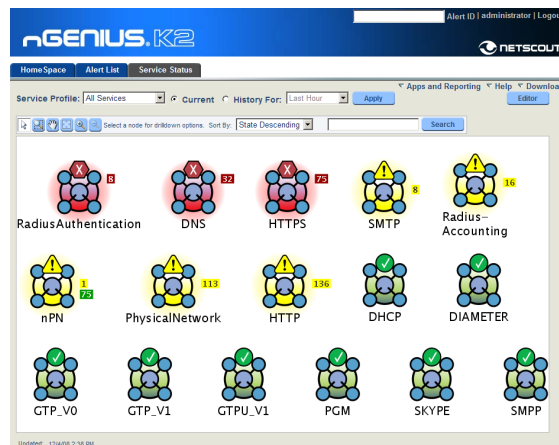


An application services dashboard that provides at-a-glance status and early warning of performance degradations

Benefits

nGenius® K2 provides IT staff with at-a-glance status of the health of critical application services along with early warning of anomalous performance conditions. These application-centric views of network performance facilitate:

- Earlier identification of potential performance issues through intelligent alerts and dashboard views
- Fewer, more meaningful alerts with evidentiary details
- Faster, more accurate diagnosis of root cause
- Streamlined processes for reduced mean time to resolution (MTTR)



The nGenius K2 Service Status provides at-a-glance views of application services health as determined by Key Performance Indicators (KPIs) and advanced behavioral analysis.

The current state of troubleshooting is still very much reactive. End-user calls to the help desk continue to be the primary means for IT to learn about performance problems. However, IT is realizing the need to become more proactive. The number of network managers who are formally tasked with reducing MTTR has grown significantly within the past year (from 6% to 23% according to a recent survey of NetScout users). To maintain high IT service levels in the face of growing network complexities and interdependencies, operation teams will need to deploy technologies that provide more application or business services centric views of the network, as well as generate early warning of impending performance problems by automating the detection of anomalies and providing contextual evidence for faster, more accurate diagnosis.

nGenius K2

nGenius K2 addresses the challenges of real-time Service Delivery Management by providing at-a-glance overviews of the current state of application services in the network.

Service health is determined by a combination of

- Advanced Analytics, anomaly detection that provides preemptive and preventive problem recognition
- Key Performance Indicators (KPIs), which correlate service health with user experience

Each application service is represented by an icon that displays the number and color-coded severity of KPI and Analytics alerts and alarms that have been generated for the application during a user-definable time period.

Single-click drill down from the service icon enables rapid and contextual access to details about users, applications, network flows and packet data and provides consistent workflow across the IT organization.

The Service Status page also contains icons for two specialized services: the nGenius Performance Network (nPN), which displays current conditions for nGenius instrumentation and processes, and the Physical Network, which displays probe interface alarms.

Selecting an Application Service enables you to view:

- **Summary** — Charts and tables summarizing the service on the selected interface
- **Console** — Context-based views within nGenius Performance Manager
- **Alert lists** — A list of alerts for the selected application and interface
- **Service Maps** — Display flow topology for a particular service by displaying the nGenius Probes, InfiniStreams, and nGenius Performance Manager Servers that have monitored that application.

Early Warning System

nGenius K2 also contains an analytics engine that provides early warning of problems. It analyzes key performance indicators and various other network statistics for abnormal changes in network behavior without the need for setting or administering thresholds. It detects a wide range of problems, including rising and falling patterns for application and link utilization, application responsiveness as monitored by KPI metrics, and VoIP jitter problems.

The analytics engine uses different sized analysis windows to detect different types of changes in network behavior, including:

- **Spike** – a sudden change that is short lived.
- **Shift** – a sudden change that is sustained.
- **Drift** – a slow but steady change.

