VitalNet™ Network Performance Management Software

Monitor, Analyze & Predict Network Infrastructure Behavior

Lucent VitalNet™ software helps maximize network performance and document service quality for core, mobile, access and managed services. It provides the critical network performance information needed to pre-empt problems, optimize capacity planning and offer service level agreements (SLAs) with complete confidence. This market-leading management tool provides end-to-end, web-based visibility across multi-vendor wireless or wireline network. It enables optimization of ATM trunk performance, deliver profitable new services such as VoIP and managed storage, and ensure maximum service availability for mobile users. And it can be complemented with components of the Lucent award-winning VitalSuite® enterprise software portfolio VitalEvent® software for real-time event correlation, VitalApps™ software for application performance management and VitalART Advanced Reporting Toolkit software that generates custom presentation-quality reports and graphs to support operational requirements today and tomorrow.

Features

- Automated comprehensive data collection – continuously gathers and aggregates network-wide performance data
- Customizable graphical user interface – support the entire network from one intuitive GUI
- Unique graphical “heat charts” – pinpoints performance problems at-a-glance
- Versatile reporting – provides real-time statistics for efficient, on-target troubleshooting, continuous performance data for monitoring service quality, high-level performance summaries, long-term trends for capacity planning, out-of-the-box and configurable executive reports
- Fully customized Web-portal – allows for customer account administration, domain and group definition, policy creation, scheduling data collection and reporting and specifying management privileges for multiple user classes
- Flexible, multi-vendor and multi-technology support – monitors diverse resource types and more than 600 devices from more than 50 different vendors
- Industry-leading scalability – supports today’s largest, most widely distributed networks from one intuitive GUI

Benefits

- Increased profitability through superior QoS
  - Accurate diagnosis to reduce MTTR and churn rates: innovative heat chart technology allows quick, accurate root-cause analysis and prioritized trouble resolution
  - Proactive performance management: automatic alarm generation pre-empt performance-threatening issues before they degrade service quality, helping avoid service downtime
  - Comprehensive collection and reporting of service quality metrics: ensure consistent QoS, facilitate profitable service delivery, meet or surpass service-level commitments
- Maximized return on assets – powerful planning and trending tools help effectively manage network capacity and balance resource loads
- Fast, easy deployment; immediate ROI
  - Shorten time-to-results - out-of-the-box deployment in a few hours
  - Extensible solution streamlines adoption of emerging technology
- Ease of use – reduce level of administrative expertise required and save staff training time and effort
VitalNet™ Software Operations and Specifications

Performance Monitoring
- Personalized web portal monitors quality of services being delivered
- Heat Charts provide intuitive, at-a-glance indicators of network performance problems, with efficient drill downs to additional performance details such as
  - Quality index, CPU/memory/file system util, logical disk space, free memory and availability, projected CPU util, highest utilized CPUs, highest memory resources
- Extensive set of access control mechanisms provide customizable views of network performance to a broad range of users
- Automatic discovery and inventory change identification of networked SNMP and RMON enabled devices
- Allows users to be proactive in requesting bandwidth and service requirement changes before performance is impacted

Executive Reports
- Reports may be generated for the entire network, particular resource types (routers, servers, WANs, Frame Relay, ATM, Wireless, VoIP, RMON2 probes or LANs), or specific functional or regional groups either on the web, or via csv, PDF or txt format
  - Network Overview reports summarize network-wide performance
  - Group Comparison reports contrast performance by functional or regional group
  - Custom reports enable tailored performance reporting for individual users
  - Best/Worst charts identify resource exceptions
  - Historical alarm reports provide detailed and summary views of alarm information
  - Provides the ability to schedule reports and send reports to email aliases

Capacity Planning
- Summaries project usage trends
- Planning view projects future utilization based on past performance for upgrade planning
- Trend Graphs indicate predicted utilization for a single resource based on a configurable period of historical usage (six months by default)

Service Level Management
- SLA reports readily identify performance indicators to verify compliance
- Service Quality Alarms indicate when network performance falls below Quality of Service (QoS) thresholds; can be sent to network management systems (i.e.-HP-OpenView)
- WAN service reports empower network managers to better manage service providers

