Attachment 20.49

Litmus Group:
SA Power Networks Enterprise Mobility Strategy

February 2014

SA Power Networks
Enterprise Mobility Strategy

February 2014

v4.0

Litmus group
Cordence Worldwide

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Executive Summary

Background

- SA Power Networks increasingly relies on mobile capabilities to improve productivity and customer service
- To date these needs have been largely met through individual 'point' solutions
- A more planned and coordinated approach is required to:
  - Meet business needs in the 2015-2020 RESET period
  - Take advantage of emerging mobility technology and trends
  - Direct whole of business investments and capabilities
- IT developed the draft Enterprise Mobility Strategy in Dec 2013
- This was reviewed and endorsed by business stakeholders in Jan and Feb 2014

List of Business Stakeholders who have reviewed and endorsed the Enterprise Mobility Strategy

- ✓ Casandra Durdin
- ✓ Stephen Jolly
- ✓ Steven Wachtel
- ✓ Geoff Coultas
- ✓ Mike Nation
- ✓ John Fleetwood
- ✓ Jim Carroll
- ✓ Angela Coker
- ✓ Andrew Gianarakis
- ✓ Stephen Shinnick
- ✓ Paul Farnworth
- ✓ Silvia Caricasole
- ✓ Andrew Holden
- ✓ David Woods
- ✓ Dave Ficken
- ✓ Kevin Connell
- ✓ Terry Jackson
- ✓ Simon Blom
- ✓ Adrian Panazzolo
- ✓ Frank Horvat
- ✓ Steve Tucker
- ✓ Scot Munro
- ✓ George Karlis
- ✓ Nichole Tierney
- ✓ Carolyn Morgan
- ✓ Peter Barnard
- ✓ Jay Holata

Strategic Context

- **The Enterprise Mobility Strategy was:**
  - Guided by the Future Operating Model (FOM)
  - Aligned to other business strategies, such as Customer Service Strategy and Smarter Network Strategy
  - Aligned to existing IT strategies and roadmaps

- The Enterprise Mobility Strategy will be used to guide and coordinate other strategies and business cases as these are developed.

Enterprise Mobility Strategy - Overview

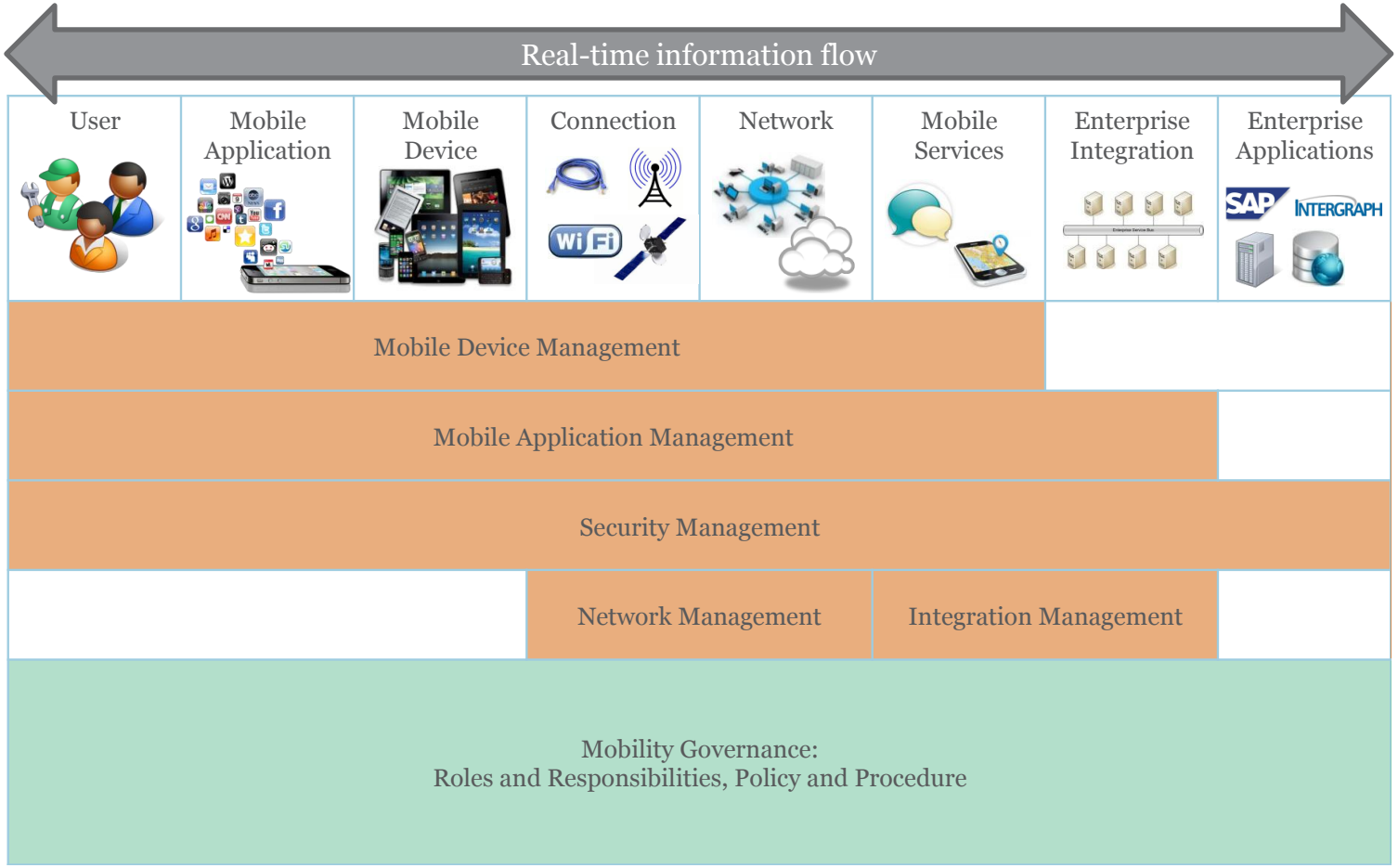
- **ENTERPRISE MOBILITY VISION:**
  To improve efficiency in our business processes and empower our people, customers and partners to capture, view and share accurate information when they need it, wherever they may be.

- **ENTERPRISE MOBILITY OBJECTIVES:**
  - Increase productivity by automating manual work and removing paper-based tasks
  - Improve the quality of asset and customer information by expanding the ability to capture and update data from the field
  - Improve customer service through improved outage reporting and self service
  - Improve safety through improved communication, reporting and spatial technology
  - Improve collaboration and knowledge sharing through near-real time access to corporate systems

- **ENTERPRISE MOBILITY STRATEGY:**
  To continue to meet the individual business units' needs while establishing an enterprise mobility capability that is unified; integrated with customer, asset and operational technologies; and able to take advantage of emerging trends.

Enterprise Mobility Strategy - Scope

- The scope of the strategy includes all layers of the IT mobility architecture, as well as the capabilities required to manage and govern mobility effectively as an enterprise-wide capability.



Enterprise Mobility Strategy - Delivery

- The strategy will be delivered in three stages through a number of individual business cases (see following slides):

Improve (Now-2016):

- Focus on adding required functionality that the business urgently needs and establishing core enterprise IT capabilities. This includes security, information, device and application management; integration; network expansion; and selecting the mobile platform.

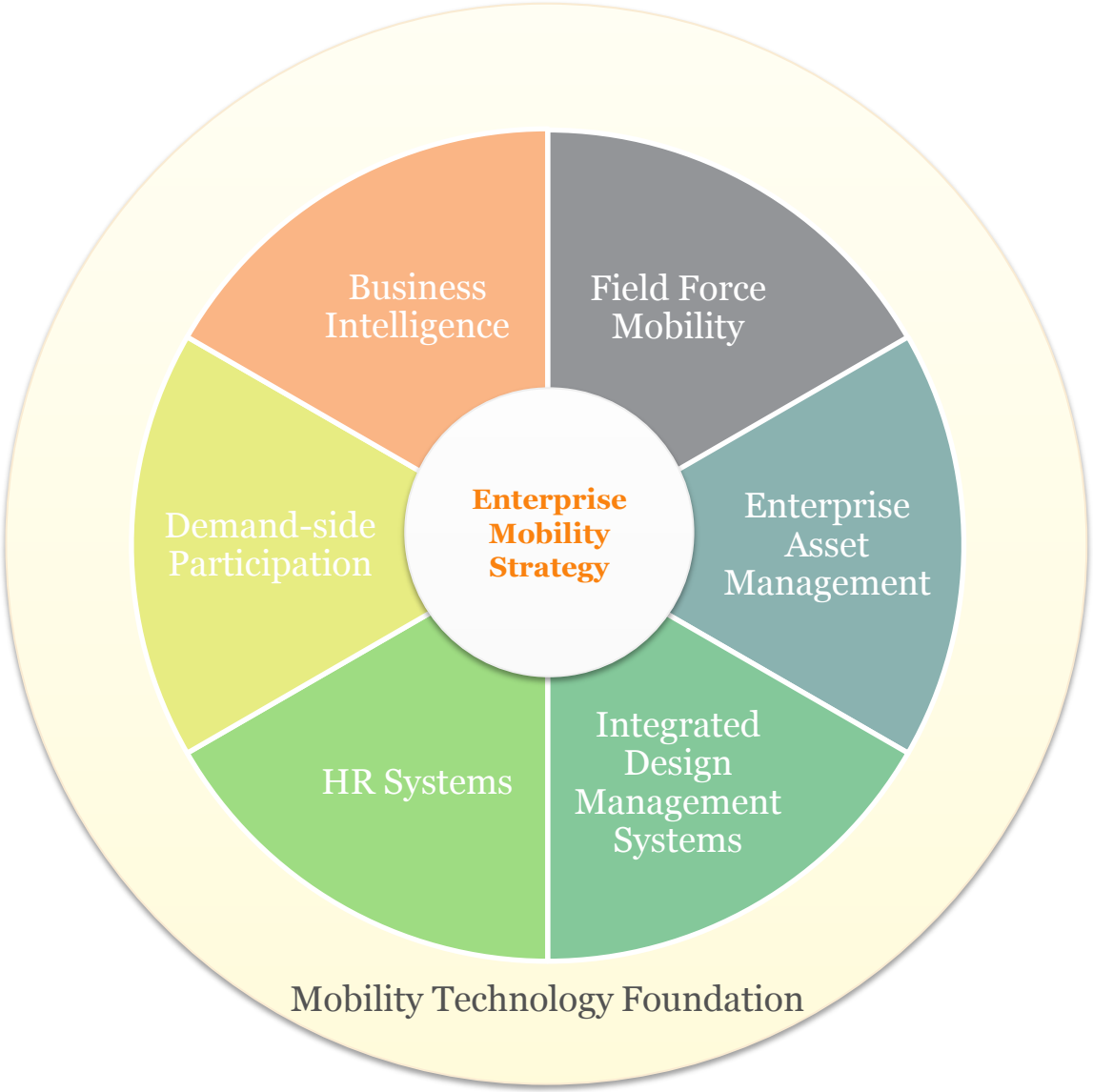
Extend (2017-18):

- Focus on expanding functionality for more advanced and integrated business needs. This includes inventory management, enhanced spatial capabilities and customer applications.

Optimise (2019-20):

- Focus on creating a seamless field-to-enterprise experience and introducing advanced functionality. This includes access to desktop tools, remote switching and integration with smart technology.

The enterprise mobility strategy helps coordinate the various mobility initiatives across the business



Field Force Mobility Business Case

Purpose:

- To enhance field force business processes and mobility capabilities.

Mobility Scope:

- **Scheduling and Dispatch Optimisation**: Improving the current scheduling and dispatch process as well as resourcing planning.
- **Crew/Employee Management**: Improving current processes around time sheeting, fatigue management and heavy vehicle driving management.
- **Works Management**: Improving work delivery and responsiveness of the field based staff.
- **Safety Enhancements**: Improving safety and compliance through safety monitoring, hazard identification, incident management and crew proximity alerts.
- **Enterprise Extension**: Allowing access to corporate systems and applications in real-time anytime and anywhere.
- **Services Extension:** Providing our vendors, customers and partners access to services and communication capabilities through a mobility device.

Mobility Technology Foundation Business Case

SA Power Networks

Purpose:

- To provide the foundation technology to support the quality, timeliness and efficiency of service delivery and operations for mobility.

