EnergyIP® Analytics Foundation

Unlock the value of your Smart Grid data

This means users can get the value of the data analysis without investing into generic data analytics tools that can take time and push up the total cost of operation in the longer term higher. Well thought out and market proven use cases that are most common to any utilities are provided out of the box.

Go beyond meter to cash

Deployment of AMI to convert power grid into Smart Grid is costly, but with meter to cash application, utilities will start to enjoy return on the investment. And now, how to utilize the huge amount of data sent up from AMI every day and every minute to go beyond traditional meter to cash data usage and unlock the true value of AMI data is becoming more and more popular concern.

What are made possible with AMI data?

From analytics perspective, besides the large amount of raw data, what are the characteristics of AMI data that makes analytics applications possible to provide users?

Grid handles bi-directional energy flow with distributed generations and electric vehicles compared with a traditional top down one way flow, and it produces rich variety of data to analyze and act upon.

Data produced and delivered is more granular and real time not only for the usage data but also for various types of events from smart meters.

By applying advanced analytics algorithms and machine learning capabilities of the big data, more intelligent decision making is achievable.

And users can be proactive and fast rather than reactive and late in responding situations, managing and taking care of customers, and monitoring assets and grid.

What is unique about Siemens Analytics?

What analytics means can be different depending on the interest of a user because there are financial data analytics, CRM, market, ERP analytics etc.

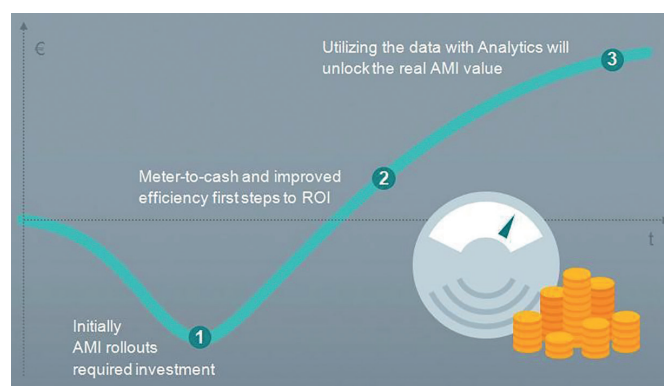And many vendors are providing different solutions.

Siemens Analytics is unique because our solution primarily focuses on Smart Grid data analytics for Energy Management industry based on the long history and expertise Siemens have in the area.

Use cases addressed

Out of the box, common use cases that are addressed includes distribution load analysis, customer load analysis, smart meter event analysis, power outage analysis, water and gas leakage detection, AMI data collection analysis. To effectively address these user cases and to provide easy to user data discovery capabilities, Analytics Foundation comes with many out of the box data aggregations pre-defined.

With these well designed use case coverage and aggregation engines, Analytics Foundation offers effective data navigation and discovery capability not only to data scientists but also to business users who are not necessarily familiar with data analytics methodology or tools.

Utilizing the data with Analytics will unlock the real AMI value

Meter-to-cash and improved efficiency first steps to ROI

Initially AMI rollouts required investment

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Open and flexible interfaces

nalytics Foundation provides real open and flexible interfaces so that the data can be accessed from many different 3rd party tools and users with different skill sets, needs, and requirements. Utilities don't have to worry about vendor lock-in or throwing away their existing tools and user skills.
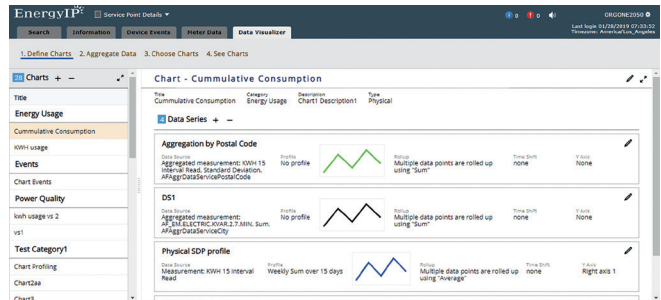
For the users with basic skills, Analytics Foundation offers intuitive and easy to use web based user interface. Virtually no user training is required to start using these data navigation user interfaces.

For users with skills to execute SQL queries to fetch data from databases directly, Analytics Foundation offers the query interface. With the query, user can export data and import into their familiar tools such as Excel, Tabuleau, or Jupyter Notebook, etc., to run further data analysis.

Even for the needs of the application developers who want to write their own data analytics application to address the customized use cases or user experience, Analytics Foundation would be the perfect solution as it provides APIs that allows direct access to the data.

Summary

Analytics Foundation is a perfect solution to utilities who want to maximize the value of smart grid data. It covers most major user cases with out of the box configuration, and it is open and flexible enough to support wide variety of user needs from basic data navigation to advanced application development.