

Mercury G3 Element Manager (EM) for Satellite Remote Site Management

THE **INTEGRAL** DIFFERENCE



COMMAND
+ CONTROL



SIGNAL PROCESSING
+ DATA COMM.



ENTERPRISE
NETWORK MGMT.



COMM. INFO
ASSURANCE

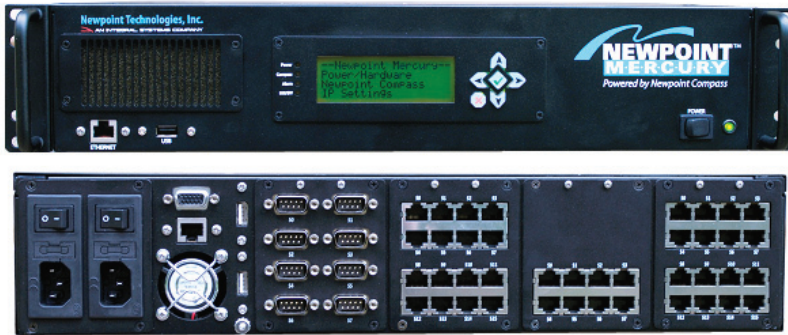


SERVICES

Overview

As technology spreads to remote parts of the world, more and more people are connecting to the Global Culture via various communication mediums. However, technology being deployed in these remote locations poses a large logistical problem for the vendors supplying the communications network. Distance, accessibility, climate, lack of infrastructure, lack of technical personnel and limited communications are some of the major hurdles operators face.

Newpoint Technologies' **Mercury G3 Element Manager (EM)** is a fault tolerant solution that allows vendors to deploy local automation intelligence with their critical communication equipment and also remotely manage these isolated sites from a central location using Newpoint Technologies' **COMPASS™ Network Management System (NMS)**. **Mercury G3** provides a compact, efficient and cost effective mechanism for monitoring disparate equipment at a remote site and is the ideal solution for managing remote Satellite Terminals, Microwave Towers, TV Transmission Towers, Gas and Oil Pumping Stations, Maritime applications, etc.



Detailed Description

Mercury G3 is an EM product that is installed in the racks or in equipment rooms of a remote facility. It is designed to provide a more complete view of the status and health of the remote site to the Network Operations Center (NOC). **Mercury G3's** modular design allows users to size the **Mercury** base upon the interfaces at the remote site using any combination of Serial, Ethernet and Discrete I/O modules in four expansion bays without expanding the footprint of the **Mercury** unit itself.

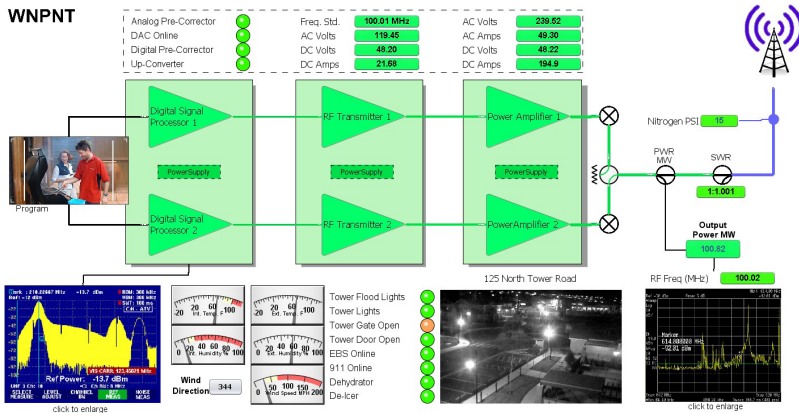
Mercury G3 is designed to be deployed by technicians during regular site maintenance visits and remotely maintained by administrators from the NOC. After the remote equipment is cabled to the Mercury G3, the user can perform general configuration easily via the front panel LCD. A laptop can be connected to the network for even easier configuration through the TrueNorth Graphical User Interface (GUI).

