Attachment 14.1

SA Power Networks: Customer (Service) Technology Plan 2014-2024

July 2014

SA Power Networks

Customer Technology Plan

July 2014

2014-2024

Preamble

This Customer Technology Plan was prepared between 2013-2014.

At the time of the initial report development we envisaged future possible initiatives such as an Intelligent Network, a CIS/OV system replacement and mapping of the Low Voltage (LV) network, etc. Much of this will be developed further in the 2014 update of the *Future Operating Model*.

To the extent possible, this plan considers those initiatives and any likely potential impact on the customer service initiatives outlined in this plan. However, as the detail of these future initiatives has not been sufficiently defined, their full potential impacts can not be determined at this time.

Parts of the timeline on pages 43 are indicative at this point and will be amended as more detailed requirements and business cases are developed.

It is intended that the Customer Technology Plan be maintained as a living document throughout the period it covers (2014 - 2024). We therefore anticipate that the Customer Technology Plan will need to be updated subsequent to these future initiatives being finalised, as well as other future initiatives unknown at this point.

July 2014

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Executive summary

We have developed a new Customer Service Strategy which has been aligned to our strategic business plan and provides steps to realise our new customer service vision for 2020: *We will provide proactive, responsive, and reliable service to meet our customers' needs, now and in the future.*

To achieve this vision, we have defined a set of strategic initiatives that meet emerging customer needs and keeps us in the top-tier of Distribution Network Service Providers (DNSP) in an increasingly digital world.

Our five strategic customer service initiatives for 2014-2020

1. *Be recognised as a national leader in the delivery of quality, safe and reliable power*
2. *Manage and maintain a cost effective and relevant network that caters for a diverse range of electricity consumers*
3. *Proactively seek opportunities to make a positive connection with communities and business across metropolitan and rural South Australia*
4. *Deliver customer service that is tailored and responsive to immediate and changing needs*
5. *Be a source of trusted advice and information for customers' current and future electricity needs*

Key strategic deliverables

Five documents will fully describe how we expect to deliver against each of the key deliverables of the Customer Service Strategy including this Customer Technology Plan.

This Plan goes beyond the Customer Service Strategy to the core of our business. As an essential service provider we maintain the network for current demand while planning for future demand which will vary across the state. It means engaging with a wide range of stakeholders to understand needs and building the network to meet the future demand before it has reached its technical constraints while considering the service standards for which customers are willing to pay.

This Customer Technology Plan aims to avoid 'stranded assets' of stand alone systems that aren't integrated with others which limits their functional value. It is a long term vision to ensure the architecture is correct to most cost-efficiently meet the demands of our customers for information, just as we have always done for the electricity infrastructure.

The Plan means we will progressively build on a solid foundation of systems to create more services and functions that customers value, delivered in consumer-friendly ways. Understanding that value lies within the Customer Service Strategy of listening to customers.

Customer Technology Plan key deliverables

The Customer Technology Plan defines the implementation of the following key deliverables, as outlined in the Customer Service Strategy:

- Developing a longitudinal, single view of customers, including their call and outage history, and relevant network activity that impacts them (SVOC)
- Implementation of recommendations from the Customer Data Quality Plan 2014 - 2020 and alignment with asset data improvement projects
- Creating a repository that captures knowledge from local intelligence sources (customers, councils, business and state and federal Government)

It also addresses the following criteria not specified in the Customer Service Strategy:

- Improving billing, which is a 'behind the scenes' system which customers do not see, however is a critical issue which crosses many stakeholder and market boundaries and must always be accurate, secure and supportable, with strong customer confidence
- Develops the concept of ‘property’ (not necessarily having electricity supply points) as a foundation on which we can provide value-added services to customers and to employees and contractors through improved understanding of access, hazards, and future connections.

In addition, it also illustrates our plan to progressively provide more information directly to customers, electricians, retailers and other relevant third parties through dedicated portals and integrated mobile applications. This supports customers' requests for more transparency about our operations as well as their desire for more self-service and self-management options to give them more control and to allow 24/7 access to information.

The Plan also intends that contractors undertaking outsourced work will have access to relevant information to ensure a seamless customer experience across all interaction points.

Customer Technology Plan overview

The Customer Technology Plan outlines how we will realise the vision of a technology enabled Customer Service Strategy. It also goes beyond elements identified within the strategy to look at billing and property as critical 'back end' data.

Our target state leverages technology to provide improved and consistent customer service via a multi-communication channel delivery capability. Customer related information is improved through new data sources, improved data quality, and improved system integration. Access to information is via clear and clean portals and interfaces that mask the complexities of the underlying data sources and systems.

The Customer Technology Plan has been developed to identify and address the technology capabilities and requirements necessary to meet customer service and interaction requirements as well as the fulfilment of a holistic *Single View of Customer* vision.

Enhanced Accessibility and Interaction

Our existing communication channels for customer interaction will remain but will be significantly enhanced through improved content and functionality for increased customer self service and self management. Other channels may be brought into this suite in future such as web chat, or other channels as they become mainstream with high demand from, and value for, customers.

Increased Information Visibility

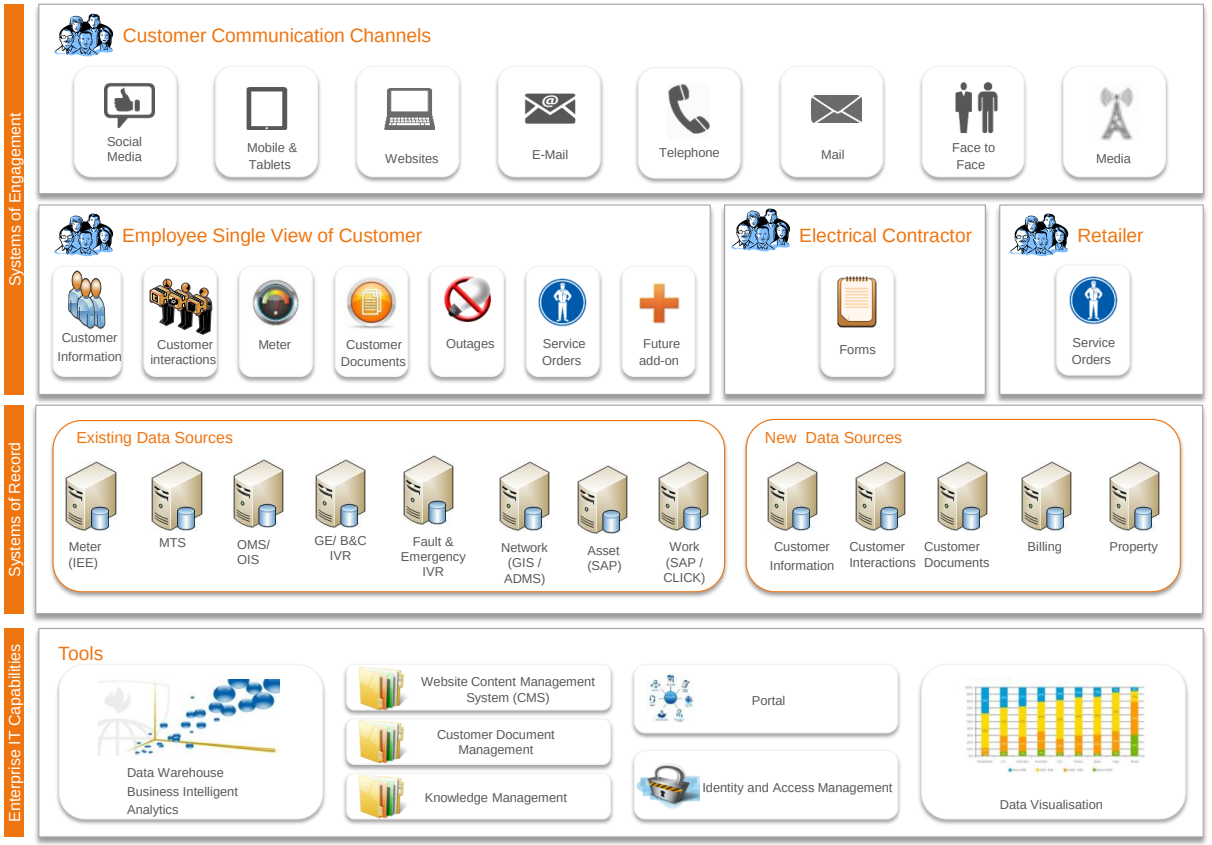
Employee access to customer-related data will be via a single sign-on portal that masks the complexities of the multiple data sources and systems. Additional capabilities will be added and enhanced to allow self service access by customers, retailers and electrical contractors.

Improved Data Quality, Availability & Integration

Our underlying systems of record and corporate data sources will be subject to replacement, consolidation and improved data integration to better facilitate the information and functional needs of our customers and our operational business units. Some legacy, non-integrated, systems will be decommissioned to improve efficiencies.

Enhanced Insight and Knowledge

We will implement and leverage a range of IT platform capabilities and tools that enable us to better serve our customers and that provide increased knowledge bases and improved customer intelligence and insights.



Customer Technology Plan roadmap

Investment roadmap

Implementation of the proposed Customer Technology Plan is a key enabler in delivering on our customer service vision in the provision of proactive, responsive and reliable customer service. The roadmap progressively rolls out and enhances our customer technology systems, empowering us to deliver the personalised customer service and solutions that meet our customers' needs now and in the future. Our plan also positions us to further leverage and evolve our technology as our customers' needs evolve and change into the future.

Specific technology investments over a ten year period will provide incremental improvements in the following technology areas:

- **Customer facing initiates**

  A multi-communication channel customer service delivery capability that provides a consistent customer experience is progressively updated and enhanced

- **Corporate systems and data sources**

  Corporate information sources are progressively enhanced, consolidated and extended to better address the information requirements of customers, customer facing employees and third parties

- **IT enablers**

  A select range of fit for purpose IT tools and capabilities will be implemented and enhanced to provide increased visibility of, and insight into, customers and customer related data

- **Customer data quality**

  A range of business driven data quality improvement initiatives seek to provide specific remediation of key data related pain points as well as implementing a continuous data quality capability

Anticipated implementation schedule

CTP Project Schedule	Business Case ID	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Customer Service Strategy Quick Wins												
Quick Wins - Website Redesign	BC02a											
Quick Wins - Mobile App Redesign	BC02a											
Web Developments												
Website Refresh (2015) - includes costs for Website CMS	BC02a_1											
Website Refresh (2016)	BC02a_1											
Website Refresh (2017)	BC02a_1											
Website Refresh (2018) - includes hardware refresh	BC02a_1											
Website Refresh (2019)	BC02a_1											
Website Refresh (2020)	BC02a_1											
Customer Specific Content (Customer Portal)												
Customer & Interaction Details	BC02a_3											
Outage Information	BC02a_3											
Service Order Information	BC02a_3											
Compliments and Complaints	BC02a_3											
Customer Documents - includes costs for Document Mgmt	BC02a_3											
Corporate Systems and Data Sources												
Customer - Foundation												
Programme Resources	BC01_1											
Customer Relationship Management (CRM)	BC01_1											
Customer Reporting and Analytics - includes DW/BI costs	BC01_1											
Customer - Core												
Outages (Feeder Level)	BC02a_2											
Service Orders	BC02a_4											
Compliments, Complaints and Documents												
Compliments and Complaints	BC02a_5											
Customer Documents	BC02a_6											
Document Management Refresh	BC02a_6											
Billing - Foundation												
Billing System (CIS/OV Replacement)	BC01_2/3/4/6/7											
Customer - Extended												
Property	BC01_5											
Consumer Energy Advisory - includes costs for Knowledge Mgmt	BC02a (Next Reg Period)											
Contact Centre												
Contact Centre - Implementation	BC02											
Contact Centre - Refresh	BC02											

Where will the Customer Technology Plan position SA Power Networks?

The Deloitte Customer Experience (CX) Maturity Model investigates 22 capabilities (grouped by seven categories) across five maturity levels. The Customer Experience technology assessment provides an indicative assessment of current CX technology maturity levels at SA Power Networks and those expected to be achieved through the Customer Technology Plan.

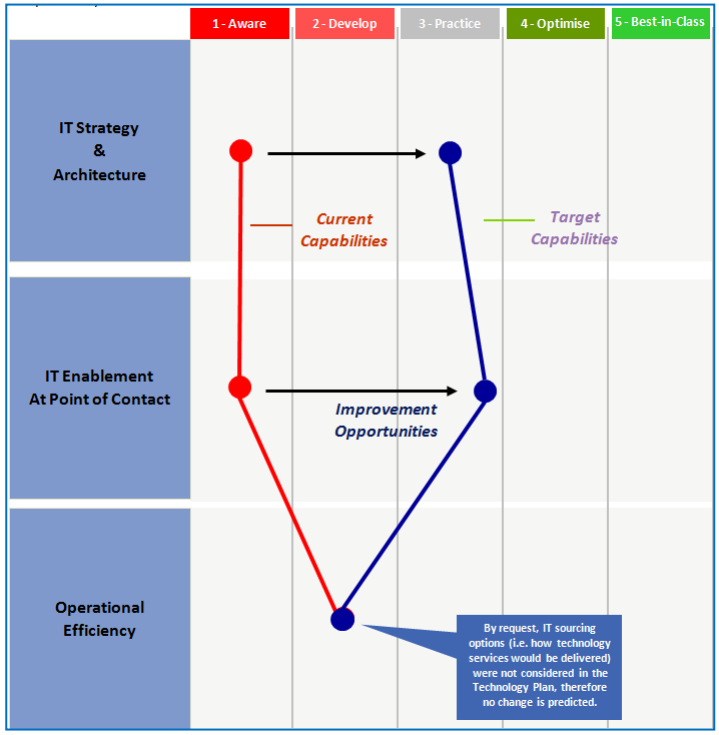
A comparative analysis was conducted against a range of different industries to better understand the current standards, and ideals, for customer experience and what customers now expect as standard.

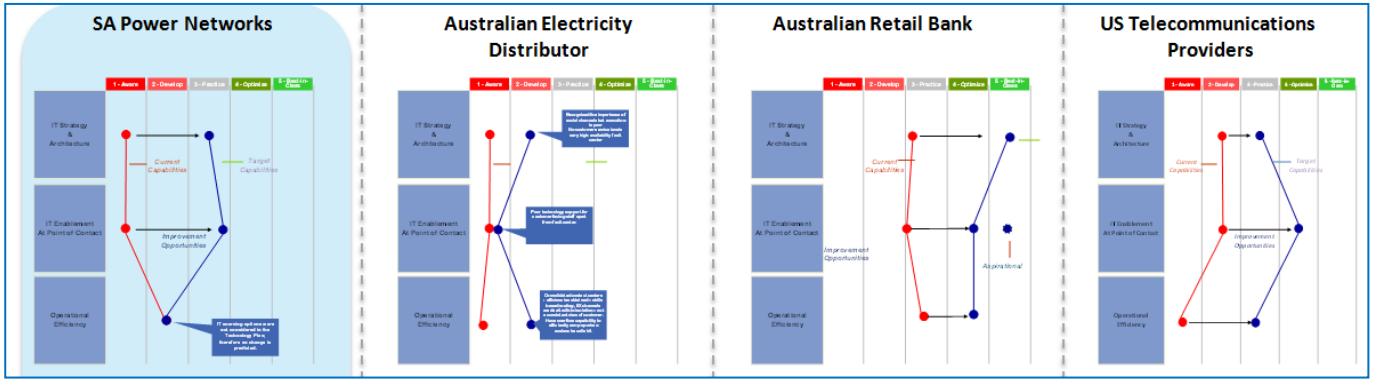
Compared with other sectors, Australian electricity distribution has a low technology maturity level for customer communications. After several years of significant investment in customer technologies and in consideration of SA Power Networks' longstanding direct contact with customers (unlike some other state jurisdictions), it is currently placed well among DNSPs. However, given customer expectations for mainstream technologies widely available in other sectors such as banking, retail, services, and even competitive electricity retail, SA Power Networks needs to consider a Customer Technology Plan incorporating the key communications elements customer value.

The scope of this Customer Technology Plan will keep SA Power Networks behind the curve of leading technological developments that customers expect. The intent of the Customer Technology Plan however is to position Customer Experience as a standard practice and capability across the organisation.

The analysis considers three core capabilities with respect to the management and delivery of information technology services in support of corporate Customer Experience enablement:

- **IT Strategy and Architecture:** considers the extent to which a Customer Experience focus influences, and is considered in, the planning and design of IT Services
- **IT Enablement At Point of Contact:** considers the effectiveness, appropriateness and completeness of the capabilities delivered by IT services and their ability to enhance the Customer Experience
- **Operational Efficiency:** considers the efficiency in the delivery of IT services supporting the corporate Customer Experience agenda.





About this document

The Customer Technology Plan supports our understanding of the information and communication requirements of our various customer segments as determined through our regular market research and targeted surveys and workshops used to develop the Customer Service Strategy and vision.

Specifically, it provides a roadmap aimed at achieving our 'Single View of Customer' vision via the staged implementation of technology investments that integrates multiple sources of information for authorised employees and progressively enables third parties (customers, retailers, electricians) to access this same information where relevant.

It also includes more functional billing, an independent property view, and future consumer energy advisory services to provide value added information to employees and customers about tariffs, appliances, and new technologies for energy generation and management.

Our approach to developing the Customer Technology Plan

The Customer Technology Plan seeks to ensure that the underlying information and system needs are in place to support our strategic initiatives.

Customer Technology Plan

The process and approach undertaken during the development of the Customer Service Strategy demonstrates the linkage of customer interaction and system requirements.

These system requirements need to ensure that the underlying functional needs to support the required business capabilities are in place.