Mobility Scope:

- **Mobile Device Management**: a solution to secure, monitor, manage and support mobile devices deployed across the enterprise.
- **Mobile Application Management**: a solution to provision and control access to applications on mobility devices.
- **Security Management**: a solution to ensure that information security risks or threats are sufficiently mitigated for compliance.
- **Network Management**: a solution to securely and safely deliver information over private and public networks.
- **Integration Management**: Implement a fully service-based infrastructure – decoupling information from Applications layers.

Enterprise Asset Management Business Case

Purpose:

- To enhance asset management business processes and mobility capabilities.

Mobility Scope:

- **Asset Data and Condition Data Capture**: Improving the integration between field and back-office to improve the efficiency in updating enterprise asset systems with correct data.
- **Asset Augmented Reality and Intelligence**: Providing field crews with relevant real-time asset information in the field in order for them to make informed decisions.
- **Condition-based risk management**: Enabling field crews to make maintenance decision based on given parameters and performance criteria as well as a risk framework.

Other Business Cases and Roadmaps

Business Intelligence Business Case

- ***Business Intelligence in the field*:** Providing the ability to access Business Intelligence dashboards and reports through mobility devices.

Demand-side Participation Business Case

- ***Intelligent Network enhancements*:** Providing the ability remotely energise and de-energise customer connections.

HR systems Business Case

- ***Electronic Passport*:** Providing the ability to access staff training qualifications, certifications and licences (electronic passport) through mobility devices.

Integrated Design Management system Business Case

- ***Design Drawing capabilities*:** Providing the ability to mark-up or red-line asset or drawing information using a mobility device.

Other Business Cases and Roadmaps (2)

Integration Business Case

- ***Integration Layer*:** Integrating systems and applications through an enterprise service bus (Service-oriented architecture)

Advanced Distribution Management System (ADMS) project

- ***Electronic switching sheets*:** Providing the field force with the ability to view electronic switching sheets using a mobility device

Borderless Network Program

- ***Network expansion*:** Providing the technology components to allow for connection to SAPN's corporate systems irrespective of location and device.

SAP Roadmap

- ***SAP ERP system*:** Providing the back-end system and functionalities (asset and work order information) that is required for mobility solutions.

The following mobility capabilities will be enabled for Field Services and CaMS

Dec 2015

- Submit time sheets, leave requests
- Improved Fatigue Management
- Automatic work status updates for planned work using vehicle location
- Simplified user interface
- Single dynamic (near real-time) view of planned and un-planned work

Dec 2016

- Street level routing intelligence in works scheduling
- Spatial view of schedules, availability and location
- Near real-time hazard and safety information
- View and update customer information

Dec 2017

- Expanded access to corporate systems
- View inventory stock levels and record usage
- Capture driving behaviour
- Submit Audit & observation reports

Dec 2018

- Electronic job folders
- Messaging from crew to crew, crew to depot
- View spatial asset and drawing information
- Mark-up or redline asset drawings and feeder-plans

Dec 2019

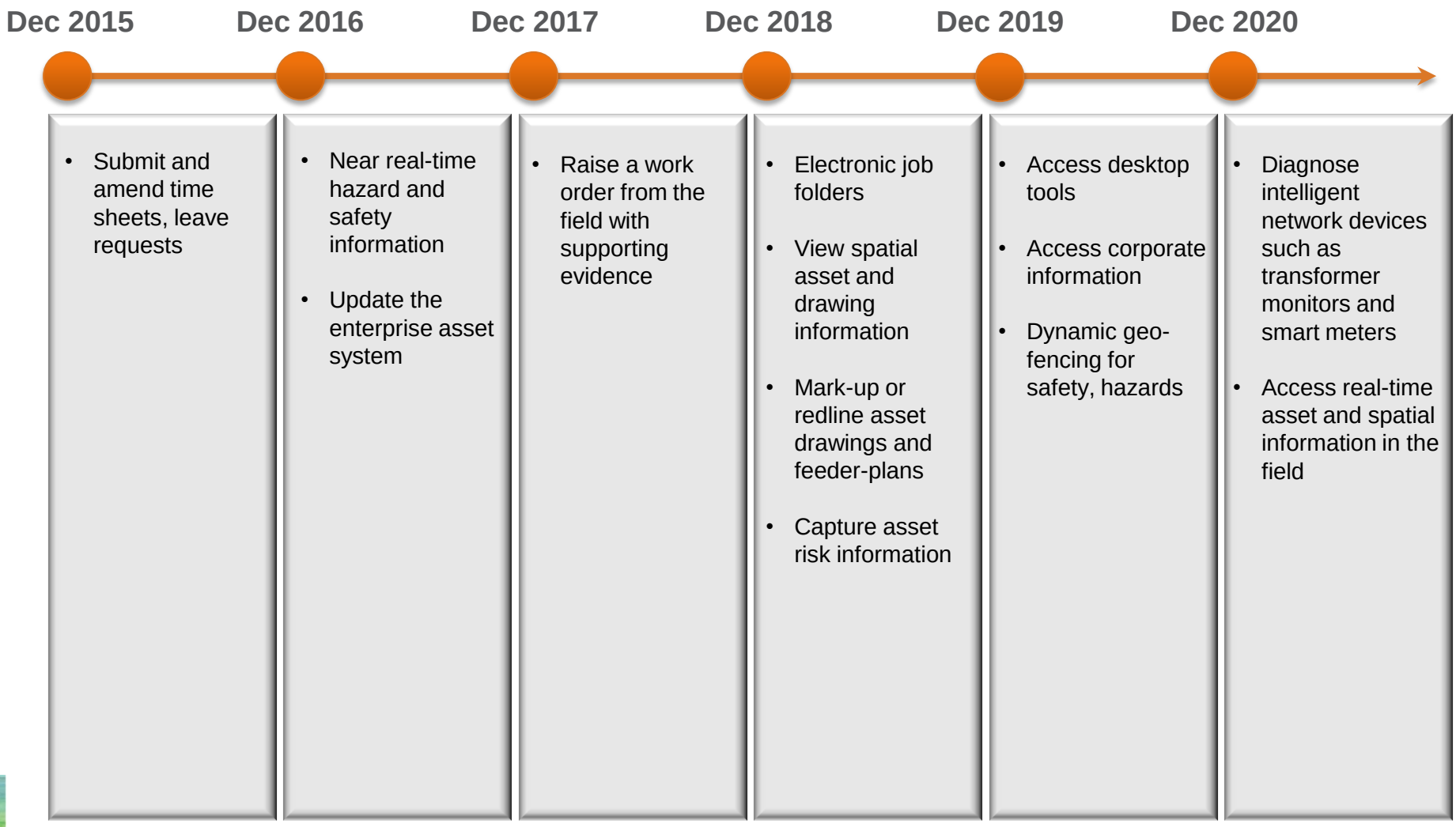
- Access desktop tools (e.g. online approvals)
- Dynamic geo-fencing for safety, hazards

Dec 2020

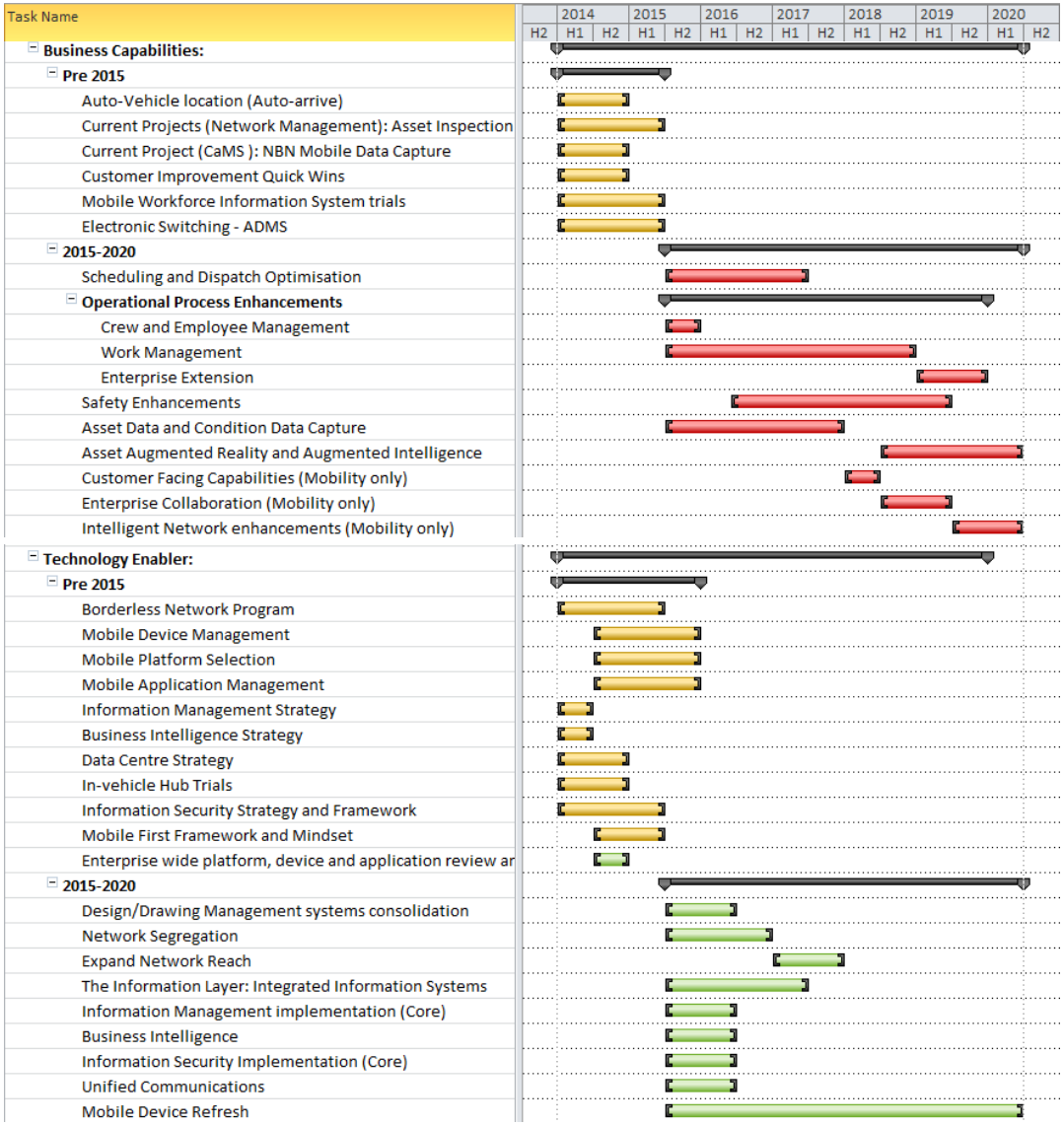
- Remotely energise and de-energise customer connections

Note: Some capabilities are not as important for CaMS.

The following mobility capabilities will be enabled for Network Management



Key Initiatives



These initiatives are extracted from the Enterprise Mobility Roadmap.

They show the key projects and programs that will be delivered over the 2015-2020 RESET period.

Section 1

Introduction

Section 1: Introduction

The concept of Mobility refers to staff, customers, suppliers and vendors completing their activities or interacting with each other whist away from their desks or offices.

- Mobility is focused on the ability to manage, execute, monitor and analyse work in or while on the field through leveraging technology such as mobile devices, tablets, wireless networks and related services
- Our definition of Mobility provides a broader, more holistic solution in managing the most important asset of any company, i.e. the field personnel, alongside strategy, processes, policies and data and aligning this often overlooked, yet essential building-block, with technology
- Extending the boundary of the organisation, Mobility also includes the two-way interactions and information exchange between the business and its customers, vendors and other third parties.

