

Nokia VitalSuite® Application Performance Management software

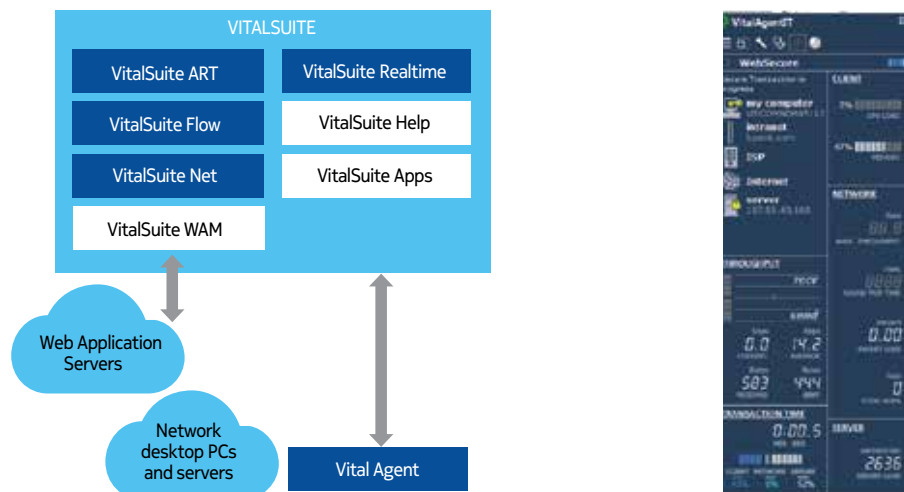
Release 14.2

Nokia VitalSuite® Applications Performance Management™ software (VitalSuite Apps) provides real-time visibility for tracking, analyzing and predicting the behavior of business-critical IP-based and Web-based applications network-wide. This versatile performance optimization and fault management system monitors user transactions from the desktop or web browser to the network/Internet to the destination server. It provides executive management with essential overview information for infrastructure investment decision making. And it allows operations and help desk staff drill down to quickly identify, diagnose and resolve application performance problems.

VitalSuite Apps can be deployed by itself, or together with other modules of the Nokia VitalSuite software portfolio, including Network Performance Management software, Real-time Event Analysis software and Advanced Reporting Tool software

that generates custom presentation-quality reports and graphs. With a powerful feature set, extensibility, and scalability, VitalSuite positions IT organizations to support business requirements today and tomorrow.

Figure 1. VitalSuite Modules with VitalSuiteApps highlighted



Features

- MyVital Web-based portal delivers personalized views of end-to-end application and network performance
- Embedded VitalAgent™ client software pinpoints application-related problems on desktops, notebooks and servers
- Patented passive flow analysis provides real-time demarcation of every application transaction by client, network and server time
- Powerful fault detection and management
- Unique summary charts and reports isolate trouble spots at a glance
- Centralized alarm console receives alarms for application and network faults and performance problems
- Web 2.0 interactive GUI – easy to use yet powerful
- Industry-leading scalability – monitors service quality across today's largest network environments
MyReports – flexible customizable drilldown reporting tool focuses on specific applications and users
- Integrated with VitalSuite – seamless integration with key VitalSuite components, allowing you to configure a complete performance management solution to meet your individual needs:
 - VitalSuite Net – Network Performance Management component
 - VitalSuite ART – Advanced Reporting Tool – wizard-based custom reporting

Benefits

- Enhanced user satisfaction – resolve application and network faults and problems before they impact users
- Lower operations and ownership costs – minimize help desk calls and trouble tickets, save on software maintenance costs and reduce the need for expensive hardware upgrades

Operation and specifications

Performance monitoring

- Measures end-user experience of mission-critical applications and services across the IP infrastructure
- Powerful aggregation algorithms developed by Bell Labs merge thousands of transactions into meaningful reports on overall system health and potential trouble spots
- Monitors system performance end-to-end – from the desktop, across local and remote links, through hubs, switches and routers, to the server and back again
- Choice of Agent data upload types: hourly performance data upload, or Rapid Data Agents (5 minute performance data upload with auto-update real-time reports).
- Provides Web-based customer-specific account assessment reports on demand
- Four-tier transaction reporting provides high-level visibility into where a problem occurred along with the specific tier and component that led to the poor performance
- Segments performance information by service, domains and/or groups to quickly determine how pervasive a problem is within an organization
- Heat charts provide an intuitive, at-a-glance indicator of application performance problems, with efficient drilldowns to additional performance details such as:
 - Number of transactions, transaction time, server time, server load time, network time, client time, transaction throughput, average transaction size, transaction errors, total traffic volume, application availability, number of connections, connection errors, response time, latency, retransmissions

