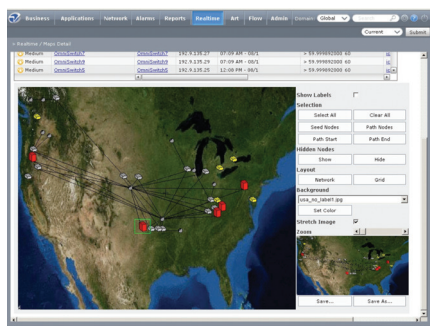
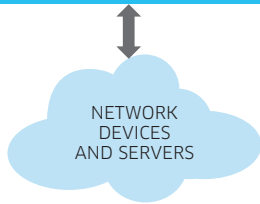
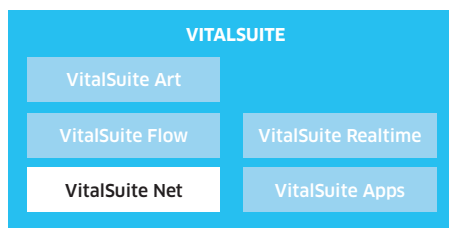
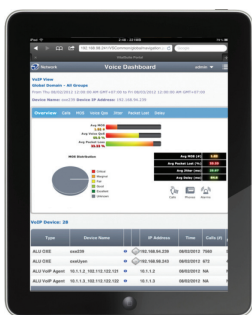


# ALCATEL-LUCENT VITALSUITE® NETWORK PERFORMANCE MANAGEMENT SOFTWARE RELEASE 12.0

Alcatel-Lucent VitalSuite® Network Performance Management software (**VitalSuite Net**) provides the critical network information you need to monitor network performance, preempt problems, optimize resources, and plan ahead for maximum return on network investments. VitalNet provides end-to-end visibility of all kinds of networks – multivendor, multi-technology, and geographically dispersed, including routers, switches, servers, VMWare and Citrix hosts, VoIP devices, LAN, WAN, IP, ATM, and many other types of network devices. It enables network managers to monitor, analyze, manage and predict network performance from a single powerful easy-to-use Web 2.0 Graphical User Interface (GUI).



VitalNet can be deployed by itself, or together with other modules of the Alcatel-Lucent VitalSuite software portfolio, including VitalSuite Real-time Event Analysis software (**VitalSuite Realtime**) and VitalSuite Flow Analysis software (**VitalSuite Flow**) to provide a powerful end-to-end performance management solution. VitalNet can also be integrated with other management systems. Easy installation, configuration, and an easy-to-use Web-based GUI make the system quick to deploy and able to deliver immediate benefits out of the box. A powerful feature set, extensibility, and scalability mean the VitalSuite system will grow with you as your network management needs continue to expand.

## FEATURES - VITALSUITE NET

- Powerful multivendor and multi-technology support monitors 700+ different device types from leading vendors such as Cisco, Juniper, Alcatel-Lucent, and dozens more
- Industry-leading scalability supports today's largest, most widely distributed networks from a single easy-to-use Web 2.0 GUI with custom portal views
- Versatile reporting provides real-time statistics for efficient, on-target troubleshooting, high-level performance summaries and long-term trends for capacity planning and quality of service (QoS) monitoring
- Out-of-the-box and configurable threshold alarms and reports
- Unique Quality Index displays – high level displays show problems at a glance, with easy drill down to detailed reports

- Web 2.0 GUI – easy-to-use GUI with powerful reporting, filtering, and searching capabilities for users and administrators; internationalized to support multiple languages
- Mobile edition GUI for iPad and Android tablet devices
- Fully automated monitoring continuously gathers and aggregates network-wide performance data using a wide variety of device collector types
- Integrated with VitalSuite – seamless integration with key VitalSuite components, allowing you to configure a complete performance management solution to meet your individual needs
- Receives and analyzes incoming SNMP Traps from network devices
- Manages IPv4 and IPv6 network devices as well as mixed mode environments
- **VitalSuite Realtime** – advanced thresholds and alarms applied to data collected by VitalNet, VitalFlow, or VitalApps
- Instantaneous notification through auto-update GUI screens, e-mail, or trap messages
- Powerful visualization of real-time performance data using 2D 3D Topology Maps and end-to-end network paths
- **VitalSuite Flow** – collection and analysis of Netflow and sFlow records directly from flow-enabled network routers
- Powerful Top N analysis reports based on flow data reveal how your network capacity is being used