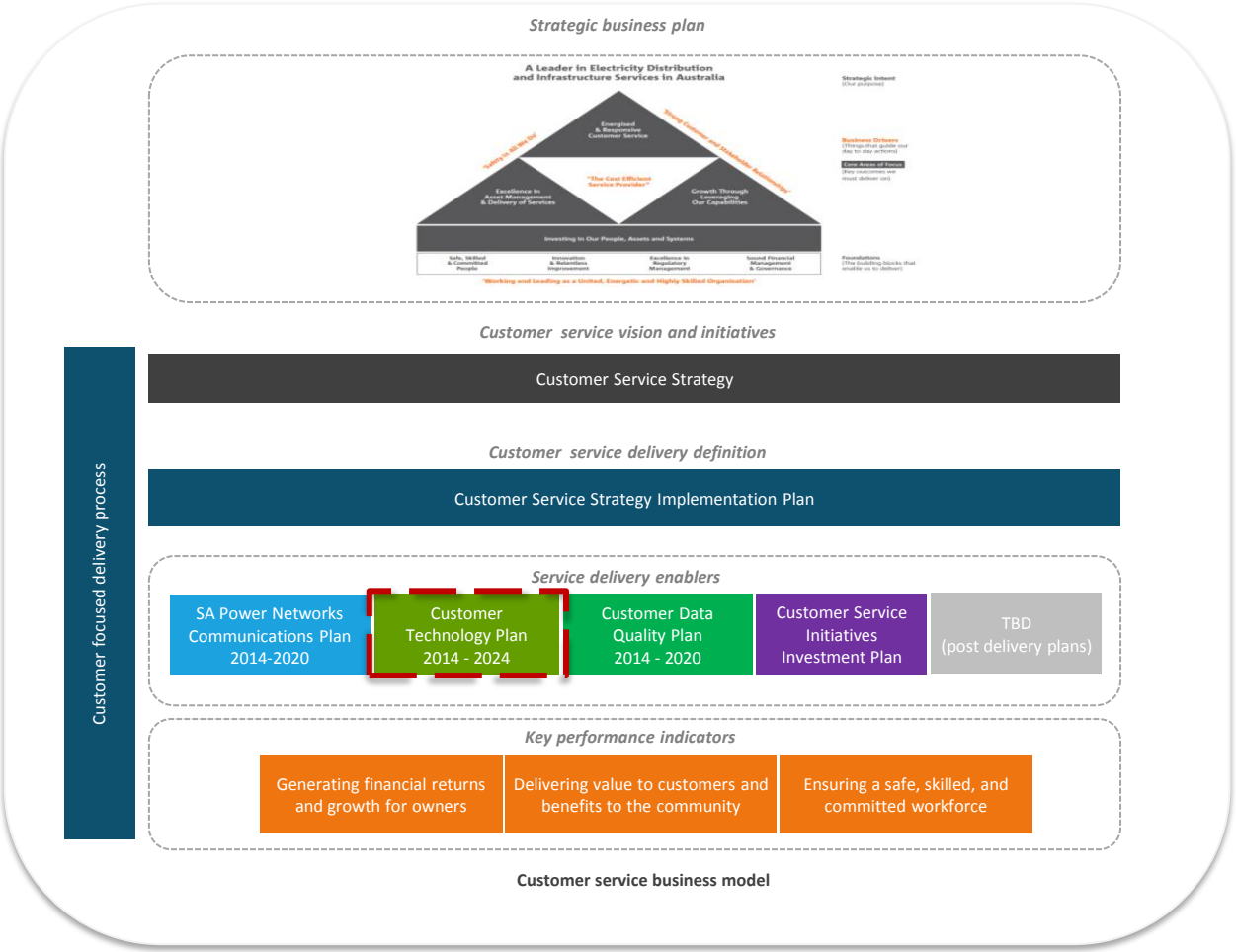
The Customer Technology Plan outlines the requirements for technology investments, linking them to current system related pain points. These pain points impact our ability to provide excellent customer service and currently create a poorer overall customer experience.

This document identifies targeted investments to resolve these pain points, a roadmap for implementation and indicative costs.

Approach

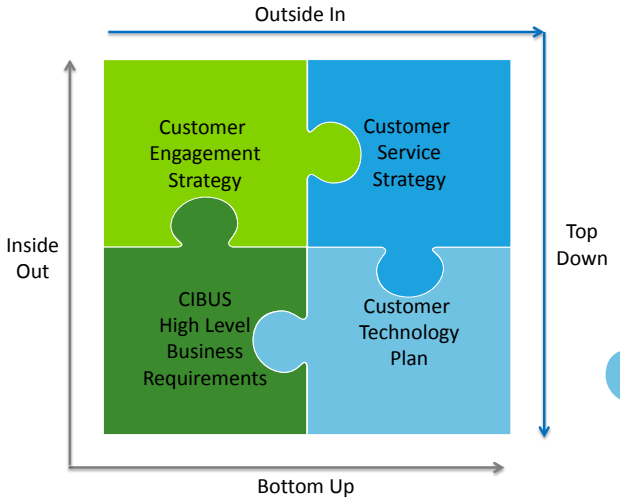
The approach we have taken to define the Customer Technology Plan is an information-centric one. We have defined a business model based on the information needs of our business and our customers. This not only ensures that we have accurate information about all aspects of our business activities but also ensures we can provide consistent and seamless service interactions with our customers regardless of communication channel.

As the basis of our analysis, we have reviewed existing technology plans to validate their planned outcomes against the customer insights obtained during development of the Customer Service Strategy in order to identify any gaps and additional areas for investment.



The Customer Technology Plan in context

The Customer Technology Plan has been prepared within the context of the broader Customer Service Strategy and customer engagement workshops which provided the 'outside-in', customer driven perspective. Additionally, detailed requirements analysis for customer systems replacements has previously been completed, which has provided the internal, business driven perspective. The Customer Technology Plan combines these two perspectives into a cohesive, integrated investment plan.



Customer Engagement Strategy
- Customer Workshops
  Outlines key customer insights and identifies relevant customer service needs and expectations
- Customer Online Survey
  Provides deeper insights into customer expectations and preferences

Customer Service Strategy
- Customer Service Strategy Workshops
  Further validates insights gained from the Customer Engagement Strategy and from the draft vision and strategy developed with employees.
- Emerging Digital Consumer and Industry Trends
  Reviews emerging utility industry and consumer trends and their impacts. Highlights typical multi-communication channel models, illustrating key technology and communication requirements.
- Customer Service Strategy
  Presents our Customer Service Strategy, summarising the customer persona segmentation overview, customer service vision and strategic roadmap.

Customer Technology Plan
- *To be* Information Reference Model
  Defines the Enterprise information requirements necessary to fulfil customer service and interaction expectations.
- Customer Technology Plan
  Provides a detailed view of the technology requirements and investments to meet both corporate and customer objectives. The associated roadmap is prioritised by customer service needs balanced with information prerequisites.

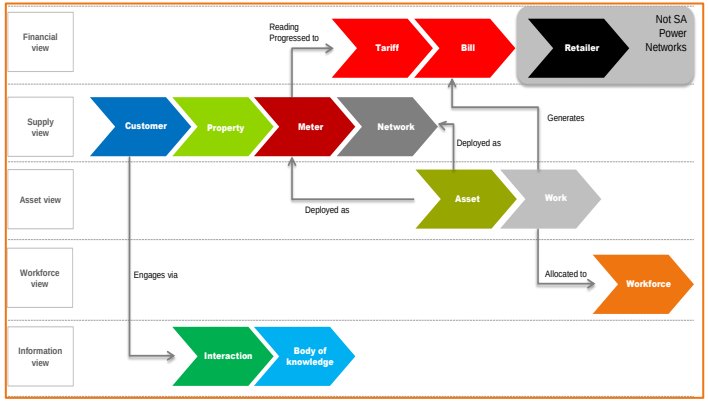
CIBUS High Level Business Requirements

SA Power Networks' internal document that defines the high level requirements for a replacement Customer Information System from SA Power Networks' perspective (Victoria Power Networks was not able to facilitate joint requirements in 2011). Requirements included decommissioning SA Power Networks' legacy customer-related systems. Other completed reset deliverables are also considered.

Document structure

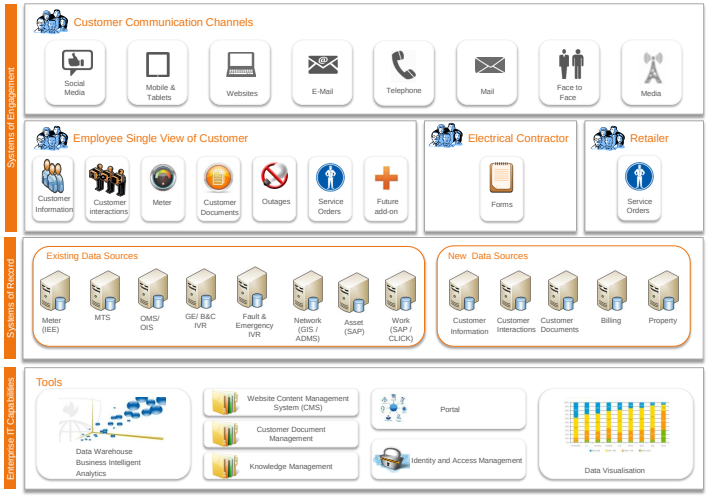
This document sets out the Customer Technology Plan in two parts. The first part provides an information-centric analysis of current technology capabilities and key focus areas that are impacting on the achievement of our Customer Service Strategy and 'Single View of Customer' vision. It also includes the review of billing and property systems.

The second part outlines the roadmap of technology investments that will cost-effectively deliver staged improvements to the customer experience, as well as security and accuracy of data.



Requirements analysis

- Considers our business from five different perspectives (financial, energy supply, asset, workforce and information)
- Defines an information-centric business model based on these five different perspectives and uses this business model to identify and define pain points in our business that impact on customer experience
- Overlays of our current information systems footprints are used to identify the root causes of those pain points and determine the system or systems for remediation or replacement
- Considers options for targeted investments to address the identified pain points and establish a roadmap for the cost efficient implementation of those investments



Customer Technology Plan roadmap

The Customer Technology Plan roadmap outlines a staged implementation plan aimed at achieving a 'Single View of Customer' vision with assured data integrity and system supportability.

A conceptual model of the technology requirements is presented, consisting of:

- Customer communication channels for the provision of customer-facing technology capabilities
- A 'portals' layer that provides integrated access to employees, retailers, business partners, and ultimately customers, via a single sign-on capability
- A 'Systems of Record' layer that defines the primary data sources for the provision of information to customers and employees
- An IT capabilities layer that defines a range of supporting non-functional technology tools

The conceptual model is used to show how the technology landscape changes as a result of each roadmap investment stage.

Strategic drivers and key influences

Cost efficient provision of services customers value, as expressed in the Customer Service Strategy, is the primary strategic driver for the Customer Technology Plan. Other customer related major initiatives, including data quality improvement and data availability initiatives, are planned or in progress and these remain key influences in the development of the Customer Technology Plan and drive the requirements for specific technology capabilities.

Strategic Drivers and Key Influences

Driver	Impacts and Influences	Technology Plan Requirement
Customer Service Strategy	The Customer Service Strategy (CSS) promotes an improved customer experience, delivered consistently via a multi-communication channel engagement model. Customer Technology Plan key deliverables aligned to the strategic initiatives in the CSS are defined as: ➢ A longitudinal, single view of customers, including their call and outage history, and relevant network activity that impacts them. ➢ Implementation of recommendations from the Customer Data Quality Plan and alignment with asset data improvement projects ➢ A repository that captures knowledge from local intelligence sources (customers, councils, business and state and federal government) The Customer Service Strategy also illustrates our plan to progressively provide more information directly to customers, electricians, retailers and other relevant third parties through a dedicated portal and integrated mobile applications. This supports customers' requests for more transparency about our operations as well as their desire for more self-service and self-management options to give them more control and to allow 24/7 access to information.	Technology required to support the delivery of strategic initiatives: ➢ **Website Content Management System (CMS):** to provide support for two-way, mobile enabled, customer specific interactions and consistency of experience across all communication channels that meets compliance standards and is able to address the specific needs of individual customers ➢ **Knowledge Management System (KMS)**: to provide the repository for collected knowledge, intelligence and intellectual property arising from corporate research and development capabilities ➢ **Document Management System (DMS):** to provide a repository for, and online access to, customer related correspondence and documentation ➢ **Customer Relationship Management (SVOC) System:** to provide a single repository capability for customer, and customer interaction, information. ➢ **Identity and Access Management (IAM) System:** to ensure the security and integrity of information received from, and available to, customers and other third parties external to the organisation ➢ **Data Quality Improvement Tools (DQ):** to ensure short term remedial and continuous data quality improvement capabilities
Customer Service Workshops	A number of customer service workshops have been conducted as part of the CSS. With representation from each of the defined customer segments, these workshops helped to outline customers' service needs and expectations, communication channel preferences, suggestions for improved customer service, website and self-service tools review feedback and ideas for future products/services. The following key customer service attributes were found to be common across all customer segments, in order of importance: ➢ Knowledgeable employees ➢ Time taken to fix a request or enquiry ➢ Ability to investigate and address a request or enquiry ➢ Relevance of response ➢ The way the query was handled ➢ Personalised service	The key insight to be drawn from these service attributes customers value is the critical importance of information and data. Specifically, that information needs to be: ➢ Readily and easily accessible to employees and contractors ➢ Of high quality in terms of its accuracy, currency and completeness ➢ Contextually relevant in terms of customer information, customer interactions and customer related information. Technology required to support this includes: ➢ **Customer Relationship Management (SVOC) System:** to provide a single repository capability for customer and customer interaction information. ➢ **Portal access:** to provide simplified access via a single sign-on portal that provides access to all required data regardless of the number of data sources and systems involved ➢ **Improved Systems Integration:** data needs to be integrated across the source systems to enable all customer related data to be appropriately linked ➢ **Data Quality Improvement Tools (DQ):** to ensure short term remedial and continuous data quality improvement capabilities

Strategic drivers and key influences

Cost efficient provision of services customers value, as expressed in the Customer Service Strategy, is the primary strategic driver for the Customer Technology Plan. Other customer related major initiatives, including data quality improvement and data availability initiatives, are planned or in progress and these remain key influences in the development of the Customer Technology Plan and drive the requirements for specific technology capabilities.

Strategic Drivers and Key Influences

Driver	Impacts and Influences	Technology Plan Requirement

CIBUS Requirements	In 2011, we conducted a high-level requirements analysis for a potential system replacement for the current CIS/OV Customer Information System.
	This analysis considered the system requirements in terms of:
	➢ Whether Victoria Power Networks had the same/ similar requirements and could benefit from synchronicities
	➢ Whether the requirements were new or existing functionality
	➢ Whether the requirements were considered mandatory or desirable
	➢ Which systems could be decommissioned
	
	These requirements have provided the catalyst for further planning within SA Power Networks which have so far resulted in two key initiatives:
	
	➢ **Customer Relationship Management (SVOC) System:** Detailed planning and costing of this initiative has been completed separately by us and Victoria Power Networks (we use different data sources). It consists of two primary streams of activity:
	  ➢ The acquisition and implementation of a Customer Relationship Management (SVOC) solution
	  ➢ Investment in enhanced Data Warehouse, Reporting and Analytics capabilities for improved customer insight (SA Power Networks only)
	
	➢ **CIS/OV Billing System Replacement:** Conceptual level planning for this has been completed by us. A more detailed analysis and Business Case are to be undertaken jointly between SA Power Networks and VPN in the immediate future to further confirm requirements and costs in this area.
		The Customer Technology Plan assumes that the work undertaken to date by us on these two key initiatives is complete and correct. Costing and scheduling requirements for these initiatives within the Customer Technology Plan are driven by current business plans within SA Power Networks.
		
		Specific technology and systems requirements emerging from these initiatives include:
		➢ **Customer Relationship Management (SVOC) System:** to provide a single repository capability for customer and customer interaction information. This appears within the Customer Technology Plan as the 'Customer – Foundation' initiative.
		➢ **Data Warehouse, Reporting and Analytics:** investments will be made as part of the Customer-Foundation initiative to enhance current capabilities and capacity in warehouse, reporting and analytics for improved customer insight.
		➢ **Billing System Replacement:** replacement system to record details of meter data management, meter asset management, properties, tariffs, billing and market participants. This appears within the Customer Technology Plan as the 'Billing – Foundation' initiative.

Information Requirements Analysis	We have undertaken reviews and analyses into the technology requirements supporting Customer Service have been undertaken by us. These reviews have focussed on:
	➢ Customer Requirements and Expectations (Customer Service Strategy)
	➢ Functional and non-functional requirements (CIBUS requirements)
	➢ Commercial and Technical Risk
	
	The analysis conducted as part of the Customer Technology Plan included in this document was based on an information-centric approach. A business model based on the Information needs of our business and our customers was developed. This not only ensures that we have complete accurate information about all aspects of our business activities but also ensures we can provide consistent and seamless service interactions with our customers regardless of communication channel.
	
	The key insights and findings from this approach include
	➢ Identification of current information pain points
	➢ The root causes of those information pain points
	➢ Identification of which pain points will be addressed through the planned 'Customer – Foundation' SVOC initiative
	➢ Residual pain points that need to be addressed through additional technology initiatives.
		Key technology required to support these includes:
		
		➢ **Property / Cadastral System:** to provide a single repository to maintain a longitudinal view of customer properties for both supply, and property access, requirements
		
		➢ **Improved Systems Integration:** specifically with respect to:
		  ➢ Customer to Property relationships
		  ➢ Meter to Property relationships
		  ➢ Meter to Network connectivity at both the HV and LV levels
		  ➢ Network to Network asset relationships
		
		➢ **Portal access:** to provide simplified access and visibility for customers, employees and third parties of outages, service orders, and compliments, complaints and correspondence
		
		➢ **Data Visualisation:** improved data visualisation particularly with respect to geospatial mapping of network and outage information

Planning assumptions and exclusions

Other industry, regulatory and environmental drivers have the ability to influence the Customer Technology Plan. These drivers and their treatment in this plan are discussed below.

Exclusions

Driver	Discussion
Smart Meters & Intelligent Networks	**Driver** There is a current industry trend towards the introduction of Smart Meter and Intelligent Network technologies. These technologies have been implemented within Victoria, however at this stage, there is no formal position by either the South Australian Government or from SA Power Networks as to the requirements, timing and implementation model for such technologies in South Australia. **Considerations within the Customer Technology Plan** ➢ The current CIS/OV system is jointly owned by us and Victoria Power Networks ➢ Significant changes have been made to CIS/OV to cater for the introduction of Smart Meter technologies in Victoria. In the absence of any alternative requirements, it is assumed that the changes made for Victoria will be suitable for implementation in South Australia should the need arise in the immediate term. ➢ Consideration is given within this Customer Technology Plan to the replacement of the CIS/OV system with a new billing system. Work is being undertaken in the development of a joint business case for a CIS/OV replacement by Victoria Power Networks and SA Power Networks. ➢ Should any new billing system be jointly acquired then it will be necessary for that system to cater for the Smart Meter requirements already in place in Victoria, which again, in the absence of any alternative requirements, are assumed to be suitable for implementation in South Australia should the need arise in the medium term. ➢ Should any new billing system be solely acquired by us then it is assumed that the early requirements gathering stages of this initiative will identify and address any Smart Meter requirements that exist at that stage or are imminent. **Treatment within this Customer Technology Plan** ➢ No immediate requirements exist for Smart Meter and new Intelligent Network technologies. ➢ The basic planning and costing assumptions are that these requirements will not arise within the forward period covered by this plan. **Consequences** ➢ The subsequent introduction of requirements for Smart Meter and Intelligent Network technologies within the forward period covered by this plan, may require the current scheduling and costing assumptions to be subject to further review and validation. As such, this will necessitate a revision of the proposed plan and cost estimates at that time.

Requirements analysis

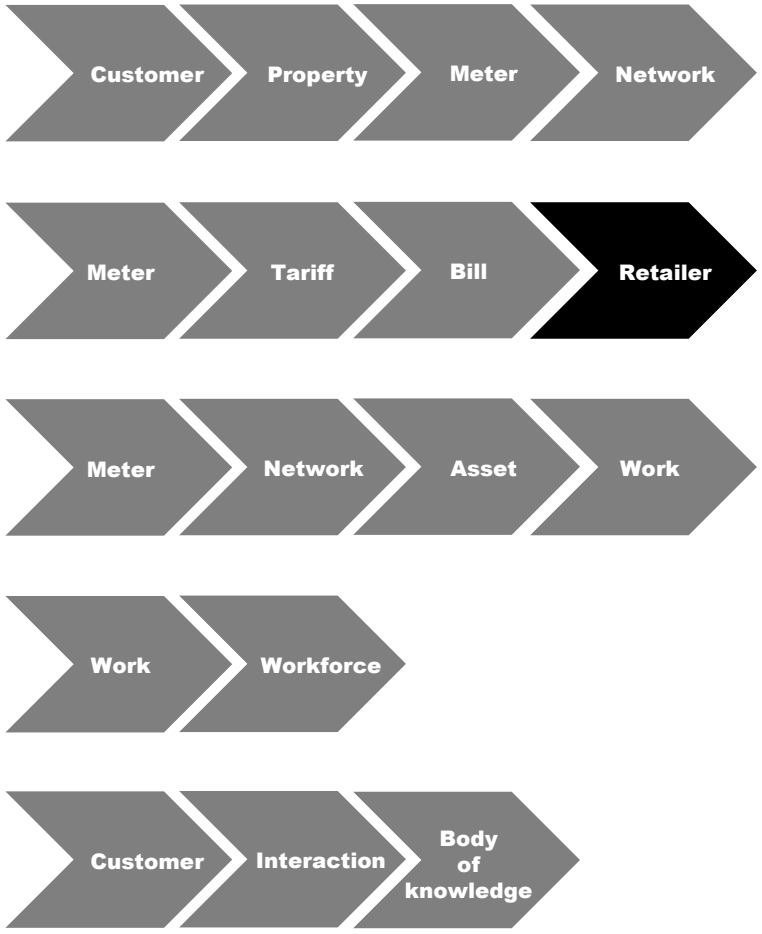
In order to verify the requirements for technology investments, the Customer Technology Plan defines an information-centric business model required to deliver on organisational and customers' service and information needs.
Current information pain points are identified as additional areas of focus to be resolved in achieving the Customer Service Strategy and will form part of the scope of any planned technology investments.

