CAS Hemera Commercial & Industrial

CAS Hemera C&I is the Utility main analytic tool to promote intelligent management of Large Customers energy consumption. Through continuous monitoring and control of metering equipment, it centralizes complete and real time updated information contributing significantly to loss reduction and revenue assurance.

Metering Management

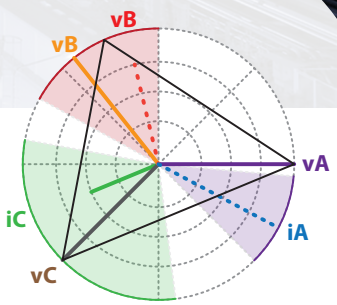
Intelligent and automated system for monitoring and real time data collection from any meter or communication protocol. Presenting information in a centralized way with full collected data history, it provides control and analysis resources through multiple reports and customizable charts.

By supporting utilities' processes, it provides resources to monitor metering data availability to assure customers billing. Other highlighted benefits are metering management, easiness for losses investigation, subsidies for communication diagnosis (signal level) and environment monitoring (temperature, geo reference and others), beyond helping to validate fieldwork and to access meter data.

Examples of Hemera C&I compliant meters.

- **ABNT** – Landis & Gyr, Elster, Nansen, ELO, ESB
- **ANSI** – Elster Alpha 1, 1+, 2, 3
- **ION** – Schneider Electric
- **IEC** – ZIV
- **DLMS** – ITRON
- **MINI-DLMS** – Q1000, ITRON
- **EIG Nexus** – NEXUS

Phasor data: Used in loss recovery analysis



Based on field-collected data, the system presents phasorial graphs and reports that allow the dynamic visualization of phasorial variation every 15 minutes or according to the desired schedule.

Associated to the load and demand graphs and to the registered events and alarms, customer behavior analysis becomes complete, supporting frauds investigation and solution, meter malfunction diagnosis, parameterization errors and others issues that may cause commercial losses.

Complete platform with utilities' and customers' view: efficiency throught metering process.

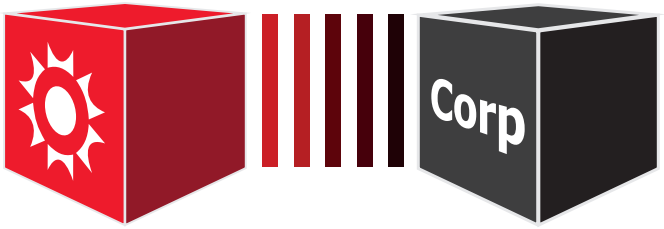
Monitoring field events

Events information occurring in the monitored elements alerts about physical and logical conditions related to the metering point. Through events analysis, analysts are able to infer the existence of situations that require field inspections or regularizations.

Systems Integration

CAS systems can be integrated with other systems of the utilities, allowing:

- To share information to create new data applications processed by CAS platforms.
- To enhance benefits of corporate systems already incorporated to the utilities routines.
- To add value to the Business through the availability of functionalities coming from integration.



CAS Hemera Platform Integrations*

- **Commercial systems:** billing process automation.
- **Operating systems:** information of power outage in customers shared through the DNP3 protocol.
- **Field service systems:** customer services automation.
- **Power outage management systems:** automated power outage information to anticipate restore actions.
- **Asset management systems:** allows information reliability about metering equipment asset control.

** Integrations depend on specific customizations to each single corporate system.*

Advanced Tools:

Configurable schedules enable activities automation, such as billing, reporting, meter reading and parametrization.

Acquires metering data through CAS telemetry hardware, conventional modems, direct access to a meter with ethernet output and file import.

Generates and exports FK7 and public formats (for ABNT meters), CSV and TXT files.

Meters geographic location through Google Maps.

User administration and access with privilege levels. User actions registers for audit purposes.

Offers billing and mass-memory simulations.

Contingency and Performance

High data availability and scalability to meet the utility needs due to the telemetry points increase.

- Maintenance easiness in the servers' physical architecture - allowing another one to perform when a server is under maintenance.
- High storage availability and flexibility using smaller servers with balanced load.
- Effective improvement in messages processing, speeding up data recovery in unavailability events.
- Independent processes to allow prioritization of the utility's most critical activities.
- Compatibility with different operating systems, adaptable to any computational structure.