## BENEFITS

- Network-wide visibility – monitor performance across the entire IT infrastructure
- Works out of the box – fast and easy deployment, with automatic network discovery and default configurations and a rich set of built-in data collectors
- Immediate return on investment (ROI) – quickly identify overutilized and underutilized network resources
- Cost effective – implement carrier-class management capabilities at a price that suits enterprise IT budgets
- Protects your investment – extensive configuration options and customizability so it easily integrates with existing management systems and emerging technologies
- Enhanced end-user satisfaction – resolve network problems before they impact users
- Proactive monitoring – identify problems quickly in real time, reduce time needed to manage the network
- Lower operations and ownership costs – minimize help desk calls and trouble tickets, and reduce the need for expensive hardware upgrades

## 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 utilization, logical disk space, free memory and availability, projected CPU utilization, 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

### Trap Management

- Receives and Analyzes SNMP Traps from network devices
- Maps Traps to Alarm Events for detailed analysis and reporting

## 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 through CSV, PDF or TXT formats
  - Network overview reports summarize network-wide performance
  - Group comparison reports contrast performance by functional or regional groups
  - 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 e-mail 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)

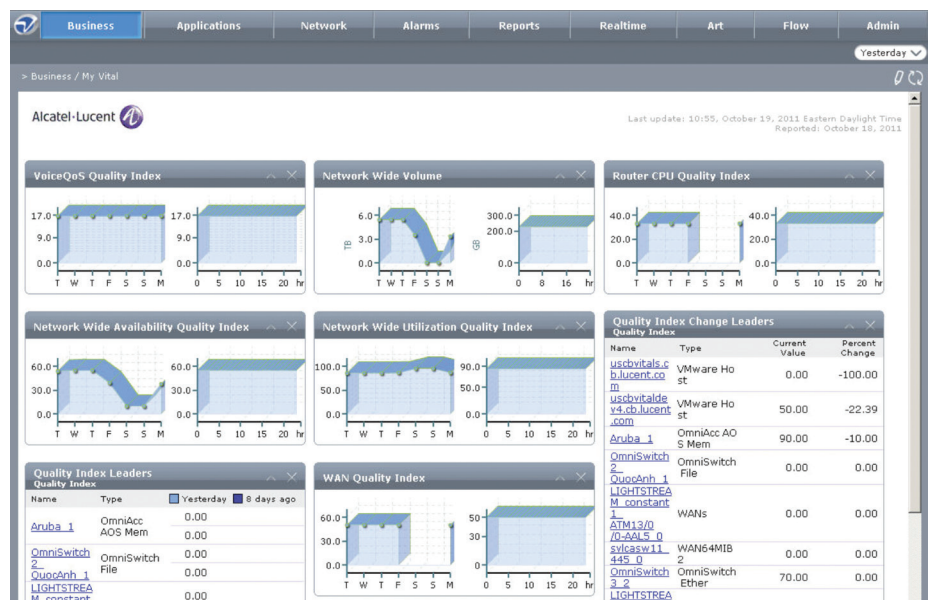
## Service level management

- Service level agreement (SLA) reports readily identify performance indicators to verify compliance
- Customizable Key Performance Indicators (KPIs)

- Service quality alarms indicate when network performance falls below QoS thresholds; can be sent to network management systems (that is, HP OpenView)
- WAN service reports empower network managers to better manage service providers

## Network operations

- Network summary charts immediately expose network trouble spots, based on specific Quality Index settings
- Real-time Live Diagnostics provides detailed rapid troubleshooting features for specific devices
- Detailed graphs offer extensive visibility into the performance of individual managed resources – view up to 35 days of stored data in a single graph
- Flexible auto-discovery to import a device information file, specify a list of or initiate controlled device discovery
- Powerful dashboard displays for at-a-glance summary displays of VMWare, Citrix, and VoIP QoS Performance
- 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 Tool (VitalART)
- Stores over a year of performance data in a relational database management system allowing SQL access



## Scalability

- Three-tier architecture for unsurpassed scalability
- Manages small to very large networks (millions of polled objects and thousands of devices)
- Supports dozens of simultaneous active users
- Efficient polling and data collection to minimize network load due to monitoring

## Flexibility

- Domains and groups – powerful features for dividing large networks into easy-to-manage groups
- MIBWorks Utility for creating new SNMP-based collectors
- DataWorks Utility for creating new bulk data collectors
- Flexible Data Model feature for creating custom KPIs

## Network administration support

- Automatic discovery of network devices, ports, resources
- Role-based global and domain administration interfaces
- Domain policy profiles define configurations that can be applied to multiple domains
- Secure SSL (HTTPS) provides 128-bit encryption between client/master
- Busy hour period definition per device/resource