Mobility integrates mobile and back-office capabilities with workflows to deliver significant benefits

Mobility enables you to → Increase workforce productivity
Improve speed/ quality of data
Exceed customer service
Increase ROI → **Anytime, Anywhere
Where it matters most**

	Mobile & Back-office Capabilities Integration	Benefits for Utility Organisations
Executive Management 	**Rapid delivery of data** where it matters most, i.e. point of activity/ decision for analysis of **assets**, **service performance**, **customers**, **financials**, **regulatory risks**	▪ Better informed **performance analysis** ▪ Deferred **capital expenditure** ▪ Reduced **regulatory** fines
Maintenance & Operations 	**Standardised and streamlined core operational processes** to drive **seamless information flow** to front-line employees	▪ Increased lifespan of **assets** ▪ Improved **network** management ▪ Speedier **parts orders and delivery** ▪ Faster response to change in **demand/ supply**
Customer Service & Support 	Meet **customer expectation for immediacy** in queries and resolution. Brings **customer closer to provider** to efficiently consume services	▪ **Real-time resolution** of customer queries ▪ Get ahead of **outages**, incidents and failures ▪ Monitors **consumption** levels ▪ Shortened **billing and collection** cycles
Finance & Human Resource 	**Increases ROI** through reduction in operational costs and improvements in **workforce productivity**	▪ Increased **ROI** through reduced service costs ▪ Reduced **safety** incidents ▪ Shortened **work cycles** ▪ Easier **recruitment** and training

Section 1: Introduction

The Mobility Strategy and Roadmap will be used to set the direction and guide the required Mobility investments

In alignment with SA Power Networks Strategic Plan 2013-2017, the purpose of this strategy is:

Business Strategy

- To establish a whole-of-business strategic direction for Mobility for 2020

IT Strategy

- To establish the IT strategic direction that will support the business strategy through enabling technologies

Mobility Roadmap

- To establish the roadmap that shows the pathway for investments that supports 2020 Mobility Vision

Mobilisation Plan

- To provide SA Power Networks with a tangible 120-day plan to mobilise the organisation to be ready to implement this strategy

Business drivers for Mobility are aligned with SA Power Networks Strategic Plan 2013 - 2017

Strong customer and stakeholder relationships

- Customers increasingly value self-service technologies and mobility
- Customers expect accurate and timely information through mobility, specifically on outage events, electricity consumption and general engagement

The cost efficient service provider

- Increasing availability of mobility technology to improve efficiency on the field
- Increasing need for mobile solutions for accurate and timely asset data capture
- Field force automation
- Improving asset and maintenance planning, management and execution

Safety in all we do

- Strive for a safety culture of zero harm
- Enable real-time incident and near misses reporting
- Improving fatigue management
- Enable location-based hazard information retrieval and notification

Working and leading as a united, energetic and highly skilled organisation

- Increasing expectations to provide employees with access to applications and information anywhere anytime
- Increasing availability of mobility technology to enable organisation collaboration and knowledge sharing anywhere anytime

Section 1: Introduction

SA Power Networks has progressed in some mobility areas as driven by specific business unit needs, rather than a whole-of-business needs

- There was no one document that outlines the organisation vision for Mobility.
- Some documents that outline mobility directions and requirements exist. These are specific to the needs of the business unit. E.g. Customer Technology Plan comprehensively describes the mobility requirements from Customer Service.
- Field Services Strategy component needs a refresh
- IT Mobility Strategy needs to tie to business outcomes
- A number of Mobility-related projects are underway and these are contributing to the realisation of the strategy

Initial analysis showed that the Mobility initiatives at SA Power Networks have been tactical and siloed in nature

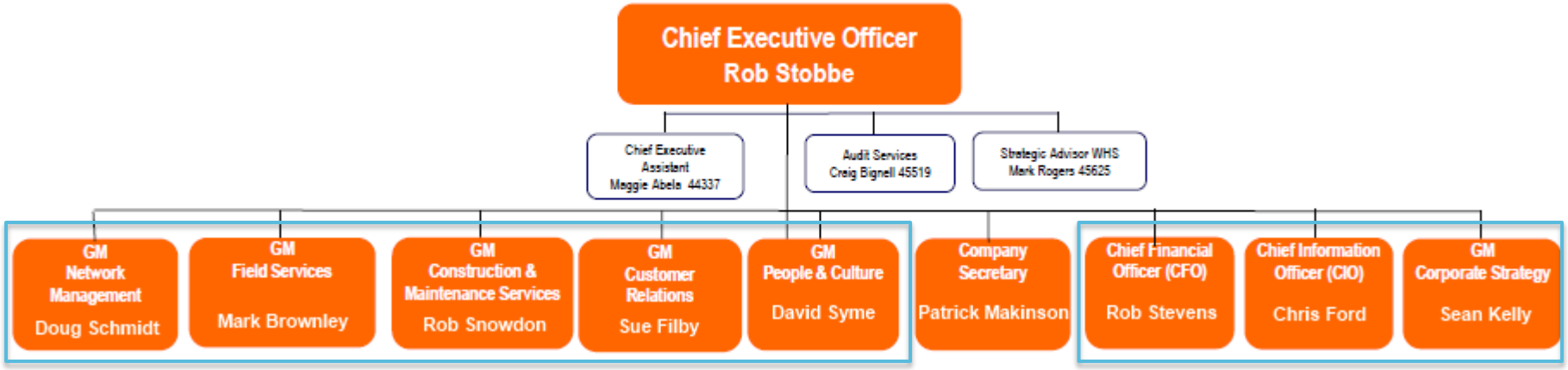
Domain	Status	Comments
Vision and Strategy		Mobility vision for the following business units exist: Customer Service, IT and Field Services. A holistic vision for the organisation needs to be developed. Some vision needs to be refreshed. Need to review other business units with mobility requirements, e.g. Corporate Service for staff engagement and collaboration. Need to investigate if internal governance and internal processes exist for Mobility.
Organisation and Structure		Need to seek more information on this. Current documentations have minimal information on this.
Technology		IT Mobility Roadmap outlines the basic technology capabilities required for mobility.
Customer Engagement & Management		Contents in this area as outlined in the Customer Technology Plan are sufficient and up-to-date for Reset. Need to cross-reference for potential impacts to other business units.
Works & Asset Management		Field Service Mobility Strategy needs a refresh.
Enterprise Management		The IT Mobility Strategy mentions the capability to deliver applications and information to any device, anywhere. However it is not clear on the expected business outcomes nor the specific of the requirements.
Safety & Environment		Unable to find materials on this or on whether it has been considered at all. *23/10 update* – Fleet Management is trialling the safety devices on fleet to manage compliance and fatigue. More integration with Field Services is required.

 No evidence of information present

 Incomplete or misaligned information

 Satisfactory information for future roadmap

Mobility initiatives exist in various areas in the business with some examples provided below



- ADMS Data Capture
- Asset Inspection Mobilisation

Various Field Mobility improvements
- Click upgrade
- Field View replacement

- NBN Data Capture

- Customer Facing Capabilities (quick wins)
- Consolidate customer apps

- eLearning

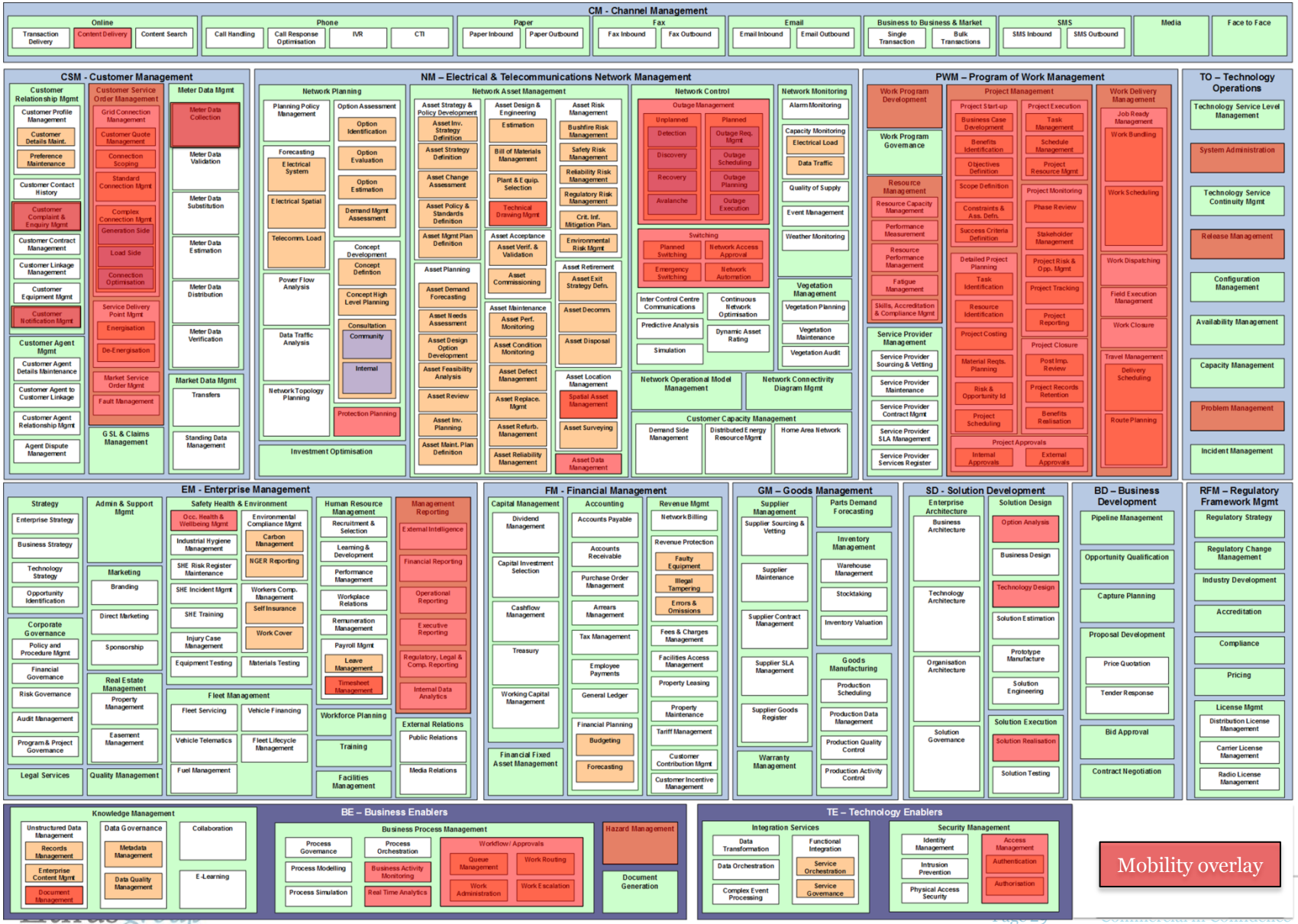
- Safety device for fleets

- Borderless Network program
- iPhone rollout

- WMP

Mobility initiatives exist in this area of the business

Mobility initiatives currently exist across many Capabilities within the SA Power Networks' Business Capability Model



As a result, there was a lack of strategic direction on Mobility resulting in lost opportunities, increased costs and increased technology complexity

- There were potential gaps and overlaps in business requirements relating to mobility
    - For example, at face value, multiple mobile applications and devices are currently used for asset inspections.
    - This is causing a higher cost with having to maintain and support multiple (similar) applications and devices.
- There were potential gaps and overlaps in effort in realising the business benefits
    - Having multiple of similar applications creates a technology complexity, e.g. integration requirements, upgrade path etc.
    - There might be a lost opportunity in not having a strategic partnership with a select number of vendors
- There was limited visibility of initiative roadmap for Field Services beyond 2013
- There was lack of clarity on how the activities in the current roadmaps will contribute to business outcomes and strategy

An enterprise-wide strategy for mobility is required to ensure strategy alignment

- Leverage existing strategies from Corporate, Field Service, Customer Service and IT to develop an integrated strategy and to maximise the value of mobility to the business

- Use Litmus' Mobility Maturity Model and Mobility Solution frameworks to –
  - Organise existing business and IT strategies and other mobility related documents into one cohesive whole
  - Assess and identify any gaps in the strategy as well as the roadmap to realise the strategy

- Review and update Roadmap to meet corporate investment frameworks based on the following criteria:
  - Prudence and efficiency
  - Completeness
  - Deliverability
  - Prioritisation
  - Inter-dependencies

Section 1: Introduction

An accelerated approach was used to develop a fit-for-purpose strategy to satisfy the Price Reset timeline and requirements

23 Sep — 30 Sep — 25 Oct

Framework Development → **Gap Analysis** → **High level Strategy Update** → **High level Strategy Review**

Agree next steps

- Collate and review all documentations
- Conduct interviews with key stakeholders
- Define the Mobility Strategy Review Framework

