

iVENCs
CORE +**Network
Monitoring****OVERVIEW**

The iVENCs Network Monitoring module is a sophisticated network monitoring package which is fully integrated into the iVENCs Control System. iVENCs Network Monitoring operates as a subsystem within the core server and workstation software, and shows the current and historical status of the control system's IP network.

Network Monitoring offers the operators a complete view of the status of the site's IP equipment, network, server, and workstation processes. Detailed status reports greatly simplify the installation and maintenance activities associated both with the iVENCs Control System and with the IP networked subsystem equipment.

The system is scalable to efficiently monitor a large number of devices, so that the performance and health of even the largest systems can be monitored without requiring excessive server or network bandwidth.

VISUAL EQUIPMENT MONITORING

The NetMon system works in conjunction with the core iVENCs fault reporting functionality, which provides simple aggregated views of status data from all of the controlled and monitored equipment.

The iVENCs 3D Site GUI enables the various system devices to be shown in the appropriate location within the site, while NetMon enables the status of equipment to be shown direct on photos of the equipment racks themselves. Typically NetMon will provide plan drawings of the equipment rooms which show consolidated status reports for each equipment rack, with the status of each rack is shown through the use of coloured icons located over the image of each rack. The operators can then drill down to view photographs of the equipment racks themselves, with the status of the equipment identified against the equipment images. Drilling down further can open detailed reports and historical timelines for each item of equipment.

This facility provides a quick system status overview for the system managers, while enabling site engineers to know exactly what an equipment rack looks like, and which equipment in that rack may have a problem, all from a remote location.

Visualisation of the exact item that has failed is particularly important for a maintenance engineer who may be unfamiliar with the site, and for instance doesn't want to take a whole network down by powering down the remaining operating server in a dual redundant system, instead of switching off the failed server.

MONITORING METHODS

The system's servers, workstations, and other IP connected devices such as IP Help Points and CCTV Cameras can be monitored by various methods, including SNMP polling and traps, IP pinging and log files.

24/7 STATUS REPORTS

iVENCs NetMon operates 24/7, continually monitoring the system equipment, and logging the results. This enables a timeline to be provided for all equipment, with status results for all equipment being logged at a rate of up to every minute. Faults are simply shown on the timeline in red while correct operation is shown in green.

NetMon avoids the situation of an engineer arriving on site only to find that a reported problem is Intermittent, and cannot be identified because it is not occurring at that time.

APPLICATIONS

Applications in which iVENCs NetMon is particularly useful include the following:

- System FAT Testing
 - IP subsystem equipment monitoring
 - Control System Failover testing
 - NTP Time Synchronisation checks with filtered views of the time sync of all servers and workstations.
- System Commissioning
 - Easy high level consolidated view of the system status
 - Drill down to Comms Room, Rack, Server and process status
 - Check the network connectivity of all equipment
 - Historical logging of equipment availability to identify intermittent connectivity problems
- Installed System Maintenance
 - Subsystem equipment monitoring, including IP CCTV
- Cameras and Help Points
 - Control System server and process status monitoring

