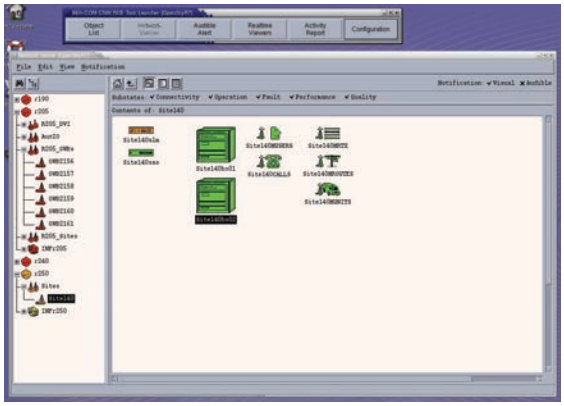
VIDA® Network Management

- The Centralized Network Manager (CNM) application is the consolidated point for viewing and monitoring the performance of networks with multiple Network Switching Servers
- The Regional Network Manager provides similar tools for a single region VIDA System.
- Both Network Managers provide a suite of powerful tools for comprehensive reporting and management of network status, fault, performance, and configuration management
- Both Network Managers include a user-friendly graphical user interface for network operations



The Centralized Network Manager application provides users with powerful tools that facilitate effective management of an OpenSky®, NetworkFirst®, and/or Project 25 (Harris' P25^{IP}) digital packet-switched network spanning multiple regions, each of which is managed by a Regional Network Manager (RNM) application hosted in the VIDA Application Server (VAS). In such a multi-region network, the CNM acquires the trap information and performance grade of service of all the managed objects indirectly through each underlying RNM, keeping the network operators up to date with the latest status of all domains in the network.

The CNM offers management tools similar to those supported by an RNM, hence significantly shortening the learning curve for those users with RNM experience. Aided with those tools such as the Network Viewer, Object List, History Browser, and Real-Time Viewer, a CNM user will find the task of network management much more efficient.

Network Viewer

The Network Viewer provides the operator with a graphical, hierarchical view of the managed network. Each object in the network is represented by a color-coded icon in the view: the color changes when the state of the object changes. Different display modes enable the operator to visually scan the list of the managed objects, quickly determine which objects have problems, and identify the types of problems being experienced.

The Network Viewer visually and audibly alerts the operator of performance degradation, traffic congestion, or bottlenecks in the system. This allows the operator to proactively react to degradation trends by initiating corrective actions.

Object List

The most powerful feature of the Object List is the ability to apply many different filtering and masking criteria to the managed objects so that user attention can be quickly focused on the objects of interest. For example, the operator can easily identify those base stations that are reachable but suffer from a major fault, or radio sites that are experiencing busy call traffic.

History Browser

The History Browser provides a historic view of a managed object's operating status in hourly, daily, or weekly format. It allows the user to identify system bottlenecks and hidden defects, derive trend analysis information on certain specific operating characteristics, cross-compare objects to study network load distribution, and determine an object's mean time between failure.

Real-Time Viewer

The Real-Time Viewer provides a live view of the voice and data system operation in the selected region of the network being managed, including subscriber equipment. Detailed performance measurements and the operational status of those managed objects are accessible in real time on an as-needed basis.

OpenSky®

Harris' OpenSky Wireless Private Network is a fully interoperable digital trunked communications network for public safety, utility, federal, transit, and industrial markets. OpenSky is a complete end-to-end Voice over Internet Protocol (VoIP) solution and employs packet technology to provide integrated voice and data. The OpenSky radio network is the only private land mobile radio communications system that provides clean integration of data messaging with trunked digital voice on the same RF channel. Integrated voice and data over Time Division Multiple Access (TDMA) allows users to perform multiple communication functions at the same time on one radio. The use of TDMA quadruples call capacity by allowing four simultaneous voice calls per 25 kHz channel.

NetworkFirst®

Public safety communications in today's world face unprecedented challenges. More than ever, Homeland Security and Situation Readiness depend heavily on effective communication among federal, state, county, and local agencies. Harris' NetworkFirst answers the call for an emergency communications network that provides local, regional, state, and even nationwide connectivity. NetworkFirst uses cost-effective Internet Protocol (IP) packet switched technologies to provide a fast, cost-effective means of achieving multi-agency interoperability, regardless of radio type, frequency, or mode. NetworkFirst creates the most technologically advanced permanent communications network available in the industry today, providing a technology backbone that is extremely flexible, allowing communications requirements to expand – without a wholesale system changeout.

P25IP

Harris' P25IP (P25 to the power of IP) is the first completely Internet Protocol (IP)-based conventional mobile radio communications system developed for users requiring the secure digital voice and data capabilities of Project 25 (P25). P25IP is part of a portfolio of solutions that Harris offers for wide-area communication systems – each of which is capable of meeting the communications requirements of public safety, public service and first responders. Within the Harris portfolio, the P25IP network provides an excellent fit for those agencies which have lower user densities (few users covering larger geographic areas) but still require feature-rich secure voice and data communications. P25IP is also particularly appropriate for users operating with non-exclusive VHF and UHF frequencies. For federal users, P25IP meets the Congressional and NTIA mandates for the narrowband (12.5 kHz) migration.

General Specifications for the VIDA Application Server

Dimensions (Chassis) (H x W x D):
1.74 x 16.75 x 28.12 in. (42.8 x 434 x 736.3 mm)

Shipping Weight (approximate):
41 lb (18.6 kg) fully configured

Hardware (VIDA Application Server)

System:
E5-2640 processor

Memory per Server:
128 GB

Available Disk Space (on Storage Array Network):
12 x 600 GB, 10K drives

Peripherals per Server:
Four 1-Gb Ethernet ports

Software:
VMware® virtualization software
Windows Server® 2012 Datacenter
Linux® Red Hat®
Harris VIDA Management application software, including Regional Network Manager, Unified Administration System, Active Directory, System Management Service, Activity Warehouse, Network Key Management Facility, and Device Manager
Real-time software, including VNIC, Transcoder, and optional ISSI Gateway applications

Environmental

AC Power:
100-240 VAC, 50/60 Hz

Maximum Current Consumption:
10A

Operating Environment:
+50 to +95°F (+10 to +35°C), 10 to 80% relative humidity, non-condensing

Non-operating Environment:
-40 to +149°F (-40 to +65°C), 5 to 95% relative humidity

Heat Dissipation:
2891 BTU/h maximum

Regulatory Data

Meets or exceeds the following specifications:

Safety:
IEC60950, UL/CSA-60950, EN60950

RFI/EMI:
FCC Class A, Part 15 47 CFR, EN55022, CISPR 22

Immunity:
EN55024

Certifications:

Safety:
cULus Mark, TUV GS Mark, CE Mark, S-Mark, CCC, GOST

EMC:
CE Mark (93/68/EEC), FCC authorized Class A, ICES, VCCI, BSMI, EK, CTICK, MIC, CCC, GOST

Printed in U.S.A. 01/15 ECR-8030A