How we deliver customer service

Every business process and the actions of every employee and contractor have the potential to impact our customers and their experience with us. We have used a range of alternative viewpoints or 'lenses' to analyse our business to identify differing contributions and impacts to the provision of customer service.

Alternative Perspectives

Service concept	Concept description
The Supply View	Our primary service is cost-efficiently providing safe, reliable and quality power. All other business and activity exists to support this primary provision of service. This supply is achieved through: ➢ Understanding who our customers are and their supply needs ➢ Understanding the places (properties) where they live, work, and engage in recreation ➢ Monitoring the provision of electrical supply to and from those properties via meters ➢ Connecting the meters at those properties to the electricity distribution network
The Financial View	We need to be financially compensated for the provision of the supply of electricity. We are compensated for our services in distributing electricity through: ➢ Periodic recording of electricity consumption at a metered location ➢ Application of a distribution tariff to that consumption ➢ Calculation of a billable charge related to that consumption ➢ Provision of consumption and billable charges to retailers ➢ I(retailers issuing an electricity bill to customers) ➢ Issuing an invoice where providing services directly to our customers This is all done in a cost-efficient manner, with regulator-approved tariffs and charges.
The Asset View	Our customers expect the continued reliability and sustainability of the supply network. Additionally, our customers expect that the supply network will be enhanced and extended to meet increasing population and consumption requirements. This is achieved through: ➢ A longitudinal view of assets from substation to meter ➢ Conducting various work activities to build, maintain and operate those network and meter assets ➢ The building, alteration and operation of the network to accommodate the new two-way flow of energy
The Workforce View	We need to engage and develop a skilled, experienced, informed, and mobile workforce in order to ensure the provision of an efficient and reliable electricity supply, to monitor the consumption of electricity, to ensure the continued sustainability of the supply network, and to support customers using new digital applications. This is achieved through: ➢ Training and customer-focus ➢ Planning, scheduling and allocation of our employees to various work activities ➢ Using appropriately skilled and informed supplementary labour where required with the same access to relevant customer, property, and asset data
The Information View	Our customers expect to be able to engage with us to satisfy their information requirements with respect to their current and future electricity supply needs. This includes keeping them informed at all stages of engagement. This is achieved through: ➢ Understanding who our customers are, including their engagement preferences ➢ Maintaining a longitudinal 'life-cycle' of every interaction we have with them ➢ Accessing a *body of knowledge* about current and emerging energy and electricity trends, products and services



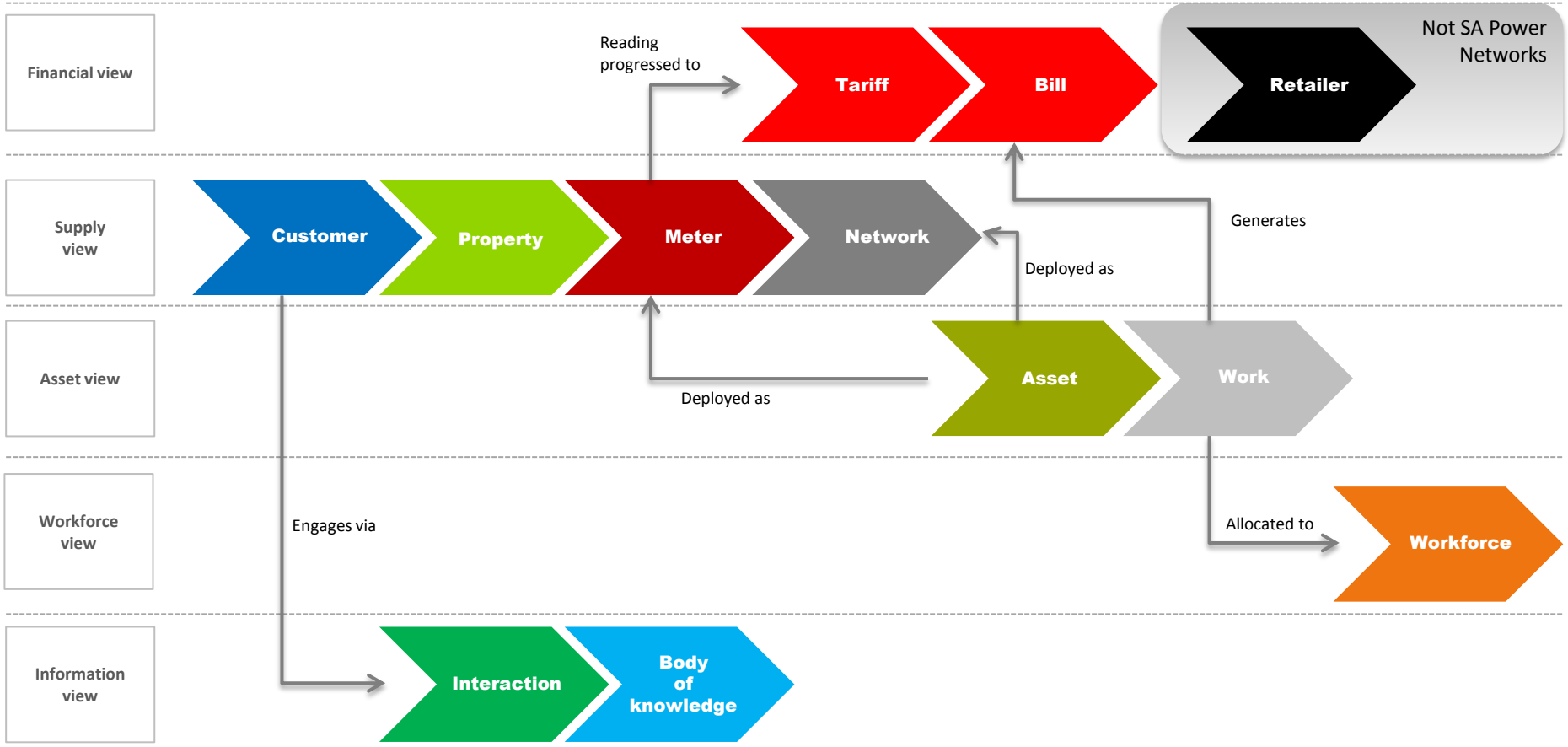
The business information model for customer service

Each aspect of our business requires information to function and in turn generates additional information as a result of the business processes performed.

The model below combines and translates the viewpoints previously described to provide an information based ***conceptual*** view of our business.

In the model below, we have colour coded each information subject area to assist in the clear identification and delineation of each information subject.

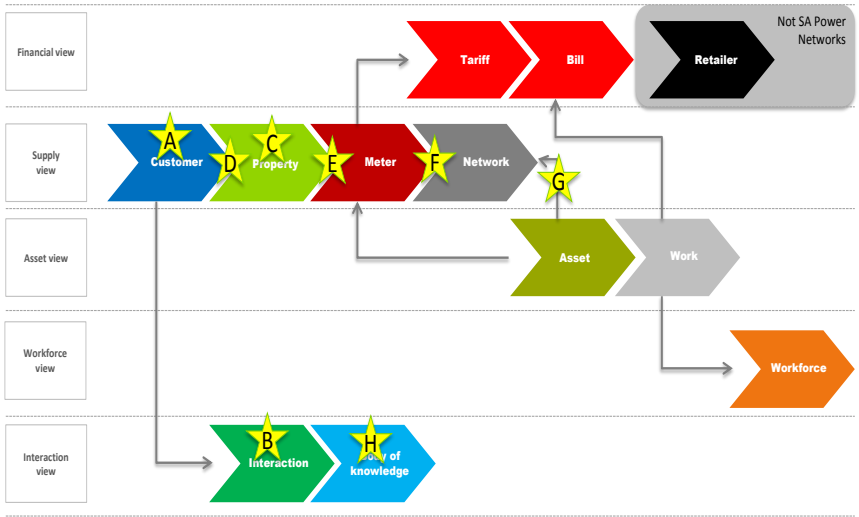
We will use the model below to identify what our customer 'pain points' are and to identify contributing factors that need to be resolved through the Customer Technology Plan (CTP).



Note: this is not a data model. NMI and service point are not specifically highlighted on this map due to complexity.

Customer service is currently impacted by pain points in our business

The information that supports our business operations is provided through technology systems. The evolving nature of our business has created increased information requirements and increased complexity in the integration of our corporate information. Our current technology systems have not kept pace with these changing requirements. This creates 'pain points' in our business, the effects of which can significantly impact the quality of service we provide to our customers. We have identified eight primary pain points.



Pain point	Brief description	Customer impact
A	Our customer data is incomplete, fragmented and/or duplicated over multiple systems. We do not currently have a *Single View of Customer*.	➢ Reduced customer intimacy ➢ Poor data quality and consistency ➢ Longer time to address issues
B	We have no current primary *system of record* that contains a full history of all interactions that we have with a customer.	➢ No context for each interaction ➢ Repetition of context by customers ➢ Longer time to address issues ➢ High customer frustration levels
C	We have no current primary *system of record* that provides a full longitudinal history of the properties we supply, property ownership, property occupation, or properties traversed by our network assets.	➢ No clarity to inform owner/ occupier responsibilities (e.g. vegetation maintenance) ➢ Property access negotiation more difficult when conducting work ➢ No ability to record property specific attributes
D	Due to pain point C above, the longitudinal view of the relationships over time between customers and properties is constrained. Additionally, we are largely restricted to only those relationships that support 'retail' functions.	➢ Limited occupancy history by property ➢ Limited property history by customer ➢ Difficult to link changes in metered consumption to changes in tenancy
E	Due in equal parts to pain point C above and the design of our CIS/OV system, the relationships between property and meter data and the linkage to customer data results in some limitations and constraints.	➢ Potential internal process inefficiency when the account holder at a property changes ➢ Difficult to ascertain accountability for any metered consumption during vacant occupancy at a property
F	While meters are generally mapped accurately to HV feeders, the mapping to transformers is less accurate. We do not currently record which phases supply each property, and dynamic LV changes are generally not recorded.	➢ Difficult to ascertain exactly which customers are impacted by planned and unplanned outages ➢ Some customers may not be notified about planned outages ➢ Other customers potentially notified about outages even though not affected ➢ Some customers may be incorrectly assessed for Guaranteed Service Level entitlements
G	We currently have limited information regarding how physical assets are deployed across the distribution network. As asset failures are a cause of some supply outages this can have a significant impact on customers.	➢ Potential asset failures difficult to locate on the network impacting the efficiency of maintenance schedules and inconvenience to customers.
H	We currently have a wide and uncontrolled range of information sources for 'unstructured' information (such as documents, pictures, plans, drawings, videos etc). Not all the information within the organisation is available to all appropriate people in the organisation.	➢ Process inefficiencies lead to higher operating costs ➢ Potential for multiple handovers of client enquiries to employees with required knowledge

Analysis of the identified pain points

The information below provides a more detailed analysis of the identified pain points and the issues created and was collected from employee interviews and feedback gathered during the preparation of the Customer Service Strategy.

	A Customer D	B Interaction H	C Property	E Meter F	G Asset

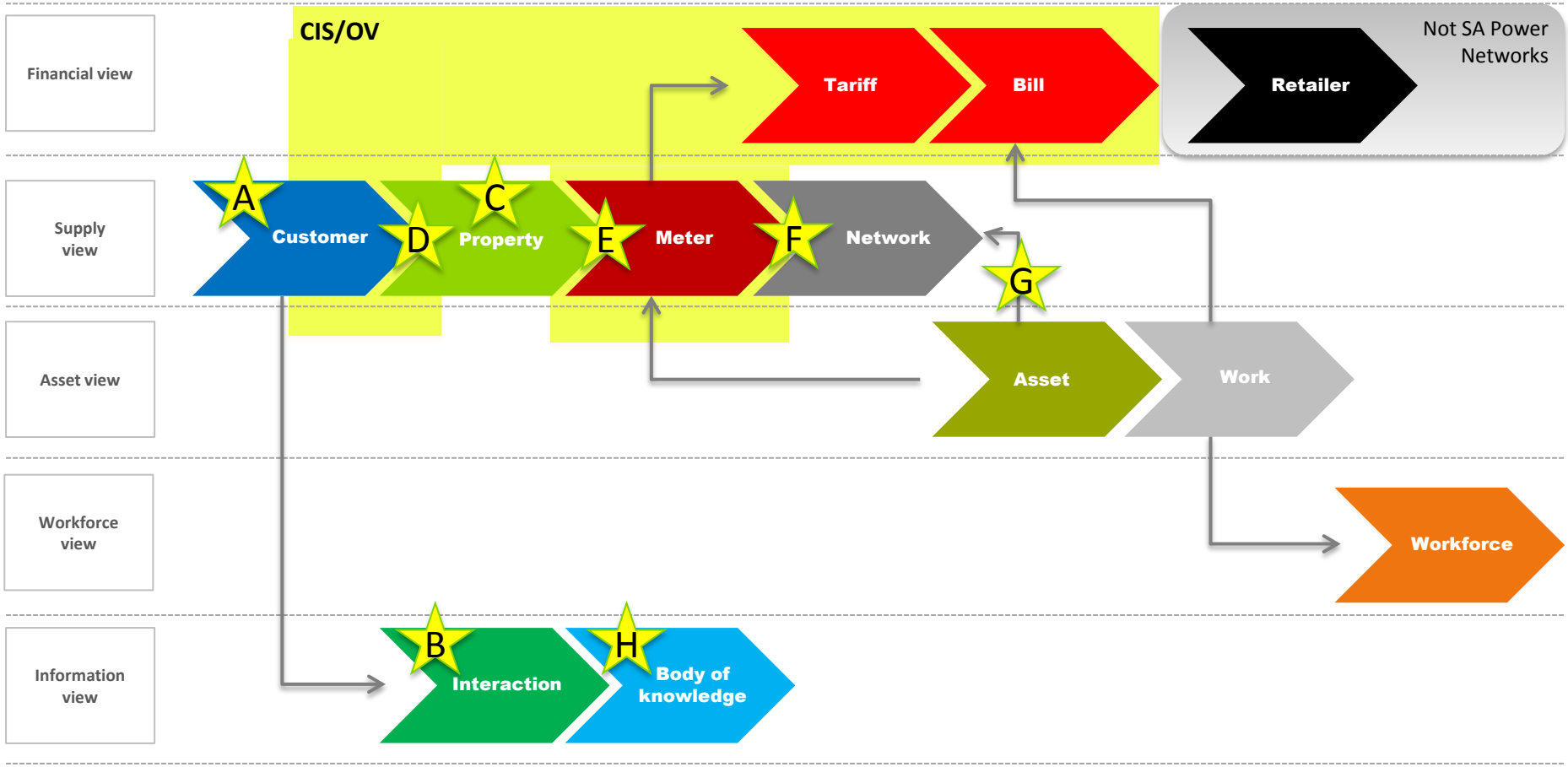
Observations	• Primary *system of record* (SOR) is CIS/OV
	• Multiple other systems manage subsets of the customer base (e.g. Network Energy Sites System - NESS)
	• CIS/OV:
	  • Provides supply related information
	  • Supports industry and national energy market functions
	  • Account Management
	  • Billing
	  • Service Orders
	  • Connections
	  • Disconnections
		• Communication channel specific – different systems for different communication channels
		• Context specific – separate IVRs for Faults and Emergencies, Builders & Contractors and General Enquiries
		• No aggregated view of customer interactions
		• No single source of reference to the *body of knowledge* of corporate intelligence
			• No primary SOR for property/location related data
			• Location (GIS) data exists primarily in the context of network assets however difficulties exist in cross-referencing this to property data
			• Cannot consolidate property/location data from a customer context
				• Primary SOR is CIS/OV
				• Facilitates retail and market account management functions
				• Meter data is primarily linked to customer specific address data.
				• Meter connectivity to the network at the LV level is incomplete and in some cases inaccurate; mapping often does not reflect dynamic changes.
				• Consequently, information on how meters connect to network assets and who is responsible for this 'falls through the cracks'.
					• Primary SOR is SAP for network assets and CIS/OV for meter assets
					• Asset data in SAP is limited currently
					• Differentiation of asset and network data not clearly established at an enterprise level
					• How physical assets are deployed across the network topology is not known
					• Asset maintenance requirements are difficult to achieve as specific asset locations may be unknown

Complexities	• CIS/OV sourcing via CHED services • Potential discrepancy in development priorities with Victoria Power Networks • Primacy of retailer provided customer data (overwrites other sources of data such as SENSIS or P@MP™ / customer provided) • Aged and legacy technologies	• Single customer *system of record* a pre-requisite for consolidated customer interactions • Multiple-communication channel specific data sources to be aggregated	• Current OMS may be updated or replaced by the new ADMS • No current leverage of external data sources for ADDRESS and cadastral (i.e. land) data	• Planned replacement for CIS/OV being considered • Current OMS may be updated or replaced by the new ADMS	• Current OMS may be updated or replaced by the new ADMS • We are addressing the asset to network linkages
Issues	Problems with customer data: • Fragmented • Duplicated • Inconsistent • Incomplete • Not current • Doesn't exist in its own right • No longitudinal view • Does not encompass non-regulated customers • Sub-groups (multiple levels of government, industry etc. not represented) • Not connected to location & property data	• Customer interactions not consistently recorded • No longitudinal view of customer interactions • Pockets of knowledge and intelligence exist across the organisation and are often people based. No value is derived through the sharing of information across the organisation	• Property data doesn't exist in its own right • No longitudinal view • Inadequate information to support customer interactions for property and address access • Unable to utilise other details and information about the land, such as that typically found in cadastral systems	• No longitudinal view of the 'lifecycle' of a meter is available (i.e. from initial allocation, to inventory, deployment, repatriation/repair, re-installation, and disposal) • Cannot accurately determine all meters, and therefore properties and customers are affected by network failure and outages	• No longitudinal view of the 'lifecycle' of an asset is available • Customer service and supply is impacted by asset failures • Asset types with high failure rates cannot be located once deployed to the network. Preventative maintenance for known faulty asset types is therefore difficult to achieve • Limited uniformity and standardisation of assets adds complexity and cost to the business which is passed on to the customer (being addressed through the *Compatible Units* project)

