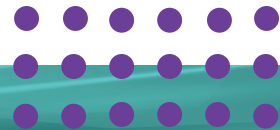


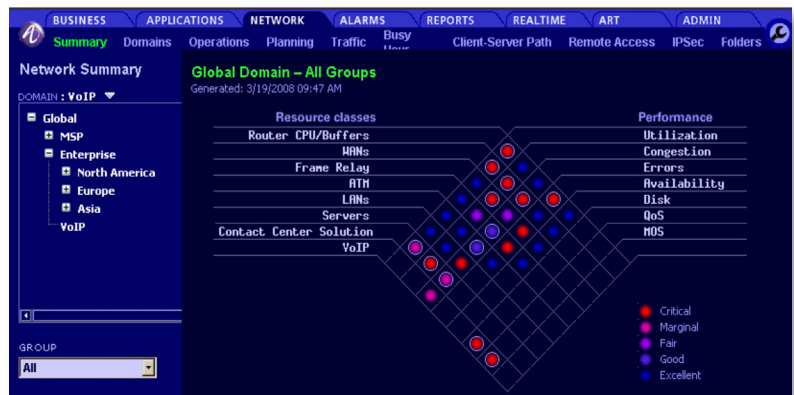
VitalSuite™ Network Performance Management Software

Release 10.2



Monitor, Analyze & Predict Network Infrastructure Behavior

Alcatel-Lucent VitalSuite Network Performance Management software provides the critical network information necessary to pre-empt problems, optimize resources and plan for maximum return on network investments (ROI). This market-leading management tool provides end-to-end, web-based visibility into geographically dispersed, multi-vendor, multi-technology converged infrastructure. It enables IT managers to monitor, analyze, manage and predict performance from a single centralized location. And it can be complemented with components of the Alcatel-Lucent award-winning VitalSuite enterprise software portfolio; VitalSuite Real-time Event Analysis software for real-time event correlation; VitalSuite Application Performance Management software; and VitalSuite Advanced Reporting software that generates custom presentation-quality reports to support business requirements today and tomorrow.



VitalSuite multi-level domain heat charts, provide at-a-glance views of network operations with easy drill down to more detailed reports.

FEATURES

- Flexible, multi-vendor and multi-technology support - monitors diverse resource types and more than 640 devices from more than 50 different vendors
- Industry-leading scalability - supports today's largest, most widely distributed networks from one intuitive GUI
- Versatile reporting - provides real-time statistics for efficient, on-target troubleshooting, high-level performance summaries and long-term trends for capacity planning and monitoring service quality
- Out-of-the-box and configurable executive reports - shortens time-to-results with rapid analysis
- Unique graphical multi-level domain "heat charts" - pinpoints performance problems at-a-glance
- Web-based administration interface - allows for user account administration, domain, group and Key Performance Indicator definitions, policy creation, scheduling data collection and reporting and specifying privileges for multiple user classes
- Fully automated monitoring - continuously gathers and aggregates network-wide performance data

BENEFITS

- Unsurpassed investment protection - use built-in toolkit to speed integration with existing management systems and emerging technologies
- Cost Effective price/performance - implement carrier-class management capabilities priced to suit enterprise IT budgets
- Low cost of ownership - reduce CapEx and OpEx outlays with a simple, economical licensing model, cut training time and expense with an easy to use web-based management interface
- Fast, easy deployment - helps network managers identify potential trouble spots, verify service level agreement (SLA) compliance and optimize resource utilization
- Enhanced end-user experiences - access real-time data to identify performance issues before they affect users
- Immediate ROI - quickly identify opportunities for consolidation and/or elimination of expensive operational resources based on utilization data
- Network-wide visibility - monitor performance across the entire IT infrastructure



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, update 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
- Reports can be scheduled to run at various times and sent to email aliases

