

*Will your communications system perform when needed?*



## **Remote Monitoring and Control Network**

for

Comparators/Voters

Site Alarms

Generators

T1 Loop Switches

*Solve system problems FASTER . . .*

*then keep your system at peak performance levels*



Solve System Problems Faster . . .

# Remote Monitoring and Control Network (MCN System)



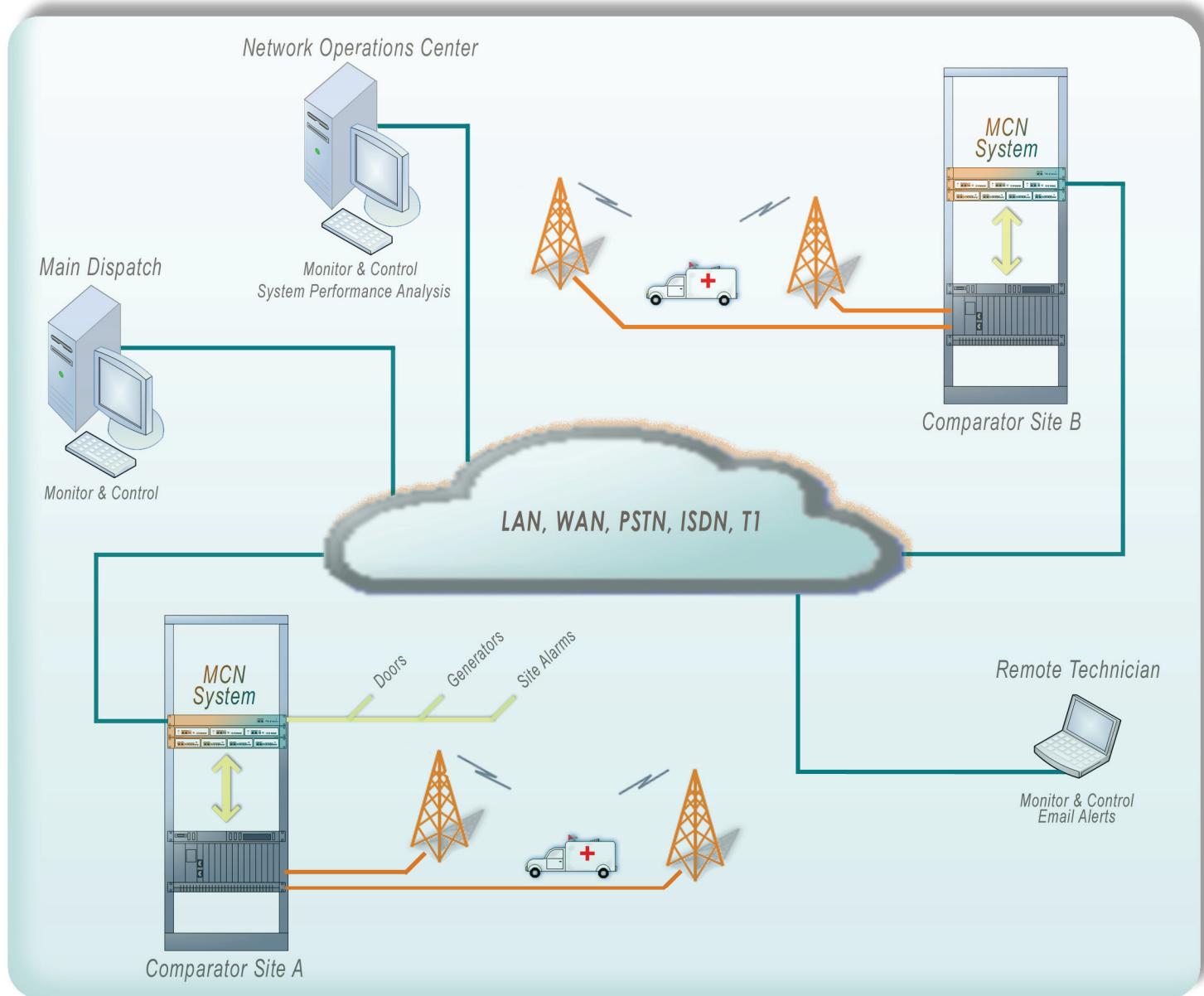
Flexible, easy-to-understand status display



Receive error notifications via email



Ongoing historical analysis of system health



# Software Tools . . .

## Remote Comparator Display (RCD)

RCD software provides real-time monitoring and control for most comparators and voters, as well as for other site equipment such as doors, generators, and alarms. Comparators and site equipment status for multiple sites can be monitored and controlled from the same screen. On-screen commands include Force-Vote and Disable of receivers.

