



# VectaStar Network Management VNMS Datasheet

**VNMS delivers network wide remote monitoring and proactive resource management, combined with service level assurance for VectaStar Networks.**

VectaStar Network Management System (VNMS) provides a powerful, yet flexible, scalable and reliable user portal for VectaStar networks enabling customers to monitor and provision equipment and services across the entire VectaStar product range.

VNMS enables comprehensive FCAPS network management for VectaStar networks referencing standards-based requirements.

The system is pre-installed on a 19" rack-mounted server and secure online software updates allow VNMS to be updated effortlessly like a smart phone application.

VNMS provides dynamically updated geographical maps utilising latitude and longitude coordinates stored in VectaStar network elements. Pan and zoom controls allow users to focus on network segments or step back to view their entire network.

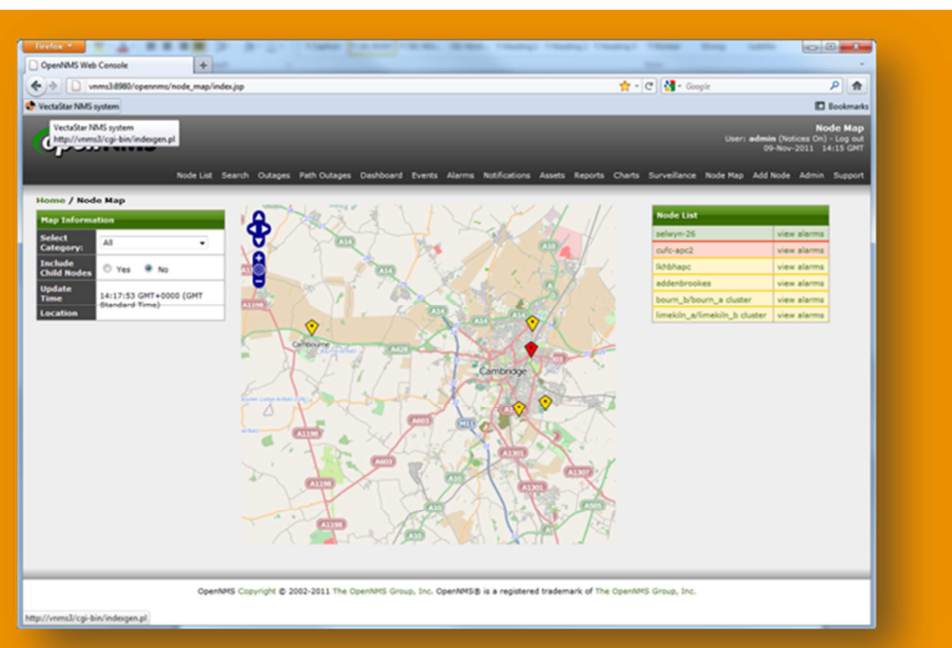
Alarms are stored in a centralised relational database on the VNMS server allowing users to view and filter alarms from across the entire VectaStar network without having to query individual VectaStar network elements one by one.

VectaStar RF and traffic performance data can be stored for up to 10 years for long term trend analysis using a Round Robin Database (RRD) which aggregates and summarises performance data over time.

Graphical Key Performance Indicator (KPI) reports summarise network wide alarm and performance data such as top ten alarms and traffic utilization statistics on a service and port basis.

Integrated Element Management System (EMS) applications support in-depth end-to-end configuration management allowing users to remotely configure the complete range of VectaStar attributes, e.g. create and monitor a service start-up and traffic flow.

Telephone and email support are available to customers with an active technical support contract. Using secure remote access protocols such as SSH, Cambridge Broadband Networks customer services engineers can investigate and often resolve VNMS or VectaStar issues remotely saving costly site visits and delayed response times.