- Statistical analysis of performance data reveals unusual or exceptional events that might otherwise escape detection
- Collects, aggregates and reports historical network and application performance data for measuring corporate service level agreements (SLAs)
- Monitored events and parameters include Web-based applications, performance and availability of applications, clients, networks, servers, and remote access, plus PC and network configuration data

Fault analysis

- Automatically detects and reports application performance problems in real time, providing instant, complete analysis of every fault
- Correlates specific network device problems (using VitalSuite Network Performance Management software) and application problems through a sophisticated fault correlation feature that groups events related to a common source, enabling quick treatment of the problem rather than the symptoms
- Root cause analysis pinpoints problems and delays
- Provides technical specialists with a full summary of alarms, users who are experiencing problems, and customizable diagnosis and prescription
- Simple displays reveal if the frequency of events/alarms is falling or rising to help understand network trends and forecast imminent problems
- Allows front-line help desk staff to detect, address and even resolve problems before they are ever reported, so phones stay on the hook — and users stay online
- After a problem is resolved, the software automatically closes the event and provides an updated status report that eliminates the need to manually track problems

Scalability

- Distributed architecture makes it easy to implement global policies throughout an organization and offers unparalleled scalability for the largest customer environments
- Scalable to thousands of agents

Reports

- Custom reports to tailor performance reporting to the needs of individual users
- Heat cell drill down provides detailed reports that identify the nature and source of specific problems. Reports may be generated for:
 - Overall network quality, response time, transaction comparisons, clients, application comparisons, application availability, latency, application throughput
- Rapid Data reports show agent performance at up to the minute frequency.
- MyReports provides a flexible customizable tool that allows focus on specific applications and users
 - Best/Worst performer reports identify exceptions and give visibility into the performance experienced by end users for all applications or a specific server running a critical application
 - Trending reports on single and multiple parameters, for busy hours or days, with critical and warning thresholds display up to 12 months of rolling performance history, to proactively ensure that the IP infrastructure can deliver the performance required by an application
- Daily or weekly reports track alarms and their resolution over time, showing how fast events are coming in, how fast they are being cleared, and where they are coming from

Service level management

- SLA alarm reports empower network managers to better manage service and application providers
- Assess quality of services delivered to end users against SLAs using service level alarms
- SLA reports readily identify the application, the server and the violated performance parameter to SLA thresholds
- Network quality displays show performance details about specific client-server paths. These reports verify SLAs and accurately assess capacity planning requirements. Critical performance measurements include: Total traffic volume, server retransmissions, client retransmissions, packet loss, network latency, and throughput

Network operations

- An extensive set of access control mechanisms provides customized views of application performance for a broad range of users
- Allows users to be proactive in requesting bandwidth and service requirement changes before performance is impacted
- Application statistics for individual clients and servers to support usage-based accounting

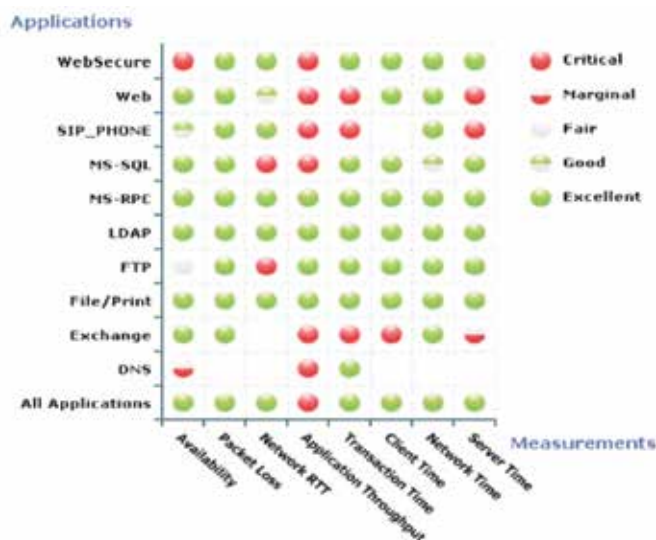
- Application heat charts by varying color and intensity immediately expose application trouble spots, based on availability indexes
- Detailed views and reports offer extensive visibility into the performance of individual applications and transactions within an application from daily, weekly to monthly data for up to six months of specific business transactions activity within an application

Flexibility

- Data Source Integration (DSI) API exposes application transaction data to other tool sets
- Supports multiple simultaneous users
- GUI Gateway alarm configurator interfaces with third-party ticket generation systems (SNMP trap, e-mail, remedy)
- Transact Toolkit, a key component of the Business Transaction Management System, delivers the ability to identify, isolate and capture the characteristics of specific business transactions activity within an application
 - Transact Toolkit identifies patterns in the network packets to demarcate transactions within custom applications