Understanding the root causes for our pain points

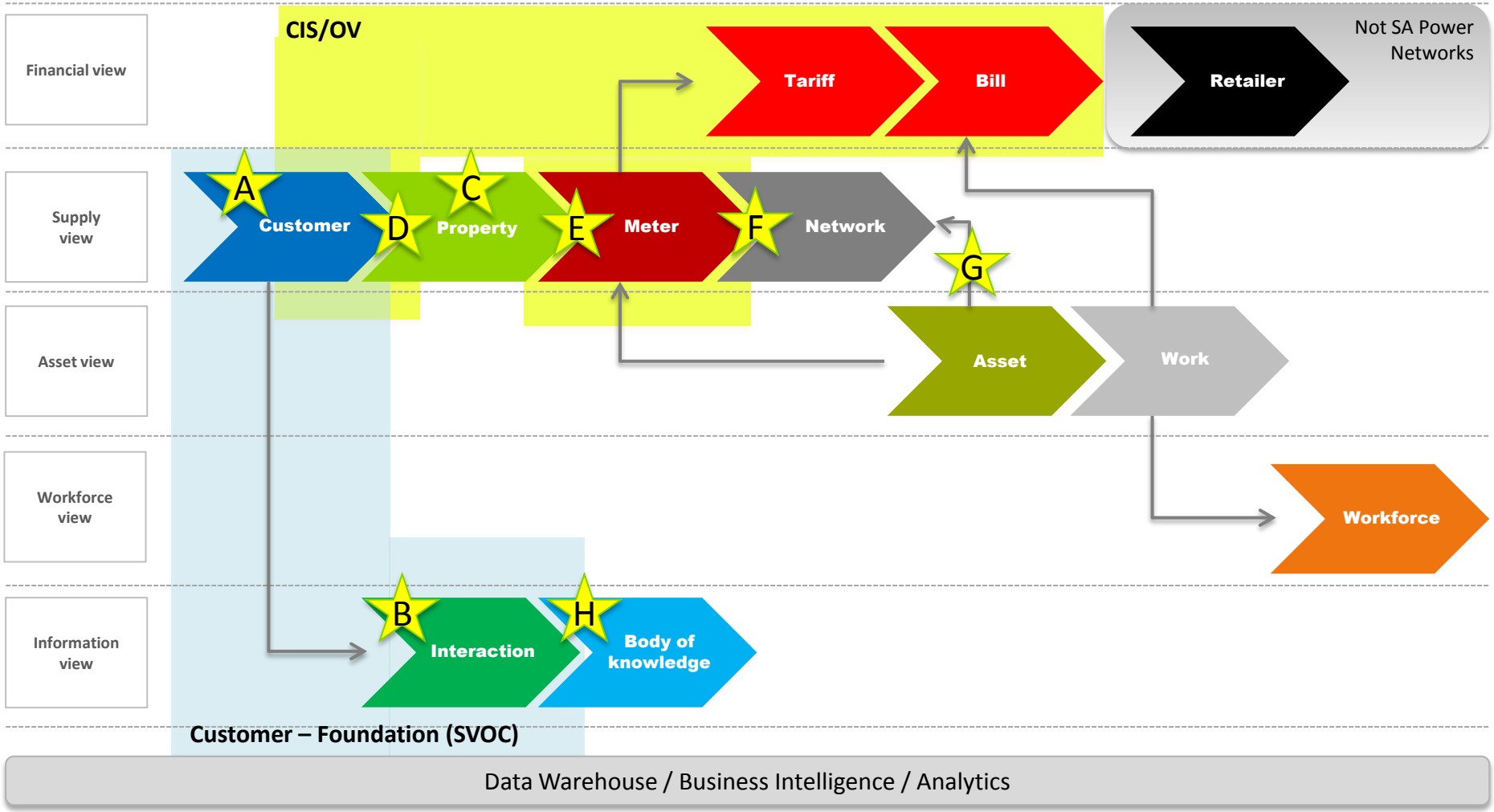
CIS/OV is our primary *system of record* (SOR) for customer related information for the regulated business although a number of other 'customer' systems exist (e.g. NESS). When the CIS/OV 'footprint' is overlayed on our Business Model it becomes apparent that there are three main reasons why our current pain points exist.

1. The scope of CIS/OV functionality does not fully cover our full customer information needs, as depicted by pain point (A).
2. Problems exist at the boundaries of the CIS/OV footprint, as depicted by pain points (D,E,F).
3. Problems exist outside the current boundaries and scope of the CIS/OV application, as depicted by pain points (B,C,G,H).



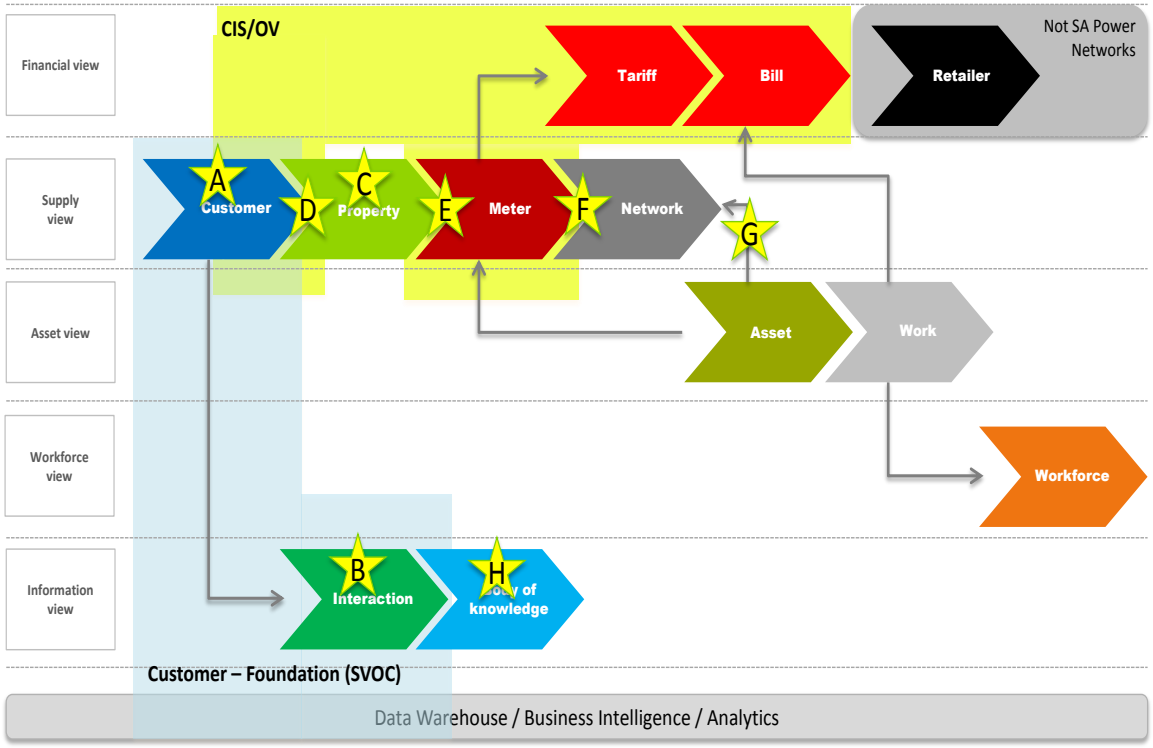
Implementing a *Single View of Customer* solution

We are planning to implement a *Single View of Customer* (SVOC). This will be achieved through the implementation of a Customer Relationship Management style solution as part of the Customer – Foundations initiative. The purpose is to establish the foundations for a *Single View of Customer* data and a single *system of record* (SOR) serving all our customer interaction related information and providing this to customers and customer facing employees and contractors. Additionally the SVOC will seek to deliver and leverage capabilities in Data Warehouse, Business Intelligence and Analytics for greater customer segmentation and insight.



Pain points the Customer – Foundation (SVOC) will address

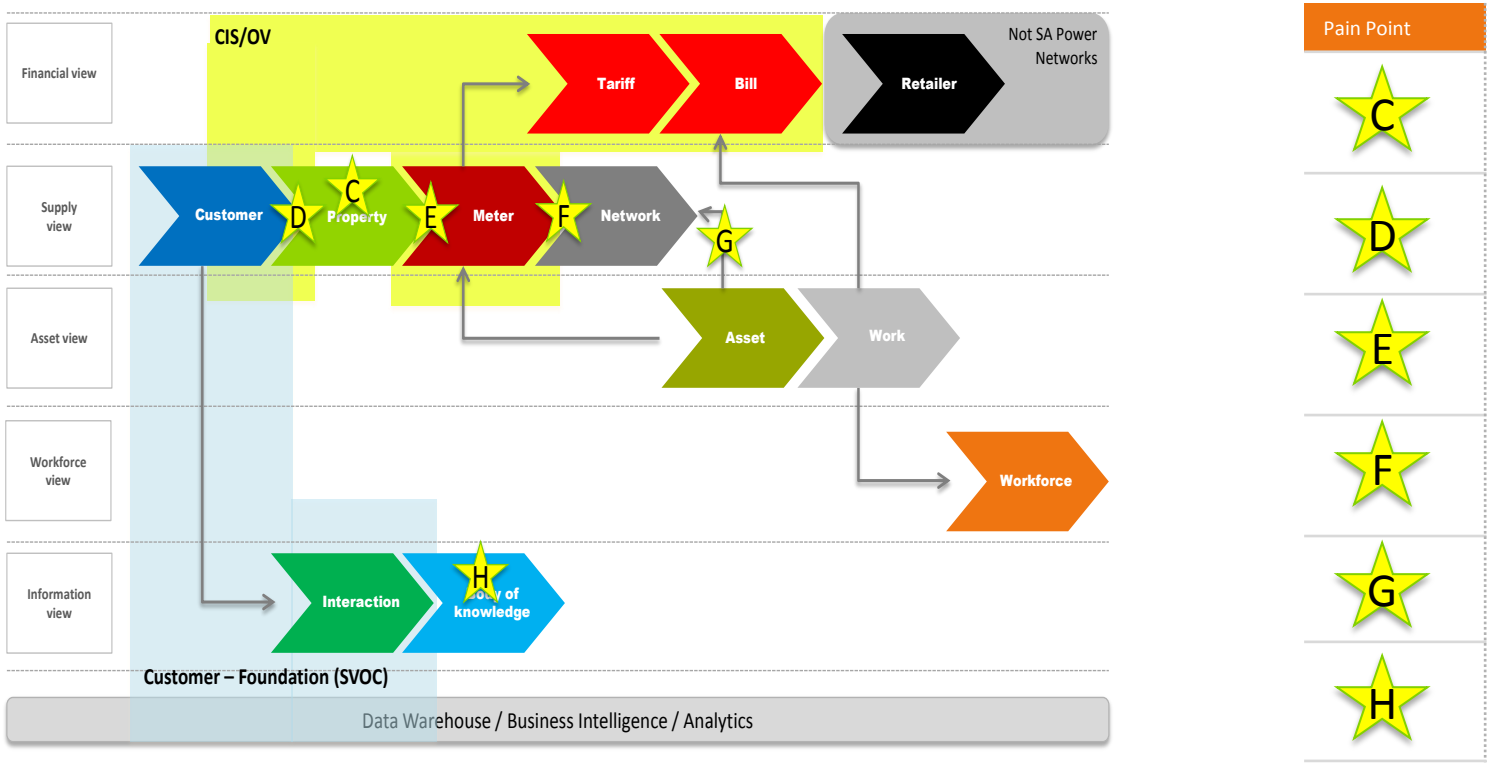
The purpose of the Customer - Foundation *Single View of Customer* SVOC solution is to establish a *Single View of Customer* data serving all our customer related information. Additionally the SVOC will provide the ability to maintain details of every interaction that we have with our customers. Further, it will enhance and leverage IT capabilities in Data Warehouse, Business Intelligence and Analytics to enable us to more fully and intimately understand our customers and the areas of our business that impact them.



Pain Point	How a SVOC addresses this
A	The *Single View of Customer* solution will replace CIS/OV as the System of Record for customer information. In doing so, it creates a single repository for all customers (individuals, companies, community groups, local and government agencies and general members of the public) with whom we may interact. The benefits that a SVOC provides include: ➢ Establishes a *Single View of Customer* data for all customer information ➢ The ability to record additional information about our customers ➢ The ability to record information about the relationships between our customers that allow us to provide added value to customers ➢ The ability to decommission a range of 'satellite' systems that contain customer data not catered for adequately in CIS/OV
B	The *Single View of Customer* solution will create the ability to maintain a record of every interaction we have with our customers. The benefits that a SVOC provides include: ➢ Establishes a single System of Record for all customer interaction information ➢ Enable all employees when interacting with customers to have full visibility of the previous history of interactions with that customer and any known future interactions we will have. ➢ Significantly enhances the customer experience through more informed employees ➢ The ability to interact with customers based on their preferred communication channels for interaction
Additional	The *Single View of Customer* solution will continue to leverage our IT capabilities in Data Warehouse, Business Intelligence and Analytics to allow us to gain better insight into our customers and the potential impact of our actions on our customers

What pain points (gaps) remain to be addressed?

The *Single View of Customer* will deliver benefits with regard to the direct knowledge we have about our customers and the quality of the interactions we have with them. However the catalysts for many of these interactions, and the information and knowledge that provides the content required to satisfy customer needs, reside in other information sources and other areas of our business not covered by either CIS/OV, or by the new *Single View of Customer* (SVOC) solution. This technology roadmap aims to address those pain points.



How these pain points align to our Customer Service Strategy

The Customer Service Strategy defines strategic key deliverables to be delivered through the Customer Technology Plan.

Identified pain points need to be addressed in order to deliver on the intended key deliverable outcomes.

Customer Technology Plan Key Deliverables

Customer Service Strategy – Strategic Initiatives	Customer Technology Plan Key Deliverables	Pain points impacting achievement of key deliverables
Strategic Initiative one *Be recognised as a national leader in the delivery of quality, safe and reliable power*	Asset – Customer – Work model	F G
	A repository that captures knowledge from local intelligence sources (customers, councils, business and state and federal Government)	B H
Strategic Initiative two *Manage and maintain a cost effective and relevant network that caters for a diverse range of electricity consumers* Strategic Initiative four *Deliver customer service that is tailored and responsive to immediate and changing needs*	Technology to support a comprehensive data quality improvement plan to provide the business with accurate and reliable customer, interaction, property and asset information	A B C D E F G
Strategic Initiative four *Deliver customer service that is tailored and responsive to immediate and changing needs*	A longitudinal, single view of customers, including their call and outage history and relevant network activity that impacts them (SVOC, Single View of the Customer)	A B F G

Roadmap

The Customer Technology Plan roadmap outlines a staged implementation plan aimed at achieving a *Single View of Customer* vision, more functional billing, capability to develop a 'property' view independent of our asset or customer view, and future consumer energy advisory capabilities.

Where we are today

We have established a multi-communication channel customer service capability. However, our ability to fully utilise and exploit these communication channel capabilities is limited by the complexities and limitations of our existing data sources, data quality and data integration.

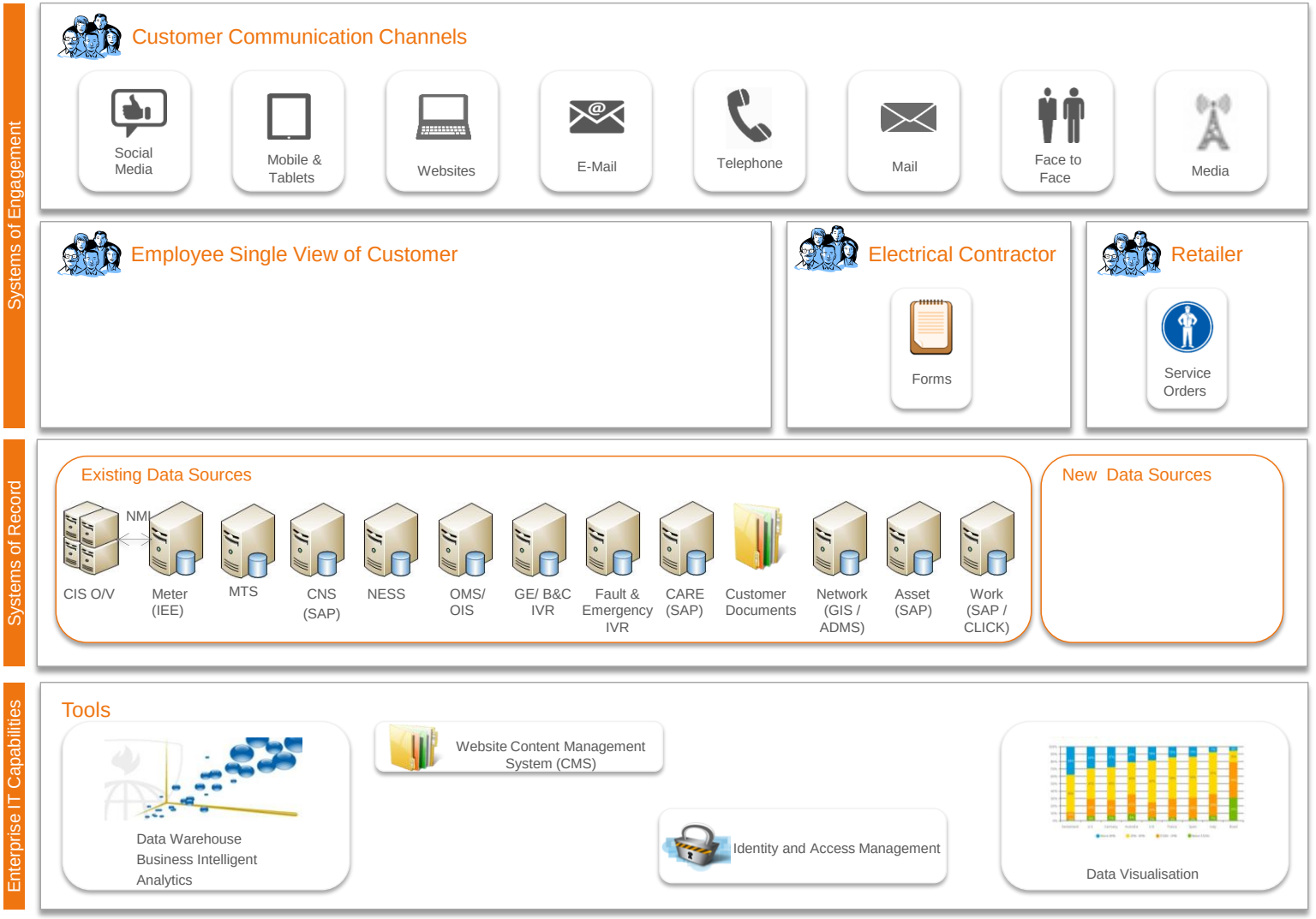
Customer service perspective

Significant work has been undertaken to date to provide a wide range of customer facing communication channels through which our customers can interact with us.

However, our ability to fully leverage these communication channels for an enhanced customer experience is compromised by the complex nature of our existing technology landscape and constraints within our existing applications.

A wide range of back-end systems provide for our information needs. Customer facing employees are challenged with the complexity of having to access multiple systems in order to address customer enquiries and requests which also limits our ability to optimise work schedules to minimise inconvenience to customers. Meanwhile, additional cost and complexity is a key constraining factor in our ability to provide greater customer self-service through automated web and mobile communication channels.

We recognise that minimal use of common IT capabilities currently exists. Many IT capabilities required from a customer service perspective are common across other business units and significant potential exists to implement and exploit a range of standard IT capabilities across the organisation.



Note: Data Warehouse, Business Intelligent & Analytics, website CMS, IAM, and data visualisation currently have limited capability. There are other existing data sources not listed on this diagram. Those listed are the key systems.

