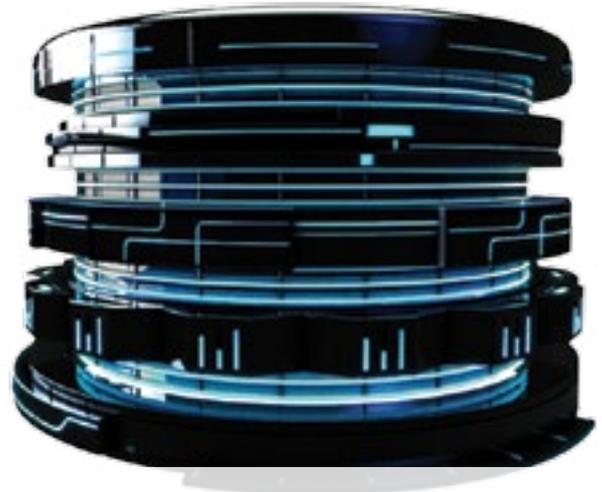# Big Meter Data Challenger

METER DATA MANAGEMENT

NITES MDM

A PLATFORM THAT TRANSFORMS LARGE AMOUNTS OF DATA INTO USEFUL, READABLE, EDITABLE, PREDICTABLE AND ACTIONABLE INFORMATION

NITES MDM provides a common infrastructure for collecting meter-read data (interval and register readings and events) from both head end system AMM adapters and from manual reads by users. Following a standardized validation, estimation and edit, data is transformed into derived usages, including the results of billing cycle consumption calculations or other, more complex calculations which the utility may require.

NITES MDM provides individual points of meter data. With access to centralized information, the processing engine is capable of combining multiple usage points (consumer, producer, and exchange points from different market players) into a single output, which can be used for overall business management and coordination.

NITES MDM provides complex data analytics from the highest organizational level, while allowing the user to drill down to a single meter, reading, event, or command. Analytics also include market balances, distribution forecasting, and generation- and/or transmission-based grid behavior through statistical estimations of representative usage points. These are basic sources of information for any other systems working with metering data (SCADA, DMS, OMS, Billing, and CRM).

KEY SOLUTION ADVANTAGES

	DECISION DRIVER	The system can be integrated into and configured for any business environment, while offering a complete view of data for business decisions and process automation
	ERRORLESS CALCULATIONS	The system uses the most advanced algorithms for data validation and estimation, preventing any incorrect information from being transmitted to the billing system or advanced analytics
	CUSTOMER ENGAGEMENT	In depth analysis of customer behavior is allowing creation of unlimited number of tariff plans, active load control and consumption group definitions to attain more effective energy consumption
	DATA ANALYTICS	Analysis of past usage data, customized reports and predications based on industry best practices, which can be used to analyze, predict and manage energy throughput

NITES

by using **superior NITES MDM**

for a smooth transition to a SMART GRID

NITES MDM ENABLES

NITES MDM allows full process automation and data analysis, opening up the possibility of properly deregulating the market between transmission, generation, distribution, and supplier. The utility's metering data is analyzed and administered according to its practical needs: measurement of energy from any number of metering devices and user-friendly analysis and calculation schemes to best interpret the business.

NITES MDM allows utilities to modernize thanks to improved energy-exchange planning in the near real-time open market, estimation of peak loads and a reduction of operational costs thanks to comprehensive consumption and grid load reports.

Using full process automation and decentralization of mission critical process of data collection and analysis, utilities can take full advantage of:

