

# Network Vision's IntraVUE

## A complete support system for Industrial Ethernet device communications



Issues on your Plant floor Ethernet network can start as unknown nuisances and grow into large or more complex problems. Many unpredictable issues are induced by harsh environments or changes in your applications. An intermittent problem or random communication outage can be caused by a misbehaving device, improperly configured systems, duplicate addresses, wiring mistakes, or infrastructure problems. IntraVUE software allows you to easily identify the most common communication problems, and can capture the problem even if you are not available. IntraVUE can also identify issues that currently go unnoticed or are seen as performance problems.

### **IntraVUE keeps a close watch on all your devices communicating over Ethernet so you do not have to!**

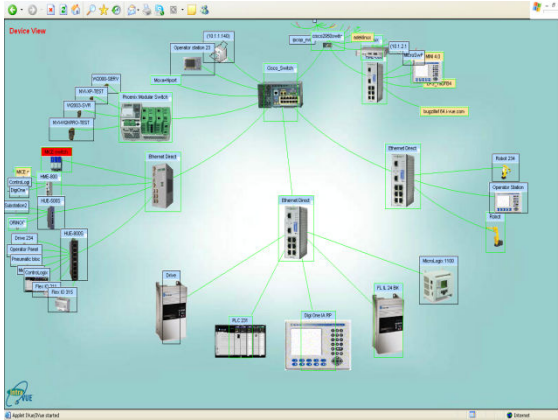
- **Focused diagnostic monitoring for the typical problems being experienced when connecting PLCs, Drives, I/O, Cameras, and SCADA systems to Ethernet.**
- **Reduce or Eliminate the burden placed on local resources who may be required to support your plant floor Ethernet communications.**
- **Reduce the need for costly on-site visits by outside experts that can cost thousands and not guarantee a resolution to intermittent problems.**
- **Insure the proper installation and operation of Industrial devices communicating over Ethernet as well as preventative maintenance actions.**

Continuous monitoring and storage in an internal relational database means no incident will be missed. Even if there is no one at the location, IntraVUE can capture the events and send an email or be linked into your SCADA application for notification of a communication disruption. The data can be retrieved and analyzed remotely making it ideal for OEM applications or in locations where there are minimal resources available.

IntraVUE provides simple and pin-point diagnostics for troubleshooting device or connection problems. If there is a need to obtain support for more complex problems the data can be sent electronically for review by professionals at Network Vision. Sending the data capture can reduce the cost of requiring on-site visits. Traditional office solutions or outsource service providers are too costly and may not provide the needed expertise to the issues and behavior of industrial devices located on these plant floor Ethernet Networks.

# Empower local resources and reduce response times by 80% resulting in significant reduction in cost and downtime!

## Easily identify typical plant floor problems



- Duplicate addressing IP & MAC addresses
- Cabling problems (connector or grounding)
- Broadcast Storms or excessive bandwidth
- Intermittent device problems
- Device lock-ups
- Misbehaving or overloaded devices
- Foreign Laptops momentarily connecting
- Devices or connections accidentally moved

## Automatic Discovery, Automatic Mapping, and continuous Updating

The ability of IntraVUE to automatically discover all of the devices on the network and then automatically animate their communication path in real time is unique. IntraVUE provides a color coded, real time view of devices and connections while highlighting problem areas making this software clearly the product of choice for Industrial Ethernet applications. Providing a visual allows an easier understanding of the flow of data between devices and potential problem areas. Unlike other tools which may have automatic discovery and then require manual mapping, or tools that provide a current view but with no trending capability, IntraVUE provides all the required components in a very easy to use package designed for the unique problems and resources of the Industrial environment. Graphical viewing provides easy comprehension of the dynamics occurring on these networks.

## Integrate IntraVUE with other HMI or SCADA systems

IntraVUE is a diagnostic package that can be easily viewed on any browser, or integrated with any HMI or SCADA package. Data and events can be easily linked into the alarm packages of these systems. Associating network issues with process data problems will enhance the communication diagnostics of these applications. SCADA systems are becoming more dependent on Ethernet communications and IntraVUE can provide advanced diagnostics that are dynamic, not requiring constant reprogramming.