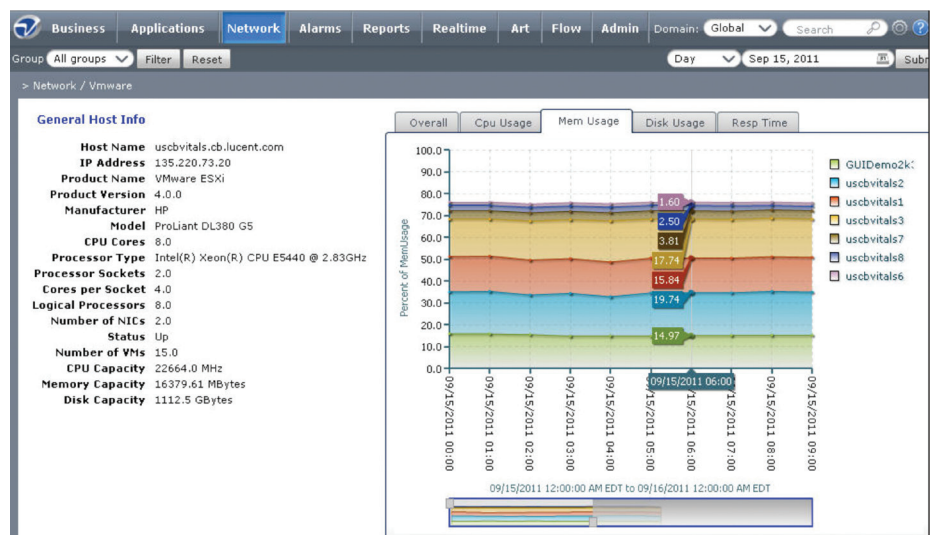
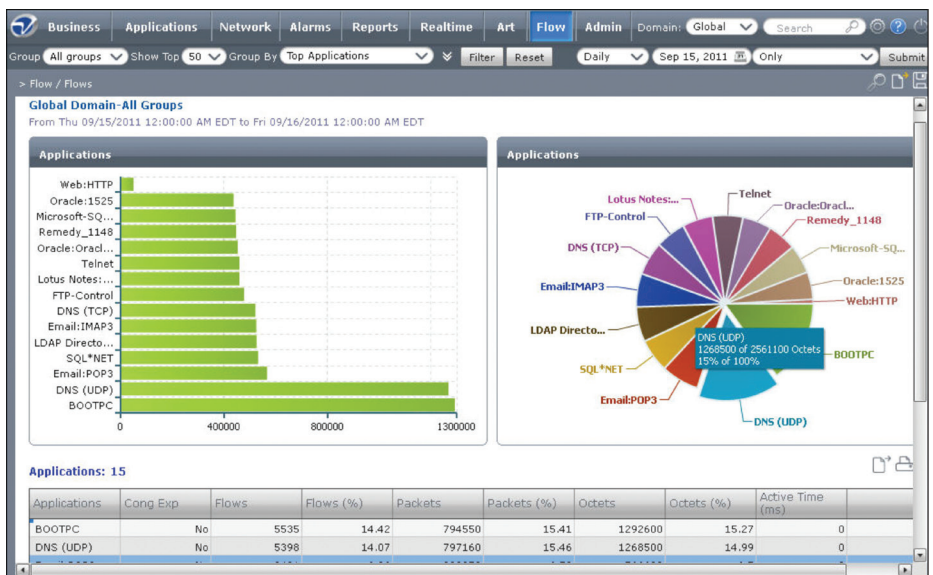
## Redundancy/Failover options

- Poller Hot Standby – backup poller takes over if primary fails
- Reporting server – cold standby option for VitalNet master server

## Monitored devices/Resource types

- Over 700 device types from dozens of leading vendors supported
- Routers and switches: Cisco, Juniper, Alcatel-Lucent, Redback™, 3Com, Foundry, Riverbed, and others
- Alcatel-Lucent devices – 7x50 Service Routers, 5620 SAM, PSAX, OmniSwitch™, OmniAccess™ WLAN, OmniStack™, ISAM/ASAM (DSL)
- WANs: Circuits, frame relay PVCs, ATM PVCs, ATM trunks, logical ports on WAN switches, Cisco WAN Manager, RMON2 ATM probes and routers
- LANs: Ethernet, token ring, switches/hubs, SMON VLAN
- Servers: Microsoft™ WMI, NT/2000/2003/2008, Exchange, Linux, UNIX™, Novell™, Compaq, SNMP Research, BMC, Cisco, CNT, Net-SNMP, Sun

