MPL

Delivering Simplified Business Intelligence

Gateway Technology Shortform

Design Philosophy Driving MPL Gateway Technology

At the heart of the MPL design philosophy, is the belief that the provision of business intelligence to its clients need not be complicated. With this in mind, MPL has designed a range of N-GEN Gateways which centralise data collection from the broad range of measuring devices offered to support a sustainable energy management programme.

Gateways simplify the deployment of all measuring technology and offer the most intuitive and easy to configure approach for the visualisation of monitored parameters. Each Gateway uses a single IP address to monitor up to 256 devices. Deploying MPL Gateway technology significantly reduces infrastructure complexity and associated costs.

DELIVERING SIMPLIFIED BUSINESS INTELLIGENCE

Primary Function

The family of MPL Gateways centralise data collection from a broad range of highly accurate measuring devices across the clients Estate. All power, energy and environmental parameters are captured to support real time monitoring, historical date range driven reporting and instantaneous alerting and alarming.

MPL technology is highly transferable enabling the Gateways to be deployed across a wide range of market sectors, all of which demand accuracy, resilience, and a simplified supporting architecture.

Scalability

The Gateway portfolio has been designed to offer full scalability from collecting half hourly data via a handful of utility meters on a single site, through to the management of thousands of devices spread across multiple geographical locations where polling rates are every 1-2 seconds.

To support remote measuring locations, options for SIM and Wi-Fi connectivity are available.

The Gateway family includes the function whereby data is stored locally on the device to provide additional redundancy in data retention.

Communication Protocols

The Gateways support a range of communication protocol inputs which includes SNMP, Modbus and Pulse. This approach enables the Gateways to support the client's Estate from building point of entry (utility meters), through to individual payloads. Communication protocol outputs include SNMP, MQTT, Kafka and API's, whilst alerts are sent via SNMP, Webhooks, SMS or email.

Ease of Use

The simplified set up of the Gateway, coupled with its ability to automatically discover connected devices, ensures provisioning is completed within a few minutes. User defined naming convention data can be added by populating the 'free text' boxes or utilising the 'bulk' configuration tool.

User Defined Thresholds

Thresholds can be defined and managed by the user against any key parameter being measured. Instantaneous alerts will be sent when a threshold is breached.

Simplified Network Architecture

The Gateway architecture will drastically reduce the number of Ethernet ports/IP addresses required, which in turn will reduce the network complexity and its associated costs.

FEATURES	MICRO GATEWAY	GATEWAY IT	GATEWAY ESTATE	GATEWAY ENV	GATEWAY COMBI
Primary Function	Centralises data collection from a smaller number of devices for all power, energy (including all utilities) and environmental parameters across the entire Estate. Also manages alerting and alarming against user defined thresholds.	Centralises data collection for all power, energy and environmental parameters within the IT space. Also manages alerting and alarming against user defined thresholds.	Centralises data collection for all power, energy (including all utilities) and environmental parameters across the entire Estate. Also manages alerting and alarming against user defined thresholds.	Centralises data collection for the granular monitoring of multiple environmental parameters and physical security.	Centralises data collection from wireless T&H sensors and power measuring devices.
Measuring Device Type	Utility (Pulse and Modbus) and Sub Meters/RPDUs and In-Line units/ MPL EMS	RPDUs, In-Line Units (including integrated environmental sensors). AC branch circuit monitoring	Utility and Sub Meters/AC and DC circuit monitoring	Tethered Environmental Sensors/MPL EMS	Wireless Environmental sensors/RPDUs and Inline Units/AC branch circuit monitoring/ MPL EMS
Typical Applications	Commerical Buildings/ Campus Sites/Remote Locations	Comms and Hub Rooms/Data Centres/ PODs/Power Bus Bars and Tap Off Monitoring	Commercial Buildings/ Edge Applications/ Campus Sites/Data Centres/Telecoms/ Manufacturing	Comms and Hub Rooms/Data Centres/PODs/ Power Bus Bars and Tap Off monitoring	Estate wide applications/Data Centres/Commercial Buildings, Warehouses/Retail
Monitored Parameters	Volts, Amps, kW, kVA, kWh, PF, Power Quality, Environmental conditions, Physical Security	Volts, Amps, kW, kVA, kWh, PF, Power Quality, Environmental conditions, Physical Security	Volts, Amps, kW, kVA, kWh, PF, DC Circuits, Power Quality, Environmental conditions, Physical Security	Temperature, Humidity, Smoke, Leak, Airflow, Physical Security	Volts, Amps, kW, kVA, kWh, PF, Power Quality, Temperature, Humidity, Physical Security
Data Retention on Device	No	Yes	Yes	Yes	Yes
Device Count	Micro Gateway up to 5 Modbus devices or 1 pulse device				
	Gateway 32 devices (single chain)				
	Gateway 64 devices (two chains disabled/enabled)				
	Gateway 128 devices (four chains)				
	Gateway 256 devices (four chains duplex)				
Gateway Connectivity	Micro Gateway: Ethernet/SIM/WiFi				
	Gateways: Ethernet/SIM				
Communication Protocol Inputs	Gateways: SNMP v1, v2c, v3, Modbus RS485, Modbus TCP/IP				
	Micro Gateways: SNMP v1, v2c, v3, Modbus RS485, Modbus TCP/IP and Pulse				
Communication Protocol Outputs	Gateway Outputs: SNMP v1, v2c, v3, MQTT / Alerts via SNMP, email or SMS				
	Micro Gateway Output: MQTT				
Third Party Integration	Utility and Sub Meters	Third party RPDUs/ ILUs	Utility and Sub Meters, RPPs, third party RPDUs, UPS, Volt Server, Plant Equipment	Third Party Sensors	Not Applicable
Power Input	7-55VDC (48VDC nominal)	32 device Gateway - single fed/optional dual fed 100-240VAC (50/60Hz)			
		All other Gateways - switchable dual fed 100-120VAC or 200-240VAC (50/60Hz)			
Dimensions H x W x D	30mm x 100mm x 90mm	32 device Gateway: 44.45mm x 150mm x 114mm			
		64, 128 and 256 Gateways: 44.45mm x 437mm x 114mm			
Enclosure Options	IP54 and IP66 rated enclosures				
NGEN Compatability	NGEN SaaS	NGEN On-Premise or SaaS/Hybrid			
Part Numbering	MGW_STD or MGW_SIM	NGEN-GW-32IT	NGEN-GW-32EST	NGEN-GW-32ENV	NGEN-GW32-COMBI-ENV
		NGEN-GW-64IT	NGEN-GW-64EST		NGEN-GW32-COMBI-EST
		NGEN-GW-128IT	NGEN-GW-128EST		NGEN-GW32-COMBI-IT
		NGEN-GW-256IT	NGEN-GW-256EST		