How Can You Use eHealth to Troubleshoot Problems within Your Network?

Live Health is a component of eHealth that provides real-time fault, performance, and availability management for any of the eHealth components that you have purchased: Application Health, System Health, and Network Health. When you use Live Health with all three solution sets, you can manage your entire internet infrastructure in real time. It monitors your network, systems, and applications and alerts IT staff to faults, potential outages, and delays that can cause downtime and service degradation. With this information, they can quickly identify and resolve performance problems. The following sections explain the various ways that you can use Live Health to troubleshoot performance problems:

- **eHealth Live Exceptions** identifies problems such as delay, errors, failures, security, or configuration changes.
- **eHealth Live Status** identifies trouble spots, enabling you to drill down for specific details to determine the nature of the problems, and immediately resolve them.
- **eHealth Live Health — Fault Manager** enables you to take corrective actions based on Live Exceptions alarm rules.

Ensure That eHealth Notifies You about Problems.

The Live Exceptions application enables you to set alarm rules and profiles for groups or group lists of elements within your internet infrastructure to ensure that eHealth notifies you about problematic conditions within your intranet infrastructure. The conditions could range from slight delay and minor errors to failures, security holes, or configuration changes.

- **Alarm rules** define the type of element and conditions to monitor, thresholds and time duration, and a problem’s severity. Together, these alarm components define problems that indicate network delay, failure, or an unusual workload.
- **A profile** is a set of one or more alarm rules that the Live Health administrator applies to a subject to monitor. You must have a rule defined for each condition about which you want to be warned. Since many possible conditions could occur (and you have many elements), eHealth uses rule profiles to ease your management tasks. Figure 1 displays an example of the Time Over Threshold Condition, which identifies when a threshold is exceeded for a certain amount of time.

![Figure 1. Example of the Time Over Threshold Condition](image)

Live Exceptions applies each alarm rule in the profile to each element in the group or group list that matches the element type of the rule. Once profiles and groups (or group lists) are associated, Live Exceptions begins to monitor the polled data from the specified elements and generates alarms accordingly. When it detects that the conditions of the alarm rule have been met, it generates alarms.
an alarm for that element. It can display information about alarms in its Browser, as well as send traps (alarms) to network management systems (NMSs) and other trap destinations.

Live Exceptions includes default profiles for several technology types such as Ethernet, Token Ring, Frame Relay, Routers, and so on. Live Health administrators can create or modify profiles and alarm rules to adapt the default profiles to your specific environment. For information on Live Health administration, refer to the eHealth Live Health Administration Guide or the Web Help for the application.

After you define rules and profiles for a group or group list of elements within your infrastructure, you can use Live Status to assess the status of your critical resources.

**Determine When a Threshold Has Been Reached.**

As a Live Health administrator, you can use Live Health — Fault Manager to receive Simple Network Management Protocol (SNMP) trap messages from other systems and devices and take actions based on Live Exceptions alarm rules. A trap is a message sent by an SNMP agent to a console or NMS to indicate that a threshold has been reached or another user-defined condition has occurred. Figure 2 is an example of a basic event rule which generates an alarm whenever Live Exceptions receives a specific type of trap.

![Figure 2. Example of a Basic Event Rule](image)

When Fault Manager receives traps from other sources, it processes this data just as it processes the data that eHealth collects: it compares the performance statistics to rules defined in profiles and generates intelligent alarms when thresholds are exceeded. You can view these alarms in the Live Exceptions Browser. When traps raise alarms, you can drill down to additional reports to obtain more detailed information about the element and the problem and resolve the issue.

For more information about eHealth Live Health — Fault Manager, refer to the eHealth Live Health User Guide or the associated Web Help.

**Identify the Problems in Real Time As Quickly As Possible.** Live Status provides a real-time, high-level, color-based diagram of your IT resources that allows you to identify the status of critical resources. You can quickly assess your network based on color changes in a logically grouped graph, as shown in Figure 3. The icons that represent the elements are color-coded to reflect their alarm and monitoring status.

![Figure 3. Live Status Window](image)

To simplify your troubleshooting approach, you can click on an element or group and drill down to any of the following components of eHealth to obtain specific details that you need to resolve the problem:

- Live Exceptions
- Live Trend (to create charts to monitor statistics elements that you are polling using eHealth)
- Various reports
- Response Transaction Log (to identify transactions that the agents on those systems are monitoring)
- System Information queries (available through the AdvantEDGE View™ application)

For more information, refer to the eHealth Live Health User Guide and the Web Help for that application.