

Intelligent Communication Gateway

RT|ICG Intelligent Communication Gateway software from DC Systems enables utilities and large energy users to monitor, acquire, and concentrate data from multiple substation and field devices, and serve it to external systems. A cost-effective, scalable solution, **RT|ICG** software performs protocol conversion and intelligently manages communication bandwidth, maximizing throughput for real-time SCADA control.

- APPLICATIONS:**
- Communications interface to intelligent electronic devices (IEDs) and remote terminal units (RTUs)
 - SCADA monitoring and control
 - Protocol conversion, data concentration, and front-end processing
 - Management and monitoring of radio networks

POWERFUL DATA ACQUISITION AND CONCENTRATION

RT|ICG software's powerful data acquisition engine collects data from devices over multiple master communication channels, and concentrates it into one or more slave devices. The system has built-in protocol conversion, supporting industry-standards such as DNP/Modbus. Channels operate in parallel to provide high throughput, and support for serial and TCP/IP channels is provided. Serial channels can be connected locally or remotely via IP-based terminal servers. The system can acquire and transmit time-tagged data, and add time tags when needed.

FLEXIBLE DATA SERVER

RT|ICG software serves data to external systems using multiple protocols. Data acquired by the system can be combined into one or more slave devices, which are assigned to serial or TCP/IP slave communication channels. External systems can be connected to the slave channels, and slave data can be served by polling or exception reporting. This configuration enables critical data from multiple field devices to be acquired at shorter intervals.

INTEGRATION OF GRIDSTREAM* RF (UTILINET*) COMMUNICATION

The **RT|ICG** solution downloads a polling and change-detection program to endpoint radios in the Gridstream* RF (UtiliNet*) mesh network. The software polls both analog and digital data from endpoint devices to detect and report changes, and also reports device health status periodically, even if no changes occur. Change bands can be downloaded to endpoint radios along with change detection logic, so they can be managed from a central location. **RT|ICG** software supports the use of multiple protocols within the same mesh network, enabling the mixing of field devices from different manufacturers. Different data acquisition methods—such as polling, exception reporting, and wake-up reporting—can be mixed within the same protocol.

INTEROPERABILITY

RT|ICG units at different locations can be interconnected to form a distributed intelligence architecture that can be configured, managed, and administered from a central location. Security is ensured by the software's builtin Secure Socket Layer (SSL) support or through use of an external firewall and encrypted VPN appliances. The result is a data acquisition and transportation system that is fully compliant with North American Electrical Corporation Critical Infrastructure Protection (NERC CIP).



A real-time, intelligent communication solution

Reduced costs

Cut capital expenditures with a solution that runs on standard, Windows*-based servers or hardened systems available from many manufacturers.

Flexibility

Mix field devices from different manufacturers using multiple protocols, and combine data reporting methods within the same protocol.

Security

Keep your network secure with built-in SSL support.

High speed

Transmit data quickly by combining it into one or more slave devices that can be assigned to serial and TCP/IP communication channels.

Time tagging

Easily acquire and transmit time-tagged data, and add time tags when needed.

Seamless integration

Interface seamlessly with the Gridstream RF (Utili-Net) mesh network.



The Complete RT Real-time Smart Grid Platform™

RT|ICG software is a member of the RT Real-time Smart Grid Platform™ applications from DC Systems, a leading developer of smart grid software for utilities and large energy users.

Our products combine the power of distributed intelligence with centralized data management—putting intelligence where you need it, while centralizing configuration, administration, and monitoring at the enterprise level. RT applications interoperate throughout the Smart Grid—from field devices, to substations, to control centers, to the enterprise—giving you greater flexibility, control, and responsiveness.

Let Us Turn Your Data Into Smart Data.

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