Tools

✓Litmus' Mobility Maturity Model

✓Litmus' Mobility Solution Framework

✓Portfolio and Project Management principles

- Review and assess Mobility Strategy against the review framework
- Identify gaps
- Recommend and agree on next steps
- Define deliverable and acceptance criteria

Traffic Lights

- No evidence of information present
- Incomplete or misaligned information
- Satisfactory information for future roadmap

Depending on the outcomes of gap analysis and agreed next steps –

- Develop template
- Incorporate existing materials
- Engage stakeholders to collate content gaps
- Make necessary updates to the strategy to ensure:
  - ✓ Alignment with corporate strategy
  - ✓ Alignment with individual business unit strategies
  - ✓ Ready for Reset
  - ✓ Accountability and responsibility for implementation

- Engage stakeholders for strategy review
- Validate initiative list
- Validate against relevant corporate strategies

Deliverable

✓SA Power Network Integrated Mobility Strategy and Roadmap

The strategy and roadmap were developed using proven frameworks to provide insights, leverage others' experience and set realistic goals

1. Assess ***Mobility Strategy*** against Litmus' Mobility Maturity Model (MMM)

Goals:

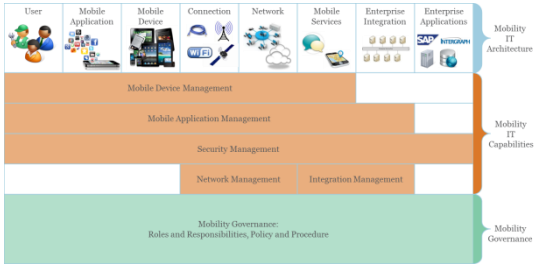
✓ Confirm strategy alignment

✓ Identify gaps in business requirements

2. Assess ***IT component of Mobility Strategy*** against Litmus' Mobility Solution Framework and technology trends

Goals:

✓ Identify gaps in IT capabilities



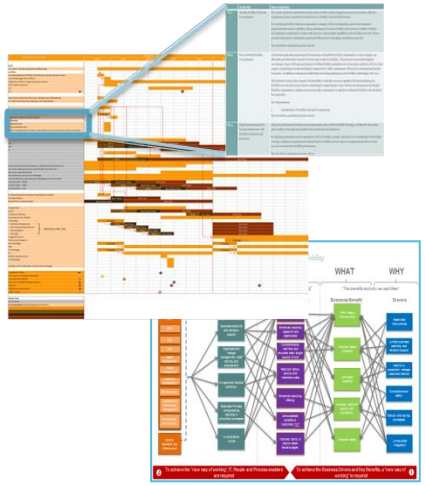
3. Assess ***Mobility Roadmap*** against key Reset requirements and general Portfolio Management principles

Goals:

✓ Identify initiative gaps

✓ Confirm prioritisation of initiatives

✓ Outline benefits dependency network

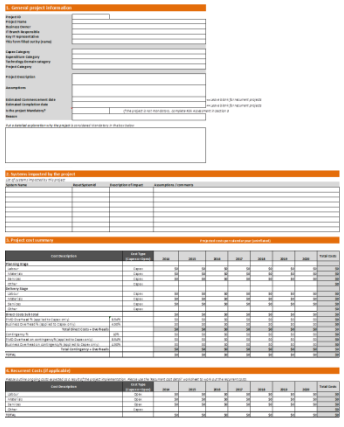


4. Assess ***individual Mobility initiatives*** against Reset IT forecasting methodology and general Project Management principles

Goals:

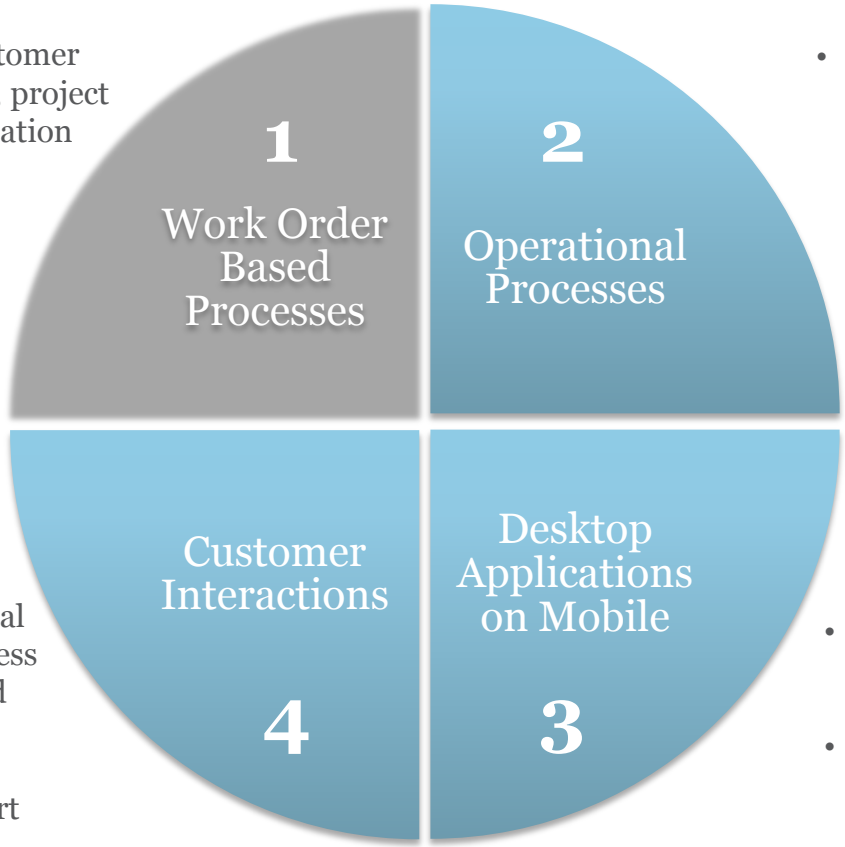
✓ Identify gaps and overlaps in initiative details

✓ Confirm initiatives are linked to strategy



Enterprise mobility can be categorised into four broad types of mobility transactions that enable customer interaction and field staff to complete their work effectively

- Work order processes typically restricted to the mobility platform
- E.g. ticket to work items - customer connection, faults, inspection, project execution, smart meter installation



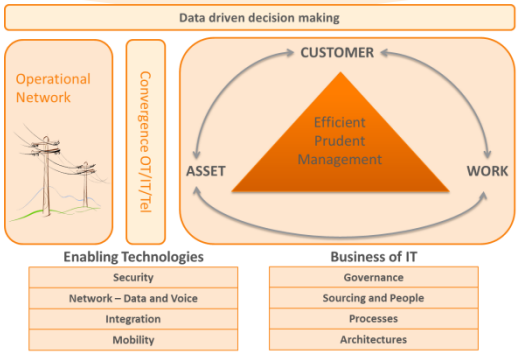
- Non-work order processes, operational in nature
- E.g. inventory and warehouse processing, fleet management, project management tasks, field resource management, asset management, risk and compliance processes

- Provide customers and external stakeholders the ability to access relevant information and send information through their mobility devices
- E.g. outage notification, report faults and outages

- Enables staff to interact with office-based platforms while off-desk
- E.g. email, video conference, document access, employee / manager self-service

Within SA Power Networks, the use of mobility can be categorised into five areas as aligned with the IT Reset Benefit Framework

Customer Management	Works Management	Operational Network	Asset Management	Enterprise Management
• Outage notification • Reporting public lighting fault • Customer self-service	• Service order • Customer connection • Fatigue management • Inventory management	• Electronic switching	• Asset inspection	• Email and calendar • Timesheet • Leave management • Intranet • Mobile fleet management