- Other devices: Cisco CSS, Brocade, Nishan and McData SANS, Alcatel-Lucent VitalQIP DNS and DHCP and VitalSuite AAA, Riverbed, Cisco WAAS, BlueCoat, F5, Palo Alto
- Other applications: PostgreSQL DBMS, Apache Web Server, VMware ESXi, Citrix XenServer and XenApps
- VoIP QoS: Alcatel-Lucent VoIP OmniPCX Enterprise™ (v10), Cisco VoIP CUCM (v8); Cisco IP SLA VoIP Jitter; BroadWorks application, media, network servers; Brix Networks SCCP, RTP, H323 Active Test Suites; Kagoor VF series, RTCP-XR VoIP records via SIP publish
- VitalNet VoIP Agent: Active VoIP QoS monitoring using optional VitalNet VoIP Agent feature – Conversation quality, MOS, SIP server call setup performance
- Netflow and **sFlow** data collection via VitalSuite Flow module
- Firewalls: Alcatel-Lucent, Cisco, and Juniper devices
- Genesys Contact Center – Genesys GVP, SCS, T-Server, SIP Server, Contact Center application and platform monitoring
- Supports SNMPv1/v2/v3, RMON/II IPv4 and IPv6 standards
- Active probes: Supports Cisco SAA/IP SLA including VoIP Jitter; supports Juniper RPM probes
- MPLS Data and Tunnel Virtual Interface (TVI), LSP topology
- Unified Communications: Alcatel-Lucent Open Touch
- Wireless LANs (802.11 MAC MIB), WiMax Alvarion BreezeMax, WMAN – WiMax
- Wireless: Comprehensive Wireless Coverage 2.5 and 3G (using optional wireless KPI package) – MSC/wireless routers, CDMA, UMTS, GPRS, UTStarcom and Cisco PDSN



## VitalSuite Flow – flow data collection and analysis

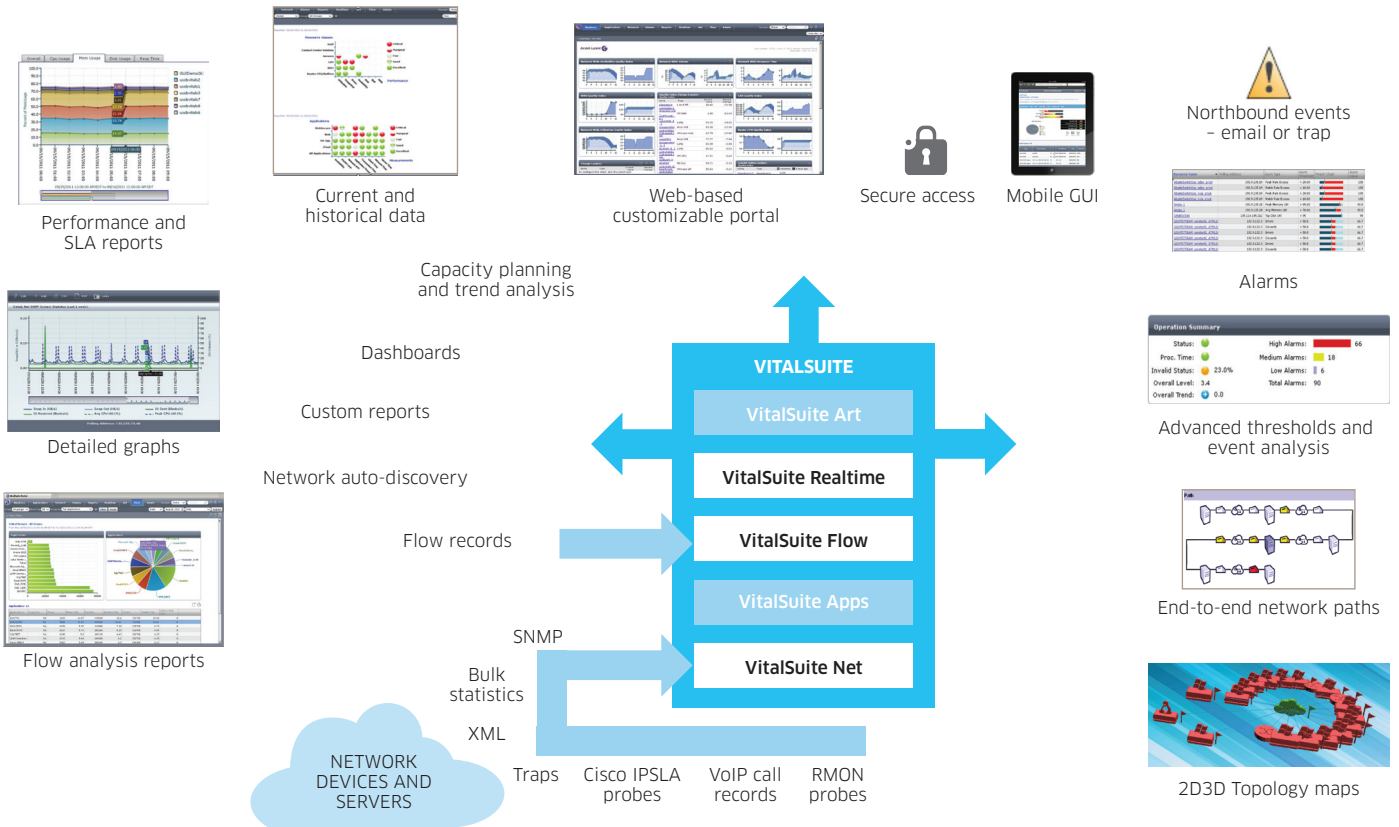
- Flow data collection – collects flow records directly from flow-enabled routers in the network
  - No need to deploy separate flow collector devices
- Analysis reports – predefined advanced analysis reports with drill down
- Powerful, visual reports – Top N reports, analysis reports and custom reports
  - Top endpoints, conversations, autonomous systems, ports
  - Talkers, listeners, conversations, overall
  - Top applications, protocols, QoS settings
- Alerting on flow data – users can configure Vital Real-time alarms on flow data to generate alarms for unusual or improper flow traffic (Note: VitalRealtime is a required module for VitalFlow)
- Custom reports – flow data records are also available for custom reports using VitalART

