basic polling and apply some elemental correlation. We at LogMatrix consider this to cover 80% of the monitoring requirements of a unique, complex network.

Network complexity creates other monitoring requirements. These requirements are not likely to be single threaded and will be complex issues that require historical knowledge and tie in multiple operational aspects and information from your environment. They are unique to your environment and operating procedures and policies. They are outside the 80% serviced by most network monitoring solutions; *these requirements are the 20% gap*.

Through its use of finite state automaton (finite state machines), NerveCenter is uniquely capable of satisfying the requirements of the 20% gap.

NerveCenter's Finite State

A NerveCenter Finite State Machine is a model of sequential logic paths with a finite number of states ("NerveCenter Model"). Each NerveCenter Model's Finite State Machine is represented by a state transition diagram. NerveCenter's Finite State Architecture suits the requirements for devising investigative and management models. The States represent potential steps in an ongoing line of work. Logic Paths, States, Triggers Transitions and Actions are configured by the user, incorporating their Operational Intelligence, to detect states and transition to new states by executing conditional logic.

What Distinguishes NerveCenter?

* Easily configurable
* Scalable
* Powerful correlation engine at its core
* Stores states in memory so events can be correlated across time (time series and trending), across devices and across disparate sources
* Incorporates Operational Intelligence
* Can perform Detection-Oriented Complex Event Processing (CEP) including:
    * Event filtering
    * Event aggregation
    * Event pattern detection
    * Understanding timing relationships between events
    * Understanding causality relationships between events
    * Understanding grouping relationships between events
    * Understanding event hierarchies

Is it Easy to Use?

NerveCenter's drag-and-drop GUI and ability to leverage snippets of PERL for building logic models
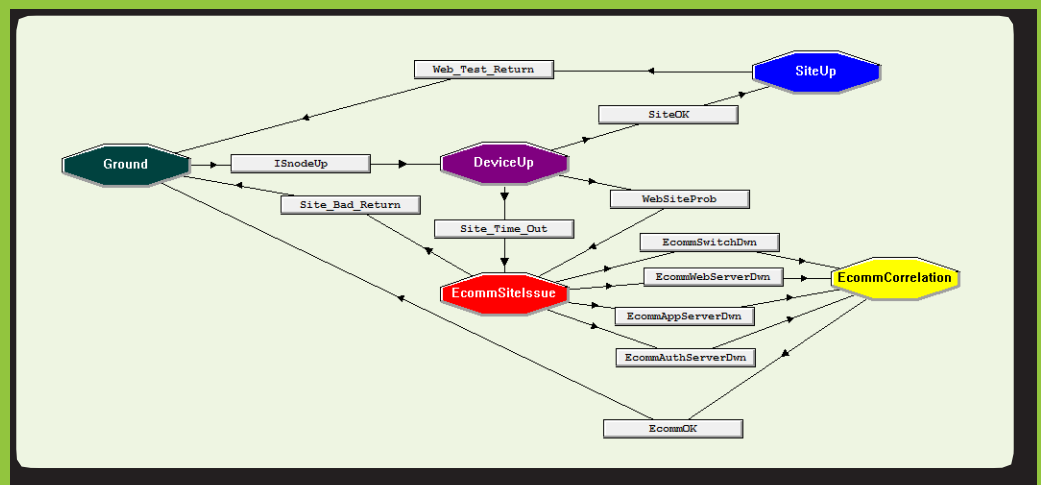
Indicators That You Are Experiencing the 20% Gap

* Difficulty identifying the key issues from amongst thousands of events received resulting in missed issues
* False positives from your monitoring systems resulting in real issues being ignored or a resource drain if investigated
* Difficulty determining which issue to fix first
* An Alert received is not the true root cause
* Your monitoring is Reactive to issues as they occur rather than Proactively identifying issues or patterns and taking corrective action before they become an issue
* "Smart Polling" is needed when you have situations where you need more information on a potential issue quickly
* You have a need to apply Operational Intelligence real-time to events

* You could benefit from correlation and Complex Event Processing for improve information:
  * Event pattern detection
  * Event abstraction
  * Event filtering
  * Event aggregation
  * Detecting relationships
  * Modeling event hierarchies

How Do Customers Use the NerveCenter Finite State Automaton

* Predict outages by incorporating logic to detect troublesome patterns of events
* To apply operations policies and procedures to events
* To filter volumes of events into actionable alerts

Examples of How NerveCenter Addresses the 20% Gap for Customers

Customer	Challenge	Solution
Large ISP	Need to dynamically correlate network monitoring and customer Service Level Agreement requirements.	Utilize NerveCenter platform to automatically change frequency of network interface monitoring based upon customer SLA requirements by reading from SLA database.
Large Financial Institution	Scale to efficiently poll very large number of network interfaces on one server.	By utilizing NerveCenter Smart Polling functionality, one instance of NerveCenter monitors upwards of 500,000 interfaces at 5 minute intervals.
Large Retailer	Effective and customized alert suppression.	Utilize NerveCenter platform to quickly and easily apply customer-specific logic to suppress network fault storms. NerveCenter's unique finite state architecture can 1) recheck faults or thresholds for transients before alerting, 2) perform calculations in real-time to alert only on persistent changes in usage, and 3) diagnose and resolve problems automatically without generating trouble tickets.
Managed Service Provider Network Security	Enhance ability to rapidly respond to threats and scale business.	Utilize NerveCenter's ability to quickly and easily apply custom logic to network monitoring and automate actions based on correlating data from multiple sources. Via NerveCenter's integrated PERL engine, the automation of threat response protocols can be rapidly deployed, managed and updated.
Managed Service Provider IT Services	Required deployment flexibility with custom monitoring.	Leverage NerveCenter's ability to easily customize monitoring (with no additional cost associated with the customization) and adapt to the challenges of monitoring remote customers, including the ability to run numerous NerveCenter instances on customer premises.
Large Financial Institution	Required ability to monitor VMs without relying on SNMP agent.	In the VMware release 5.x, the SNMP agent for monitoring is no longer available. Utilize NerveCenter's ability to input and correlate data from a variety of sources beyond SNMP polling to Monitor ESX and VMs using the VMware API.

Call us with your IT Operations 20% Gap challenge and we'll discuss a NerveCenter solution to fit your needs.

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