Our vision – A technology enabled Customer Service Strategy

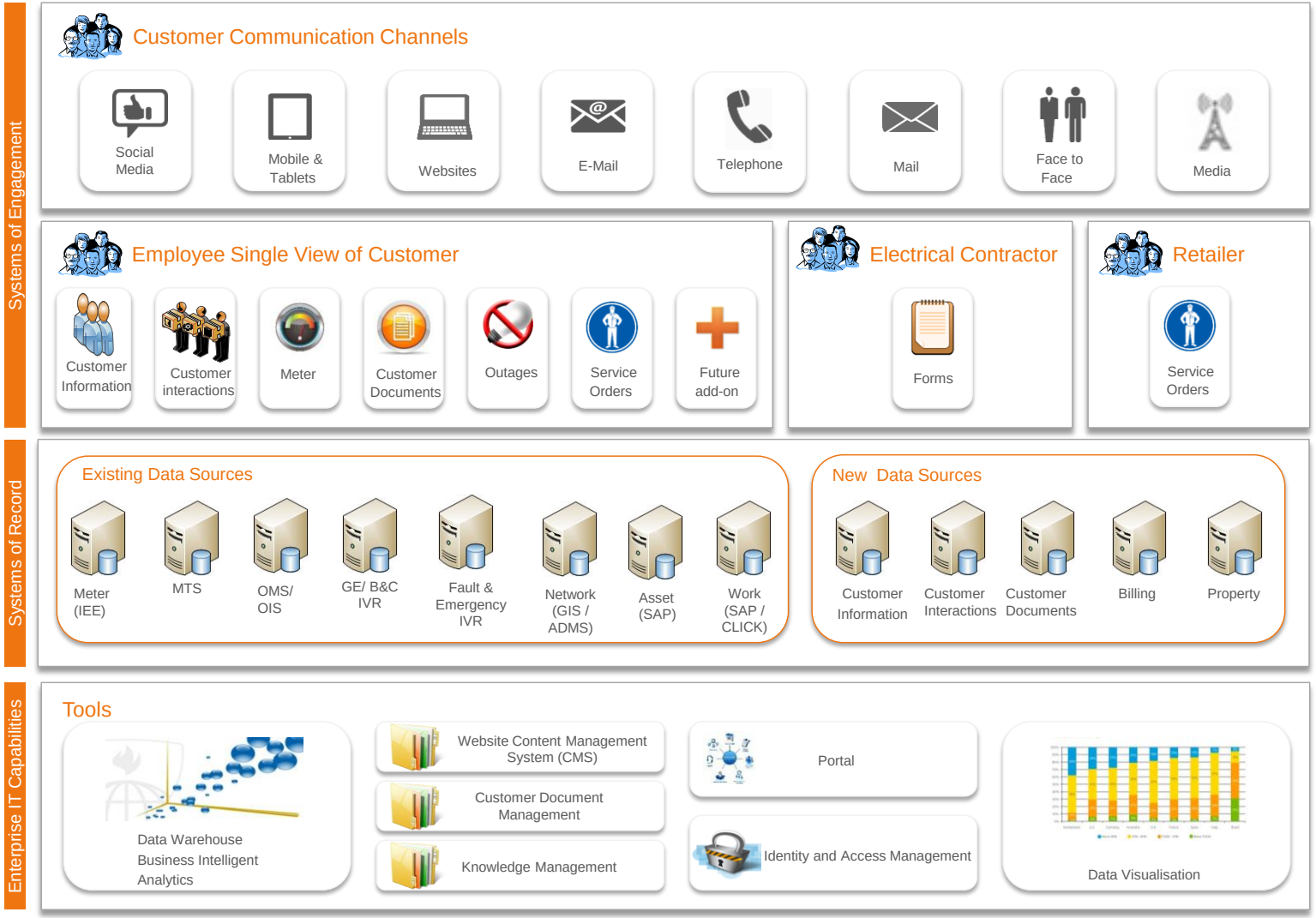
Our target state leverages technology to provide improved and consistent customer service via a multi-communication channel delivery capability. Customer related information is improved through new data sources and improved system integration. Access to information is via a clear and clean portal and interfaces that mask the complexities of the underlying data sources and systems.

Customer service perspective

The Customer Technology Plan has been developed to identify and address the technology capabilities and requirements necessary to achieve:

- A *Single View of Customer* vision
- Quality and trusted data
- Enhanced content and services via direct customer communication channels
- Increased information visibility via customer, employee & third party portals
- Improved customer insight through enhanced reporting and analytics

Our target end-state has been defined, along with a roadmap of staged implementations that build towards our Single View of Customer.
Our existing communication channels for customer interaction will remain but will be significantly enhanced through improved content, functionality and portal access. We will also be able to add new channels as they become mainstream and of value of our customers.
Access to customer related data by our employees will be via a single sign-on portal providing access to all relevant customer data while masking the complexities of the underlying systems.
An external portal will be enhanced to allow more self-service by retailers and electrical contractors and extended progressively direct to customers.
Our underlying systems of record will be subject to replacement, consolidation and improved integration to better facilitate our information and functional needs.
We will implement and leverage a range of IT platform capabilities that supplement and support common non-functional requirements.



Customer Service Strategy quick wins – Customer facing initiatives

Early enhancement of our customer facing digital communication channels will deliver immediate improvements in content, functionality and accessibility.

What we will achieve

Overview

The Customer Service Strategy identified two technology quick wins as follows:

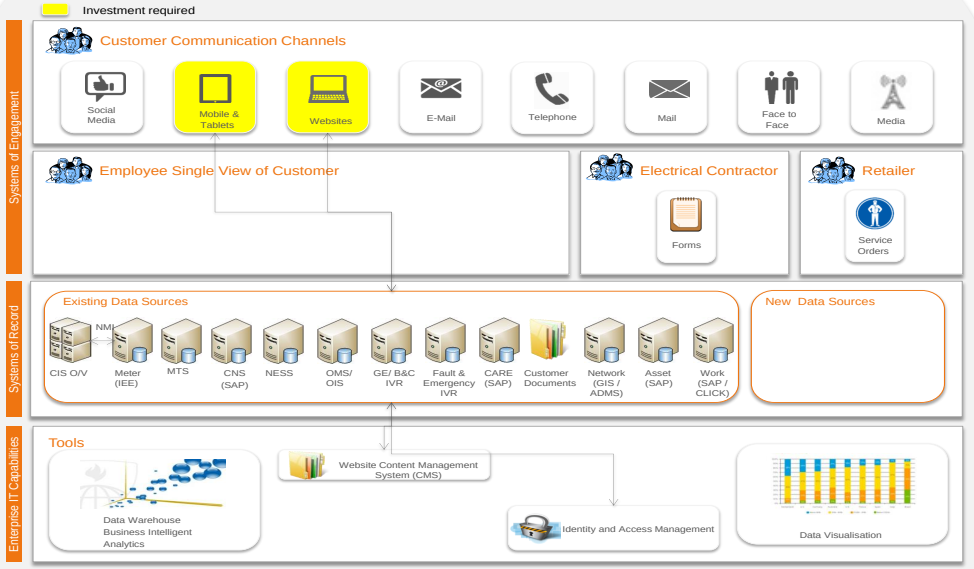
- Website redevelopment including:
  - Design refresh
  - Tailored content
  - Optimisation for viewing from mobile devices
- A mobile application that enhances current self-services and provides new functionality

Implementing these quick wins will allow customers to find and view information more quickly and efficiently on their mobile devices.

Benefits

- Ability to notify customers of any planned and unplanned power outage information through enhanced web and mobile communication channels.
- Allow customers to access all current self-services through mobile devices.
- Enhance the brand image, educate customers regarding our role and responsibilities, and achieve improved customer satisfaction.

How we will achieve it



Customer facing

- Publish an extract of the Customer Service Strategy on the website
- Refresh of existing website content to enable display on mobile devices
- Consolidation of four current self-service applications into a single integrated application

Portals

- limited functionality for Power@MyPlace™ registration of properties, contacts, and communication preferences (static information)
- REX – extranet for registered electricians – submit forms, book and amend appointments, Retailer processing for forms

Systems of Record

- Leverages existing systems and information sources

IT Capabilities

- Existing capabilities in Customer Content Management will be leveraged for website content development
- Leverages existing PowerAtMyPlace P@MP™ Identity and Access Management capability to ensure that customer information is secure and protected.

What we will see

(Images for illustrative purposes only)

Refreshed, mobile enabled web pages

Integrated customer digital application

Customer (Foundation)

Establishing single repository capabilities for customer information and customer interaction information, supported by improved customer analytics and reporting.

What we will achieve

Overview

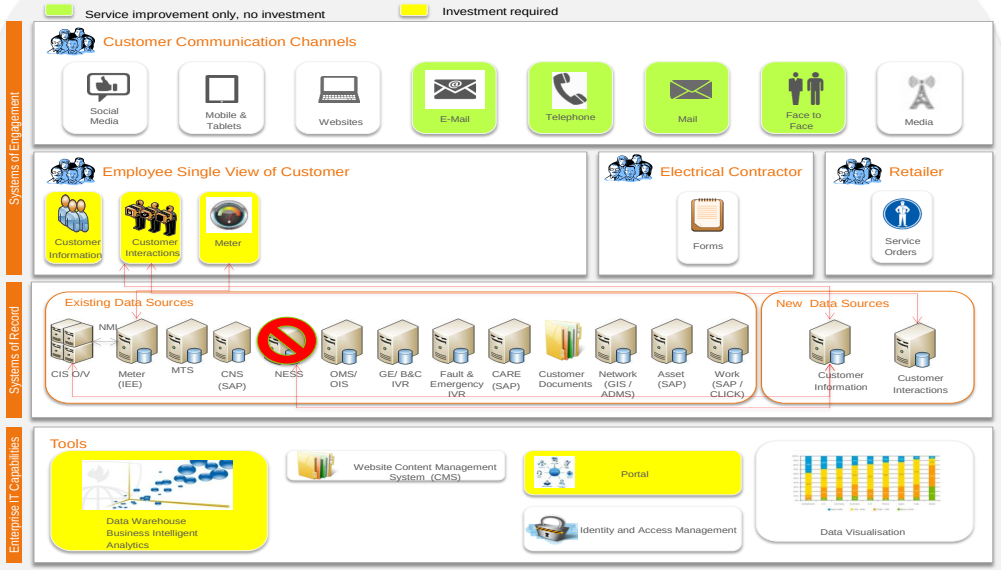
This stage is the initial step towards a *Single View of Customer* vision. It creates a single repository capability for all customers with whom we interact and all customer interactions.

It will also enhance our platforms for Data Warehouse, Business Intelligence and Analytics to allow us to gain better insight into our customers.

Benefits

- Ability to record additional information about our customers
- Ability to record information about the relationships between our customers that are of relevance and value
- The ability to decommission a range of 'satellite' systems that contain customer data not catered for adequately in CIS/OV
- Enable all employees when interacting with customers to have more visibility of the previous history of interactions with that customer
- Enhance the customer experience through more informed employees
- Better insight into our customers and the impact of our actions on our customers through improved analytical reporting

How we will achieve it



Customer facing

- Employee enabled customer communication channels improved as a result of employee portal

Portals

- Creates a single internal portal through which employees can access available customer relevant information including:
  - Customer
  - Interactions (new)
  - Meter (existing)

Systems of Record

- New customer data repository
- New interactions data repository
- Integration between CIS/OV and new customer database will be established
- NESS customer data loaded to new customer database and NESS (and others) decommissioned
- Meter data will be sourced from existing systems

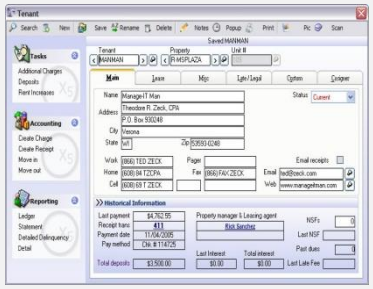
IT capabilities

- Existing capabilities in Data Warehouse, Business Intelligence and Analytics will be enhanced
- A portal IT capability will be leveraged to enable aggregation of data and its presentation to employees and relevant contractors through a single sign-on application (assumed to be part of the chosen SVOC solution).

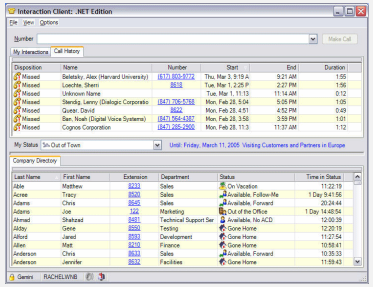
What we will see

(Images for illustrative purposes only)

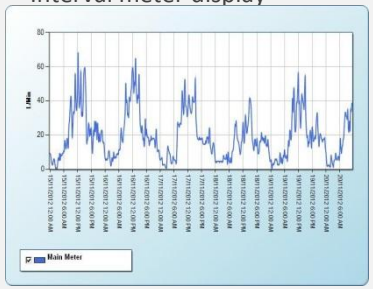
Customer details



Customer interaction details



Interval meter display



Customer (Core) - Outages

Delivering extended integration to provide improved information and visibility of the customer impacts from planned and unplanned outages.

What we will achieve

Overview

This stage enhances our ability to determine the scope of customer impacts of planned and unplanned outages.

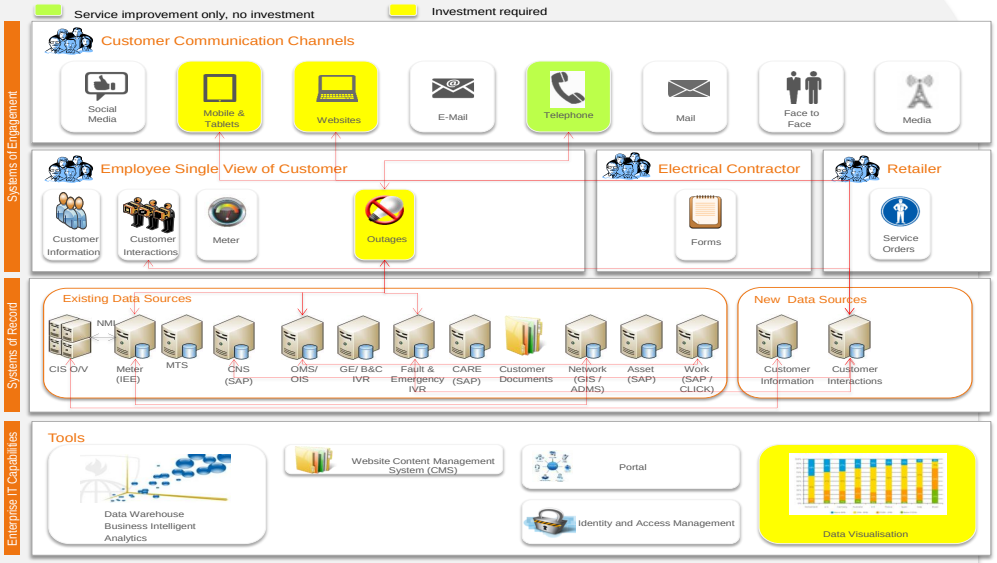
A current business initiative is underway to improve meter to network connectivity models.

Details of outages will be available via the Single View portal. Outage details will continue to be published on the IVR, website (according to business rules), and pushed to customer devices for subscribed customers.

Benefits

- More responsive identification and notification of the scope of planned and unplanned outages
- Greater information visibility through graphical displays of outage information
- Different views of outage information enabled for different user groups
- Improved ability to report on outage KPIs as a result of improved meter to network data quality

How we will achieve it



Customer facing

- Enhancement of outage information on the website (if required)
- Enhancement of the integrated customer app (if required)
- Improved Contact Centre experience
- Enhancement of CNS to include new channels (and in future new services such as vegetation notification)

Portals

- Outage information accessible via the employee Single View portal

Systems of Record

- Improved meter to feeder data quality
- Auto call recognition still dependent on CIS/OV
- Outages included in single Interactions database
- Assumes GIS/ADMS as sources of network data
- CNS data to Interactions database
- Assumes OMS and OIS remain

IT capabilities

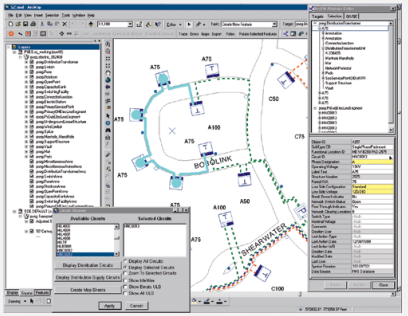
- Data visualisation capabilities leveraged to provide schematic and/or map based views of outages

What we will see

(Images for illustrative purposes only)

Mobile outage notifications

Outage details via SVOC portal



Customer (Core) - Service Orders

Delivering improved information and visibility of customer related service order information to employees, retailers and electrical contractors.

What we will achieve

Overview

This stage will further extend our capabilities towards a Single View of Customer vision through the inclusion of customer related Service Order information.

Full visibility of the 'life-cycle' of a Service Order will be provided.

A retailer portal will be enhanced to enable retailers to self-serve on additional service order details and status.

The employee SVOC portal will also be enhanced to provide visibility of Service Orders that are directly customer related.

Benefits

- Reduced Contact Centre call volumes as a result of service order self-service via additional communication channels
- Self service capabilities for customers, retailers and contractors (based on privacy settings and permissions)

How we will achieve it

Customer facing

- Enhanced Contact Centre interactions on service order details
- Schedule and costs do not include providing real-time information to retailers, electricians and customers on work scheduling.

Portals

- Enhance employee portal to include service order details
- Retailer portal enhanced
- Contractor portal/ app enhanced

Systems of Record

- Leverage existing systems for service orders
- Link service orders to customer details
- Record service order in customer interactions
- Link service orders to meter and network assets
- Store service order documentation to documents repository

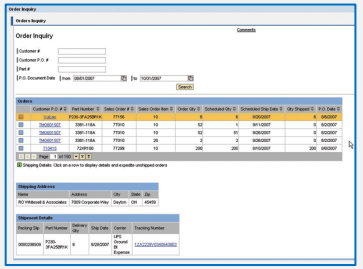
IT capabilities

- No additional IT capabilities required

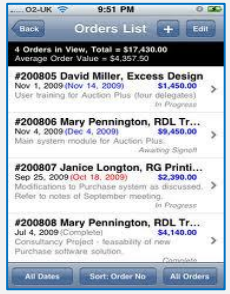
What we will see

(Images for illustrative purposes only)

Portal: Service order enquiry



Customer service order application



Contractor service order application

Customer (Core) - Compliments, Complaints and Documents

Delivering extended information and visibility of customer compliments and complaints and the electronic storage and retrieval of customer correspondence.

What we will achieve

Overview

This stage continues towards our *Single View of Customer* vision. It further leverages the capabilities of the chosen solution to consolidate all our existing customer interaction systems into a single repository.

Power@MyPlace SMS details will be added to the interactions database along with a P@MP auto-registration process, adding email as a channel.

