

EnergyDynamics™ is a modular high-performance Smart Metering platform system for the liberalized energy market. A state of the art technology for energy providers that allows you to take full advantage of the new smart grid system.

EnergyDynamics™ is a brand new smart metering and utility services solution for energy providers, featuring:

- a smart front-end system to enhance prepayment energy sales performance and customers relationship through a gateway for multiple back-ends
- a robust infrastructure and EDM back-end system to control energy delivery, sales and data flow in a layered perspective, integrating 3rd party systems

Features

EnergyDynamics™ is a highly integrated smart metering software platform, providing a highly customizable front-end and multiple back-end solutions for industry leaders.

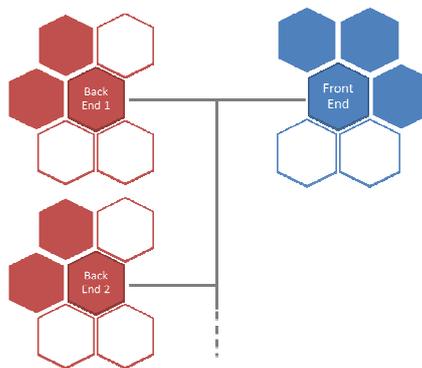
Multiple back-end modules (among multiple utilities) can be tied to a single front-end handling prepaid or on billing energy sales in a liberalized market (network / energy)

Each module can be easily adapted to meet the needs of multiple energy providers.

Highly flexible solution that allows you to easily rebrand any modules to fit any corporate identity guidelines.

For your company

Advanced technology for Energy Data Management (EDM).



The system comes with an automatic topology inventory and discovery, in addition to a set of scriptable meter/gateways configuration methods.

Real time visualization of important

end consumer data, sales report, contract subscription as well as metrics on the entire topology.

Offers a better work flow for prepayment, cancelling manual reading and avoiding installing extra aggregated 3rd party devices.

For your customers

Easy to deploy Energy Shop module for end customers functionalities supporting international and localized Electronic Payment Services.

User friendly, end customer, online energy shop, app and web services with specific branding.

Access to an updated report of energy consumption for customers

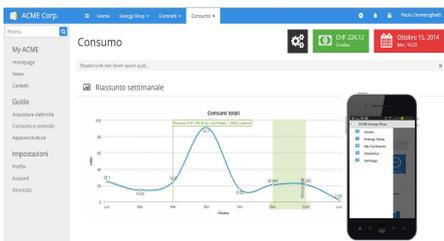
granting them full privacy in a meter's prepayment configuration.

Interaction permitted with 3rd party solution, i.e. to energy saver platforms.

Physical support (i.e. smart card) for a prepayment setup no more necessary .

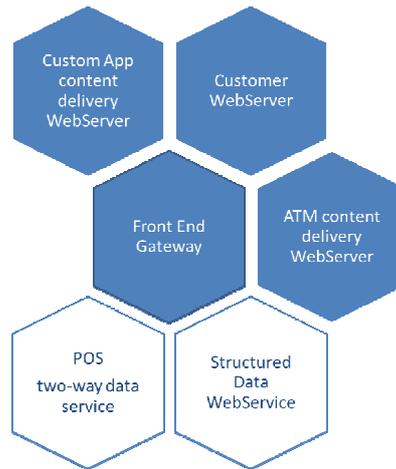
Components: Front-End System

- Customizable Online Shop Portal for direct online sales with credit card and/or PayPal allowing prepaid energy sales and contract subscription.



- Mobile App service module to deliver rich web content to customers' apps, exposing the same structured data access as the web portal.
- Lightweight standalone Mobile app skeleton ready for branding controlled by the app service module, marketplace delivery included.
- ATM service module to deliver rich

content to Touch ATM interfaces ready for branding, supporting multiple smartcard/NFC protocols and other dedicated hardware.



- Customized POS (Point of Sale) systems specifically designed for energy providers selling energy through vendors/merchants according to most known acquiring companies specifications.

- POS data web service to receive sales confirmations push and transactions ids from acquirers through RPC/JSON 2.0.

- Dedicated web portal access for vendors/merchants to obtain updated sales reports and statistics.

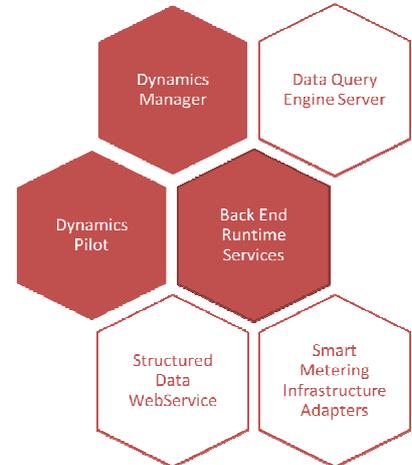
- User friendly data web service for accessing key functionalities through Remote Procedure call (RPC/JSON 2.0) clients for 3rd party interfacing.

- Front-end gateway service synchronizes data among multiple back-ends and all front-end modules, performing silent background computations and sales information delivery.

Components: Back-End System

- Topology interfacing through one or more adapters for every standard smart metering infrastructures (NES OSGP System, Landis & Gyr, Siemens...) with extended management and supervision functionalities.