**Manage small networks or large networks with up to 10,000 VectaStar network elements from a single server with up to 40 users accessing the web browser user interface at the same time.**

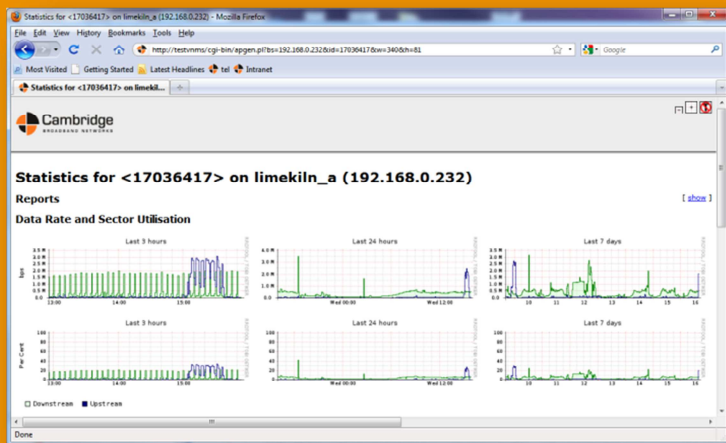
Easily configurable northbound interfaces enable seamless integration with a wide range of popular Operations Support Systems.

Web browser based user interface assures cross-platform compatibility - users can view the network from their Windows laptop or from their tablet computer.

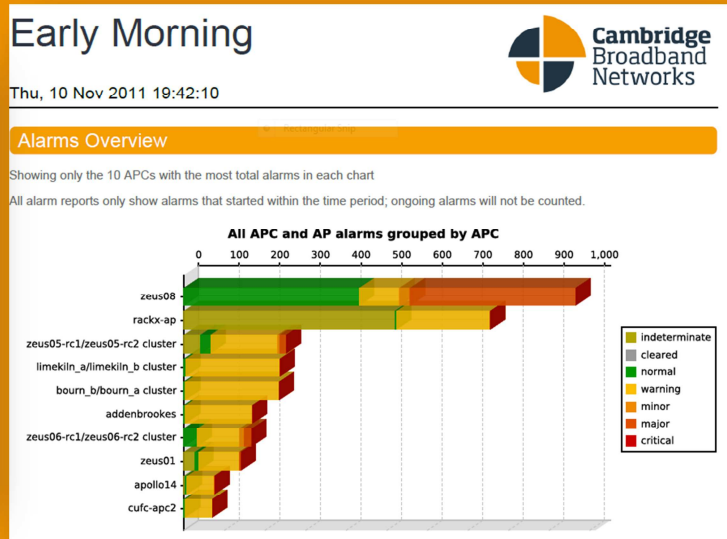
VNMS runs on the Ubuntu Linux OS to ensure carrier-class availability and performance, without the need to worry about expensive OS licensing or virus protection.

## GRAPHICAL REPORTS

For each network element, performance data such as the received power levels, signal to noise ratio and data throughput rates are polled at 60 second intervals and accessible graphically via a web browser interface and can be exported to file in CSV format. Pre-defined reports are also available in either PDF or CSV format, saving significant time normally spent reformatting raw data, to enable users to analyse and evaluate large amounts of data.



**Example RRD graphs displaying data rate and sector utilisation for a VectaStar Access Point**



**Example Alarms Overview report in PDF format**

## TECHNICAL SPECIFICATIONS

<b>Scalability</b>	<ul style="list-style-type: none"> <li>Up to 2,000 nodes - 10 users with 8 GB RAM</li> <li>Up to 5,000 nodes - 20 users with 16 GB RAM*</li> <li>Up to 10,000 nodes - 40 users with 32 GB RAM*</li> </ul>
<b>NMS Protocol Support / Transport</b>	<ul style="list-style-type: none"> <li>SNMP v1, V2c, V3</li> <li>SSH v2, HTTP</li> </ul>
<b>Recommended Hardware Specification</b>	<ul style="list-style-type: none"> <li>2.4 GHz Quad-core CPU</li> <li>8 GB RAM (expandable to 32 GB)</li> <li>2x 250 GB Hot-Swap SATA hard drives configured for RAID 1 redundancy</li> <li>16x DVD-ROM</li> <li>Dual port gigabit NIC</li> <li>Redundant power supply</li> </ul>
<b>Software Components</b>	<ul style="list-style-type: none"> <li>Ubuntu 10.04 LTS 64-bit Linux server</li> <li>OpenNMS Network Management System Framework</li> <li>PostgreSQL relational database</li> <li>Round Robin Database</li> <li>Apache webserver</li> <li>VectaStar EMS tools</li> </ul>

\*Support for large networks – e.g. greater than 2,000 nodes (i.e. VectaStar APC, RC, AP, RT) is a roadmap requirement

To confirm the latest product information and to find your nearest Cambridge Broadband Networks representative, please contact our head office on [sales@cbtnl.com](mailto:sales@cbtnl.com) or visit <http://www.cbtnl.com>

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