- THE MARKET LIBERALIZATION
- SUPERIOR DATA QUALITY
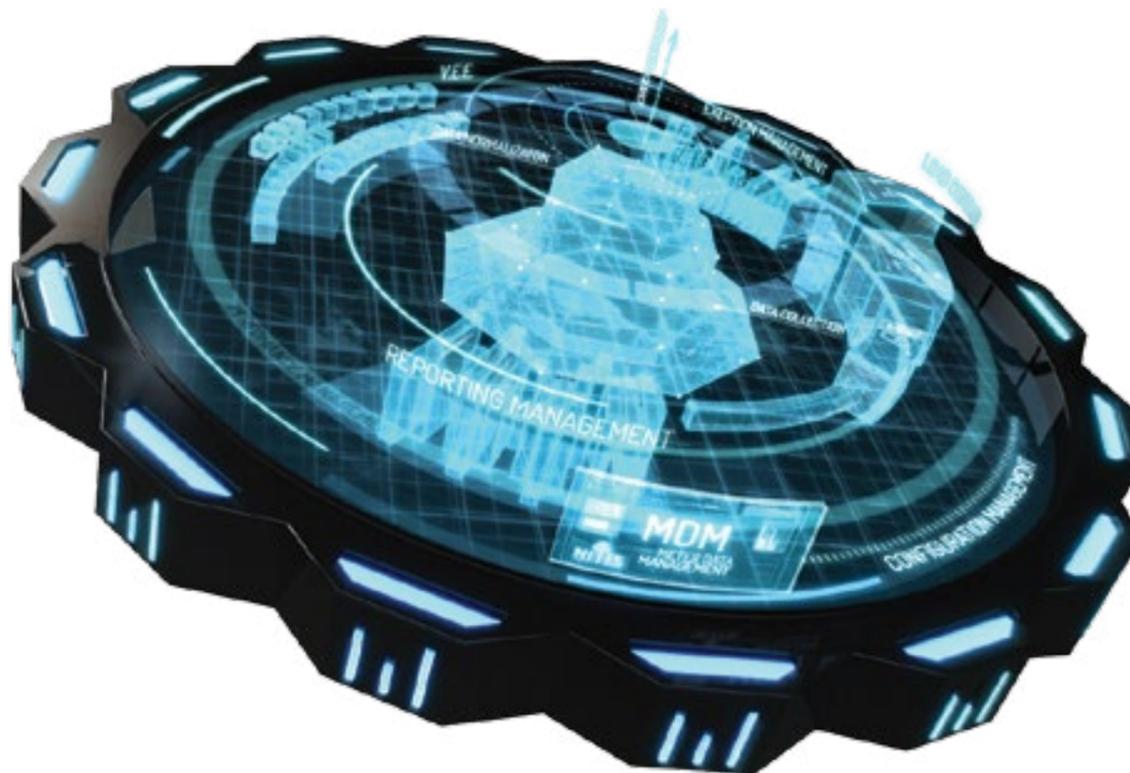- ADVANCED CALCULATION AND INVOICING
- ENHANCED CUSTOMER ENGAGEMENT
- AN ACCELERATED REVENUE CYCLE
- SINGLE-POINT DATA MANAGEMENT

NITES MDM is packed with state of the art features – it is cloud based, and includes configurable VEE, advanced data analytics, and seamless integration with any existing system based on the IEC 61968 standard using SOA.

The system offers on-line access for any interested party and rapid intervention on any subset of data, guaranteeing completely accurate data for billing or analysis.

NITES MDM allows easy data mediation from remote AMM/AMR/head end systems using productized adapters. These collect data when scheduled or on-demand, and can forward commands from MDM (customer switch on/off, framework update, or tariff plan update) to multiple head end systems and prioritize communication between different head ends. It can even interact with different data sets per head end to satisfy the MDM's needs.

HOLISTIC APPROACH TO ARCHITECTURE DESIGN

NITES MDM is modular. It addresses the needs of market operators, distribution network operators, energy retailers, and other market participants in both bundled and unbundled markets. The implementation model is flexible, and is:

- **a centralized/Decentralized solution for bundled markets**
- **a centralized/Decentralized solution for unbundled markets**
- **a cloud-based solution**

NITES MDM is independent and universal. It does not require a particular meter type or manufacturer, communication technology, protocol, head end vendor or data collection mechanism. Through standardized IEC 61968 interfaces and an integration layer we can connect utilities to any existing and future application (AMM, head end, AMR, hand-held devices, CRM, billing, OMS/DMS/SCADA, or any others). In addition, we offer out-of-the-box productized adapters for primary AMM vendors as well as NITES AMM.

NITES MDM is efficient and scalable. Our main focus is providing extensive data and processing performance to enable utilities to participate in any energy market in near real-time. Thanks to its modular design, NITES MDM is expandable in terms of processing speed and response time to third party systems. It's performance has been proven in centralized installations on over 800,000 distribution and generation meters all working together.

NITES MDM, when combined with our AMM, Billing and Customer Care modules, covers the full business cycle, from meter to cash.

