

## InfoNode® 5500

# The Gateway to Power Management

The Signature System™ is an integrated, web-based platform that allows users to remotely—and in real time—monitor their power systems. A multi-tiered power quality and energy management system, the Signature System incorporates multiple measuring and monitoring instruments called DataNodes® reporting to a gateway/web server called an InfoNode®. A typical system may include a

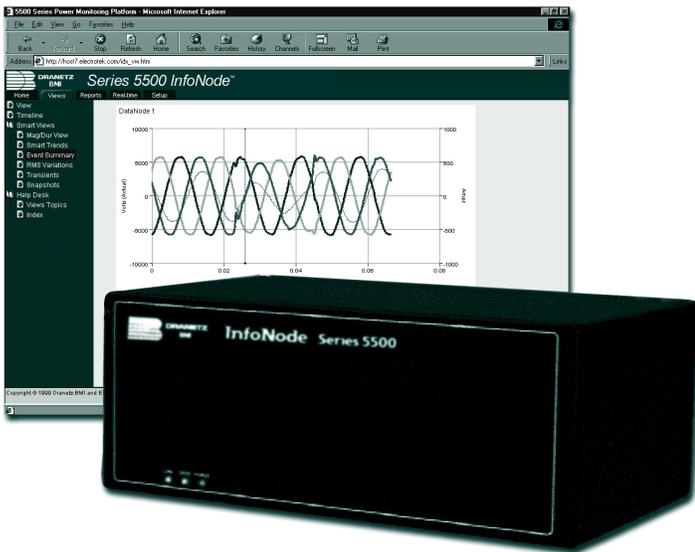
single InfoNode communicating with multiple DataNodes located at critical power and process monitoring points throughout the facility. Information and reports are available on the company network to any user with a valid password and a web browser. Supported instruments include those supplied by Dranetz-BMI or by a growing list of third party manufacturers, including instruments used to monitor physical parameters. Signature System also communicates with contact closures from a variety of transducer types, providing a complete picture of the facility infrastructure.

The InfoNode offers a gateway to aggregate, process and view information from up to 32 DataNodes on a real-time basis, offering multiple communications paths for simultaneous access of up to eleven users. The InfoNode provides a user interface via a self-contained, password-protected web server. Since data can be viewed through any web browser, there is no

software to purchase, install or learn. Protocols presently supported include TCP/IP, HTTP, UCA-2, and MODBUS.