- Runtime system performing statisti-

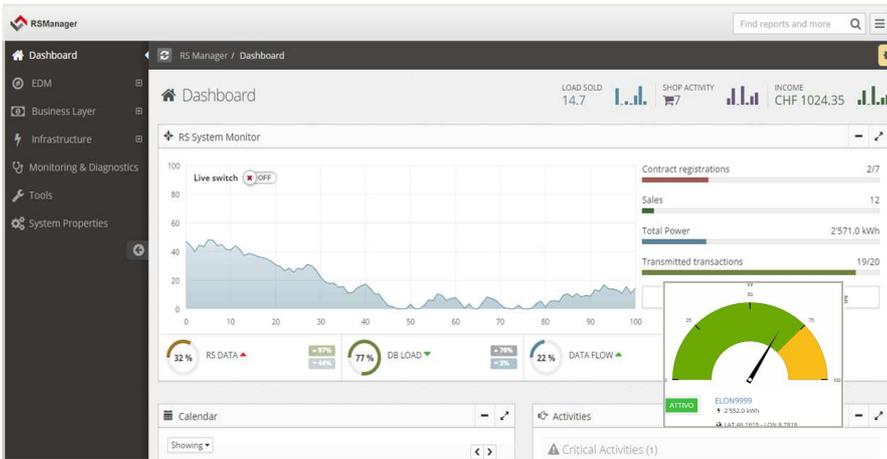


cal computations in the background to provide updated data and reports for the other modules.

- User friendly data web service for accessing key functionalities through



ENERGYDYNAMICS SMART METERING PLATFORM



Remote Procedure call (RPC/JSON 2.0) clients for 3rd party interfacing.

- Query engine server for RPC/XML queries coming from 3rd party accounting or management applications

EnergyDynamics™ Pilot

EnergyDynamics™ Pilot web application allows the simplest way to install components licenses, configure and provision your data object cloud as well as to set up interaction among modules for the entire back-end system (and on which terms data has to be synchronized with a front-end system).

EnergyDynamics™ Manager

EnergyDynamics™ Manager web application is the main control center for the entire back-end system, exposing the EDM functionalities, infrastructure management tools in a lay-

ered presentation:

- business logic, pricing manager and contracts policies;
- effective EDM middle layer for structured data abstraction management and front-end data flow configuration and accumulation;
- robust infrastructure/ topology data visualization and configuration tools.

Specifications

Data Persistency and the Cloud

Every node of Energy Dynamics system grants data persistency and coherence through a shared abstract object space (cloud) supported by the databases in every node. Redundancy is granted by n+1 database regeneration techniques.

Inter-module networking

Data synchronization between nodes is granted by the same object space and realized through a proprietary application layer communication, end-to-end encrypted.

Interface Modules

User interface rich content is distributed to all interfaces through proprietary web containers secured and dedicated to the specific information presented to the user.

Infrastructure Adapters and Drivers

Infrastructure adapters are proprietary nodes (modules) specifically conceived for 3rd party energy management systems - like Echelon NES system—designed to reduce configuration time and provide workflow scripting.

System Requirements

EnergyDynamics™ scales from pilot projects to rollouts. Following minimum requirements apply for a system with up to 10'000 points of measure (meters). Note: hardware requirements can be met through a proper set up of a virtualization infrastructure.

Hardware Requirements

- For back-end nodes: 1 quad-core Intel® Xeon® processor (x64), 8.0 GB RAM, 2x140 GB SCSI hard drives



(RAID 1), 1Gbps network adapter;
- For massive web traffic front-end nodes: 2x quad-core Intel® Xeon® processor (x64), 16.0 GB RAM, 3x180GB SCSI hard drives (RAID 5), 10Gbps network adapter.

Software Requirements

Following are the minimal requirements for each node to grant and support the entire data cloud:

- Microsoft Windows Server 2008 R2 x64 with Service Pack 2
- Microsoft SQL Server 2008 or MySQL 5.x or Postgre SQL 9.x
- Adobe Acrobat Reader 10.x
- Infrastructure (topology) controller accessible from OS (either Echelon or comp.).

Client Interfaces Requirements

Client interfaces are accessed through web browsers. Supported web browsers:

- Microsoft Internet Explorer 9 or higher
- Google Chrome 32 or higher
- Mozilla Firefox 18 or higher

Extended Requirements

Additional requirements address specific needs of adopted systems/ hardware, adaptors to enterprise applications and WAN types used and may include opening of individu-

al ports for data communication, system adapter configuration, prerequisite of special communication equipment and/or SIM cards, etc.

Ordering information

EnergyDynamics™ can be set up in a specific configuration focused on the functionalities depending on your target strategy, the size of your infrastructure and the customers web activity.

Every deploy of the system is unique in its way. Contact us to prepare a design and assess a figures proposal that fits your needs.

About the Company

FlexEnergy SA is a Swiss company. Its core business is developing solutions for the Smart Grid and the Internet of Things.

The focus is on energy solutions for prepayment systems, as well as exploring new ways to enable people to have smart solution and to save energy in a smart way.

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