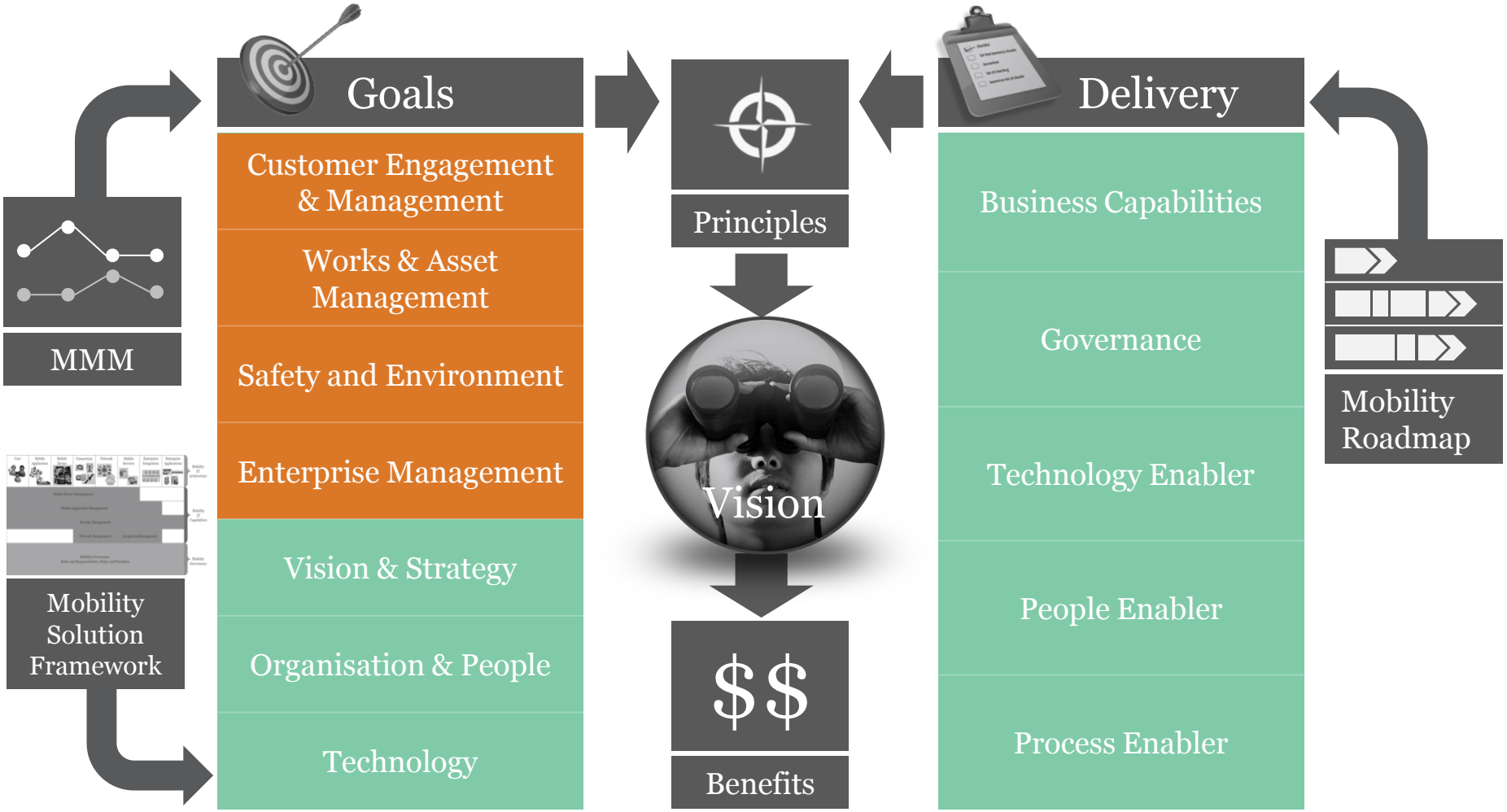


Section 1: Introduction

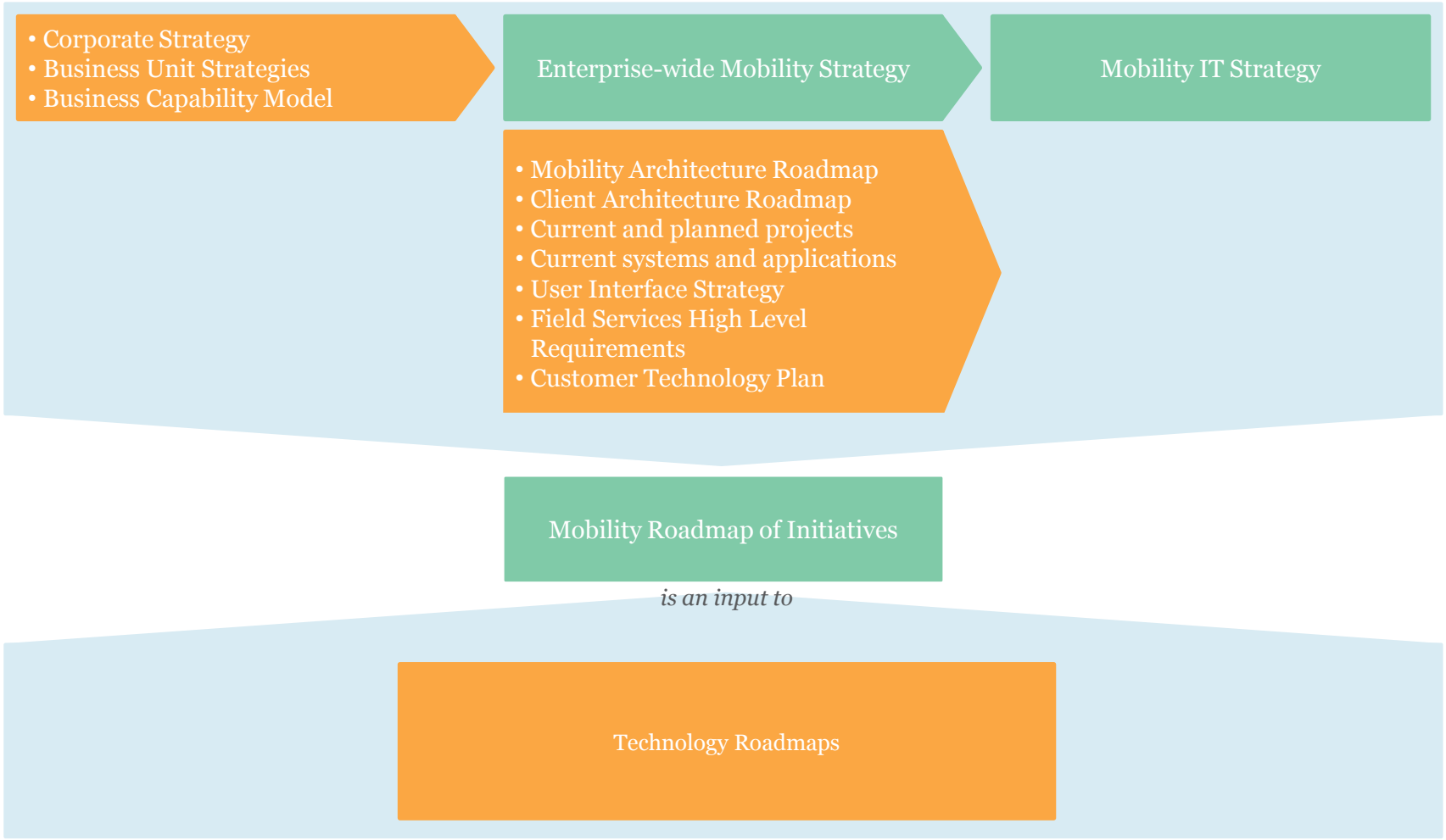
The Mobility Maturity Model (MMM) was used to structure the strategy and roadmap

- The MMM is Litmus' IP that was developed based on our industry experience, knowledge and external research, using the same principles as the capability maturity models by Carnegie Mellon
- The MMM was used to define the SA Power Networks' current and target state maturity levels
- The Mobility Solution Framework was used to identify IT capabilities required to achieve the target state MMM level
- This led to the development of:
    - A **Vision** statement and target maturity levels
    - A set of **Goals** designed to close the gaps
    - A set of **Principles** to guide and align decisions
    - A **Roadmap** to achieve the goals
    - Indicative **Benefits** aligned to the corporate strategy

The structure illustrates the various components of the strategy and how they fit together



Various documents were used as input to the strategy. The roadmap will need to be further developed to align with the technology roadmap and business cases.



Section 1: Introduction

Mobility is one of today's most prominent business trends

A study on 580 organisations report that Enterprise Mobility has measurable impact on ***workforce productivity***, where 75% of best-in-class organisations have ***increased Mobility spend*** and 76% of IT leaders expect it to deliver ***highest organisational impact***

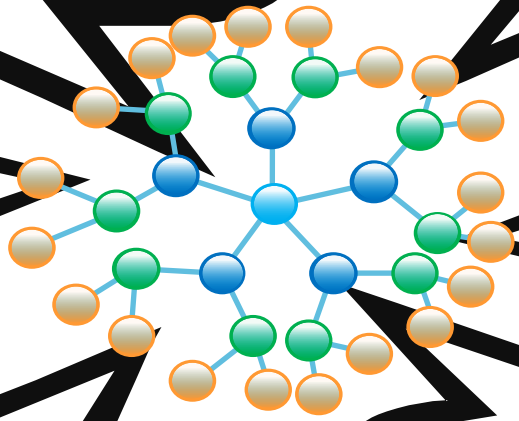
- Aberdeen Group (2012)

Growth in the global mobility industry is on an upward trend, shaped by an ~40% CAGR in smart phone adoption over a period of 5 years from 2005 to 2010

- Accenture (2011)

46% of 1,500 IT leaders in 2012 expect the ***top benefits*** of mobility initiatives to be increases in ***employee productivity*** and ***internal customer satisfaction***

- TEKsystems (2012)



Workforce productivity, customer demand for faster service and need to control and ***reduce service costs*** are the top 3 Field Mobility aspirations of entities

- Aberdeen Group (2008)

More than 1.9 billion workers ***(39.4% of global workforce)*** will use mobile technology by 2013. As of 2010, mobile workers spend ***25-35% per work day in the field interacting*** with portable handheld assistants

- SAP (2012) and J. Gold Associates (2010)

Key barriers to success of the Mobility Management implementations is the ***lack of necessary staff, insufficient budget allocation*** and a ***lacking enterprise-wide strategy***

- BusinessWire (2012)

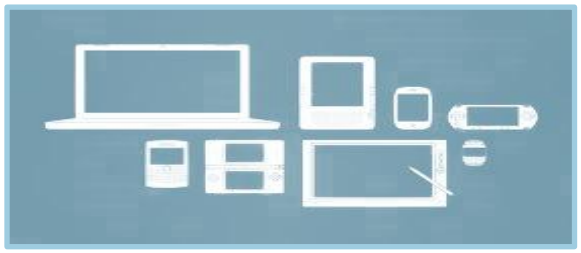
Observation from the mobility market shows some general directions that were taken into account in this strategy (1/3)

Shift from products to platforms

- Over the past 10 years, mobile solution development has shifted from standalone applications to mobile enterprise applications platforms (MEAPs)
- These allows developers to build solutions that can be adapted for multiple devices and can be more easily configured to meet specific requirements (industries, organisations, processes, data)

Increases flexibility and broadens the options for device selection and solution configuration

Shift from specialised enterprise device to consumer devices



- Technicians traditionally used ruggedised laptop computers or specialised devices to access their work orders, these often have fewer technology features than more portable smartphones or tablet 'consumer' devices
- Staff often have personal devices that are more capable than corporate issued ones

A range of devices are compatible with market solutions, thus devices can be matched to requirements

Narrow industry focus

- Allows deep specialisation and 'out of the box' processes for specific contexts
- Examples of vendors such as Ventyx and ViryaNet (focus in the utilities space)

Reduced customisation and development work as compared to general solutions

Observation from the mobility market shows some general directions that were taken into account in this strategy (2/3)

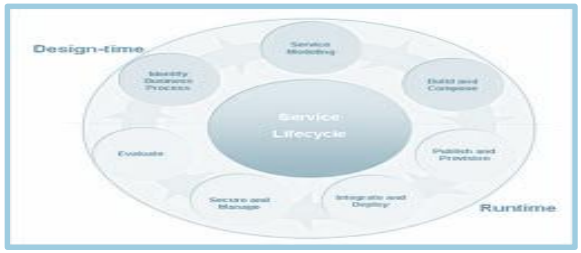
SA Power Networks

Software as a Service (SaaS)

- "Renting" rather than purchasing software
- Aligned with the growth in use of web based technologies
- Lowers initial investment barriers and reduces IT CAPEX investments
- Security and reliability are key, as is latency and data integration

Allows different investment models to be considered during the business case and can offer accelerated feature delivery

Solutions expanding to broader service life cycle management



- Field service is one part of a larger service delivery ecosystem and solutions have been gradually expanding to offer integrated solutions, extending into areas such as inventory management, social collaboration, analytics and reporting, customer self service, contractor management, etc.

Allows for new process improvement opportunities and operating models to be investigated

Vendor consolidation

- The emergence of vendors that provide (through acquisition) majority of an end-to-end suite, although not necessarily with all components being best-in-class
- ERP vendors are often considered to be part of this trend, looking to build solutions across a number of industries

Improves the offering from mainstream players, and potentially enables vendor relationship consolidation

Observation from the mobility market shows some general directions that were taken into account in this strategy (3/3)

Large number of niche vendors

- Drivers of innovation, such as automation of new processes or integration with existing applications
- Offer application frameworks that are good alternatives for many organisations that want to innovate their processes, while leaving their back-end systems largely unchanged
- Many of these vendors are targeting smaller businesses (or unique business units) rather than only enterprise scale

Common selection criteria and considerations for organisations

- Selection comes down to life cycle management, durability, serviceability, overall total cost of ownership
- Common considerations are use environment, connectivity, peripherals, battery life, training, security, screen size

Rapidly moving range of capabilities allows for new process improvement opportunities to be investigated

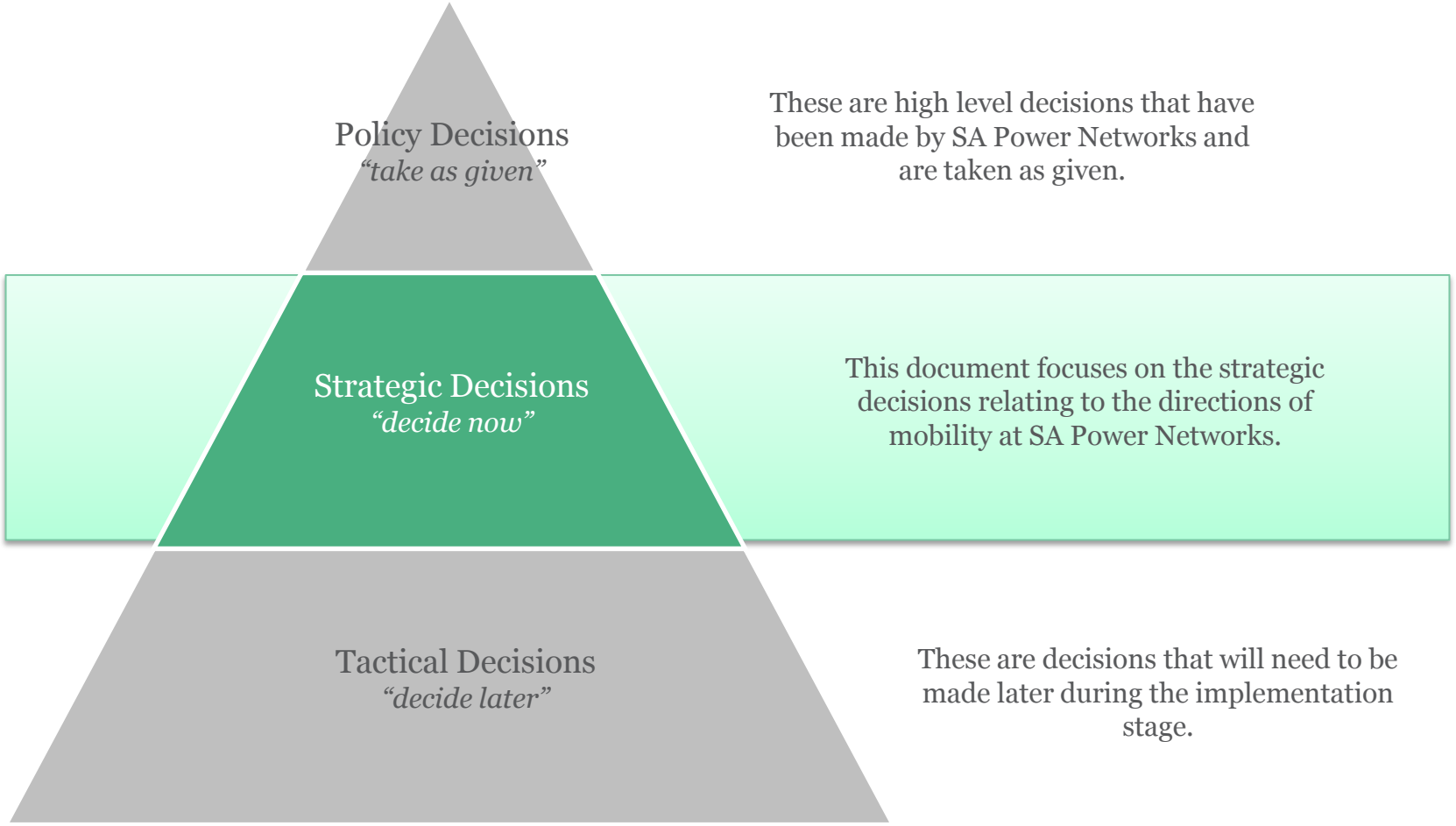
Wide range of research to validate the solution assessment framework and approach