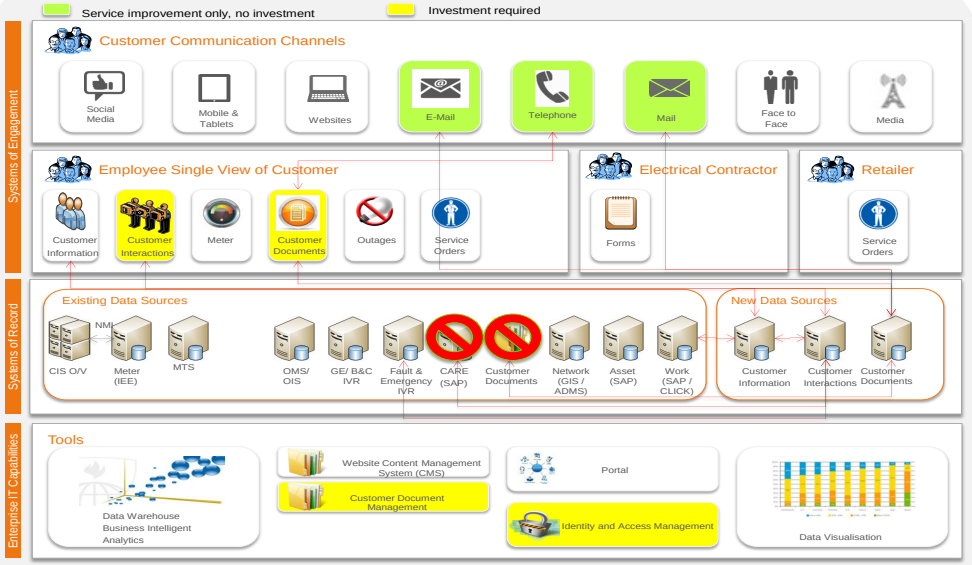
A new document management capability will allow us to provide visibility of customer documents via our 'Single View of Customer'. It also enables a longitudinal view of complaint management.

Additionally, as a business initiative, leverage the SVOC solution to capture additional customer data and additional customer to customer relationships of interest.

Benefits

- Import existing customer complaints and compliments data into the new interactions repository
- Decommission the current CARE system
- Record Faults & Emergencies IVR call data within our single Interactions data
- Provide visibility and access to customer related documents

How we will achieve it



Customer facing

- Employee assisted customer communication channels improved

Portals

- Extended visibility of the customer interaction types
- Provide access to customer documents via the SVOC portal

Systems of Record

- Establish integration between new customer interaction repository and existing F&E IVR system
- Extract data from CARE system and decommission
- Replace manual document and record storage with online customer document management system

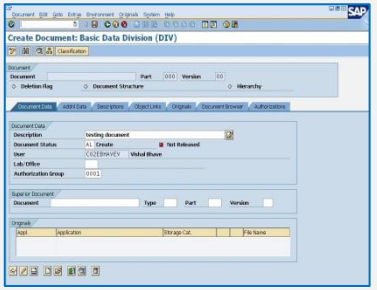
IT Capabilities

- Establish customer document management capability to access and render documents via the SVOC portal
- Enhance Identity and Access Management capabilities (if necessary) for improved customer security to support auto-registrations

What we will see

(Images for illustrative purposes only)

Document details



Customer documents and correspondence

Billing (Foundation)

Delivering significantly enhanced functionality for the provision of regulated services and information including meters, property, tariffs, billing and market participants.

What we will achieve

Overview

The purpose of this stage is to replace the existing CIS/OV customer billing system with a new solution that provides:

- Greater functionality and flexibility
- Greater alignment with emerging IT platforms and standards
- Reduced commercial and technology risks associated with the ageing CIS/OV application.

This is a significant undertaking. The new billing system will have details of:

- Meter data management
- Meter asset management
- Property
- Tariffs
- Billing
- Service orders
- Market participants

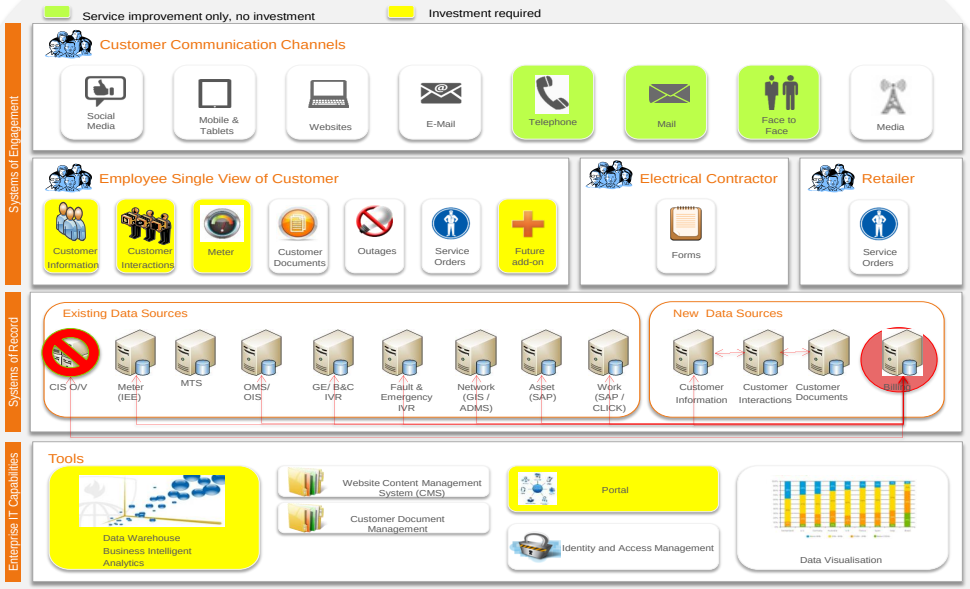
Dependent on the solution chosen, our access to information by employees and customer facing communication channels will potentially be enhanced.

Changes will also be required in our supporting IT capabilities. Data Warehouse, Business Intelligence and Analytics capabilities will require review as the source data changes from CIS/OV to the new system.

Benefits

- Improved functionality
- Greater systems flexibility and ability to adopt emergent trends, include greater tariff complexity
- Reduced commercial and technical risk
- Improved ability to engage talent to provide systems support

How we will achieve it



Customer facing

- Employee assisted customer facing communication channels may be positively impacted through improved information sources
- Dependent on the solution chosen, these communication channels may be enhanced through improved information and content

Portals

- Employee SVOC communication channel will be enhanced as a result of back end changes
- The retailer and electrical contractor portals will also potentially be improved.

Systems of Record

- New billing system is implemented
- Existing data is extracted from CIS/OV and imported into the new system
- New system is integrated as required with other corporate systems and with market systems such as the current MSATS
- CIS/OV system is decommissioned

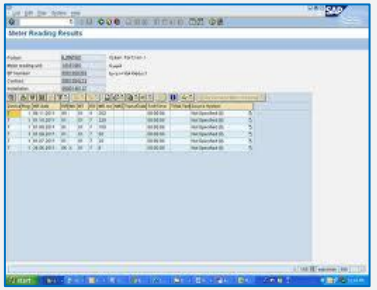
IT capabilities

- Existing Data Warehouse structures and processes changed based on new source data capabilities.
- Business Intelligence and Analytics processes reviewed and amended as required
- Portal capabilities reviewed and amended as necessary as a result of back-end system changes

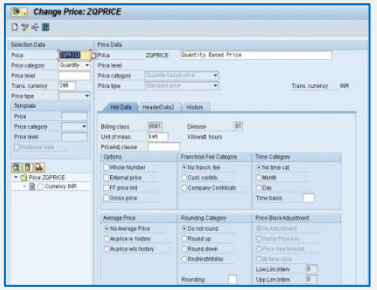
What we will see

(Images for illustrative purposes only)

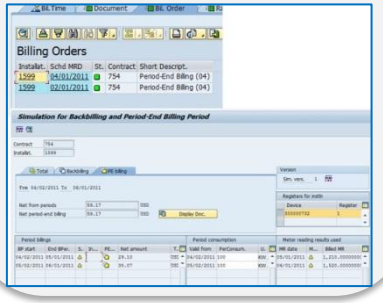
Meter reading details



Tariff settings



Bill generation



Customer (extended) - Property

Establishing an alternative property-centric perspective of the electricity distribution network for improved customer interactions for both supply and property access.

What we will achieve

Overview

The purpose of this stage is to establish a property-based perspective of the electricity distribution network.

This will enable a full life-cycle view of a property to be maintained, regardless of the change of customers at that property address.

The purpose of this exercise is to establish property to customer relationships that are of interest to us, in addition to just the 'responsible customer' for payment of supply at a property address.

We have two main reasons for a property-centric perspective:

- to assist our field crews gain access (location of gates and/ or easements plus special conditions such as wet weather access)
- to accurately identify multiple stakeholders for communications and flag communication channel preferences

Property details will also hold details of easements and other property encumbrances.

Benefits

- Improved customer interactions with regard to property access
- Longitudinal 'life-cycle' view of property even before supply is established
- Ability to analyse and report from a property perspective
- Abilty to record property related features and hazards

How we will achieve it

Customer facing

- Most customer facing communication channels will be impacted through the ability to liaise with customers other than the retail customer about property matters (e.g. access rights etc.)

Portals

- Employee SVOC communication channel will be significantly enhanced
- The retailer and electrical contractor portals will also be impacted

Systems of Record

- New property system is implemented
- Establish required integration between new property system and other existing systems as necessary

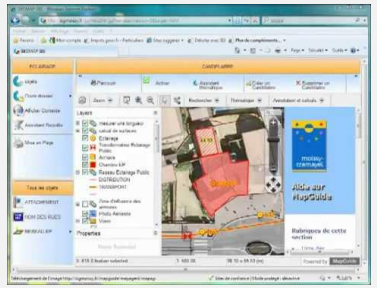
IT capabilities

- Leverage data visualisation capabilities to render map, schematic and topographic views
- Enhance Data Warehouse/Business Intelligence and Analytics data to incorporate property related information

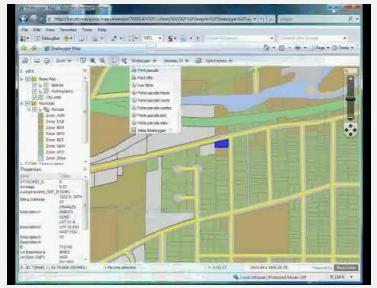
What we will see

(Images for illustrative purposes only)

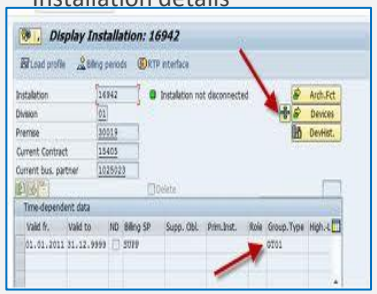
Property details



Property location map



Installation details



Customer (extended) - Consumer Energy Advisory Service

Extending our portfolio of customer service offerings to include advice on current and emerging consumer trends, products and services.

What we will achieve

Overview

The purpose of this stage is to establish the supporting technology capabilities to enable us to adopt an electricity consumer energy advisory service role.

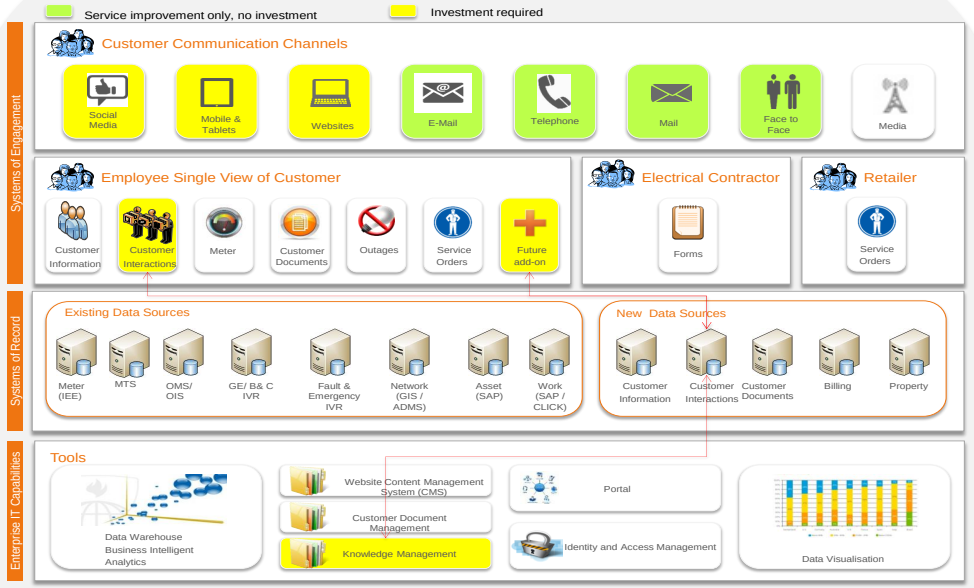
This stage is predicated on the adoption of a business strategy that establishes the intent to adopt such an advisory role and the establishment of the requisite skills and business processes necessary to perform this role.

This will be supported through the establishment of a customer knowledge management capability for the capture, retention and distribution of advisory based material.

Benefits

- Increased customer value through adoption of advisory role
- Increased customer engagement and interaction
- Improved brand through increased customer engagement

How we will achieve it



Customer facing

- Most customer facing communication channels can be leveraged for the dissemination of advisory based content

Portals

- Employee SVOC communication channel will also be leveraged.
- Other features (as yet unidentified) may also be added

Systems of Record

- Any advisory based interactions will be recorded as part of the single customer interactions repository.
- Integration is established between the customer interactions system of record and the enterprise-wide knowledge management capability

IT capabilities

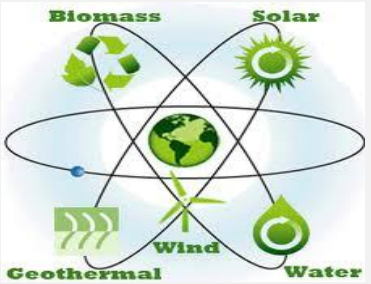
- Establish a new (or leverage existing if available) knowledge management repository capability

What we will see

(Images for illustrative purposes only)

Intelligent Network advisory

Renewable energy advisory



Smart appliance advisory

Initiatives and Timeline

The Customer Technology Plan roadmap outlines a staged implementation plan aimed at cost-efficiently achieving a 'Single View of Customer' vision, enhanced billing functionality, a 'property' perspective, and future energy advisory services.

Initiative: Customer facing capabilities

This initiative is an integral part of our 'Single View of Customer' vision. It addresses the continuous service improvement and enhancement of our eight customer interaction communication channels. Specifically, from a technology plan perspective it addresses continuous improvement of our digitally enabled communication channels, flexible enough to accommodate future potential channels as they become mainstream and valued by customers (e.g. website, mobile apps etc.). Service improvements via our employee assisted communication channels are achieved directly through the technology investments outlined in this plan.

Business descriptor

Section	Description
Overview	This initiative specifically addresses the continuous improvement of our corporate web presence and continued evolution of our mobile enabled customer apps. This initiative represents the technology components of a broader business program of work to be defined within a Customer Service Strategy Implementation Plan. Completion of this plan is a prerequisite to this initiative. This initiative involves: ➢ An annual review and update of the corporate website content and design ➢ Staged enhancement and delivery of mobile enabled customer interactions, as these are enabled through delivery of back-end systems and data quality improvements
Outcomes	The following outcomes are anticipated: ➢ Improved interactions on: • Power outages • Service Orders • Complaints and compliments • Customer documents ➢ An annual review and refresh of website content including web-enabled customer specific interactions
Benefits	The following interim benefits are anticipated: ➢ Continuous improvement of customer communication channel interactions ➢ Faster responses to customer enquiries ➢ Reduced time to manage customer enquiries ➢ Greater accessibility by customers ➢ Full alignment and support with the Customer Service Strategy The following target benefits are anticipated: ➢ Improved customer experience ➢ Improved customer satisfaction survey results

Technology descriptor

Section	Description
Implementation approach	➢ An annual refresh / release strategy is proposed for each website refresh as part of a continuous improvement capability. ➢ A staged release strategy is proposed for incremental enhancement of customer specific web interactions or additional mobile enabled capabilities. ➢ Each staged release is predicated on the completion of enabling back-end system changes ➢ Each release is deferred by six months from the delivery of the back-end system changes and employee portal capabilities to ensure changes are stable and data quality levels are appropriate for public exposure via customer communication channels and portals.
Prerequisites & assumptions	Pre-requisites ➢ Data quality initiative *(6.1) Improve and correct cloud data interfaces* is completed ➢ The Customer Service Strategy Implementation Plan has been completed ➢ The SVOC solution has been fully implemented (the framework will be established but not fully populated with data) ➢ Each enabling back-end system change is completed and stabilised (as per proposed schedule) ➢ Data quality initiative *(6.3) Data requirements for public exposure* is completed Assumptions ➢ Funding is available in reset period (2015-2020) ➢ An annual website refresh strategy is adopted ➢ There is a preference that new and enhanced customer facing capabilities are deferred for a period after enabling back-end changes
Timeframes	Planned: 2015-2021

Initiative: Customer - Foundation

This initiative is the initial step towards a *Single View of Customer* vision. It creates a single repository capability for all customers with whom we interact. It records every interaction we have with our customers. Finally, through investments in Data Warehouse, Business Intelligence and analytics capabilities, it will allow us to gain better insight into our customers.

Business descriptor

Section	Description
Overview	This initiative is the initial step towards the *Single View of Customer* vision. It establishes a single repository capability for customer and customer interaction information. This initiative involves: ➢ Acquisition and implementation of a SVOC solution ➢ Integration of the SVOC with co-requisite systems ➢ Improved customer reporting and analytics capabilities through enhanced Data Warehouse/ Business Intelligence and analytics capabilities ➢ Establishment of an internal employee 'portal' capability through a single sign-on SVOC application
Outcomes	The following outcomes are anticipated: ➢ Additional business requirements can be addressed (refer CIBUS requirements document) ➢ Undispersed view of customer (single repository) ➢ Retirement of 'shadow' systems, including NESS ➢ Establish the capability to link other customer related data sources ➢ At least as good analytical capability as currently provided by NESS
Benefits	The following interim benefits are anticipated: ➢ Increase systems supportability ➢ Faster responses to customer enquiries ➢ Reduced time to manage customer enquiries The following target benefits are anticipated: ➢ Improved customer experience ➢ Improved customer satisfaction survey results ➢ Reduced corporate risk related to legacy systems support ➢ Increased productivity for customer analysis to better manage 'avalanche' and reduce overtime costs ➢ Well positioned for future mode of operation We will review the benefits after the CIBUS benefits mapping

Technology descriptor

Section	Description
Implementation approach	➢ A single release strategy is proposed for this initiative ➢ Acquisition of the new SVOC solution and other IT capabilities will occur early in the project duration to enable their subsequent implementation and use. ➢ Data from NESS and other 'shadow systems' will be imported into the new system, prior to decommissioning of those systems. ➢ Integration between the SVOC and CIS/OV will be established, however, the integration method and system primacy (SVOC or CIS/OV) is yet to be determined for each data entity ➢ CIS/OV will provide required linkages to other systems via existing integration methods
Prerequisites & assumptions	Pre-requisites: ➢ Customer Data Quality initiative *(6.2) – Data requirements for SVOC* completed ➢ Corporate Service Oriented Architecture and Integration capabilities have been established Assumptions ➢ Funding is available in 2014/2015 ➢ The SVOC solution will provide the 'portal' capabilities ➢ A single release strategy will be adopted ➢ Data Warehouse/ Business Intelligence and Analytics tools to be acquired early in project prior to intended use ➢ There is no requirement to import any customer interaction data from any existing sources
Timeframes	Planned: 2014-2017

Initiative: Customer – Contact Centre

This initiative will improve the capabilities of the Keswick Contact Centre that provides support for the General Enquiries, Feedback, Solar PV, Builders and Contractors and internal IT Help Desk service lines. New Contact Centre technologies will be implemented to replace the current Solidus solution, which is incapable of providing key features expected in a mature Contact Centre solution.

