CA eHealth® Performance Manager helps you take corrective action before business processes are negatively impacted by collecting and analyzing key performance information across the IT infrastructure, providing both real-time and predictive performance analysis.

Overview

Ensuring IT is not a risk to critical business services can be challenging with the many complexities associated with a large and diverse infrastructure.

CA eHealth Performance Manager (CA eHealth PM) gives you the flexibility to manage multivendor networks, systems, databases, and client/server applications with proactive, real-time analysis, distilling data from disparate sources across all technology silos into clear, predictive, and actionable information.

Benefits

Help assure the health and availability of business services with centralized, proactive performance management of the IT infrastructure.

Transform IT operations from reactive to proactive with CA eHealth PM’s patented technology to detect performance anomalies.

Demonstrate IT business value to executive and business stakeholders with extensive reporting for performance and capacity planning.
Move from reactive to proactive IT performance management

Ensuring IT is not a risk to critical business services can be challenging with the many complexities associated with a large and diverse infrastructure. IT services must be continuously available and operating at acceptable performance levels to support critical business processes.

The importance of service assurance is escalating, as some studies have indicated that network outages can cost enterprises as much as $100,000 per hour and that performance issues continue to be top-of-mind among IT professionals.

When performance issues do occur, problem resolution is often slow due to the reliance on multidisciplinary triage teams to try to identify where within IT the issue lies. This type of triage can negatively impact productivity, as network, systems, database, and applications personnel are all typically involved.

Recapture wasted time performing group triage with a centralized proactive performance management solution that directs you to the performance issue.

Improve service quality with visibility into performance of the IT infrastructure

In addition to its ability to monitor and collect information from hundreds of network hardware vendors (covering thousands of devices), networking technologies, RFC standard/vendor-specific MIBs, and environmentals (energy, temperature, humidity, etc.), CA eHealth PM also utilizes add-on capabilities, giving you wide breadth across IT and depth within the IT domains. These include:

**Voice performance**
Seamlessly monitor heterogeneous voice infrastructures like Avaya, Cisco, Microsoft OCS and managing migrations to VoIP.

**Virtual systems**
Discover Sun Solaris Zone, IBM LPAR, Microsoft Hyper-V, and VMware environments and their associated virtual machines (VM), collecting performance and availability metrics that include hosts, VM’s resource pools, etc. CA eHealth PM also supports the Cisco Unified Computing System, allowing the discovery of the blade servers, fabric Interconnect switches, fiber channel and Ethernet interfaces, and environmental components, including power, current, voltage, temperature, etc.
Physical systems
Autonomous, SNMP-based monitoring of heterogeneous systems with extensible plug-in architecture.

Databases
Monitor across DB2 for Linux, UNIX, Windows (LUW), Oracle, SQL Server, and Sybase databases. A database-quality index provides you with a way to easily view database health correlated to system information.

Client/server applications
Measure total response time (client, network, and server), provide end-user application response times for Virtual Desktop Infrastructures (VDI), and periodically test and evaluate service health.

Improve predictability through integration

Integrations to prioritize incidents by business impact
Be proactive, in control, and better informed on how to plan and prioritize remediation of performance issues by sharing analysis through integrations to other Service Assurance solutions from CA Technologies. These allow for key performance information to be correlated with root cause and mapped into business service impact analysis.
• **CA Spectrum® Service Assurance** models and monitors IT infrastructure components and applications that together support specific business services. It uses performance data from CA eHealth PM to calculate and pinpoint which infrastructure components are putting specific business services at risk, so you mitigate those risks before users are impacted.

• **CA Spectrum® Infrastructure Manager** performs configuration-aware, fault, and service management, advanced event correlation, root cause analysis, and impact analysis. Integration with CA eHealth PM creates a comprehensive solution that improves service performance and availability, helps avoid outages, and reduces the impact of outages if they occur. This combined solution includes the following features:

• **CA Spectrum global data collection** can be used to seed CA eHealth PM discovery, with CA eHealth PM discovered elements’ names and attributes synchronized to CA Spectrum model names and attributes.