## Email Alarming of critical events

Lost connections or newly attached devices can be a cause for alarm. Notification via email can ensure you are aware of these events even if you are not at an operator station or even in the plant. IntraVUE will keep a constant watch and record all activities. Emails can be customized by each device allowing the appropriate individual(s) to be notified when an issue arises with a device they are responsible for supporting. Links embedded in the email makes linking back to the IntraVUE graphics a click away.



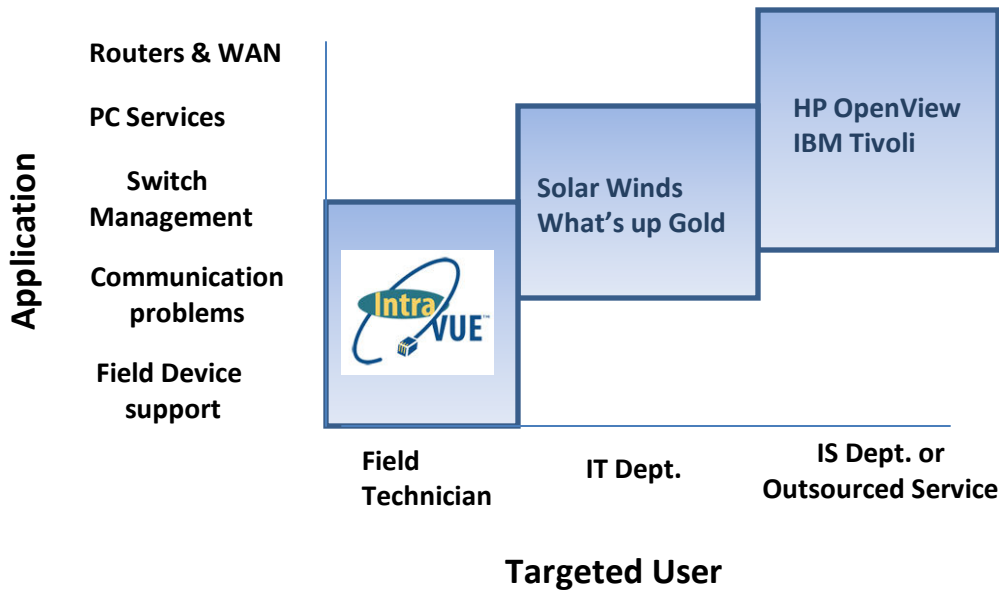
## Complimentary Software to existing tools & services

IntraVUE was developed to be complimentary with existing Network Support packages and outsourced services. Developed for Technicians and/or Process Engineers to troubleshoot communication problems with connected field devices. It is a simple to use, and focused on the specific issues being experienced with these devices. IntraVUE can also provide IT and IS resources with a tool that can allow collaboration with the plant floor to reduce the burden or costs of experts addressing simple device problems.



IntraVUE is a focused diagnostic tool targeted for connected devices from various suppliers that are configured with fixed IP addresses. It can be considered another club in your Golf bag when encountering a unique challenge that can occur on plant floors or distributed systems. It is an important software package which monitors and logs continuously providing diagnostics details of connected devices allowing support by local resources.

*When Golfing you should not use one club, when supporting Ethernet you should not have just one package!*

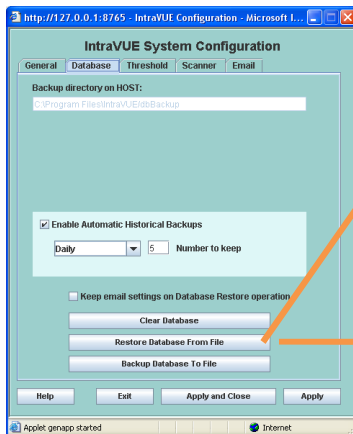


IntraVUE is a focused diagnostic tool developed for use by individuals responsible for the connected devices. Other tools tend to be too complex or not targeted to the typical problems that are commonly experienced. Empowering the local resources means an increase in awareness and thus reduced downtime or support costs.