- Report time frames – flow data is available for hourly, daily, weekly and monthly aggregate views
  - Up-to-the-minute data is available on charts
- Supports several flow record formats – Netflow v1, v5, v7, v9 and IPFIX, **sFlow** version 5 Flow Sample types (Raw Packet Header, IPv4 Data, IPv6 Data, Extended Switch Data)
- Scalable data collection – simply add VitalFlow collectors to your existing VitalNet deployment
- Provides detailed information on how your network is being used

- Rate-based thresholds enable alerts based on multiple occurrences of an event 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 9 a.m. and 3 p.m., on Wednesday and Thursday, and only if the violation persists for at least 5 minutes in a 60 minute time window
- E-mail 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 VitalSuite Network Fault Management software
- Users can suppress events or be notified of events regardless of what screen is being viewed

## VitalSuite Realtime – advanced thresholds and analysis

- 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” thresholds can be set for various times of the day or week



- 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
- Powerful 2D 3D Topology maps showing devices and subnetwork connections with realtime alarm status auto-updating. Supported Map layers include Layer 3, Layer 2, MPLS, Virtualization, and VoIP. Rich feature set for Map navigation, drill-down, and configuration
- Automatic (IP) and manual path and subnetwork generation and analysis, maps display route paths through the network
- Device/Alarm summary with drill-down expansion

### User/Administrator interface requirements

- Microsoft Internet Explorer® 7, 8, or 9
- Firefox 10

### System requirements

- Windows 2008 64-bit R2/MS SQL Server 2008 64-bit
- Red Hat Linux 5.5 / Oracle 11.gR2

## VITALSUITE PERFORMANCE MANAGEMENT SOFTWARE PORTFOLIO

### Optimize network, application and business performance

Alcatel-Lucent is a proven global provider of market-leading IT management solutions that maximize profitability and productivity and help you leverage your investment for a competitive advantage. The Alcatel-Lucent award-winning VitalSuite Performance Management portfolio is used today by more than 1500 enterprises worldwide, including over 75 percent 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 increase IT staff productivity by enabling user technology to ensure network and applications performance for improved service availability. Alcatel-Lucent partners with world-class business partners, system integrators and hardware vendors to deliver proven solutions that maximize the return on IT investments.

VitalSuite Applications Performance Management software (**VitalSuite Apps**) provides detailed application performance analysis using agent software deployed on user desktops or servers in the network. It captures actual end-user experience and monitors individual applications for response time and number of transactions.

VitalSuite Advanced Reporting Tool (**VitalSuite ART**) 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 and application performance data to dynamic, custom reports.

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>.