Capacity Planning

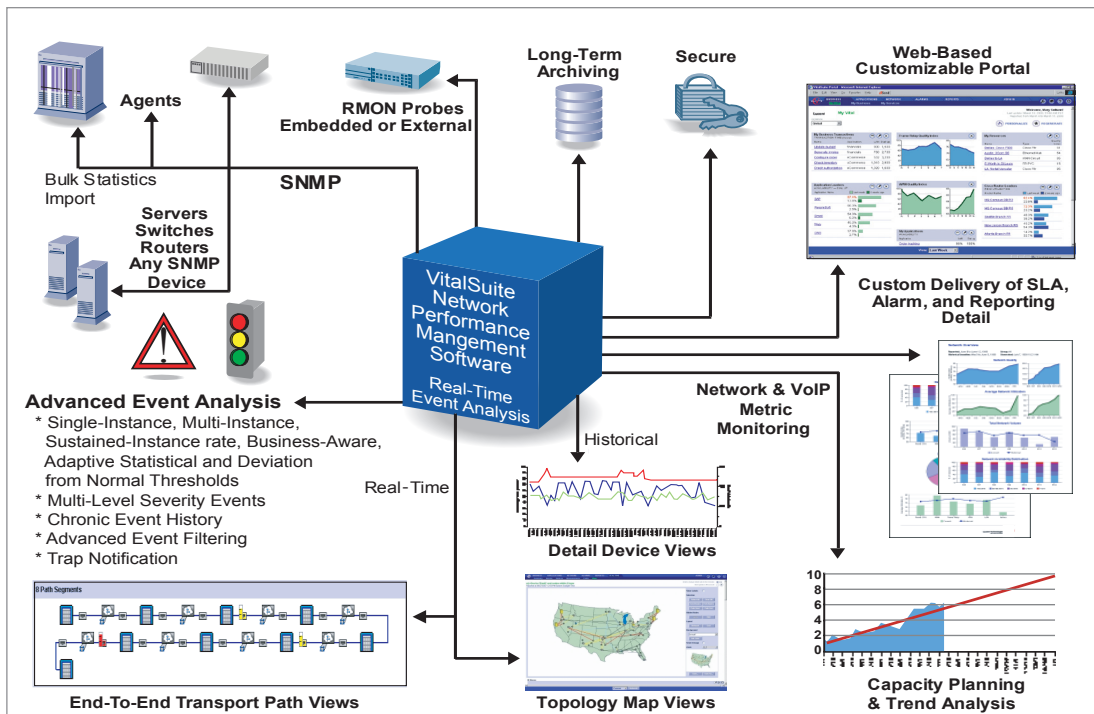
- Summaries projected usage trends
- Planning view projects future utilization based on past performance for upgrade planning
- Trend Graphs indicate predicted utilization for a single resource based on a configurable period of historical usage (six months by default)

Service Level Management

- SLA reports readily identify performance indicators to verify compliance
- Customizable Key Performance Indicators (KPI's)
- 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
- Real time "Live Diagnostic" monitoring facilitates devices troubleshooting
- Detailed graphs offer extensive visibility into the performance of individual managed resources - up to a 24 hour detailed view of stored data
- Flexible auto-discovery to import a device information file, specify a list of or initiate controlled device discovery
- Integration toolkits allow rapid incorporation of legacy and emerging technologies
- 95th percentile utilization data collection/calculation for LAN MIB2, High-Capacity LAN, WAN MIB2, and High-Capacity WAN resource types - reports available through VitalSuite Advanced Reporting Toolkit
- Stores over a year of performance data in a relational database management system allowing SQL access



VitalSuite comprehensively monitors and reports on the performance of resources and devices across the entire network.

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

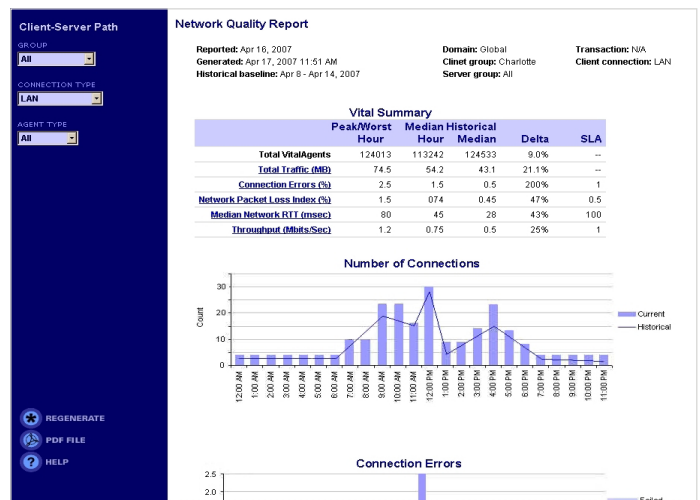
- Provides north bound Open APIs
- Supports SNMPv1/v2/v3, RMON/II standards
- Supports Cisco NetFlow SAA / IP SLA including VoIP Jitter
- Monitors MPLS Data & Tunnel Virtual Interface (TVI)
 - Discovers LSP topology and monitors – Reverse LSPs, Interfaces used, LSP Path Changes, Peak LSP State Transitions, Average Standby Paths (%) and Average Operational Paths (%)
 - Associates a PE to CE interface to the appropriate VPN, and associates an LSPs to a given VPN
- MIBWorks Utility allows proprietary MIB and MIB extension to be defined
- DataWorks Utility provides bulk stats input definitions
- Supports 100's 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 workflow 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, data retention time and speed change
 - Server addition/deletion
 - Aggregation server response failures
 - Historical discovery reporting of inventory changes
- 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
- Busy Hour period definition per device/resource