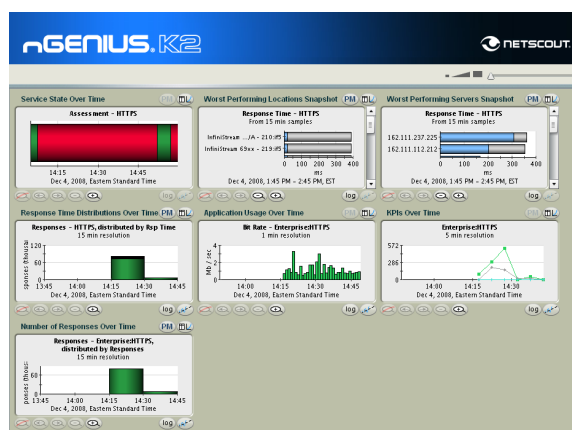
Once anomalous behavior has been detected, a highly qualified alert that contains evidentiary details (time, location, severity, and affected links and applications) and graphical charts is sent to the nGenius K2 Alert List. From the alert, network staff can easily drill down to nGenius Performance Manager for any additional details necessary for troubleshooting.

How It Works

nGenius K2 resides on the same server as nGenius Performance Manager and makes use of the standard Performance Manager mechanisms for refining and retrieving data from the nGenius Performance Manager's database. Leveraging information collected by strategically deployed nGenius Probes and nGenius InfiniStreams, nGenius K2 uses your network's own packet-flow data to perform sophisticated analysis and identify problems in their earliest stages before performance degradations affect end users.

Once installed, nGenius K2 automatically begins to:

- Obtain the list of response time-enabled applications from nGenius Global Settings
- Collect application performance data from the nGenius database
- Build statistical models and analyze the data for performance anomalies
- Generate and display alerts



The nGenius K2 Service Summary provides detailed information about the health of an individual application. From these views you can quickly drill down into nGenius Performance Manager for more information about users, hosts, conversations, etc.

Key Features

nGenius K2 offers the following key attributes for problem detection, alert notification, and detailed analysis:

Service Status Page

- Red, yellow, green indicators depicts the current state of defined application services
- Aggregate related service profiles to create a Business Service View
- Indicates the number and severity of alerts for the last 1, 6, 12, or 24 hours
- Provides drill downs to service maps and alert details
- Displays current conditions for nGenius instrumentation and processes, known as the nGenius Performance Network (nPN)
- Monitors the physical network via probe interface alarms
- Service profiles display user-defined sub-sets of services

Alert List

Lists KPI alerts for a selected application service or for a specific Power Alarms or specified application and interface utilization thresholds and includes:

- Alert ID
- Time detected
- Interfaces affected
- Host IP address
- Applications affected
- Analysis window timeframe (short, medium or long term)
- Rising or falling pattern
- Alert severity

Service Map

- Shows the flow topology for a particular service by displaying the nGenius Probes, InfiniStreams and nGenius Performance Manager Servers that have been monitoring that application
- Red, yellow, green indicators pinpoint the segment where a degradation has occurred
- Optional grid view for large networks

From the interface icon:

- View a summary page for the application and interface
- View a list of alerts for the application and interface
- Drill down to the nGenius Performance Manager console

Summary Page

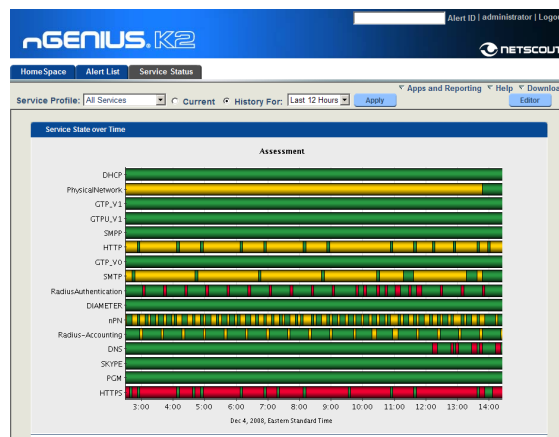
Displays related charts and tables for a selected application service and interface, including:

- Service State over Time
- KPIs over Time
- Application Usage over Time
- Response Time Distribution over Time
- Worst Performing Locations