Carrier-grade synthetic monitoring – Automon

- Automon can regularly connect to servers both inside and outside an organization to test availability, response and retrieval times, throughput, delays, and congestion levels. Automon:
 - Automatically performs synthetic background analysis to simulate the action of end users
 - Automatically monitors the availability of key application servers
 - Automatically retrieves Web (HTTP and HTTPS) pages
 - Automatically inputs form data on Web pages to monitor eCommerce applications
 - Provides integrated scripting capability to customize Automon monitoring



- Synthetic monitoring is a scalable, remotely manageable test generation tool that when coupled with the VitalAgent is capable of generating and monitoring performance of thousands of network tests per minute
- Standard tests include:
 - Web Get URL, SMTP Echo Test, Pop3 Echo Test, DNS Resolve Test, Database Query Test, Command Line Test and TCP Echo Test

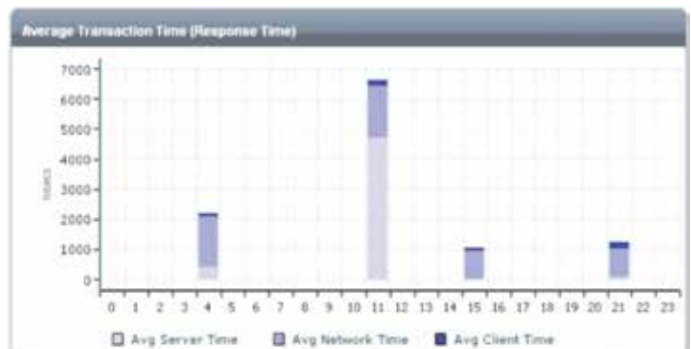
Administration

- Role-based global and domain administrative interfaces provide user account administration, domain and group definition and creation of policies
- Single step domain policy profiles define a configuration that can be applied to multiple domains
- Robust default behavior and configurability provide out-of-the-box functionality
- Secure SSL (HTTPS) provides 128-bit encryption between client and master
- Protects group-specific data through fully integrated grouping and access control
- Allows sort, search, and filter of data by specific business unit, location or technology

- Administrative changes are tracked via log files for the previous 30 days
- VitalAgent manageability and deployment –easy manageability reduces total cost of ownership;
- Agents can be deployed and updated automatically via Agent Configuration Server
- Agents can be deployed through SMS package definitions

Monitored applications

- Internet (HTTP, HTTPS, and Web-based applications such as DNS and RealPlayer)
- Groupware (e-mail, MS Exchange, Lotus Notes, file and print services)
- Genesys Contact Center solution
- SIP server
- Database (Oracle®, MS-SQL, Sybase® and LDAP)
- Infrastructure (VPN, DNS and security)
- Custom in-house applications including Javabased applications
- SMB2 protocol messages, including 18 individual transaction types