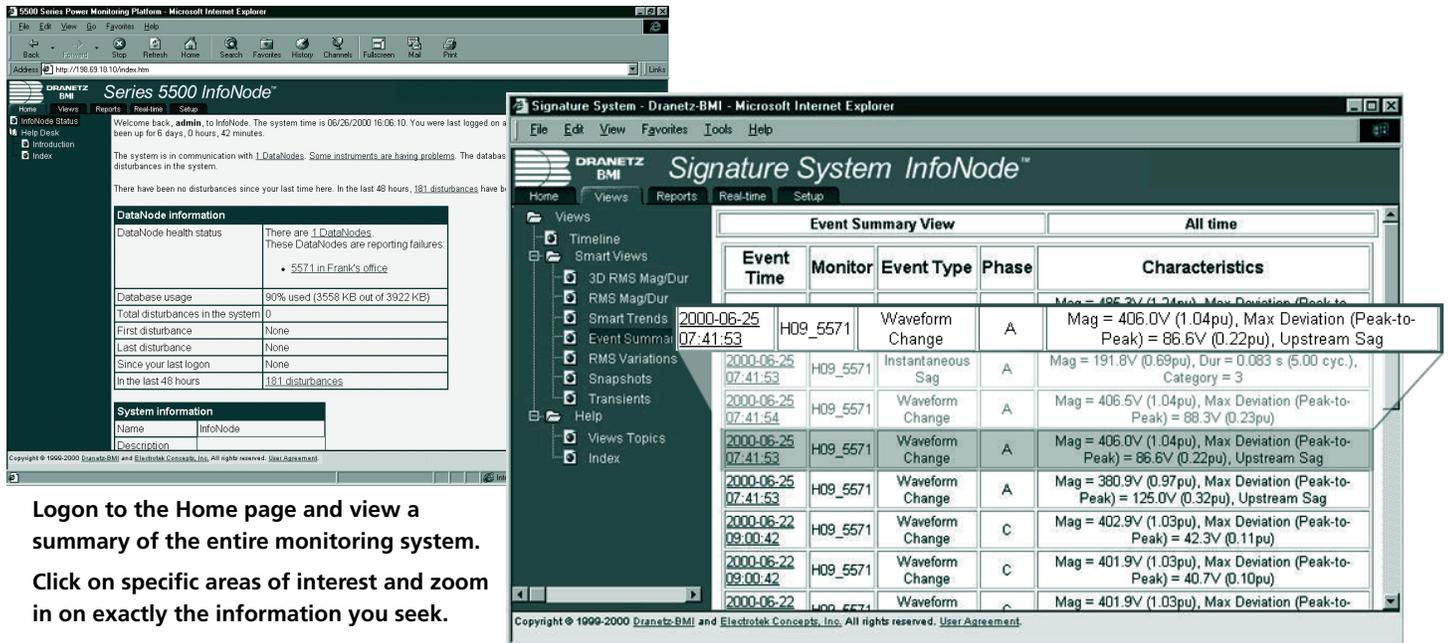
### Instantaneous Analysis

As the central component of the monitoring system, the InfoNode provides immediate and intuitive access to the monitoring system via easy-to-use tabs. The Home tab (page) summarizes the entire monitoring system, its health and most recent activity. The Views tab allows for dynamic and intuitive graphical or textual analysis of recorded data with multiple zoom levels to narrow the display to the exact data of interest. The Reports tab summarizes the various aspects of monitoring, allowing the user to choose from numerous reports for printing. The Real-time tab provides immediate access to monitoring points anywhere in the system via displays such as scopes, meters and dials. The Setup tab allows authorized users to configure the entire system. Since the InfoNode is a web server, custom web pages such as one-line diagrams and graphic images can be easily added to closely represent the specific application.



Immediate knowledge of abnormal activity in your system is critical in responding to failures and possibly preventing them altogether. The InfoNode can automatically alert multiple users when pre-set alarm conditions are met via e-mail and/or pager. Contact closures are also available for simple integration with existing building management, SCADA or other third party systems.

Answer Modules™ are a series of intelligent algorithms that convert raw power quality event data into precise answers for rapid and accurate decision-making. These are software plug-ins that reside in the InfoNode, and automatically review data as it is being acquired to recognize various types of power problems and determine the cause and source of problems.



The screenshot shows two browser windows. The left window displays the 'Series 5500 InfoNode' home page with a navigation menu and system status information. The right window shows the 'Event Summary View' with a table of power quality events.

Event Time	Monitor	Event Type	Phase	Characteristics
2000-06-25 07:41:53	H09_5571	Waveform Change	A	Mag = 406.0V (1.04pu), Max Deviation (Peak-to-Peak) = 86.6V (0.22pu), Upstream Sag
2000-06-25 07:41:53	H09_5571	Instantaneous Sag	A	Mag = 191.8V (0.69pu), Dur = 0.083 s (6.00 cyc.), Category = 3
2000-06-25 07:41:54	H09_5571	Waveform Change	A	Mag = 406.5V (1.04pu), Max Deviation (Peak-to-Peak) = 86.3V (0.23pu)
2000-06-25 07:41:53	H09_5571	Waveform Change	A	Mag = 406.0V (1.04pu), Max Deviation (Peak-to-Peak) = 86.6V (0.22pu), Upstream Sag
2000-06-25 07:41:53	H09_5571	Waveform Change	A	Mag = 380.9V (0.97pu), Max Deviation (Peak-to-Peak) = 125.0V (0.32pu), Upstream Sag
2000-06-22 09:00:42	H09_5571	Waveform Change	C	Mag = 402.9V (1.03pu), Max Deviation (Peak-to-Peak) = 42.3V (0.11pu)
2000-06-22 09:00:42	H09_5571	Waveform Change	C	Mag = 401.9V (1.03pu), Max Deviation (Peak-to-Peak) = 40.7V (0.10pu)
2000-06-22 09:00:42	H09_5571	Waveform	C	Mag = 401.9V (1.03pu), Max Deviation (Peak-to-Peak) = 40.7V (0.10pu)

Logon to the Home page and view a summary of the entire monitoring system. Click on specific areas of interest and zoom in on exactly the information you seek.

## Specifications for the InfoNode 5500

### Communications

- Ethernet - 10 base T
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- RS-232 - 2 ports, each supports up to 16 DataNodes.
- RJ-11, 56 kbps modem (option)
- GPS antenna (option)

### Storage

- InfoNode 5502: 16 MB flash (standard)  
64 MB, 128 MB (option)
- InfoNode 5504: Hard disk with 2G database

### Power supply

- 90-250 Vac, 47-63 Hz or 100-150 Vdc.
- Built-in auto-charging UPS
- Tolerates 2kV, 1kA impulses

### Enclosure/Environment

- Painted aluminum.
- Wide variety of bracket mountings and positions.
- Operating: InfoNode 5502 (-20°C to +65°C)  
InfoNode 5504 (0°C to +55°C)

### Physical Dimensions

- Height=5" (127 mm); width=13" (330.2 mm);  
depth= 8" (203.2 mm)

### Certifications and standards

- ANSI C64.110, CE, FCC, ISO9001, UL



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