• **Single sign-on from CA Spectrum to CA eHealth PM** for user authentication, and context-sensitive launching create a solid foundation for seamless workflow between the two products.

• **Alarms generated by CA eHealth Live Health** can be correlated and factored into CA Spectrum root cause analysis.

**Third-party integrations to leverage existing investments**
CA Technologies has certified thousands of third-party IT components to ensure that CA eHealth Performance Manager monitors and evaluates their full complement of KPIs.

• **Universal Workflow integration** Gain performance management capabilities without having to learn a new product with integration that provides two-way communication between CA eHealth PM and third-party management consoles such as HP OpenView Network Node Manager, IBM Netcool, and Cisco CIC. Operators of these third-party products gain a historical perspective of network performance with dynamic reporting.

• **Universal Data integration** Meet the needs of service provider networks with integration that supports equipment from Cisco, Alcatel-Lucent, Nortel, BrixWorx, and Psytechnics, for managing the performance of carrier-class switching environments. Through integration with Cisco IP Solution Center, CA eHealth PM obtains configuration and performance information from Cisco VPNs based on Multi-Protocol Label Switching (MPLS) or the IPsec protocol. You can prioritize fixes, document adherence to SLAs, and report performance in VPN-oriented reports that distinguish between classes of service.

• **Wireless Data integration** Designed for carrier-class cellular wireless networks (Nortel PDSN/GGSN and Starent PDSN/GGSN), this integration gives CA eHealth PM the ability to gather the statistics needed to manage these industry-leading wireless voice and data gateways. Collect performance, configuration, utilization, and availability data from these platforms, correlate and analyze it, and generate reports with actionable information.
How CA eHealth Performance Manager works

CA eHealth PM identifies and alerts you of developing bottlenecks, degradations, and impending failures and then documents the need for repair, reconfiguration, or capacity upgrades. Role-based reports help you to meet the needs of IT and business management, operations staff, administrators, engineers, and capacity planners.

Collect The CA eHealth PM poller collects performance and availability statistics from a wide variety of vendor devices, including network, system (physical and virtual), and database devices. The polling interval can be set at various rates, including a fast rate of 30 seconds, a normal rate of 5 min, and a slow rate of 15 min. An import poller is also available that bulk transfers information into the eHealth database.

Analyze & detect Dynamic real-time monitoring intelligence is based on patented technology that is used to understand threshold violations within a historical context and help assure that only persistent degradation problems are reported.

- **The Time over Threshold (TOT) algorithm** compares the value of each KPI at each poll to a predefined threshold and reports if the value has been “wrong for too long.” Instead of generating a trap each time the threshold is crossed, the algorithm determines the aggregate duration of violations within a monitoring window to filter out spikes and determine real, persistent problems.

- **The Deviation from Normal (DFN) algorithm** uses historical data to establish a baseline for what is normal behavior for your business. DFN monitors infrastructure component behavior (i.e., KPI values) within each monitoring window (e.g., hour of each day, day of week, etc.) and then assesses whether the current behavior deviates from that norm. The algorithm gradually adjusts normal thresholds, based on the rolling average over the previous six weeks, to reflect the dynamic, changing state of your business.

With predefined thresholds for each key performance indicator (KPI) based on best practices, the Time over Threshold algorithm lets you know when an IT resource has persistent performance

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**Figure B**
Understand threshold violations with patented technology
problems. The Deviation from Normal algorithm creates a baseline and monitors violations for what is normal for each KPI for your business, per hour, per day, and dynamically adjusts the baseline over time.

**Diagnose** Sophisticated performance reporting is at the heart of CA eHealth Performance Manager, which combines historical and real-time metrics with intelligent analysis to generate out-of-the-box, role-based views that are used to understand when, where, and how to avoid developing performance degradations before service quality is jeopardized. There are many reports that provide a wide range of perspectives for triage and remediation and include:

- **At-a-Glance reports** provide a comprehensive view of the availability and performance of a particular IT resource, displaying the key statistics over a specified time interval. By automatically capturing performance data and presenting it uniformly, these reports can help significantly reduce the time spent troubleshooting.