At a glance, a dispatcher or technician can determine Vote, Receive, and Fail status for any receiver in the system. A noisy receiver can be remotely disabled, quickly allowing a system to function until maintenance can be performed.

RCD software is available in stand-alone and client-server versions, to provide the most flexibility for any installation.



## System Performance Toolkit (SPT)

The SPT allows you to keep your radio system running at its peak. It works in tandem with our RCD Server software, constantly analyzing radio channel activity for receiver performance and channel loading. Now you can know that your system is running as well as it did when first installed.

Standard voting systems include failure indications for receivers. The SPT goes beyond looking for hard FAIL outputs caused by broken telephone lines or receivers that are completely dead. This toolkit analyzes receiver data to help detect tough-to-diagnose problems caused by:

- Noisy telephone lines
- Damaged or noisy antennas
- Faulty RF, IF, or Audio sections of a receiver
- Receivers that never receive or vote
- Defective or missing input modules on a comparator
- Mis-aligned input modules on a comparator

The SPT analyzes radio channel activity to provide the following benefits:

- \* Receiver inactivity alerts
- \* System activity summary data
- \* Summary data compatible for export for use by other programs
- \* Receiver site-selection planning
- \* Administrative reports

# Building Blocks . . .

## Comparator/Voter Interface Modules

### AIB Astrotac Comparator Interface

- ~ Support for 13 receivers per module with Astrotac
- ~ Support for 64 receivers per module with Astrotac 3000

Use these to interface comparators to the MCN System

### CIB General Purpose Comparator Interface

- ~ Parallel bi-directional I/O
- ~ Support for 8 receivers per module

## System Extender Modules

### EXB-IM Analog Modem Extender

- ~ Provides remote access via leased or dial lines
- ~ 2-wire or 4-wire leased-line modes

### EXB-232 Serial RS-232 Extender

- ~ Provides remote access via T1 Channel Banks
- ~ Dual asynchronous ports, 9600 to 115.2K Baud

Use these to extend the MCN System to remote locations

### EXB-IP 10Base-T Copper Ethernet Extender

- ~ Provides remote access via IP WAN or LAN
- ~ Unicast, Uni-Replicated, or Multicast IP addressing

### EXB-FI 10Base-FL Fiber Ethernet Extender

- ~ Provides remote access via dedicated fiber

## Display Interface Modules

### HIB-IP 10Base-T Copper Ethernet Interface

- ~ User-configurable PC Authorization List
- ~ Connection to MCN System using IP

### PCLTA MCN Network Interface Card

- ~ Local access to MCN System via PC's PCI bus

Use these to connect the MCN System to PCs & Consoles

### HIB-232 Serial RS-232 Interface

- ~ Dial -up access to MCN System
- ~ Remote debug made possible

### IIB Input/Output Interface

- ~ Discrete parallel I/O for consoles
- ~ Remote logic extender

## I/O Interface Modules

### GPIO General Purpose I/O

- ~ Choice of opto inputs, SSR outputs, or E-M relay outputs
- ~ 5 to 48 V

### IOB Logic Output

- ~ Independent 1-of-4 or 1-of-8 outputs

Use these to interface Inputs and Outputs to the MCN System

### RYB-8 Relay Board

- ~ 8 DPDT relays
- ~ Low-level audio circuit switching

### TIB TSAM Interface

- ~ Interface to Transmitter Steering Unit

## Auxiliary Devices

### OTAL On-the-Air-Light Monitor System

### Routers and Repeaters

### TSAM Transmitter Steering Unit

[sales@ctiproducts.com](mailto:sales@ctiproducts.com)

513-595-5900

[www.ctiproducts.com](http://www.ctiproducts.com)