Other Trends in the Mobility Solutions

- Mobile Workforce Management
  - Provide real-time field intelligence and customer insights
  - Provide augmented intelligence enabled by wearable devices
  - Ability to capture customer feedback on site
- Mobile Asset Management
  - Tracking of assets throughout their lifecycle by understanding assets' current state from build, operate to dispose
  - Access to real-time databases and asset management plans
- Mobile Performance Dashboards
  - Provide interactive capability to analyse past data to predict the future
- Mobile Collaboration
  - Between employees, customers, suppliers, vendors and partners
  - Includes enterprise social network and video conferencing
- Mobile Training
  - Provide just-in-time training to enable task execution
- Mobile Distributed Management System
  - Connected with big data analytics to predict expected load, to be fed back internally and to customers
  - Drones-enabled inspection that fed directly to mobile devices of employees and customers

Section 1: Introduction

The development of this strategy is guided by a number of decisions



These are high level decisions that have been made by SA Power Networks and are taken as given.

This document focuses on the strategic decisions relating to the directions of mobility at SA Power Networks.

These are decisions that will need to be made later during the implementation stage.

Policy Decisions – *"take as given"*

Decision	Rationale	Implications
Contractors will use the SA Power Networks mobility solution.	• SA Power Networks maintains close control of data. • SA Power Networks retains full control of mobility improvements. • SA Power Networks has transparency of contractor work.	• SA Power Networks must capture a return from the investment in mobility solutions resulting from contractor work efficiencies. • SA Power Networks must provide training to contractors on the use of mobility solutions. • SA Power Networks will need to transition in the contractors currently not using SA Power Networks mobility solution.
SAP is the enterprise asset management system.	• SAP is the major system that holds most of SA Power Networks's asset information.	• The asset-related mobility solutions must integrate with SAP. • SAP is the source of truth for all asset related data.
Mobility strategy must take into account both company-owned and employee-owned (BYOD) devices across the organisation, as well as mobile devices owned/used by customers and external third parties.	• Some mobility transactions will need specialised mobile devices that will be provisioned and managed by SA Power Networks. • Some mobility transactions will be performed using user-owned devices.	• SA Power Networks must have clear policies to differentiate the process of managing both company-owned and non company-owned devices. • Mobile device management framework must be able to cater for scenarios for any type of devices.

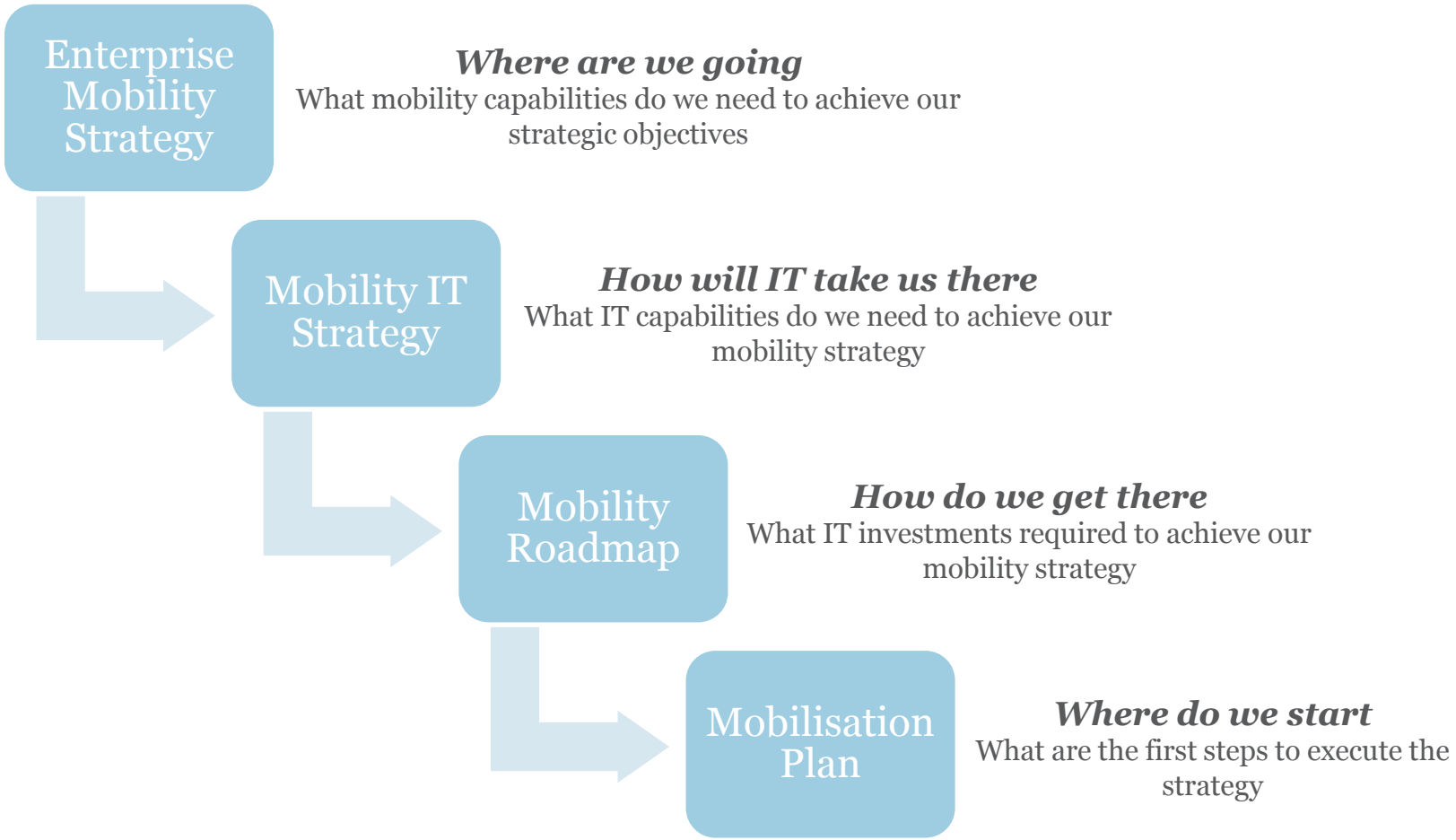
Strategic Decisions – *"decide now"*

Decision	Rationale	Implications
We will integrate our existing mobile applications for customers * **as per Customer Technology Plan*	• There are currently 4 separate mobile applications available for customers	• Consolidating all of our customer mobile applications will improve customer service and reduce maintenance costs
We will align all of our mobility initiatives	• Mobility initiatives at SA Power Networks are generally ran in silo, within a specific business unit • There are many active mobile applications performing similar business processes	• We need to establish a mobility governance framework to optimise investment and vendor relationship in this area
CIO will be the owner of SA Power Networks' Mobility Strategy	• Various business units at SA Power Networks have their own mobility requirements • In most instances, IT will be the business unit to deliver on these requirements	• IT will play a proactive role in facilitating discussions and decisions on mobility capabilities • Mobility governance needs to include representatives from all business units at SA Power Networks
We will establish the Mobility Governance structure	• There are many in-flights and planned mobility initiatives across the organisation	• A coordination across these initiatives is required to ensure optimal investment decision

Tactical Decisions – *"decide later"*

Decision Required	Accountability
For each mobility initiative, appoint a person responsible for delivering the initiatives	Mobility Strategy Owner
Define the structure of the Mobility Implementation Office (MIO) and how it relates to current PMO	Mobility Strategy Owner
Define how the non-IT initiatives in the Mobility Roadmap will be managed, e.g. Organisation Change Management	Mobility Strategy Owner
Define the mobility governance structure that will incorporate roles and responsibilities from across the business and all of mobility-related decision making process	Mobility Strategy Owner
Review the use of currently available networks and identify opportunity for rationalisation and convergence; with the goal to simplify the operate model	Mobility Strategy Owner
Review current mobile applications and decide pathways to move to target state mobility architecture	Mobility Strategy Owner
Review current Airwatch solution for opportunity to leverage as an enterprise mobile access gateway and investigate alignment with other initiatives	Mobility Strategy Owner

This document consists of four key sections to achieve the desired business outcomes



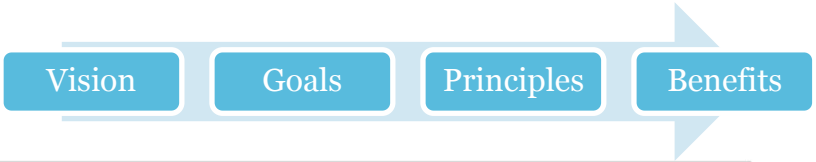
Section 2

Enterprise Mobility Strategy

Section 2: Enterprise Mobility Strategy

This Enterprise Mobility Strategy consists of four main components

- The Vision is defined by:
  - A vision statement
  - Goals and Stretch Targets on each domain of the MMM; and
  - Specific written Goals designed to close the gaps in each domain
- How SA Power Networks will achieve the goals and vision is guided by:
  - Principles that set a clear direction and framework for decisions;
  - Constrained options to guide decisions; and
  - Specific recommendations that deal with key strategic issues
- The principles are based on rationale from:
  - Existing business unit strategies and technology plans
  - Leading industry practices and external expertise
  - SA Power Networks experience and lessons learned
- Benefits show how mobility contributes to the Corporate Strategy
  - High level benefits are identified
  - Benefits will be described in Business Cases and will be in addition to those already identified

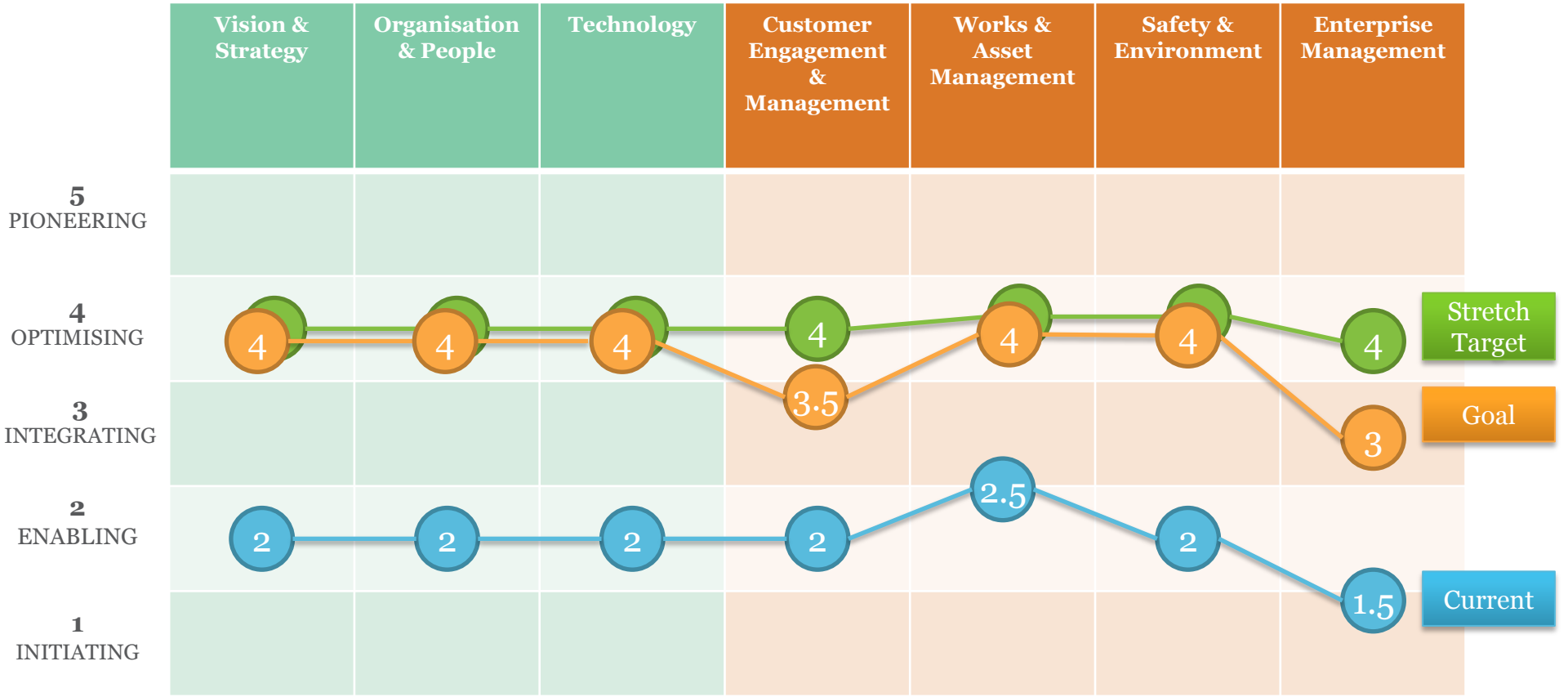


Section 2: Enterprise Mobility Strategy

Enterprise Mobility 2020 Vision

"To improve efficiency in our business processes and empower our people, customers and partners to capture, view and share accurate information when they need it, wherever they may be."