- Worst Performing Servers
- Service Status Over Time Views
- Configurable time range: Last hour, Last 6 hours, Last 12 Hours, Today
- Interactive chart views include: Forecast Lines, Zooming, Mouse-over Data Display, and Log/Linear Toggling

nGenius Performance Network

- Monitors the status of nGenius Performance Management System
 - nGenius Probes
 - nGenius InfiniStreams
 - nGenius Collectors
 - nGenius Performance Manager Servers
- Based on the following alarm types
- Analytics alarms for utilization and network connect time
- Utilization Power Alarms
- Basic link alarms (RMON)



Service State over Time View provides a quick view of how each application has performed during a user-definable time frame.



Automated Analytics

nGenius K2 analyzes and generates alerts for abnormal changes in:

- Link utilization for monitored physical and virtual interfaces
- Application utilization, including changes in undefined traffic
- TCP connect time for all probe physical and virtual interfaces
- VoIP jitter
- Key Performance Indicators (KPIs): Packet Loss, VoIP jitter, Slow Application Responsiveness, Application Timeouts, User Events, Server Events

Analytics Alert Presentation

- Issues alerts automatically when anomalies are detected
- Color codes and prioritizes alerts by severity
- Displays alert details and charts
- Ability to exclude non-business hours
- Ability to disable or suppress alerts that are not considered necessary

Alert Filtering

Ability to sort/filter alerts by

- Severity
- Alarm type (Analytics, Power, Basic, Device)

- Timeframe
- Username
- Interface
- Acknowledge/unacknowledged
- Full-text search of description field HomeSpace
- Customize with external RSS feeds or NetScout feeds, including Ad Hoc Reports, Performance Manager console views, and NetScout Systems blogs
- Up to 10 feeds supported

Third-Party Integrations

Analytics alerts can be sent to:

- HP Network Node Manager (NNM)
- HP Operations Center
- HP Business Availability Center (BAC)
- IBM Tivoli NetView
- IBM Tivoli Event Console (TEC)
- IBM Tivoli Netcool/OMNIBus

Ordering Information

nGenius K2 is installed as part of nGenius Performance Manager but is enabled through a separate license. The model number selected for nGenius K2 must match the license type and number of licenses installed for nGenius Performance Manager.

About NetScout Systems

NetScout Systems provides advanced network and application service assurance solutions that deliver complete visibility into real-time, packet/flow-based operational intelligence. IT operators at the world's largest enterprises, government agencies, and service providers use the Sniffer and nGenius solutions to troubleshoot service degradations faster and more efficiently in order to reduce MTTR.

Our world-renowned Sniffer and nGenius solutions include:

- Intelligent Data Sources for high capacity, deep-packet recording and monitoring
- Analysis Software for real-time and historical network and application performance management, troubleshooting, capacity planning, and reporting
- Advanced Intelligence for early detection and in-depth analysis of complex or specialized application services
- Comprehensive, global support, consulting and training services

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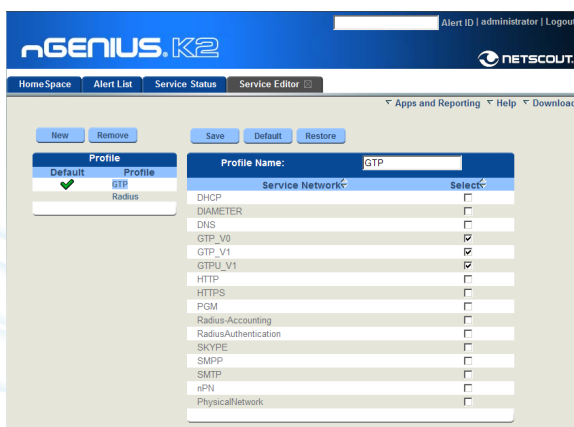
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The nGenius K2 Service Editor allows you to group related applications to create a Business Service View, for more relevant, targeted information about the services that matter most to your business.