

# NETINIUM®

## Netinium® AMM+



Unified management and control for multi-vendor, multi-utility smart metering and smart grids

The Netinium Advanced Meter Management system - Netinium AMM+ - offers mission critical deployment, control, data management and security capabilities not delivered by business applications such as SAP or any MDM. It complements your business applications with a platform for unified operations management that is specifically designed to meet the needs for large scale multi-vendor, multi-utility smart metering. Netinium AMM+ takes away the complexities to integrate business processes with meter infrastructures and provides an adaptable environment to support new technologies, changing legislation and evolving business needs.

### Key Features

- Supports smart meters for electricity, gas, water and heat
- Supports wired and wireless Mbus, PLC, GPRS, CDMA, IP and Meshed Radio networks
- Integrates directly with meters, data concentrators and head-end systems from leading meter manufacturers
- Supports simultaneous connectivity with multiple GPRS Telecom providers
- Enables messaging to in-home displays through smart meter Home Area Network ports
- Provides automated processes for installation and commissioning, device discovery, device configuration, plug and play replacement and service activation
- Provides scheduled and on-demand data collection for billing data, interval data, power quality data etc.
- Provides scheduled and on-demand transmission of settings for Time of Use registers, connect/disconnect switches, meter configurations, security updates etc.
- Performs all data unification, event unification and synchronisation
- Addresses privacy and security concerns with industry strength data encryption and security-key management
- Scales to support millions of devices and provides 24x7x365 availability
- Extends to support smart devices for distribution automation, local generation and storage and charging infrastructures for electric vehicles
- Supports emerging global and national smart metering and smart grid standards (DLMS/COSEM, MUC, Mbus, NTA8130, DSMR etc.)

### Add and configure new smart devices on existing infrastructure

Netinium AMM+ Smart Adapters provide support for multiple utility domains (i.e. electricity, gas and water) and all communication types (i.e. PLC, GPRS, IP). The Netinium AMM+ Global Device Information Repository supports real-time asset management and configuration management based on the actual state of smart devices. Because Netinium's solution is open-standards based, it is possible to quickly modify configurations and deploy new protocols and device types as technology evolves.

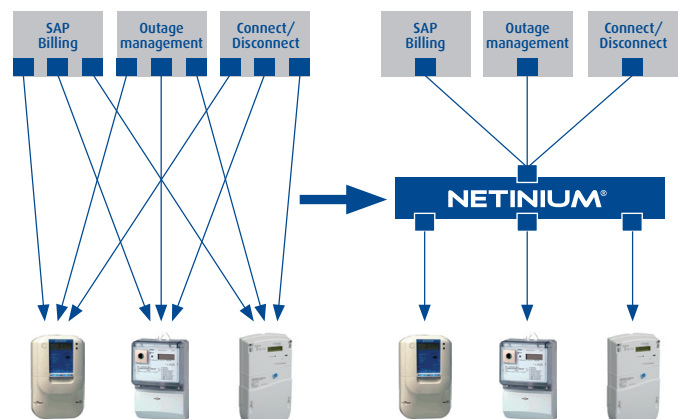
### Data transformation and storage

Netinium AMM+ transforms vendor-specific data into a unified data set that can be accessed by business applications using technology-neutral services. The Netinium AMM+ Raw Data Store provides short and midterm storage for collected data, including billing data, load profile data (time series), power quality data and events. Unlike other approaches where data is merely collected, Netinium AMM+ transforms static data into useful real-time information that can be utilized to optimize efficiency of field assets and real-time energy management.

### Comprehensive network operations and security management

The Netinium AMM+ Platform includes an integrated operations and security management environment for the entire multi-vendor smart meter, smart grid and in-home infrastructure. The Netinium NOC (Network Operations Console) provides central administration for network operators, including topology visualization and real time events and alarms. The NOC supports day-to-day operations and facilitates easy drill-down and drill-through menus so that network operators always have an accurate real-time overview of the grid environment. Netinium AMM+ supports an unlimited number of NOCs to be 'live' at the same time, enabling multiple network operators to work simultaneously.

Netinium AMM+ Security provides industry strength data encryption and key handling, protecting data exchange, installation and operations.





**Evolve smart device infrastructure without breaking existing business processes**

**Netinium AMM+ Smart Services** simplify key energy business processes. Smart Services provide an abstraction of the smart grid, which enables key business functionality to be consolidated from multiple sources. In addition, this abstraction separates the business processes from the technology, which protects existing business processes from being impacted when changes are made to the devices in the field.

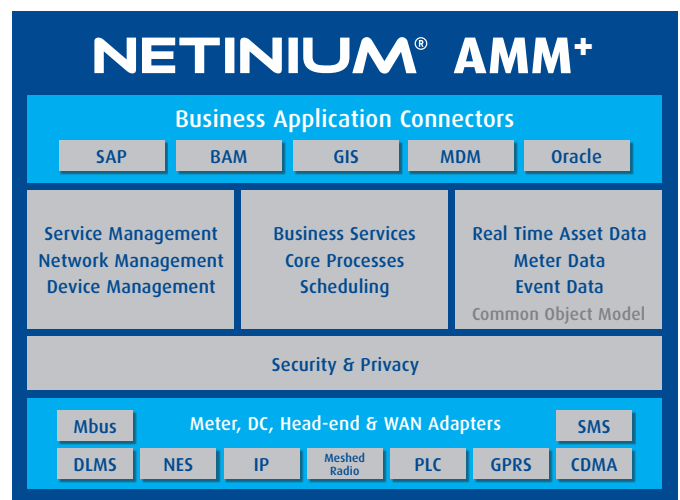
These powerful Smart Services enable real-time and batch access to smart devices, in order to provide the following core business functionality:

- Daily and monthly billing
- Real-time on-demand reads
- Load profile data
- Remote connect/disconnect
- Time of Use/tariff configuration
- Power quality data
- Remote firmware updates
- Real-time status information

Open, industry standard interfaces for Service Oriented Architectures (SOA) enable straightforward integration of Netinium AMM+ Smart Services with existing back-office applications, such as ERM/CRM (e.g. SAP, Oracle), MDM and end-customer portals.

**Netinium AMM+ Smart Grid extensions**

The Netinium AMM+ platform’s modular architecture enables easy extension to support new types of smart devices for distribution automation, local generation and storage and charging infrastructures for electric vehicles. With Netinium AMM+ you can combine information, deliver new bundled services, manage real-time events and address cross cut concerns across grid hierarchies, all from a single operations environment.



<b>System Requirements</b>	<p><b>Supported operating systems:</b> Windows Server 2003, Linux 64 bit, Solaris, AIX</p> <p><b>Supported application servers:</b> Weblogic 10.x, Websphere</p> <p><b>Supported databases:</b> Oracle 10g, DB2</p>
<b>High Availability</b>	Supports clustering for 24x7x365 availability with automatic load balancing, fail-over and disaster recovery with off-site mirrors
<b>Security</b>	Supports industry strength data encryption and security key handling including DES, triple DES, MD5 and SHA1, AES128, AES256, SSL and certificates
<b>Work station Requirements</b>	Microsoft Windows XP/Vista, Linux JVM (Java Virtual Machine): 1.5 and higher
<b>Communication</b>	Wired and wireless Mbus, PLC, GPRS, CDMA, IP and Meshed Radio
<b>Meter vendor list</b>	Supports meters from the following manufacturers: Iskraemeco, Itron, Kampstrup, Echelon, Elster, Flonidan, Landis+Gyr and Xemex