Enterprise Mobility 2020 Target State Capability



Assessment of Current State was based on existing documentations and stakeholder interviews
Goal and Stretch Targets were based on existing corporate and business strategies and stakeholder interviews

Note: Please refer to the Appendix for maturity model details.

Section 2: Enterprise Mobility Strategy

Enterprise Mobility 2020 Goals - Enablers

Vision & Strategy

- Mobility Strategy will align with Corporate and individual business unit strategies
- Mobility Strategy is understood and agreed across the business
- Mobility Strategy is signed off and agreed by all of the business unit owners
- Mobility Strategy will make for more effective cross-business decision making and governance
- Clear ownership and accountability for delivering the Mobility strategy
- Demonstrate value for money investments and tangible benefits

Organisation & Culture

- Leverage mobility to improve the way people work
- Create positive perception and adoption of changes across the business
- Ensure mobility support function is in place
- Ensure end-to-end process design and conformance to relevant standards
- Increase access to real-time information and learning materials to enable staff to solve problems and make decisions in the field / off-desk
- Increase ability of all staff to perform their work off desk
- Implement Mobility Governance
- Align performance plans with Mobility milestones and initiatives
- Create a culture of continuous improvement in Mobility capabilities
- Leverage mobility to replace paper-based processes and reduce duplication

Technology

- Mobility IT Architecture is aligned with Mobility Strategy
- Establish foundational capabilities, including integration to enterprise systems that allows mobile access
- Design an enterprise wide , fit-for-purpose Mobility solution that balances business needs
- Mobile device selection to be based on roles to be performed (consider portability and type of transaction to be performed)
- Design and build a secure mobility solution, compliant with SAPN's Security Management Framework
- Replace tactical solutions with enterprise tools
- Design a flexible role-based mobility solution
- Enable ability to capture, update and report on data in the field/off-desk in near real-time
- Establish capability to support Intelligent Network initiatives that have a mobility component
- Develop a mobility solution that is intuitive, easy to use and with a single end-user interface where possible
- To have a seamless transition from telecommunications network to satellite – ability to use mobility device even if not connected

Enterprise Mobility 2020 Goals - Capabilities

Customer Engagement & Management

- Customers have direct access to real-time outage , planned interruptions and service order information
- Customers can raise general complaints/enquiries from their mobile device
- Improve customer self-service from their mobility device (demand-side participation programs , non-network solutions, ability to view usage information etc.)

Works & Asset Management

- Foster a wider, more uniform use of mobility, within Field Services, Network Management ,Customer Relations and CaMS
- Ensure alignment between Field Services, Network Management, Customer Relations and CaMS mobility strategies
- Improve work order process efficiency (e.g. support job closure in the field, drawing/design mark-ups in the field)
- Improve resource, works & assets planning and customer management processes (e.g. utilise location information)
- Improve dispatch function process to optimise resource utilisation - scheduling is based on relevant criteria
- Integrate inventory requirements to work order processing
- Improve inventory, logistics and warehouse processes
- Improve ability to access and update asset, customer and project data
- Develop ability to view in real-time the status of the network and assets
- Develop ability to support condition-based risk maintenance

Safety & Environment

- Leverage mobility to meet Regulatory & Compliance requirements in an easy manner (e.g. risk / safety assessments)
- Ensure easy access to and reporting of safety , environmental and hazard information
- Improve field safety and lone worker protection through auto-location of hazard and proximity to mobile staff
- Enable integration with emergency services and other third party services to leverage mobile capability

Enterprise Management

- Provide staff, contractors and vendors secure access to view and update relevant applications and accurate information from mobile devices – support extension of desktop or corporate transactions (e.g. self-service procurement)
- Provide staff with secure access to training qualifications, certifications and experience information off-site
- Reduce process bottlenecks for corporate transactions by enabling mobile access

Section 2: Enterprise Mobility Strategy

Enterprise Mobility Principles

1. We will leverage and align the mobility roadmap with other enterprise investments

- Mobility roadmap must align with Corporate strategy, business unit strategies including Field Services Mobility roadmap, SAP roadmap, Integration roadmap, IT deployments, investments in new tools and technology and contractual agreement
- Mobility implementation must align with existing governance, project/program delivery (CPMO), risk management and OH&S framework
- Our non-regulated business will leverage the mobility roadmap
- Mobility solutions will have proper authentication & security in place (conforming to industry standards)

2. We will manage mobility implementations as business investments

- Each mobility implementation must have clear business outcomes and commercial justification; and/or enable the realisation of business outcomes and benefits
- Decision on mobility-related investments must be centrally managed through the mobility governance framework
- We will upgrade to major, stable releases of software and technology based on cost/risk/benefit analysis and business justification
- We will leverage new functionality where appropriate for continuous improvement
- We will implement incremental improvements instead of 'big bang', based on solid foundations
- We will implement a fit-for-purpose Mobility solution that balances all business needs
- We will adhere to the organisation's quality framework

3. We will proactively manage business change enabled by mobility

- We will work collaboratively with staff, customer, stakeholders, partners and vendors to communicate and manage the organisational change enabled by or as a result of mobility
- We will consider the end-to-end process (field and back-office) and technology (client and server) when designing a mobility solution to understand the end-to-end business impact and benefits
- We will adhere to the change management framework

4. We will partner with mobility vendors and experts to leverage their expertise

- We will leverage relationships with mobility vendors and experts to realise the mobility strategy as Mobility is a fast-moving areas
- We will develop our internal mobility capability through this partnership

Section 2: Enterprise Mobility Strategy

These will be achieved by coordinating and delivering a set of initiatives across the business over the next 5 years

Improve (Now-2016):

- Focus on adding required functionality that the business urgently needs and establishing core enterprise IT capabilities. This includes security, information, device and application management; integration; network expansion; and selecting the mobile platform.

Extend (2017-18):

- Focus on expanding functionality for more advanced and integrated business needs. This includes inventory management, enhanced spatial capabilities and customer applications.

Optimise (2019-20):

- Focus on creating a seamless field-to-enterprise experience and introducing advanced functionality. This includes access to desktop tools, remote switching and integration with smart technology.

Section 2: Enterprise Mobility Strategy

Mobility Benefits and Strategic Alignment

SA Power Networks

HOW

IT Enablers

- CIS O/V
- OMS/OIS
- GE/B&C IVR
- Fault & Emergency IVR
- Network (GIS/ADMS)
- Asset (SAP)
- Work (SAP/Click)
- Logistics & warehouse
- HR and Payroll
- Enterprise integration (SOA)
- Mobility hardware and infrastructure
- Connectivity & security
- Data storage

Process & People Enablers

- Corporate portfolio management office
- Management and improvement of end-to-end processes
- Resource Capacity Planning improvements
- Organisational change management
- High performing and high potential people
- Procurement and sourcing improvement
- Information management

Business Changes

- Integrated customer/network information facility
- Integrated customer/asset data model
- Improvement to the process for capture and cleansing of asset information
- Inventory visibility (incl warehouse to job) implementation
- Improved quality, accuracy &timeliness of information for customers with regard to outage events
- Improved quality and timeliness of real-time information from the field
- Improved workforce utilisation, productivity & collaboration
- Ability to access information anywhere anytime

WHAT

Benefits

- Optimised asset utilisation, reliability and safety within an agreed risk profile and at minimum cost
- Optimised workforce: productivity, utilisation, and collaboration
- Improved customer service
- Improved safety & compliance
- Reduced operational costs: labour, service and materials
- Improved operational efficiency
- Improved decision making

Core Areas of Focus

- Growth through leveraging our capabilities
- Energised and responsive customer service
- Excellence in asset management
- Excellence in delivery of services
- Investing in our people and assets
- Investing in our systems
- Foundations: people, improvement, regulatory and financial

WHY

Business Drivers

- Strong customer and stakeholder relationships
- The cost efficient service provider
- Safety in all we do
- Working and leading as a united, energetic and highly skilled organisation