- **Health reports** evaluate the health of a group of IT components by comparing current performance to historical performance over the course of a day, week, or month. The report provides a list of situations to watch and identifies errors, unusual utilization rates, or volume shifts that warrant investigation. You can easily spot the overall status of a component by its health index, a value that CA eHealth PM bases on multiple variables.

- **Trend reports** generates Trend reports that track the value of one or more performance variables over a period of time. Because of its flexibility, you can use a Trend Report to reveal traffic patterns over time, and relationships between IT components and between variables. Components that you can track this way include CPUs, disks, LANs, WANs, databases, processes and process sets, user or system partitions, and more.

- **MyHealth reports** easily tailor these reports to meet the unique needs of any individual user. They can include any collection of trend charts from the wide range of CA eHealth PM reports that are critical to a particular user’s job function (for example, database, server, WAN, and application availability performance, all related to a specific IT service).

- **Service Availability reports** By performing regularly scheduled tests on IT services, you can watch over your critical business applications—from email to SAP to ecommerce. Common examples are: ping testing for connectivity across sites, measuring time to load a URL to test Web page performance and availability, and measuring specific SQL calls across a network to a server.

- **Service Level reports** demonstrate overall QoS across different classes of service and document compliance with internal and external SLAs. You can adapt them to your specific business by defining service level goals, core thresholds, and other performance metrics. There are views tailored for business executives, IT managers, and service customers.

- **Application Response reports** troubleshoot performance problems quickly to help minimize their impact and examine long-term trends for application tuning and capacity planning. To identify bottlenecks, these reports illustrate network transmission, client processing, and server processing times as percentages of the total response time.
• **Top N reports** A tabular Top N report sorts the elements that meet some user-defined criteria. For example, you can use it to find the best, worst, fastest, slowest, or least-utilized circuits, servers, databases, and more. Top N reports can be scheduled to run automatically at specified intervals, and they also make a useful on-demand tool.

• **Voice Quality reports** In addition to the voice, data, and QoS monitoring for converged network performance management found in CA eHealth Live Health, CA eHealth PM provides additional IP telephony management services. These include the Voice Quality Monitor for ongoing quality assurance and the integration of the Cisco IP SLA Jitter MOS test into CA eHealth PM with reporting.

In addition to providing these out-of-the-box, role-based reports, you can customize your reports using templates or can create completely from scratch.

**Display & alert** Quickly determine whether any of the elements being monitored with CA NetQoS Performance Center integration are nearing or have surpassed acceptable utilization levels with two new views: summary views or CI-based views. Summary views will include data from multiple CIs of the same type (i.e. Top-N Interfaces by Utilization), whereas CI-based views will display data for one specific CI (i.e. an Inbound/Outbound Utilization chart for a specific network interface).

Over 60+ views are provided in over 30+ reports out-of-the-box and can be further customized by the user if needed.

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**Figure C**

Right-click an alarm in CA eHealth Live Exceptions to drill into CA NetQoS Performance Center for performance dashboards.
Monitor and visualize the performance of your infrastructure, its components, and the services it supports: Live Trend, Live Exceptions, Live Status, and Live Reporting. Notification levels include normal, warning, minor, major, and critical.

The CA Technologies advantage

- Quickly identify and remediate performance issues across IT.
- Be proactive, in control, and better informed so you can prioritize remediation, better allocate resources, and avoid service-impacting issues.
- Ensure that the infrastructure operates at the optimal level to support the business with this combined view of the voice/data networks, physical/virtual systems, databases, and client/server applications presented to IT Operations.

Next steps
You should consider CA eHealth PM if you’re finding that:

- IT staff spend too much time reacting to performance issues in firefighting mode
- IT staff are unable to understand and prioritize capacity, availability, and utilization management needs to support the business service
- You are unable to contain escalating IT costs
- CA eHealth PM continuously collects performance and utilization data from voice and data network devices, physical and virtual systems, multi-vendor databases, and client/server applications. The data is then evaluated for threshold violations and early warnings are issued in real time to help you identify threat of performance degradation, which could impact the business service, allowing you to take action before internal and external customers are impacted.

To learn more, and see how CA Technologies software solutions enable other organizations to improve service assurance, visit ca.com/customers.