Network Operations
- Network heat charts immediately expose network trouble spots, based on specific Quality Index settings
- Operations View summarizes key statistic details
- Detailed View presents monitored metrics for devices
- Detailed graphs offer extensive visibility into the performance of individual managed resources - from four hours of data to an entire year or more
- Flexible auto-discovery to import a device information file, specify a list of devices or initiate controlled device discovery
- Integration toolkits allow rapid incorporation of legacy and emerging technologies
- Stores performance data in a commercial relational database management system allowing SQL access

VitalNet™ comprehensively monitors and reports on the performance of resources and devices across enterprise networks.
VitalNet™ Software Operations and Specifications

**Scalability**
- N-tier architecture for unsurpassed scalability
- Up to 10 million polled objects

**Redundancy/Failover**
- A heartbeat monitor on the aggregation server conducts keep alive testing (ODBC connection) to poller pools
- A failover back-up poller takes over within 5 minutes of a poller failure, and notifies the master of new status

**Flexibility**
- Provides Open API
- Supports SNMPv1/v2, RMONI/II standards
- MIBWorks Utility allows proprietary MIB and MIB extension to be defined
- DataWorks Utility provides bulk stats input definitions
- Supports hundreds of simultaneous User’s/Active Clients

**Network Administration Support**
- Role-based global and domain administrative interfaces provides user account administration, domain and group definition, creation of policies and scheduling of all data collection and reporting
- Administrative changes made to the system are tracked over a rolling 30-day period of time. Examples of tracked tasks are:
  - User account - creation/update/deletion
  - Domain - creation/edit/deletion
  - Reporting groups (server, phone number) - creation/edit/deletion
  - User - login/logout
  - Resource - deletion, deactivation, reactivation and speed change
  - Server addition/deletion
  - Aggregation server response failures
- Single step domain policy profiles define a configuration that can be applied to multiple domains
- Items specified include quality index weights, alarm thresholds, heat chart thresholds, heat chart sensitivity, filters
- Secure SSL (https) provides 128 bit encryption between client/master
- Configurable date time format facilitates easy readability of reports
- User security profile

**Monitored Devices/Resource Types**
- Routers: Cisco (including Cisco NetFlow, WAN Manager, CAR and SAA Agents), Nortel, 3Com, Juniper™, Lucent, Redback™
- WANs: Circuits, Frame Relay PVCs, ATM PVCs, ATM trunks, logical ports on WAN switches, RMON2 ATM Probes and routers
- LANs: Ethernet, Token Ring, switches, hubs, SMON VLAN
- Servers: Microsoft™ NT/2000, UNIX™, Novell™, Compaq, SNMP Research, BMC, Cisco, CNT, Brocade, Nishan & McData SANs, Lucent VitalQIP™ DNS & DHCP
- Wireless: Comprehensive Wireless Coverage 2.5 and 3G MSC/Wireless Routers, CDMA, CDMA 2000 UMTS, GPRS
- Wireless LANs (802.11 MAC MIB)
- Cisco VoIP CCM/CDR/CMR, IP Centrex
- Over 50 Vendors supported plus free GUI based MIB toolkit to custom build or add new data collectors
- Over 600 devices certified

**Client/Administrator Interface Requirements**
- IE 6.0 or Netscape™ 7.1, Mozilla 1.4.1
- Video resolution 1024 x 768
- Acrobat Reader 4.0/5.0 with browser plug-in

**System Requirements**
- Windows® 2000/2003
  Pentium® III Processor @ 600 MHz, or equivalent, 1GB RAM, 10 GB free disk space, CD-ROM Drive, Windows® 2000/2003, SQL 2000 Database
- Sun® Solaris
  Sun® Microsystems Sun-Fire 280R, dual 900MHz, 2GB Memory, 75 GB SCSI Drive, 2 Ethernet 10/100 ports, Solaris 9.0, preinstalled, and Oracle® Database Server EE v. 9.2.1.4

Optional Add-On Module
VitalEvent® Real-Time Event Analysis Software

VitalEvent® software helps optimize multi-vendor packet data and voice networks with powerful real-time capabilities that traditional management products cannot match. It offers technically advanced tools to monitor, measure, analyze and visualize performance data and immediately identify network resources that have exceeded defined network service levels. Using the data collection capabilities of the VitalNet™ system, VitalEvent® software identifies key events as they unfold. This component of Lucent’s award-winning VitalSuite® solutions portfolio provides the time-critical data needed to address emergent problems before they affect users. Adaptive statistical thresholding and end-to-end path analysis enable proactive identification of network resources that are not meeting specified service parameters, as well as congestion hot spots.

