

Case Study

Smart meters give consumers the Power of Choice

SNAPSHOT

Solution Group:	Application Development Group
Solution Offering:	Offering Consumers, the Power of Choice by deploying Digital Meters also known as smart meters. Developing real time payments
Project name or title:	Implementing Smart Meters

CLIENT PROFILE

Client performs an array of gas and electricity market, operational, development and planning functions. It manages the National Electricity Market (NEM) and the Victorian gas transmission network. Client also facilitates electricity and gas full retail contestability, overseeing these retail markets in eastern and southern Australia. It is additionally responsible for national transmission planning for electricity and the establishment of a Short-Term Trading Market (STTM) for gas.

Power of Choice Overview

Power of Choice aims to provide more opportunities for business owners to make informed choices about the way they use electricity based on the benefits that end-use services provide. POC's ultimate aim is for consumers to be in the best position to decide what works for them. It also aims to give businesses more insight into their energy consumption patterns in real time, to allow them to take advantage of demand response offers. Use less at peak times and you will get paid for it.

The POC also aims to reform distribution network pricing principles with the aim of improving consumer understanding of cost-reflective network tariffs and give people more opportunity to be rewarded for changing their consumption patterns. The national 'Power of Choice' reforms are part of an ongoing transition in the energy sector aimed at reducing costs for electricity users. Under the reforms:

- All new electricity meters will be smart meters (also known as 'advanced', 'interval' and, in the case of most households and small businesses, 'type 4' meters)
- New meters and metering services will be provided competitively by retailers, not by the distributor, also known as the network operator (Actew AGL Distribution in the ACT) as at present
- More 'cost reflective network pricing' will be introduced, which means that, over time, more tariffs may be offered that are higher or lower depending on time of day or a customer peak demand.

BUSINESS SITUATION

Client is working with industry to implement changes arising from a number of Australian Energy Market Commission (AEMC) inter-related rule changes. These Rule changes, which originated from the Power of Choice (POC) review, include the Competition in Metering Rule Change, the Embedded Networks Rule Change and Updating the B2B Framework Rule Change. To implement these Rule Changes client has established a POC Implementation Program, comprised of the following workstreams:

- Client Procedural Development work stream – to define the required changes to electricity retail market Procedures;
- B2B Procedural Development work stream – to facilitate the required changes and updates to the B2B Procedures;
- Systems Development work stream – to design, develop, implement and test changes to client's retail market systems and
- Readiness – to coordinate, assist and prepare industry and client for the start of the revised arrangements, and to monitor and report on preparation efforts.

To coordinate the program and facilitate discussions with industry participants about risks, issues and broader implementation matters, client has established a Program Consultative Forum (POC-PCF). In addition to the PCF, each work stream has a dedicated working group for industry engagement.

Adactin was involved in coordination of the program to facilitate discussions with industry participants to design, develop, implement and test changes to client's retail market systems.

SOLUTION

Adactin proposed and implemented solutions for Power of Choice for Clients Retail Market System.

Phase 1 – Interacting with the Business and performed Requirement Analysis

- Adactin Team Coordinated and collaborated with cross functional business users, engineers and Business Analyst to discuss the design, requirements and get approval to achieve elegant solution.

Phase 2 – Development of the requirements

- Demonstrated a proof of concept covering one key scenario.
- Worked on the schema changes in order to incorporate the changes related to Power of choice
- Worked on developing and designing of solutions related to digital meters for Retail Customers
- Researched and resolved reported system problems efficiently and accurately while adhering to internal software management standards and procedures.
- Provided ongoing maintenance support and enhancement in existing system and platform.
- Scripted test scenarios and created input data files.
- Correlated dynamic data to ensure usage of clean data for every run and to avoid cache problems in measuring response time.

Phase 3 – Performed Unit Testing for the developed modules

- Performed Functional Testing and Regression Testing.
- Analyzed Execution Report to identify defects and logged these in JIRA for defect tracking • Script maintenance. • Liaised with development team, infrastructure team and Technical Architect for the fixes done and analysis of the results with the changes in configuration.
- Liaised with testing team, infrastructure team and Technical Architect for the fixes done and analysis of the results with the changes in configuration.

Phase 4 – Documentation and Handover

- Versioned the scripts in SVN and handed over the documents and reports in a shared repository.
- Prepared Release Notes and Traceability Matrix summarizing the configurations done, files modified.
- Prepared a Performance Summary Report summarizing the results of the tests done, conclusion highlighting the usability and stability of the application.

BENEFITS

Find below benefits of technical solution proposed to the client

- Digital meters can be used to help you identify when your electricity usage peaks.
- Another key benefit of digital meters is more accurate meter reads. As digital meters can be read remotely, and your usage data is sent automatically, in most cases the need for on-site meter reads and estimated bills is significantly reduced
- Increased consumption information (accessible in My Account), which can help you manage your electricity usage
- Remote meter readings, removing the need for onsite meter reads
- Energy suppliers receive real-time data and that business and household energy bills are based on accurate information, rather than estimated figures.
- Smart meters will also enable electricity supply problems to be detected more quickly and make it easier for residents who are relocating to have their power connected remotely, without having to wait for a service visit.

ASSISTANCE PROVIDED BY CLIENT RESOURCES

- Assistance provided by client's cross functional team in understanding the existing system and requirements.
- Assistance provided by client SME's in understanding business requirements
- Client SME's conducted knowledge sharing sessions on different modules.
- Client's Project Management team assisted in development coordination with business users and testing team.
- Client SME's assisting in prioritization of bugs in bug tracking tool.

Adactin is a premium Australian software consulting company dedicated to excellent software development and testing with a comprehensive service suite encompassing quality assurance, design and development services, data analytics products and other digital transformation enterprise solutions including quality ICT training programs. The company has a core competency and thought leadership position built around the science of IT development and testing application development. For more information, please visit <https://www.adactin.com>

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