



iVantage™ Network Management System

iVantage Network Management System (NMS) is a complete suite of tools for monitoring, configuring and control of the entire satellite network from one central place.

The iDirect® NMS has been the industry's most renowned and robust network management system, proven and perfected for nearly a decade. Now, iDirect's iVantage NMS takes network management to a new level of simplicity, scalability and intelligence.

Designed to provide network operators with optimum flexibility, iVantage brings a clean, consistent, familiar Windows®-based look and feel across the complete system.

This one unified visual interface not only keeps everyone on the same page — ramp up and training time is kept to a minimum. iVantage's smart design proves that advanced doesn't mean hard to use. Drill down to the most granular display of network performance required — or see the big operational picture across the entire network. Either way, with iVantage the network operator can capture, manage, analyze and act on information, real intelligence, not just data.

No other network management system is as intuitive. iVantage works with the day to day flow of what busy network operators really need, no matter what level of experience.

"iVantage was designed by NOC engineers themselves, the experts on the front lines who know better than anyone the value of a system that's both powerful and easy to use at the same time."

— David Bettinger, CTO, iDirect

iVantage Components

- ◆ iBuilder™
- ◆ iMonitor™
- ◆ iSite™



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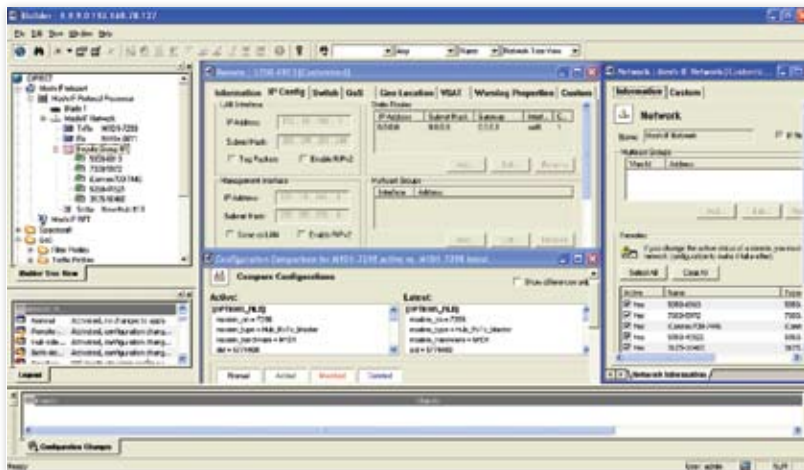
iBuilder™ Enables Rapid Configuration of Any Size Network.

Whether you need to configure or modify individual remotes, groups of remotes, or the entire network, you can do it from one central location, fast.

Rapidly create networks of any size with automated and semi-automated tools. iBuilder dramatically simplifies and speeds the upgrade process. The iBuilder Revision Server automates management of software/firmware upgrades for all remotes, assuring that remotes out of the network are upgraded the moment they're back in the network.

Group Quality of Service (GQoS) profiles can be easily assigned to large or small groups of remotes, enabling rapid changes to the traffic management of an entire network. GQoS significantly increases network bandwidth management capabilities when prioritizing traffic for customers in a shared environment.

Plus a full range of intuitive, intelligent tools shorten the time required to make routine moves, additions and changes. Imagine completing an entire frequency plan change in just minutes.



iBuilder allows the operator to easily configure the network using consistent visual displays of network parameters down to the remote level. Dialogue driven screens guide the operator through easy configuration steps of all devices within a given network.

iVantage Highlights At a Glance

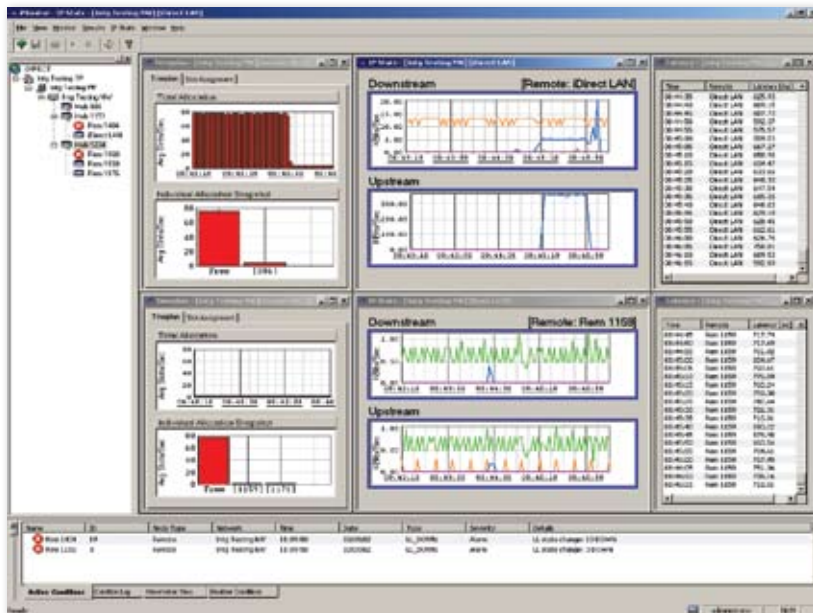
- ◆ All-around simpler day to day management for best use of people, time and money
- ◆ Easy to use, responsive GUI reduces training requirements
- ◆ Naturally anticipates potential network outages with automatic alerts and warnings
- ◆ View network performance stats per network, per in route, per remote, per application, down to the IP packet level
- ◆ Real-time, historical, graphical or tabular network performance statistics
- ◆ Minimize troubleshooting time and network downtime. Resolve problems/outages in seconds, not minutes
- ◆ Extensive reporting capabilities bring new revenue opportunities
- ◆ Manage the configuration of a network from any location
- ◆ Rapidly create networks of any size with automated tools