VitalEvent® Software Operations and Specifications

**Data Collection**
- Leverages VitalNet™ data collection pollers to prevent network traffic spikes due to data collection
- Supports alarming for all data collected by VitalNet™
- Collects key performance data including utilization, packet loss, Internet Control Message Protocol (ICMP) data and throughput for network elements and interfaces
- Flexible architecture supports new and existing network elements defined within VitalNet™ software
- Capacity designed for at least 8 days of periodic data and 32 days of events

**Visualization**
- Automatic (IP) and manual path and subnetwork generation and analysis, maps display route paths through the network
- Tabular text views of performance data, including a summary display with drill-down expansion; tables can be customized by specifying columns, column order, and default sort order
Advanced Thresholds
- Flexible threshold capability (includes default, user-configurable and adaptive - based on historical data) generates events for network conditions according to user-established parameters
- Customizable “business aware” threshold can be set for various times of the day or week
- Rate-based thresholds enable alerts based on multiple occurrences of performance events over a specific time period
- Exception conditions by thresholding interval allows exception conditions to be configured as active only during a certain time-of-day, for SLAs that apply during specific periods
  • For example, an alarm can be specified to only be generated if the defined threshold is crossed between 9AM and 3PM, on Wednesday and Thursday, and only if the violation persists for at least 5 minutes in a 60 minute time window

Event/Alarm Processing
- SNMP traps for generated alarms can be configure and sent to multiple destinations such as HP OpenView, Micromuse™ NetCool®, or Lucent’s Network Fault Manager (NFM)
- Users can be notified of events even when they are not viewing a VitalEvent® screen; flexible configuration options allow specific messages (or messages about specific devices) to go to specified individuals
- “Event Index” ranks the relative importance of multiple network events

VitalSuite® Performance Management software portfolio
Optimize network, application and business performance

Winner of many awards, including the Network World “World Class Award” for best performance management system, the VitalSuite® software portfolio integrates multiple software modules to provide comprehensive, cost-effective service provider solutions. Providing real-time views into everything from complex application transactions to mission critical network resources, it continuously monitors, measures and optimizes performance at every level within the network.

VitalNet™ software seamlessly merges network performance data with real-time event and application data from the other VitalSuite® modules, VitalEvent® and VitalApps™, to help operations personnel instantly understand how diverse processes and multi-vendor devices are interacting to support network operations.

VitalART® is a comprehensive Web-based tool that generates custom presentation-quality reports and graphs by extracting monitored data from VitalNet™ software. With VitalART® software, administrators no longer need to export files to complex and expensive commercial reporting packages. The flexible formatting power enables easy transformation of network performance data to dynamic, custom reports and quickly determine the status of network infrastructure. VitalART® optimizes the report capabilities of VitalNet™ software to increase network resource efficiency and IT staff productivity.

VitalApps™ Application Performance Management software monitors the performance of network-based applications, presenting real-time view of each user transaction from the desktop, across the network or Internet, to the servers, and back again. Operations staff get a complete picture of overall application performance network-wide. Potential troubles are clearly flagged on the system’s graphical summary screens. And powerful fault management capabilities enable problems to be rapidly diagnosed and efficiently addressed.

Lucent Technologies, the global leader of business and service optimization software, offers highly scalable, multi-vendor solutions that enhance the end-user experience, enable converged services, increase IT productivity and maximize business returns.

The award-winning Lucent software portfolio enables communication providers, government and enterprises to deliver advanced, high quality, converged services while reducing costs, improving reliability.

Lucent partners with best-in-class system integrators, hardware and services vendors, complementary ISVs and distribution channels on a global, regional and local level to improve time to market and ease the costs and complexities of deployment.

To learn more about these and other enterprise management solutions, contact your Lucent Technologies sales representative, authorized reseller or sales agent. You can also visit our web site at http://www.lucent.com/vital or call 1-888-426-2252.