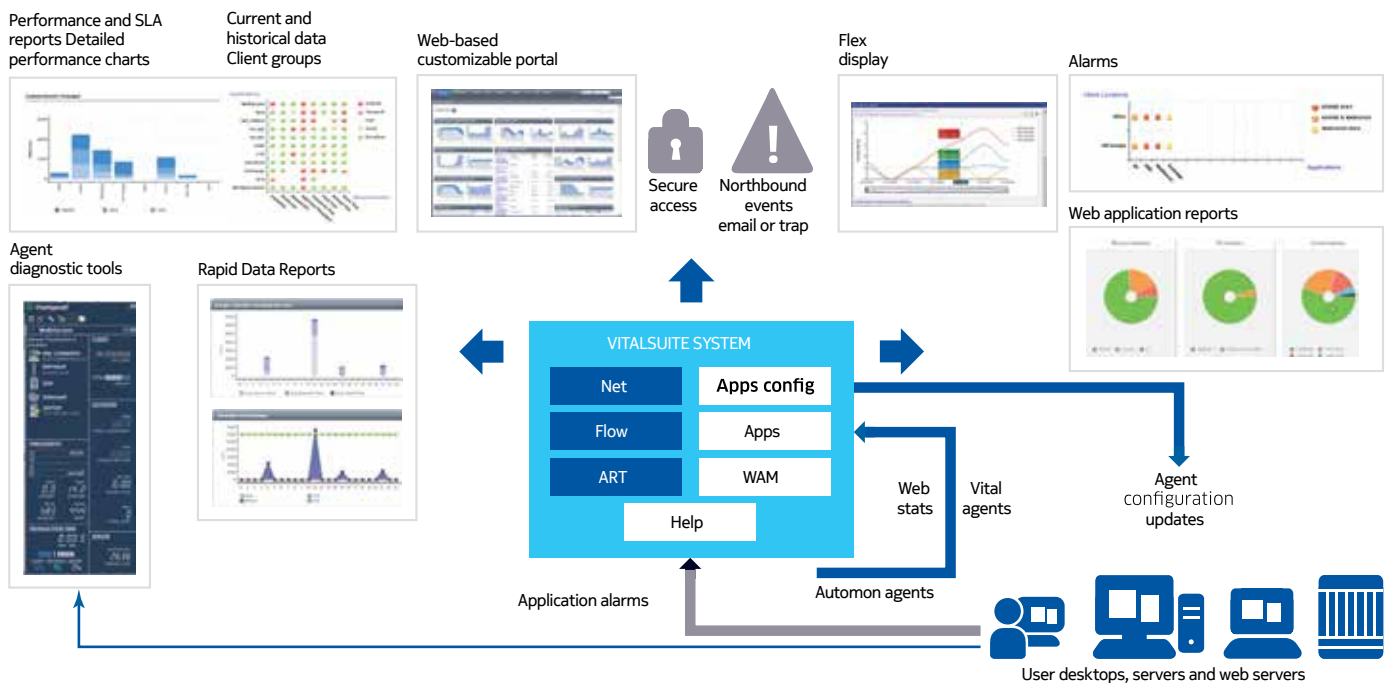


VitalSuite WAM – Web Applications Monitoring

- Monitors web application performance actually seen by web users without installing agent software
- Powerful Dashboard reports and detail graphs
 - Web page views, visitors, visitor locations
 - Page load time, Network Latency, Ajax metrics
 - Timing breakdown for sending, receiving, changing, connection, waiting, creating the web page
 - OS and browser types used to access the page

- Supports popular web servers: Apache HTTP 2.x, Nginx 1.4.x, Microsoft IIS 7.0 and 8.5, Node.js
- Supports Javascript-capable browsers with cookies enabled: Firefox, MSIE, Chrome, and Safari
- Scalable solution—automatic load balancing of incoming Web stats among multiple WAM servers

Figure 2. Input and Output of VitalSuite Apps



Specifications

Client/Administrator interface requirements

- Microsoft Internet Explorer® 10, 11 or Fi 43 or Firefox ESR 38.2.0

System requirements

- Windows Server 2012 R2 / SQL Server 2014 64-bit
- Windows Server 2008 R2 64-bit / SQL Server 2008 R2 64-bit
- Windows Server 2008 R2 64-bit / SQL Server 2012
- Windows Server 2012 or 2012 R2 / SQL Server 2008 R2 64-bit
- Windows Server 2012 or 2012 R2 / SQL Server 2012

VitalAgent System Requirements

- Windows 8 or 8.1 64-bit (US or International)
- Windows 7 Professional 32-bit /64-bit (U.S. or international)
- MacOS X 10.9.x or 10.10 (Service Agent only)

Mid-tier Agent System Requirements

- Windows Server 2012 R2
- Windows 2012 Server, Standard or Data Center Edition, US or International
- Windows 2008 Server R2 64-bit, US or International
- Linux SUSE 10

VitalSuite WAM System requirements

- Client Web Browser: must support JavaScript and cookies
- Application Web Server: Apache HTTP 2.x, Nginx 1.4.x, Microsoft IIS 7.0 or 8.5, Node.js





The VitalSuite Performance Management software portfolio - Designed to Optimize network, application, and business performance

The VitalSuite Performance Management portfolio is used today by medium and large enterprises and service providers worldwide. The portfolio leverages key innovations from Bell Labs and experience and expertise from Nokia Worldwide Services to provide robust and scalable solutions that increase IT staff productivity, ensure optimal network and applications performance, and improved service availability. The VitalSuite product team partners with world-class business partners to deliver proven solutions that maximize the return on IT investments.

VitalSuite Network Performance Management software (VitalSuite Net) provides on-demand access to the critical network performance information necessary to preempt problems, optimize resources and plan for maximum return on investment (ROI). This market-leading tool gives end-to-end, Web-based visibility into geographically dispersed, multivendor networks, including routers, switches, servers, virtualization platforms, and VoIP. It provides a single centralized location to monitor, analyze, manage and predict performance.

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 Real-time Event Analysis software (VitalSuite Realtime) helps optimize multivendor packet data and voice networks with powerful real-time and topology mapping 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.

VitalSuite Flow Analysis software (VitalSuite Flow) provides direct collection of network flow records, and powerful flow analysis reports that reveal which endpoints, applications, and protocols are using the network capacity.

To learn more about these and other management solutions, contact your Nokia sales representative, authorized reseller or sales agent, or [visit our website](#).

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Product code: PR1605019893EN (May)