Business descriptor

Section	Description
Overview	This initiative establishes increased Contact Centre capabilities in the Keswick Contact Centre. This Contact Centre provides telephony support for: ➢ General Enquiries ➢ Customer Feedback ➢ Solar PV Enquiries ➢ Builders and Contractors ➢ SA Power Networks' internal IT Help Desk The new capabilities are sized to cover anticipated growth and to position the organisation to accommodate consumer energy advisory services. The new solution will also provide coverage for disaster recovery.
Outcomes	A range of additional capabilities will be provided, including: ➢ Caller ID ➢ Text to Speech ➢ Workforce Management capability ➢ Improved analytics and reporting ➢ Improved call queuing and call flow management ➢ Outbound dialling and call back functionality For a full list of anticipated features, please refer to the supporting 'SA Power Networks' IVR Summary' report.
Benefits	The following target benefits are anticipated: ➢ Improved customer Contact Centre experience ➢ Improved analytics ➢ Improved detail & statistical reporting capabilities ➢ Improved workforce management of contact centre staff ➢ Well positioned for future mode of operation and future lines of business

Technology descriptor

Section	Description
Implementation approach	➢ A single-stage release strategy is proposed for this initiative. ➢ Implementation and configuration services will be provided by the selected solution vendor ➢ Integration between the customer *system of record* will be established, however, the integration method is yet to be determined
Prerequisites & assumptions	Pre-requisites: ➢ None Assumptions ➢ System configured to support 80 agents (increased from current 42 agents) ➢ Installation and programming services to be provided by selected vendor ➢ Training to be developed and delivered using SA Power Networks provided resources
Timeframes	Planned: 2016-2018

Initiative: Customer - Core

This initiative builds on the foundations established through the implementation of a SVOC solution as the basis for a 'Single View of Customer' vision. This initiative presents a four-stage approach that adds additional customer related information and data sources to our *Single View of Customer* portal. Additionally, we will make selective information (e.g. service orders) available to retailers and electrical contractors.

Business descriptor

Section	Description
Overview	This initiative continues towards the *Single View of Customer* vision, by integrating additional data sources to our new customer and customer interactions capabilities and making these available through our 'portal' capability. This initiative involves: ➢ Providing improved customer outage information from existing outage systems ➢ Providing access to customer related service order information to employees, retailers and electrical contractors ➢ Incorporating customer complaint and compliments into the customer interactions repository ➢ Replacing existing manual storage of customer documents with a new customer document management system
Outcomes	The following outcomes are anticipated: ➢ Increased visibility of customer related information and impacts ➢ Improved service order visibility by retailers via a self-service portal ➢ Improved service order visibility by electrical contractors via a self-service portal ➢ Decommissioning of SAP/CARE ➢ Online access to customer documents
Benefits	The following interim benefits are anticipated: ➢ Increase systems supportability ➢ Faster responses to customer enquiries ➢ Reduced customer enquiry backlog ➢ Reduced call volumes from retailers and electrical contractors The following target benefits are anticipated ➢ Improved customer experience ➢ Improved customer survey results ➢ Increased productivity of Contact Centre and customer facing employees

Technology descriptor

Section	Description
Implementation approach	➢ A four-stage release strategy is proposed for this initiative: outages, service orders, compliments & complaints and customer documents ➢ Outage information already gathered will be linked to SVOC customer data and any outage notifications to customers will be recorded in the interactions repository ➢ Customer related service orders will be linked to SVOC customer data ➢ Compliments and complaints will be migrated to the customer interactions repository and SAP/CARE decommissioned ➢ Customer documents will be scanned to the document management system and linked to SVOC customer and interaction data sources
Prerequisites & assumptions	Pre-requisites ➢ Customer foundation initiative is completed ➢ Customer document management system is acquired prior to customer documents stage Assumptions: ➢ Funding dependent on next Reset ➢ SVOC and customer interactions repository manages open customer enquiries and complaints ➢ Portal capabilities for retailers and contractors will be provided either by the SVOC solution or existing access methods ➢ The prioritisation of releases is as per currently stated business priorities and will not change ➢ Existing security and Identity & Access Management capabilities for access by third parties will be utilised ➢ SVOC and customer interactions repository manages open customer enquiries and complaints
Timeframes	Planned: 2015-2018

Initiative: Billing - Foundation

The purpose of this initiative is to improve our system capabilities and maturity to better meet emerging customer expectations and market demand while also reducing the commercial and technology risks associated with our ageing, legacy applications. This will be achieved by replacing the current CIS/OV application with a new billing system solution that will provide our customers with confidence that their billing data is accurate.

Business descriptor

Section	Description
Overview	This initiative represents a step towards the *Single View of Customer* vision. It establishes new and enhanced capabilities in meter data management, meter asset management, property, tariffs and billing. This initiative involves: ➢ Acquisition and implementation of a new billing solution ➢ Integration of the billing system with co-requisite systems ➢ A review of current Data Warehouse/ Business Intelligence and Analytics capabilities and a remapping based on changes in the new source Billing system ➢ A full review of current portal capabilities and potential changes resulting from the new source Billing System This is anticipated to be a joint initiative between us and Victoria Power Networks with costs shared on a 50% / 50% basis. A further initiative is to be undertaken to conduct a joint requirements analysis and develop the associated business case, however this will be completed in early 2014 .
Outcomes	The following outcomes are anticipated: ➢ Reduction of commercial & technical risks ➢ Current technology platform with upgrade path ➢ Reduced support effort as solution expected to support configuration over customisation ➢ Pre-built operational reporting and monitoring as part of solution ➢ Increased functionality and flexibility ➢ Better support for future operations
Benefits	The following interim benefits are anticipated: ➢ Rationalisation and standardisation of technology platforms therefore cheaper to support ➢ Supportable CIS platform for ten year business case period ➢ Increased automation of exception handling The following target benefits are anticipated: ➢ Reduced corporate risk ➢ Increased longevity of solution ➢ Reduced costs for integration, change and operations ➢ Increased business agility

Technology descriptor

Section	Description
Implementation approach	➢ A single release strategy is proposed for this initiative given the highly integrated nature of the current CIS/OV ➢ Acquisition of the new billing solution and other IT capabilities will occur early in the project duration to enable their subsequent implementation and use. ➢ Data from CIS/OV will be cleansed and imported into the new system, prior to decommissioning of that system. ➢ Integration between the new billing system and all co-requisite systems is in-scope ➢ Data Warehouse/ Business Intelligence and analytics processes to be reviewed and changed as required ➢ Existing portal and customer facing communication channels to be reviewed and changed as required
Prerequisites & assumptions	Pre-requisites: ➢ Customer Foundation initiative is completed ➢ Corporate SOA and integration capabilities have been established ➢ Joint SA Power Networks & Victoria Power Networks business case for CIS replacement has been completed Assumptions: ➢ Funding dependent on next Reset ➢ A single release strategy will be adopted ➢ A detailed requirements analysis and sourcing strategy is required
Timeframes	Planned: 2015-2023

Initiative: Customer - Extended

This initiative is the final step towards a *Single View of Customer* vision as envisaged at this time. This initiative presents a three-stage approach. We will increase our knowledge visibility of *property i*ncluding the location of our assets and asset type, access, hazards and special conditions, and easements. This would also speed the process of providing indicative quotes for new supply where there is no local low voltage available. Additionally we may establish ourselves as a consumer energy advisor to further enhance our customer services and interactions.

Business descriptor

Section	Description
Overview	This initiative establishes as single repository capability for customer property information. Additionally it establishes a *knowledge management* capability to enable us to better inform our customers on electricity products, services and trends. This initiative involves: ➢ Acquisition and implementation of a property / cadastral solution ➢ Integration of the property system with co-requisite systems ➢ Acquisition and implementation of a knowledge management system ➢ Establishment of an internal research and development capability supporting an consumer energy advisory service role
Outcomes	The following outcomes are anticipated: ➢ A full longitudinal view of a property, including its ownership, occupancy, supply etc. over time ➢ Geospatial view of properties ➢ Ability to intersect meter and network asset locations with property data ➢ Meter connections mapped at the LV level ➢ Targeted outage advice to only affected connection points ➢ Enhanced customer relations through additional advisory services
Benefits	The following interim benefits are anticipated: ➢ Targeted and focussed outage advice to customers ➢ Improved customer interactions regarding property access ➢ Better visibility of easement types or other legal restrictions on property The following target benefits are anticipated ➢ Improved customer experience ➢ Improved customer survey results ➢ Improved outage KPIs ➢ Increased quality of service and value to customers ➢ Well positioned for future mode of operation

Technology descriptor

Section	Description
Implementation approach	➢ A three-stage release strategy is proposed for this initiative. ➢ Acquisition of the new property / cadastral solution and other IT capabilities will occur early in the project duration to enable their subsequent implementation and use. ➢ Integration between the billing and property systems will be established, however, the integration method and system primacy is yet to be determined ➢ Acquisition of the new knowledge management solution will occur early in the project duration to enable their subsequent implementation and use.
Prerequisites & assumptions	Pre-requisites ➢ New billing system implementation is complete ➢ Review of data visualisation capabilities and requirements is completed prior to commencement ➢ Data Quality initiative (*3.1) property addressing issues* is completed ➢ Data Quality initiative (*5.2) property ownership* is completed ➢ Data Quality initiative (*4.3) NMI-SP link management* is completed ➢ Data Quality initiative (*5.4) sources of additional data* is completed Assumptions ➢ Funding is available in the subsequent reset period ➢ Property system requirements can be met by SAP cadastral master data extensions under the SAP Enhancement Program (EHP) and have not been costed at this time ➢ The current ESRI geospatial tool will be used for mapping and data visualisation of property information and no additional costs have been identified at this time
Timeframes	Planned: 2015-2017 (Energy Advisory 2022-2025)

Implementation schedule

Proposed projects that build towards the 'Single View of Customer' vision are presented in the indicative schedule below.

Sequencing of initiatives is consistent, however the timeframes proposed are more compressed than those presented in this plan. Further work is required to align the differing schedule expectations.

CTP Project Schedule	Business Case ID	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Customer Service Strategy Quick Wins												
Quick Wins - Website Redesign	BC02a											
Quick Wins - Mobile App Redesign	BC02a											
Web Developments												
Website Refresh (2015) - includes costs for Website CMS	BC02a_1											
Website Refresh (2016)	BC02a_1											
Website Refresh (2017)	BC02a_1											
Website Refresh (2018) - includes hardware refresh	BC02a_1											
Website Refresh (2019)	BC02a_1											
Website Refresh (2020)	BC02a_1											
Customer Specific Content (Customer Portal)												
Customer & Interaction Details	BC02a_3											
Outage Information	BC02a_3											
Service Order Information	BC02a_3											
Compliments and Complaints	BC02a_3											
Customer Documents - includes costs for Document Mgmt	BC02a_3											
Corporate Systems and Data Sources												
Customer - Foundation												
Programme Resources	BC01_1											
Customer Relationship Management (CRM)	BC01_1											
Customer Reporting and Analytics - includes DW/BI costs	BC01_1											
Customer - Core												
Outages (Feeder Level)	BC02a_2											
Service Orders	BC02a_4											
Compliments, Complaints and Documents												
Compliments and Complaints	BC02a_5											
Customer Documents	BC02a_6											
Document Management Refresh	BC02a_6											
Billing - Foundation												
Billing System (CIS/OV Replacement)	BC01_2/3/4/6/7											
Customer - Extended												
Property	BC01_5											
Consumer Energy Advisory - includes costs for Knowledge Mgmt	BC02a (Next Reg Period)											
Contact Centre												
Contact Centre - Implementation	BC02											
Contact Centre - Refresh	BC02											

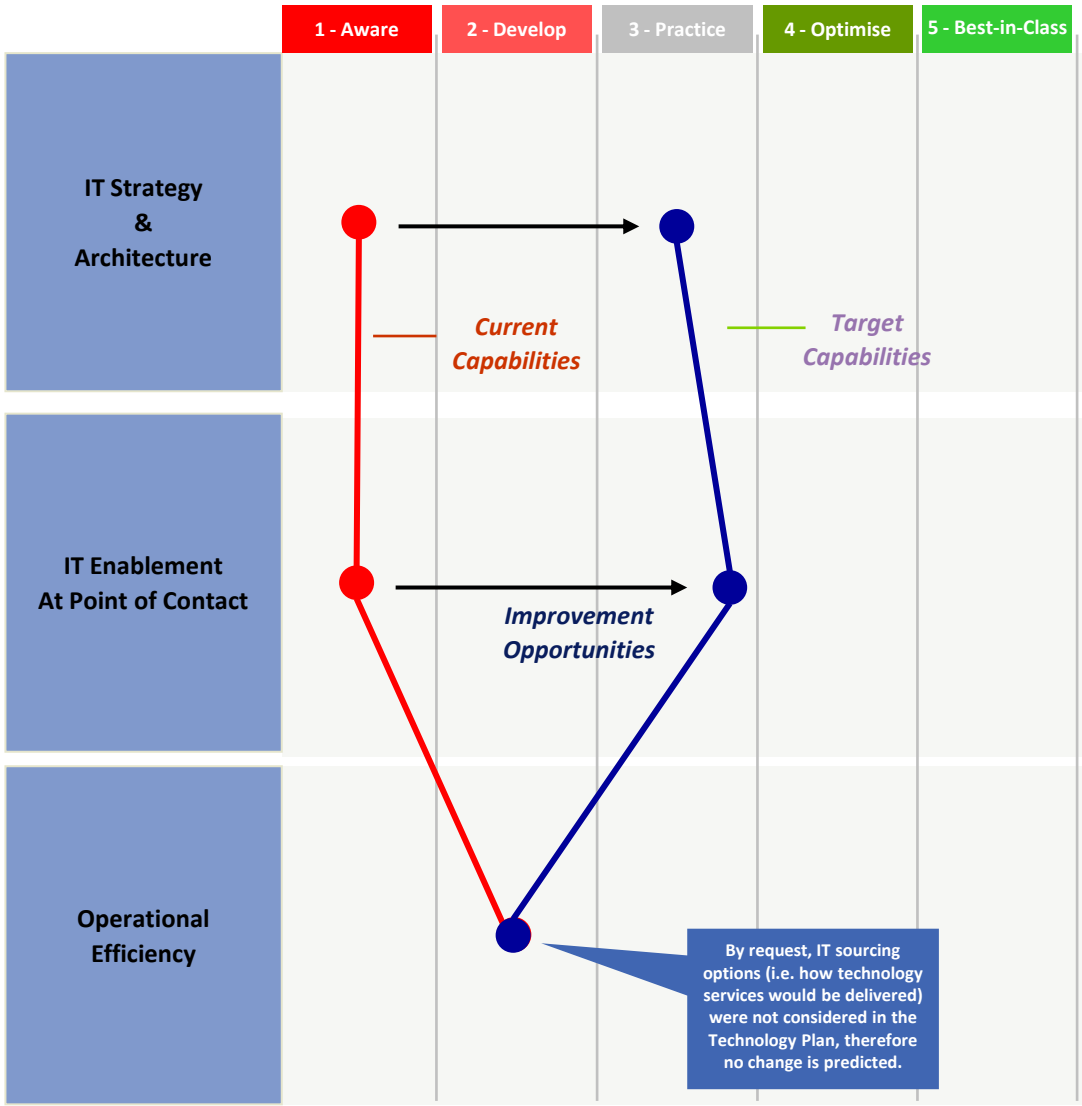
Customer service technology maturity benchmark

The Customer Technology Plan aims to deliver increased maturity levels in the technology capabilities required to deliver an improved customer experience such that customers expect and value.

This section describes the key technology capabilities required to deliver comprehensive and effective customer service. SA Power Networks' current and target state customer service technology maturity levels are assessed and compared against other industries and sectors.

Where will the Customer Technology Plan position us?

The Deloitte Customer Experience (CX) Maturity Model investigates 22 capabilities (grouped by seven categories) across five maturity levels. The Customer Experience technology assessment below provides an indicative assessment of current CX technology maturity levels and those achieved through the Customer Technology Plan.



Key considerations

- Presence of a dedicated Customer Experience IT Strategy
- Customer Service Level Agreements and policies established and monitored
- Degree of consolidation of customer systems and data sources
- Integration of customer experience specific business logic and processes
- Availability of Enterprise Application Integration

- Completeness of visibility of customer information
- Completeness of visibility of customer interactions across all channels
- Degree of consistency across available channels
- Availability of transaction history
- Degree of personalisation and preferences
- Availability of feedback loops and process integration of feedback received
- Channel strategy aligned to customer segments
- Availability of advanced interaction channels (e.g. web chat, kiosks etc.).

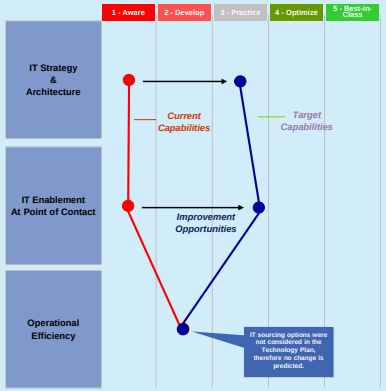
- Degree of IT flexibility to meet customer experience requirements
- Costs associated with customer experience-related IT ownership
- Degree of growth of customer related data and information catered for
- Consideration of sourcing options for customer experience related IT and processes
- Degree to which alternative sourcing options positively or negatively impact customer experience outcomes

Customer Experience Technology Comparative Analysis

The Customer Experience Technology assessment below provides an evaluation of SA Power Networks' current and target state maturity levels. A comparative analysis was conducted against a range of like assessments across a range of different industries. The focus of this analysis was to understand how relevant organisations have dealt with the similar customer expectations to those discovered during finalisation of the Customer Service Strategy.

Compared with other sectors, Australian electricity distribution has a low technology maturity level for customer communications. After several years of significant investment in customer technologies and in consideration of SA Power Networks' longstanding direct contact with customers (unlike some other state jurisdictions), it is currently placed well among DNSPs. However, given customer expectations for mainstream technologies widely available in other sectors such as banking, retail, services, and even competitive electricity retail, SA Power Networks needs to consider a Customer Technology Plan incorporating the key communications elements customer value. This will remain behind the curve of leading technological developments.

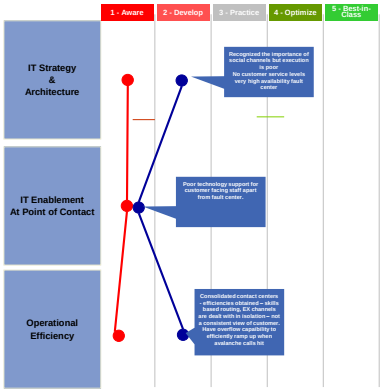
SA Power Networks



The above analysis reflects the current and target state CX technology maturity levels defined for SA Power Networks as part of the Customer Technology Plan.

Current capabilities are coming off a relatively low base however the intent of the Customer Technology Plan is to position CX as a standard practice and capability across the organisation.

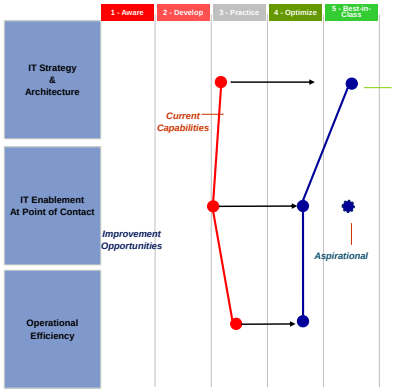
Australian Electricity Distributor



The above represents an analysis of a major electricity distribution provider in Australia in 2013. The analysis was based on Deloitte's experience and knowledge of the current business strategies and focus areas for that client.

The analysis identified that while there was an emerging awareness of the importance of CX at the strategic level this had not yet resulted in any immediate plans to improve capabilities in this area.