Features

- ◆ State of the Art Components:
 - Intel Atom 1.6GHz Dual Core Processor
 - 32GB Solid State SATA drives with over 100 years MTBF
 - One additional internal SATA port
 - Optional: DR RAID Technology
 - Optional: Internal UPS Battery Backup with Configurable Auto Shutdown
- ◆ Chassis:
 - Full 2U with Interior Options using 4 Expansion Bays
 - 2 Front Fans and 1 Rear Fan – only moving parts
 - 2x GB Ethernet (Auto switching 10/100/1000) ports
 - Front LCD Display for basic configuration and status, network set up and serial port configuration
 - Optional: Redundant Power supplies (AC (AC~(110-220V) or DC ~(18V – 60V))
- ◆ Expansion Bay Options:
 - 8 RJ-45 RS232/422/485 ports
 - 8 DB-9 RS232/422/485 ports
 - 16 RJ-45 RS232/422/485 ports
 - 16 Relay outputs and 64 CC or DC inputs
- ◆ Environmental Specs:
 - Operating Temp: 0° - 60° C (32~122° F)
 - Operating Humidity: 40°C @85% RH (Non-condensing)
 - Non Operating Temp: -10°-60°C
 - Non Operating Humidity: 40°C@90% RH (Non-condensing)



Mercury G3 also supports a number of communications mechanisms both in-band and out-of-band back to the NOC. This includes using serial PPP, Satellite Overhead or Engineering Service Channels, Microwave, PSTN/Cellular/GSM Modems, Iridium Satellite Modem or Ethernet communications. Using the **COMPASS Replication and Connection Manager** features, users can configure primary and up to 8 back up communications channels to the remote site.



The **Mercury G3** runs the **COMPASS NMS** software and therefore users can take full advantage of all the features of **COMPASS** to meet the remote management needs of the network. Please review the **COMPASS NMS** product sheets for additional capabilities of the **COMPASS** product for a full outline of the features, some of these include:

The **COMPASS Replicator** ensures data is securely delivered to the NOC from the remote site, will buffer data when communications are lost, and minimizes traffic using compression and bulk data transfer. For more information on these features, please refer to the **Compass Replicator and Connection Manager** brochure.

The **COMPASS Graphical Scripting Module** allows users to add intelligence to the **Mercury G3** such as event-based automated actions like equipment redundancy switching, automated equipment setup, automated responses to alarms etc.

The **COMPASS TrueNorth GUI** allows a local technician while on site to view site alarms, view equipment status, and greatly simplifies and reduces the cost of troubleshooting problems while on site.

The **Mercury G3** running the **COMPASS NMS** software provides a fault tolerant solution for managing remote sites. The **Mercury G3** is capable of interfacing with all the equipment at the remote site – providing complete visibility into the facility. The increased visibility and reliability allows operators at the NOC to reduce site visits by remotely recovering from remote equipment failures, and to automate responses to common system alarms and events. **Mercury G3** enables Network Operators to reduce their MTBF, increase QoS and expand the number of remotes, all while reducing the costs associated with managing their network.

Benefits

- ◆ Reduce site visits by automating:
 - Remote recovery from equipment failures
 - Recovery from known issues through graphical scripting module
 - Up-link power control system
 - Router recovery
 - Orderly shutdown of the facility during power outages and other catastrophic failures
 - Remote testing and calibration
- ◆ Increase Quality of Service (QoS) by providing complete visibility into all aspects of the remote site allowing you to proactively address problems before they affect service:
 - Security Cameras
 - Temperature Sensors
 - Weather Stations
 - Fire Systems
 - UPS and Power Systems
 - Generator Fuel Levels
 - LAN Hardware and Servers
 - Communications Equipment
- ◆ Supports local browser-based TrueNorth GUI for managing all connected devices to more efficiently trouble shoot problems at the site:
- ◆ Fault Tolerant Management Solution
 - Layered Linux OS prevents file corruption, increasing reliability
 - Self monitoring of essential software processes
 - No moving parts reduces power consumption, heat generation and increases component MTBF
 - Optional Redundant Power Supplies
 - Optional RAID Solid State Hard disks
 - Optional UPS for orderly system shutdowns when power outages occur
- ◆ Low cost to deploy – can be installed during scheduled site maintenance visits
- ◆ Low cost to maintain:
 - All administration tasks can be done remotely
 - Software selectable settings via front panel LCD or remotely from TrueNorth
 - No power cycle for local or remote configuration updates
- ◆ Scalable to manage large quantities of equipment with heterogeneous interfaces