MDM KEY FEATURES

VALIDATION-ESTIMATION-EDDITING

NITES MDM provides highly adjustable VEE with configurable out-of-the-box rules and extendable validation and estimation routines to fit any utility's needs. By defining validation outcomes, utilities can adjust data quality to their business requirements and decisions - accepting only required data, finding gaps in readings and estimating them, validating data (readings and events) and sorting them for different business needs.

ENHANCED DATA ANALYSIS

NITES MDM provides advanced analytics assuring accurate output for billing system and other existing or planned systems (SCADA, DMS, OMS, CRM, etc.). Data can be aggregated into virtually any number of hierarchical levels offering top-down perspective on usage and load including any usage point user defines: customer load profile analysis and forecasting, usage point, substation up to grid level losses calculation, usage calculation based on load and customer load profile, estimation of missing data, and any other analysis you will need.

REPORTING

NITES MDM offers dynamic reporting, including user-oriented reporting and data analysis BI tools. All reports follow the principle of multi-parameter user criteria and can be requested by user interaction, system events or generated by the automated mode. How and when reports are delivered is completely within the user's control.

METER DATA

NITES MDM is the heart of all utility IT systems. It is capable of storing any and all types of specified data, generating a complete historical information tree in different versions. Data that is not available today may be available tomorrow, and MDM will have best possible data ready at any given moment.

SECURITY

NITES MDM offers access control to any segment of data and any segment of functionality, configurable to fit changing needs.

NITES

NITES MDM CLIENT BENEFITS

When bombarded with huge data volumes from smart meters, utilities need a high performance tool that allows for collection, analysis and interpretation of data in times and formats which are clear to multiple users.

NITES MDM provides configurable performance to fit a utility's needs in the almost near real-time market. Data required and processing steps are configured by a system administrator and installed on one or more physical or virtual servers to boost performance.

NITES MDM provides necessary data when it's needed. With this robust and efficient solution, data will always be ready for making business decisions and targeting other market players with up-to-date and correct information. It serves as the main tool in operational and field activities with near real-time events and alerts from the metering network, planning for and resolving outages and customer support.

SIMPLIFIED INFRASTRUCTURE

NITES MDM is designed to provide a common infrastructure for collecting meter read data (interval, register readings, and events) from AMM adapters connected to head end systems or manually by users. Following a standardized validation, estimation and edit, data is transformed into derived usages, including the results of billing cycle consumption calculations or other, more complex calculations which the utility may require

ADVANCED ANALYTICS

NITES MDM provides complex data analytics from the highest organizational level, while allowing the user to drill down to a single meter, reading, event, or command. Analytics also include market balances, distribution forecasting, and generation- and/or transmission-based grid behavior through statistical estimations of representative usage points. These are basic sources of information for any other systems working with metering data (SCADA, DMS, OMS, Billing, and CRM)

UNIFIED DATA REPOSITORY

NITES MDM provides individual points of meter data. With access to centralized information, the processing engine is capable of combining multiple usage points (consumer, producer, and exchange points from different market players) into a single output, which can be used for overall business management and coordination

ENVIRONMENTAL SUSTAINABILITY

By choosing NITES MDM, alternative energy sources can be joined into one grid and grid planning will be more efficient. The product provides customers with timely notifications and detailed consumption info, preventing bill shock and helping them attain more efficient energy consumption, reducing CO_2 emission and providing better energy efficiency

ABOUT NITES

We are young, flexible, dynamically expending **IT Development Company & System Integrator, headquartered in Prague Czech Republic and expanding rapidly in worldwide, due to the innovative approaches in solution design of Business and Operations Support Systems** for Utility, Telecom and other Large Enterprises.

We provide cutting edge technologies and deliver solutions that enable our clients to drive new trends in their industry domains Our teams are locally organized to allow close interaction with customers and global ex-change of experience, to reach for the **most effective business processes** that allow new business models and increased shareholders value of our clients

NITES s.r.o.

Modletice 80
251 01 Říčany
Czech Republic

+420 323 642 323
+420 323 606 312
praha@nites.eu

www.nites.eu

NITES d.o.o.; Braće Podgornika bb ; 78000 Banja Luka, Bosnia and Herzegovina

NITES d.o.o.; Bulevar Mihajla Pupina 165e; 11070 Belgrade Serbia

NITES d.o.o.; Svetog Petra Cetinskog 30; 81 000 Podgorica; Montenegro

NITES Int. GmbH; Parkstrasse 34; 09120 Chemnitz; Germany