Monitored Devices/Resource Types

- Routers: Cisco (including Cisco NetFlow 5.0, WAN Manager, CAR and SAA / IP SLA Agents), Nortel, 3Com, Juniper™ (JUNOS 6.2), Alcatel-Lucent 7x50 Service Switch & Router family, 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™ WMI, NT/2000, Exchange, Linux, UNIX™, Novell™, Compaq, SNMP Research, BMC, Cisco, CNT, Brocade, Nishan & McData SANs, Alcatel-Lucent VitalQIP DNS & DHCP and VitalSuite AAA
- VoIP: Alcatel-Lucent VoIP OmniPCX Enterprise, IP Phone - Cisco VoIP CCM (ver 4.0, 4.1 & 4.2) - Avaya VoIP Monitoring Manager (VMM - ver 3.1) - BroadWorks Application, Media, Network servers - Brix Networks SCCP, RTP, H323 Active Test Suites - Kagoor VF series
- Firewalls: Alcatel-Lucent Brick devices: LSMS 7.2, Cisco, Checkpoint and Juniper
- Alcatel-Lucent PSAX, OmniSwitch, OmniAccess WLAN, OmniStack, ISAM/ASAM (DSL) and Genesys Contact Center solution resources
- Alcatel-Lucent VoIP Agent: Speech Clarity, Conversational Quality, Call Setup Metrics
- Wireless: Comprehensive Wireless Coverage 2.5 and 3G MSC/Wireless Routers, CDMA, CDMA 2000 UMTS, GPRS, UTStarcom and Cisco PDSN
- Wireless LANs (802.11 MAC MIB), WiMax Alvarion BreezeMax, WMAN - WiMax
- Over 50 Vendors supported plus free GUI based MIB toolkit to custom build or add new data collectors
- Over 640 devices certified



VitalSuite Network Quality Report detailing the performance of a client-server connection path.

Client/Administrator Interface Requirements

- IE 7.0, 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 or Sun® Solaris 9/10 system platform sized appropriately for deployment

VitalSuite Real-time Event Analysis Software

This VitalSuite module helps optimize multi-vendor VoIP, packet data and voice networks. 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 VitalSuite Network Performance Management system, the real-time event analysis software identifies key events as they unfold. This component provides the time-critical data needed to address emergent problems before they affect users. Adaptive statistical thresholding, topology map views 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.

Data Collection

- Leverages VitalSuite data collection pollers to prevent network traffic spikes due to data collection
- Supports alarming for all data collected by VitalSuite Network Performance Management software
- 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 VitalSuite Network Performance Management system
- Capacity designed for at least 8 days of periodic data and 32 days of events

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 an events over a specific time period
- Exception conditions by thresholding interval across reporting groups 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

- Email notification of thresholding events
- SNMP traps with alarm details for generated alarms can be sent to multiple destinations such as SMARTS, Aprisma, HP OpenView, Micromuse™ NetCool®, or Alcatel-Lucent's VitalSuite Network Fault Management software
- Users can suppress events or be notified of events regardless of what screen is being viewed
- 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

Visualization

- IP Topology map views with auto-discovered devices, subnetworks (nodes), links showing real-time alarms
- Automatic (IP) and manual path and subnetwork generation and analysis, maps display route paths through the network
- Device / Alarm summary with drill-down expansion
- Tabular text views with powerful searching and sorting of performance data, including a summary display with drill-down expansion; tables can be customized by specifying columns, column order, and default sort order

VitalSuite Performance Management software portfolio

Optimize network, application and business performance

Alcatel-Lucent, a proven global provider of market leading IT management solutions that maximizes profitability and productivity and helps you leverage IT investment for a competitive advantage. Alcatel-Lucent's award-winning VitalSuite Network and Service Management portfolio is used today by more than 1500 enterprises world-wide, including over 75% of the Fortune 100.

Alcatel-Lucent leverages innovations from Bell Labs and experience and expertise from Alcatel-Lucent Worldwide Services to provide high performing and highly scalable solutions that increases IT staff productivity by enabling user technology and ensures network and applications performance for improved service availability.

VitalSuite Application Performance Management software monitors the performance of network-based applications, presenting real-time views of each user transaction from the desktop, across the network or Internet, to the servers, and back again. IT managers get a complete picture of the overall application performance across the network since the software continuously collects data from all ongoing applications activity.

VitalSuite Advanced Reporting Toolkit is a comprehensive Web-based tool that generates custom presentation-quality reports and graphs by extracting monitored data from VitalSuite Network Performance Management software. The flexible formatting power enables easy transformation of network performance data to dynamic, custom reports and quickly determine the status of network infrastructure.

To learn more about these and other management solutions, contact your Alcatel-Lucent sales representative, authorized reseller or sales agent. You can also visit our web site at <http://www.alcatel-lucent.com/vital>.

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