Australian Retail Bank

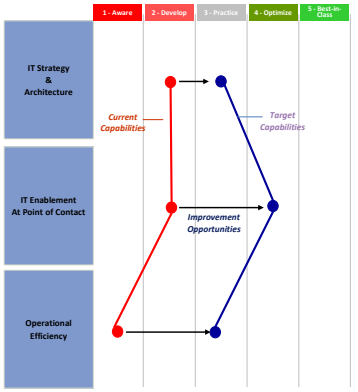


The above analysis was conducted in 2013 and represents a self-assessment of current CX technical capabilities in a 'Big 4' retail Australian bank.

Aspirational targets are 'best in class' for both IT Strategy & Architecture and IT Enablement at Point of Contact capabilities, whilst Operational Efficiency was targeted at 'optimised'.

A key stated objective was to '*own the customer experience in-house, outsource the enablement.*'

US Telecommunications Providers



The above analysis was conducted in 2007 and represents the average customer experience technology maturity levels across nine leading telecommunications companies in the United States.

The context of this analysis was the upcoming rollout of 4G technologies and what this would mean to the provision of improved customer experience and engagement.

Given the timing of this analysis, we expect that the 'target' maturity levels have now been reached and that the US telecommunications industry is seeking to further improve on these measures.

Customer Experience Technology – current state analysis

Technology capabilities shaded in red are those currently achieved within SA Power Networks

Customer Experience Technology

IT Strategy & Architecture

1 - Aware	2 - Develop	3 - Practice	4 - Optimise	5 - Best-in-Class
• No dedicated Customer Experience IT strategy developed • No Customer Service level Agreement requirements and Policies established • Disjointed Customer-facing applications with overlapping functionality • No ability to incorporate Customer Experience business logic or processes • Customer data stored in multiple systems • No Enterprise Application Integration capabilities exist to coordinate customer-facing applications or data	• Customer Experience IT strategy developed • IT strategy does not incorporate customer segmentation or Service Level Agreement requirements or cross-functional stakeholder input • Minimal Customer Experience requirements are received by IT, captured through standard customer-facing functions • Change associated with customer experience requirements comes at a high cost	• Coordinated customer experience IT/application strategy is developed and regularly updated • IT strategy includes segmentation, Service Level Agreement requirements, and cross-functional input • Customer experience-related systems are flexible to adapt to business needs at minimal cost • Customer Experience business logic is separated from application code • Point-to-Point integration between applications exists • Foundational Enterprise Application Integration capabilities	• Customer experience IT strategy developed by dedicated Customer Experience function • Customer experience IT strategy updated regularly; includes Voice of the Customer • Straightforward functionality, allowing Customer experience management to capture, use and report customer experience-related data • Full flexibility /rapid time to market for Customer Experience requirement changes • Full Enterprise Application Integration capabilities across IT architecture; transportation of customer data	• IT strategy supports new customer experience initiatives across channels • All Customer Experience business logic centrally managed, securely controlled and easily modified based on changes to Customer Experience IT strategy • Dynamic change to segmentation and Service Level Agreements as needed based on monitored Voice of the Customer and metrics • Enterprise Application Integration capabilities include process modeling • Business logic shared between applications, and is easily updated across systems

IT Enablement at Customer Point of Contact

1 - Aware	2 - Develop	3 - Practice	4 - Optimise	5 - Best-in-Class
• Incomplete view of the customer due to parsed information collection • Customer experience is inconsistent across channels • Limited/inconsistent personalisation across channels • Limited history of customer transactions • Misplaced customer communications are common • Large backlog due to undefined contact handling process • No ability to capture Customer feedback • Basic online capability without links to other channels • No email capability enabled	• Minimal number of applications on Contact Center desktop all following same UI- Alternative channels streams offered but not efficiently managed • Agents have a contact or case preview of the customer • Some customer experience channels continue to be dealt with in isolation • Customer feedback captured inconsistently; no integration of customer feedback into IT improvement initiatives • Transaction history captured but not shared across channels • Internet site offers form submission and approval functionality • Internet provides email options as a contact alternative • Email available but not encouraged as contact channel	• Agents have a complete preview of cross-line customer transactions • Strategic messaging on customer profile to provide customer service direction based on customer segments • Call and email routing in place, driven by variables such as Customer Service Level Agreements by segment or agent experience • Channel management strategy developed and aligned with customer segmentation model • Feedback loop in place across channels; improvements result from both internal assessment and *voice of the customer* • Internet offers advanced personalisation, including transaction history and segment recognition	• Agents have complete customer view with transactions and preferences • Agents have view of all cross channel transactions • Customer Experience priorities incorporated into IT requirements; improvements based upon advanced Customer Experience audit tools, including persona evaluation, focus groups, mystery shopping, etc. • Unified queue to deliver customer contact to agents • Email functionality monitored, tracked and routed similar to telephone calls and delivered to blended agent base • Internet site offers web chat as a contact alternative • Advanced customer interaction channels in place (e.g., kiosks)	• Internet site enabled with co-browsing, VoIP and 'call me back' functionality • Leading-edge technology supporting customer channels (e.g., wireless device shopping) • Corporate internet with standard login/password and launch page (e.g., 'small business' site vs. 'consumer') • All communication linked to one customer tracking number; threads are accessible to all relevant staff • Sophisticated personalisation provided (e.g., product recommendations based upon purchase history)

Denotes identified applicable criteria to SA Power Networks

Customer Experience Technology – current state analysis

Technology capabilities shaded in red are those currently achieved within SA Power Networks

		1 - Aware	2 - Develop	3 - Practice	4 - Optimise	5 - Best-in-Class
Customer Experience Technology	Operational Efficiency	• Customer experience-related IT provides limited flexibility to meet business needs • Customer experience is deemed 'low quality' for certain processes or channels (e.g., customer experience Service Level Agreements are not being met) • Customer experience-related function or functions (e.g., email interaction within Contact Center) not providing a competitive advantage • High cost of customer experience-related IT ownership • Little room for growth	• Selective or collective outsourcing is considered for low-value customer experience functions • No clearly articulated cost reduction, productivity improvements, or Customer Experience impact considered • Any current outsourced functions provide reduced customer experience quality • High-level assessment of costs (labour, IT support, etc.), service level agreements related to inefficient Customer experience operations are documented • No outsourcing options enabled	• Low-value, or low customer experience quality functions are outsourced • Measurable customer experience business and IT objectives are documented • Outsourced function provides comparable customer experience quality • Documented costs (labour, IT support, etc.), Service Level Agreements, and expectations for improvement; customer experience goals linked to business objectives • Service Level Agreements for customer segments and sourcing partners established • Limited communication with sourcing partner to evaluate business benefits and customer experience quality	• Regular, scheduled communication between company and sourcing partner to evaluate business benefits and Customer Experience quality • Outsourcing improves customer experience and value can be passed to customers • Sourcing partner provides customer experience transactional information integrated with overall company customer experience-supported architecture • Customer experience business processes are completely seamless to customers, including customer IDs, transaction flows, transaction history, etc.	• Sourcing partner performance management metrics driven by customer experience quality • Customer experience feedback transferred between company operations and sourcing partner operations • *Voice of the customer* drives process/IT improvements across company and sourcing provider • Customer data transfer between company and sourcing partner • Similar reporting tools and access to tools for both company and sourcing partner • Customer experience improvement processes and policies documented; regularly updated with sourcing partner • Mature, cross-organizational governance system

Denotes identified applicable criteria to SA Power Networks

IT delivery and sourcing were not considered in the Customer Technology Plan, above analysis is indicative only

Customer Experience Technology – target state analysis

Technology capabilities shaded in blue are those expected to be achieved at the completion of the implementation of the Customer Technology Plan

		1 - Aware	2 - Develop	3 - Practice	4 - Optimise	5 - Best-in-Class
Customer Experience Technology	IT Strategy & Architecture	• No Dedicated Customer Experience IT strategy developed • No Customer Service level Agreement requirements and Policies established • Disjointed Customer-facing applications with overlapping functionality • No ability to incorporate Customer Experience business logic or processes • Customer data stored in Multiple Systems • No EAI capabilities exist to coordinate Customer-facing applications or data	• Customer Experience IT strategy developed • IT strategy does not incorporate Customer segmentation or Service Level Agreement requirements or cross-functional stakeholder input • Minimal Customer Experience requirements are received by IT, captured through standard Customer-facing functions • Change associated with Customer Experience requirements comes at a high cost	• Coordinated customer experience IT/application strategy is developed and regularly updated • IT strategy includes segmentation, Service Level Agreement requirements, and cross-functional input • Customer experience-related systems are flexible to adapt to business needs at minimal cost • Customer Experience business logic is separated from application code • Point-to-Point integration between applications exists • Foundational Enterprise Application Integration capabilities	• Customer Experience IT strategy developed by dedicated Customer Experience function • Customer Experience IT strategy updated regularly; includes Voice of the Customer • Straightforward functionality, allowing customer experience management to capture, use and report customer experience-related data • Full flexibility /rapid time to market for Customer Experience requirement changes • Full EAI capabilities across IT architecture; transportation of Customer data	• IT strategy supports new Customer Experience initiatives across channels • All Customer Experience business logic centrally managed, securely controlled and easily modified based on changes to Customer Experience IT strategy • Dynamic change to segmentation and Service Level Agreements as needed based on monitored Voice of the Customer and metrics • EAI capabilities include process modeling • Business logic shared between applications, and is easily updated across systems
	IT Enablement at Customer Point of Contact	• Incomplete view of the Customer due to parsed information collection • Customer Experience is inconsistent across channels • Limited/inconsistent personalization across channels • No history of Customer transactions • Misplaced Customer communications are common • Large backlog due to undefined contact handling process • No ability to capture Customer feedback • Basic online capability without links to other channels • No email capability enabled	• Minimal number of applications on Contact Center desktop all following same UI- Alternative channels streams offered but not efficiently managed • Agents have a contact or case preview of the Customer • Some Customer Experience channels continue to be dealt with in isolation • Customer feedback captured inconsistently; no integration of Customer feedback into IT improvement initiatives • Transaction history captured but not shared across channels • Internet site offers form submission and approval functionality • Internet provides email options as a contact alternative • Email available but not encouraged as contact channel	• Agents have a complete preview of cross-line customer transactions • Strategic messaging on customer profile to provide customer service direction based on customer segments • Call and email routing in place, driven by variables such as customer Service Level Agreements by segment or agent experience • Channel management strategy developed and aligned with Customer segmentation model • Feedback loop in place across channels; improvements result from both internal assessment and *voice of the customer* • Internet offers advanced personalisation, including transaction history and segment recognition	• Agents have complete customer view with transactions and preferences • Agents have view of all cross channel transactions • Customer experience priorities incorporated into IT requirements; improvements based upon advanced Customer Experience audit tools, including persona evaluation, focus groups, mystery shopping, etc. • Unified queue to deliver customer contact to agents • Email functionality monitored, tracked and routed similar to telephone calls and delivered to blended agent base • Internet site offers web chat as a contact alternative • Advanced customer interaction channels in place (e.g., kiosks)	• Internet site enabled with co-browsing, VoIP and 'call me back' functionality • Leading-edge technology supporting Customer channels (e.g., wireless device shopping) • Corporate internet with standard login/password and launch page (e.g., 'small business' site vs. 'consumer') • All communication linked to one customer tracking number; threads are accessible to all relevant staff • Sophisticated personalization provided (e.g., product recommendations based upon purchase history)

Denotes identified applicable criteria to SA Power Networks

Customer Experience Technology – target state analysis

Technology capabilities shaded in blue are those expected to be achieved at the completion of the implementation of the Customer Technology Plan.

Customer Experience Technology — **Operational Efficiency**

1 - Aware	2 - Develop	3 - Practice	4 - Optimise	5 - Best-in-Class
▸ Customer experience-related IT provides limited flexibility to meet business needs ▸ Customer experience is deemed 'low quality' for certain processes or channels (e.g., customer experience Service Level Agreements are not being met) ▸ Customer experience-related function or functions (e.g., email interaction within Contact Center) not providing a competitive advantage ▸ High cost of customer experience-related IT ownership ▸ Little room for growth	▸ Selective or collective outsourcing is considered for low-value customer experience functions ▸ No clearly articulated cost reduction, productivity improvements, or customer experience impact considered ▸ Any current outsourced functions provide reduced customer experience quality ▸ High-level assessment of costs (labor, IT support, etc.), service level agreements related to inefficient customer experience operations are documented ▸ No outsourcing options enabled	▸ Low-value, or low customer experience quality functions are outsourced ▸ Measurable customer experience business and IT objectives are documented ▸ Outsourced function provides comparable customer experience quality ▸ Documented costs (labor, IT support, etc.), Service Level Agreements, and expectations for improvement; customer experience goals linked to business objectives ▸ Service level Agreements for customer segments and sourcing partners established ▸ Limited communication with sourcing partner to evaluate business benefits and customer experience quality	▸ Regular, scheduled communication between company and sourcing partner to evaluate business benefits and Customer Experience quality ▸ Outsourcing improves customer experience and value can be passed to customers ▸ Sourcing partner provides Customer Experience transactional information integrated with overall company Customer experience-supported architecture ▸ Customer experience business processes are completely seamless to customers, including customer IDs, transaction flows, transaction history, etc.	▸ Sourcing partner performance management metrics driven by Customer experience quality ▸ Customer experience feedback transferred between company operations and sourcing partner operations ▸ *Voice of the customer* drives process/IT improvements across company and sourcing provider ▸ Customer data transfer between company and sourcing partner ▸ Similar reporting tools and access to tools for both company and sourcing partner ▸ Customer experience improvement processes and policies documented; regularly updated with sourcing partner ▸ Mature, cross-organizational governance system

Denotes identified applicable criteria to SA Power Networks

IT sourcing options were not considered in the Technology Plan, therefore no change is predicted

Customer Experience Technology Reference Architecture

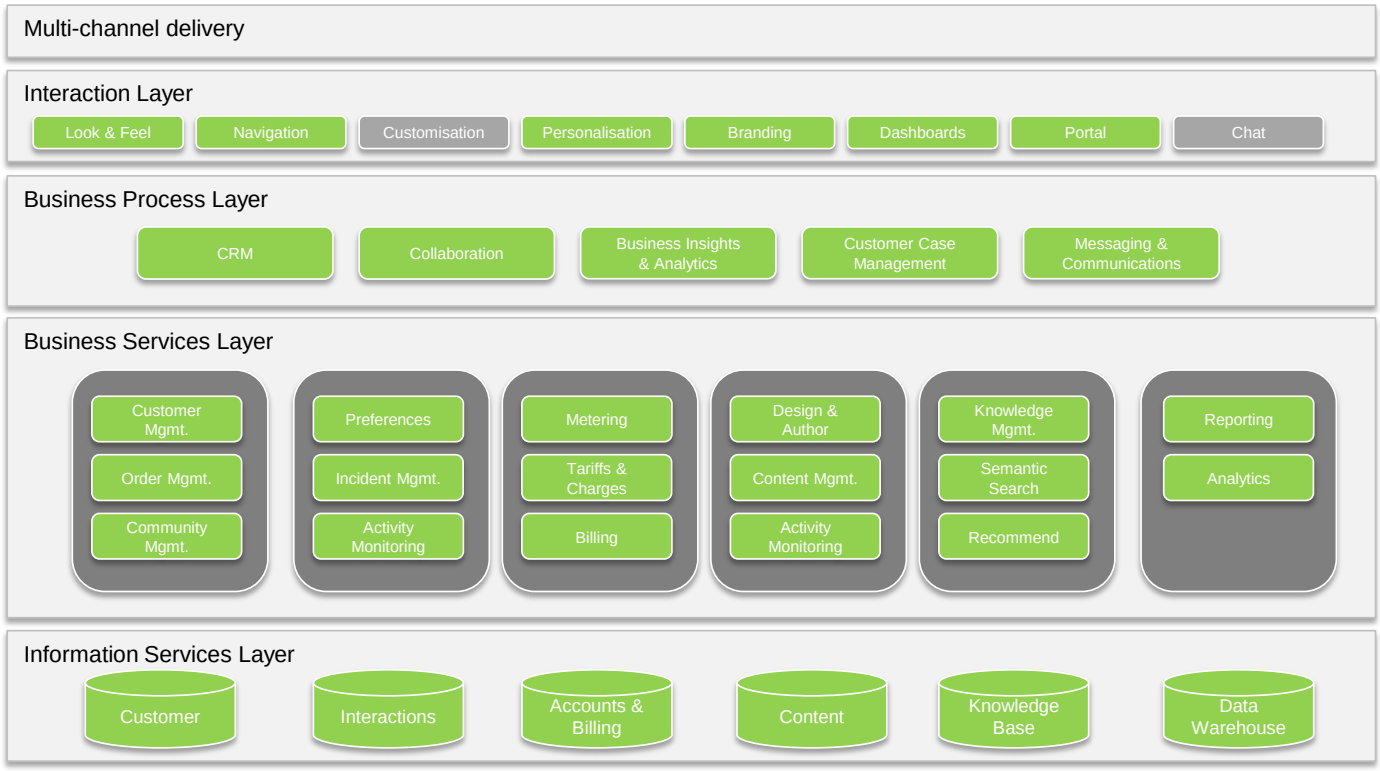
Customer requirements including experiences, interactions and touch points have been defined within the Customer Service Strategy. The Customer Technology Plan will position SA Power Networks in terms of the required IT systems and tools that must be in place to deliver on these requirements. Achieving customer experience maturity and excellence, however, will require parallel improvements in organisational ***culture and capabilities*** in order to achieve the strategic objectives and outcomes outlined in the strategy.

The diagram to the right presents a logical view of a Customer Experience Reference Architecture.

This model has been developed from a combination of the customer experience technical reference architectures from two leading technology vendors and further modified to suit the electricity distribution industry (at the Business Services and Information Services layers).

Those capabilities highlighted in green, are those that will be enabled through the implementation of the Customer Technology Plan.

This will provide the necessary technology platform to enable sound customer experience practices that can be further evolved and optimised through complementary business processes and culture.



Appendix

Glossary of terms

Term	Description
ADMS	Advanced Distribution Management System
BAU	Business as Usual
BI	Business Intelligence
CIBUS	Customer Information Billing & Utility System
CIS	Customer Information System
CIS/OV	Customer Information System Open - Vision
CMS	Content Management System (web)
CNS	Customer Notification System
CP	Connection Point
CRM	Customer Relationship Management
CS	Customer Service
CSS	Customer Service Strategy
DMS	Document Management System
DNSP	Distribution Network Service Providers
DQ	Data Quality
DW	Data Warehouse
ESB	Enterprise Service Bus
F&E	Faults and Emergencies Contact Centre
GE / B&C	General Enquiries / Builders and Contractors Contact Centres
EAI	Enterprise Application Integration

Term	Description
CX	Customer Experience
GIS	Geographical Information System
HV	High Voltage
IAM	Identity and Access Management
IEE	ITRON Enterprise Edition
IT	Information Technology
IVR	Interactive Voice Response
KMS	Knowledge Management System
LV	Low Voltage
MTS	Market Transaction System
NESS	Network Energy Sites System
NMI	National Meter Identifier
OIS	Outage Information System
OMS	Outage Management System
P@MP™	PowerAtMyPlace™
SOA	Service Oriented Architecture
SOR	System of Record
SVOC	Single View of Customer
S/W	Software
VPN	Victoria Power Networks (i.e. Citipower and Powercor)
VOIP	Voice over Internet Protocol

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