## IntraVUE can provide additional support for Archiving, Disaster Recovery, and Remote Support

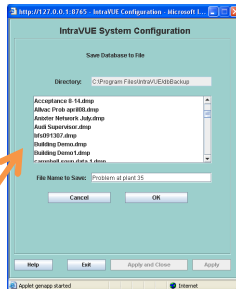
Continuous recording and storage of key communications parameters in a powerful relational database provides a superior method for capturing or archiving communications. These snapshots contain all information such as events and trends. The back-up can be opened and viewed offline allowing details from a problem area or plant to be sent electronically and analyzed without traveling to the site. IntraVUE can be adjusted to increase data captures from switches to provide more detailed analysis.

### Backup & Restores Key performance details



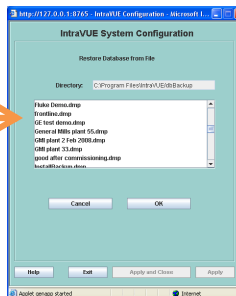
### Backup to Database

- Capture network disturbances
- Archive current network architectures
- Document "As-Is" network traffic
- Store performance tests
- Validate installed equipment



### Restore from Database

- Off Line Analysis and Support
- Disaster recovery
- Time based Comparisons
- Future design and Planning
- Asset management



Snapshots or Archiving will allow you to compare performances from different times or the information can be used to provide guidance for future expansions.

### *Why wait until you have a problem?*

**A single incident creating a disruption will cost thousands of dollars if you are required to deploy an outside resource .**

<b>Travel Cost</b>	<b>\$1,200 (airfare and expenses)</b>
<b>On-Site support</b>	<b>\$2,000 per Day (typically a one day minimum)</b>
<b>Downtime</b>	<b>\$1,000 per Hour * (typically 3 hours)</b>

\* Average production line in a mid size Plant

Snapshots can be electronically sent to Network Vision for analysis. This will mean before an expert can make travel arrangements, Network Vision can already be analyzing the problem and recommending a potential solution or course of action.

## Enhanced Support services from Network Vision

**Managed Care Services** will insure your plant floor Ethernet network will maintain optimized performance and latest capabilities of IntraVUE. Although IntraVUE is very easy to deploy and provides “out of the box” value, there are areas in the software that can be customized. Linking to documentation such as user manual and wiring diagrams, or adding pictures and graphics will help plant floor personnel to easily identify a device.

### Advantages of Managed care

- **Offload the advanced configuration to experts**
- **Provide a common configuration throughout multiple locations**
- **Periodic reviews can help identify potential areas for maintenance**
- **Routine Training for operators to insure maximum value and use**

The ability to configure advanced features can be performed by local resources, however some companies may want to leverage experts that have installed many systems. Sometimes it may be beneficial to have an expert review the database to identify potential issues not yet causing any noticeable effects on the network. Periodic training using the Network details will continually improve awareness and operational efficiency.

Network Vision and our authorized partners can insure your IntraVUE systems are fully configured and kept up to date so that you can get the maximum value in our advanced diagnostics. These services can be used until the local resources are comfortable and can be transition to take over these functions. Please contact Network Vision for more details

### Additional Services from Network Vision and our partners

Network Vision can also provide additional services to assist in many areas of Industrial Ethernet deployment. Our work with many major corporations deploying Ethernet solutions has given us a unique view on many different approaches. Our vendor neutral position with respect to hardware coupled with our direct mapping of simple to complex architectures, allows us to be uniquely qualified to discuss the various options for your network designs. Network Vision is more than a company providing software, we hope we can provide you with the support and expertise to become a partner with your Industrial Ethernet applications.

For More details contact:

Network Vision  
44 Merrimac St  
Newburyport, MA 01950  
+1 978 499-7800

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