iMonitor™ Provides Valuable Network Activity and Performance Reports.

Ensure your complete iDirect VSAT network is continually operating at peak efficiency. iMonitor provides in-depth views into both real-time and historical performance of the network, including:

- The health status of any remote with details including board temperature, board uptime, LAN port status, transmit power
- Real-time graphical display of InRoute Timeplan Slot Allocation
- Network Probe for in-depth, packet-level analysis
- Detailed bandwidth usage graphs, per remote, per network and/or per protocol

iMonitor even warns you with pre-defined alarms, customized for each remote, for any of more than 20 monitored parameters within each network — minimizing the risk of a network failure. Detailed graphs of bandwidth usage and other network performance metrics support engineering activities such as trend analysis, traffic engineering and network planning.



With the familiar network tree as your guide, open as few or as many windows as you need to visualize the performance data relevant to your task. You can even define and manage up to four separate workspaces!

iSite™ remote commissioning tool facilitates deployment of new sites quickly

Sharing the same familiar GUI layout with iMonitor and iBuilder, iSite provides universal local access to monitor, configure and control iDirect devices from the field, including all iDirect remotes and Network Accelerators.

iSite allows the field installer more independence and facilitates antenna alignment procedures with the help of built-in features such as audio feedback during antenna pointing, antenna look-angle calculator and crosspol generators, thus minimizing the interaction time with the satellite operator resulting in reduced installation time and costs.

No need to recall multiple, arcane console commands — perform all on-site tasks through a single intuitive GUI. iSite includes the most sophisticated antenna commissioning tools, already integrated into a single, easy to use GUI. And multiple login privileges support different authorization levels, from monitoring only to full configuration rights.

Value-Added Options.

- **GeoMap™** application software displays in real time the exact geographic location of all remotes within a given network on a world map. Zoom in or out, roam, set icon size or filter remotes by active state.
- **SkyMonitor™** is the industry's first fully-integrated display of spectral analysis of multiple carriers, providing instant access to real-time spectral analysis of in-bound or out-bound carriers, dramatically reducing the time required to diagnose performance issues from RF interference or other carrier-related anomalies. View, analyze, store and recall the spectral displays of any carrier from anywhere an iMonitor connection is supported.
- **Web Services Tool Kit™ (WST)** provides software interface along with engineering services that support iVantage integration with external systems. For example, integrate iVantage with external web applications or OSS/BSS systems such as billing, provisioning, reporting or customer access systems. Integrating the power of iVantage with other business tools allows Network Operators to generate revenue through new service offerings such as usage-based billing. WST also enables Network Operators to integrate iVantage with their service ordering and provisioning systems, greatly simplifying the entire process of adding new customers and sites. The possibilities are endless.
- **Virtual Network Operator™ (VNO)** VNO license enables a network operator to view and manage only their networks and remotes, independent of other operators delivering services out of the same hub. The VNO package makes it possible to scale investments to actual business growth, significantly reducing initial capital equipment expenses.
- **Customer Network Observer (CNO)** CNO license grants filtered read-only iMonitor access, allowing customers real-time and historical views into only their network performance while maintaining overall network privacy.

Technical Specifications

The basic iVantage configuration consists of two IBM x3550 eServers, Dual Processor, RoHS, Dual-Core Intel Xeon Processor 5110, 1.6Ghz, 4MB L2 Cache, 2GB Memory

A Client-Server 3-Tier architecture provides modularity and flexibility. The industry-standard MySQL database is used for reliable, auto-archiving storage of configuration and performance data.

iVantage clients can be installed on the following operating systems:
Windows ME, 2000, XP.

A Linux server back end provides iVantage with the performance, stability, maturity and accessibility expected of a best-in-class NMS. iVantage processes can be distributed across multiple physical servers for increased scalability.

Global NMS

Global NMS is a powerful built-in feature that enables a true global network, with all elements controlled from a single global iVantage system:

- ◆ Multiple iDirect hubs, teleports and satellites
- ◆ A fleet of remotes able to move freely among all defined networks. All remotes can be manually switched between networks, or automatically search for a network.

Global NMS works with or without Automatic Beam Switchover (ABS), providing true "hands off" global mobility ideal for maritime applications, itinerant terminals (comms on the pause) and more.



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Advancing a Connected World