Vision → Goals → Principles → Benefits

Works Management Mobility Benefits

SA Power Networks

HOW

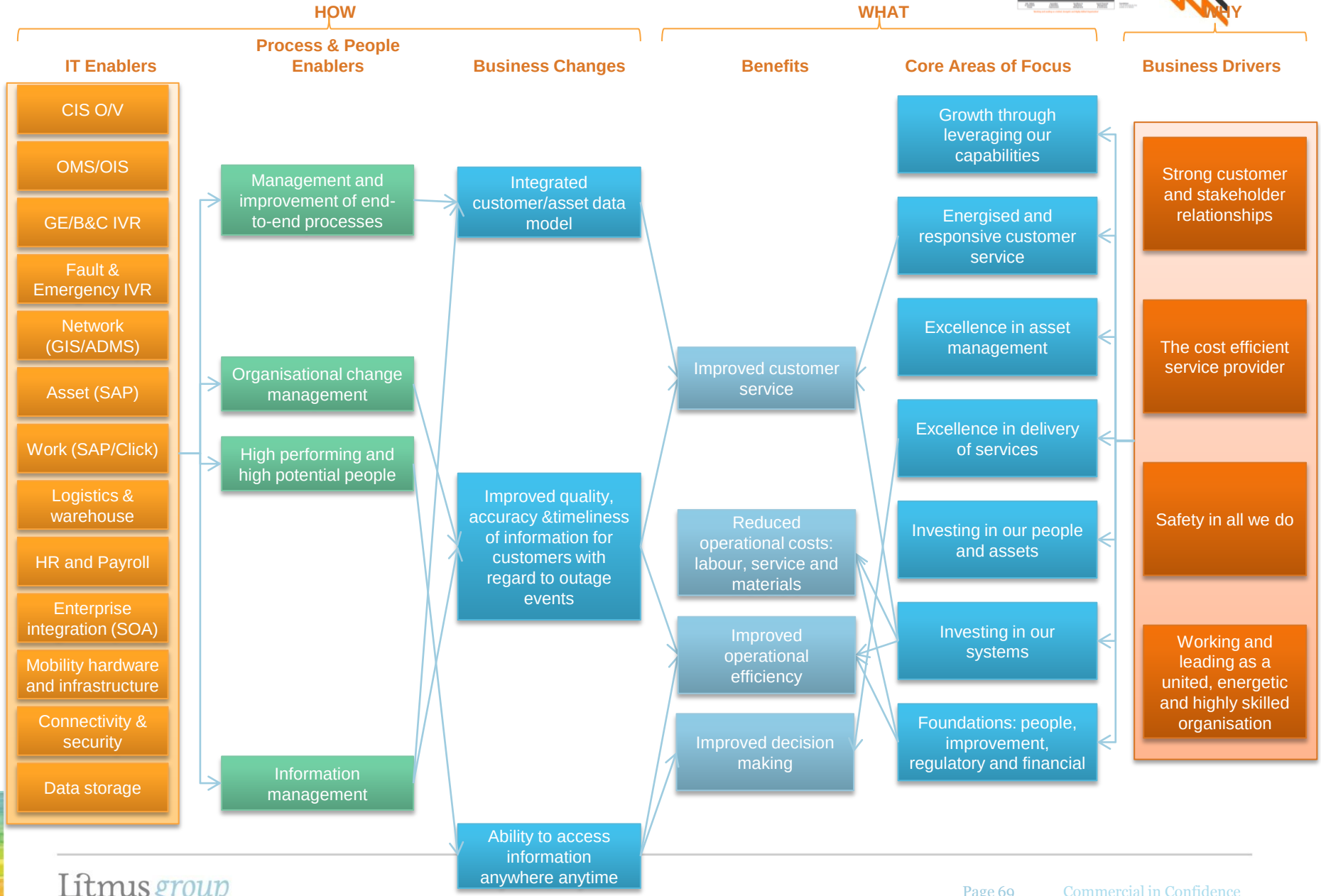
WHAT

WHY

IT Enablers	Process & People Enablers	Business Changes	Benefits	Core Areas of Focus	Business Drivers
CIS O/V	Management and improvement of end-to-end processes	Inventory visibility (incl warehouse to job) implementation	Optimised workforce: productivity, utilisation, and collaboration	Growth through leveraging our capabilities	Strong customer and stakeholder relationships
OMS/OIS	Resource Capacity Planning improvements	Improved quality and timeliness of real-time information from the field	Improved customer service	Energised and responsive customer service	The cost efficient service provider
GE/B&C IVR	Organisational change management	Improved workforce utilisation, productivity & collaboration	Improved safety & compliance	Excellence in asset management	Safety in all we do
Fault & Emergency IVR	High performing and high potential people	Ability to access information anywhere anytime	Reduced operational costs: labour, service and materials	Excellence in delivery of services	Working and leading as a united, energetic and highly skilled organisation
Network (GIS/ADMS)			Improved operational efficiency	Investing in our people and assets	
Asset (SAP)			Improved decision making	Investing in our systems	
Work (SAP/Click)				Foundations: people, improvement, regulatory and financial	
Logistics & warehouse					
HR and Payroll					
Enterprise integration (SOA)					
Mobility hardware and infrastructure					
Connectivity & security					
Data storage					

Customer Management Mobility Benefits

SA Power Networks



Asset Management Mobility Benefits

SA Power Networks

HOW

WHAT

WHY

Process & People Enablers

IT Enablers	Process & People Enablers	Business Changes	Benefits	Core Areas of Focus	Business Drivers
CIS O/V	Management and improvement of end-to-end processes	Integrated customer/asset data model	Optimised asset utilisation, reliability and safety within an agreed risk profile and at minimum cost	Growth through leveraging our capabilities	Strong customer and stakeholder relationships
OMS/OIS		Improvement to the process for capture and cleansing of asset information	Optimised workforce: productivity, utilisation, and collaboration	Energised and responsive customer service	
GE/B&C IVR			Improved customer service	Excellence in asset management	The cost efficient service provider
Fault & Emergency IVR	Organisational change management		Improved safety & compliance	Excellence in delivery of services	
Network (GIS/ADMS)	High performing and high potential people		Reduced operational costs: labour, service and materials	Investing in our people and assets	Safety in all we do
Asset (SAP)			Improved operational efficiency	Investing in our systems	
Work (SAP/Click)	Information management	Improved workforce utilisation, productivity & collaboration	Improved decision making	Foundations: people, improvement, regulatory and financial	Working and leading as a united, energetic and highly skilled organisation
Logistics & warehouse		Ability to access information anywhere anytime			
HR and Payroll					
Enterprise integration (SOA)					
Mobility hardware and infrastructure					
Connectivity & security					
Data storage					

Operational Network Mobility Benefits

SA Power Networks

HOW

Process & People Enablers

IT Enablers

- CIS O/V
- OMS/OIS
- GE/B&C IVR
- Fault & Emergency IVR
- Network (GIS/ADMS)
- Asset (SAP)
- Work (SAP/Click)
- Logistics & warehouse
- HR and Payroll
- Enterprise integration (SOA)
- Mobility hardware and infrastructure
- Connectivity & security
- Data storage

- Management and improvement of end-to-end processes
- Organisational change management
- High performing and high potential people

Business Changes

- Integrated customer/network information facility
- Improved workforce utilisation, productivity & collaboration
- Ability to access information anywhere anytime

WHAT

Benefits

- Optimised asset utilisation, reliability and safety within an agreed risk profile and at minimum cost
- Optimised workforce: productivity, utilisation, and collaboration
- Improved customer service
- Improved safety & compliance
- Reduced operational costs: labour, service and materials
- Improved operational efficiency
- Improved decision making

Core Areas of Focus

- Growth through leveraging our capabilities
- Energised and responsive customer service
- Excellence in asset management
- Excellence in delivery of services
- Investing in our people and assets
- Investing in our systems
- Foundations: people, improvement, regulatory and financial

WHY

Business Drivers

- Strong customer and stakeholder relationships
- The cost efficient service provider
- Safety in all we do
- Working and leading as a united, energetic and highly skilled organisation

Enterprise Management Mobility Benefits

SA Power Networks

HOW

WHAT

WHY

IT Enablers	Process & People Enablers	Business Changes	Benefits	Core Areas of Focus	Business Drivers
CIS O/V	Corporate portfolio management office	Integrated customer/network information facility	Optimised workforce: productivity, utilisation, and collaboration	Growth through leveraging our capabilities	Strong customer and stakeholder relationships
OMS/OIS	Management and improvement of end-to-end processes			Energised and responsive customer service	
GE/B&C IVR			Improved customer service	Excellence in asset management	The cost efficient service provider
Fault & Emergency IVR	Organisational change management				
Network (GIS/ADMS)			Improved safety & compliance	Excellence in delivery of services	
Asset (SAP)	High performing and high potential people				Safety in all we do
Work (SAP/Click)			Reduced operational costs: labour, service and materials	Investing in our people and assets	
Logistics & warehouse					
HR and Payroll			Improved operational efficiency	Investing in our systems	Working and leading as a united, energetic and highly skilled organisation
Enterprise integration (SOA)					
Mobility hardware and infrastructure		Improved workforce utilisation, productivity & collaboration	Improved decision making	Foundations: people, improvement, regulatory and financial	
Connectivity & security					
Data storage	Information management	Ability to access information anywhere anytime			

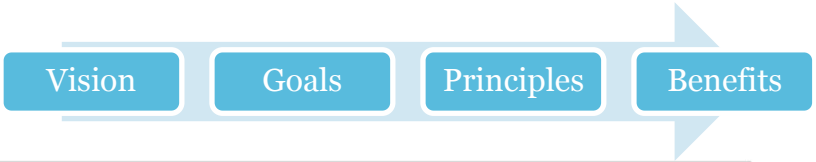
Section 3

Mobility IT Strategy

Section 3: Mobility IT Strategy

This Mobility IT Strategy consists of four main components

- The Mobility IT Vision is defined by:
  - A vision statement; and
  - Specific written Goals designed to close the gaps in each layer of the Mobility Solution Framework
- How SA Power Networks will achieve the goals and vision is guided by:
  - Principles that set a clear direction and framework for decisions; and
  - Constrained options to guide decisions
- The Mobility IT Principles are based on rationale from:
  - Existing technology plans (e.g. Mobility Architecture Roadmap, Customer Technology Plan)
  - Leading industry practices and external expertise
  - SA Power Networks experience and lessons learned
- Benefits show how mobility contributes to the IT Business Strategy



Section 3: Mobility IT Strategy

Mobility IT Vision 2020

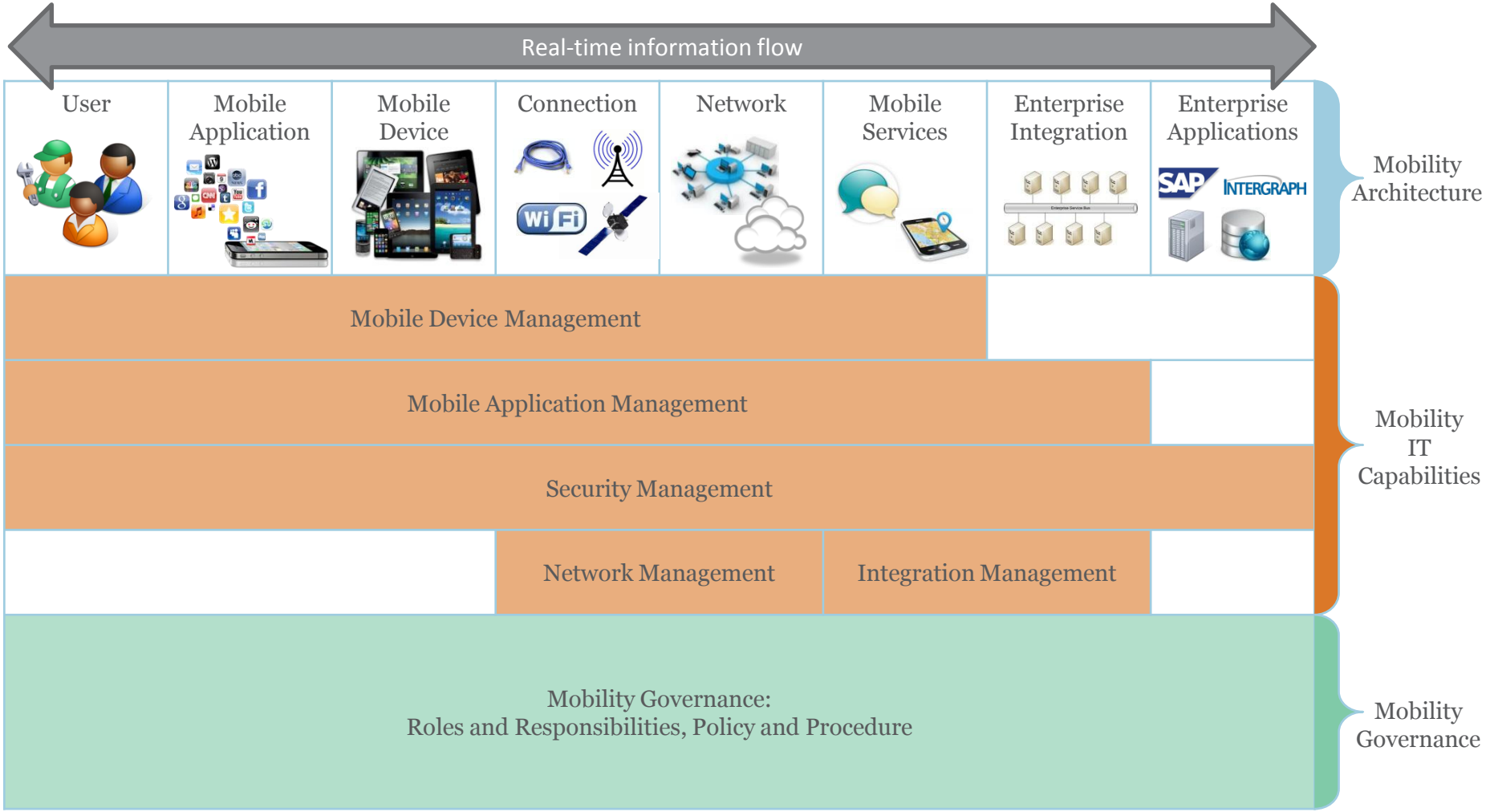
"Providing easy to use mobility functionalities that users need and enabling secure two-way information flow to the right devices at any location and time"

Section 3: Mobility IT Strategy

The Mobility Solution Framework was used to structure the IT component of this strategy and roadmap

- The Mobility Solution Framework further expands the Technology domain in the MMM
- The Mobility Solution Framework was used to identify IT requirements to achieve the target state MMM level. This is done by specifying the goals for each layer in the framework –
    - Mobility Architecture
        - What is the target state architecture? What needs to be done to get to the target state architecture?
    - Mobility IT Capabilities
        - What capabilities and management functions need to be in place to support the target state architecture?
    - Mobility Governance
        - What roles, responsibilities, processes and procedures need to be in place to plan, build, run and monitor mobility solutions and services?

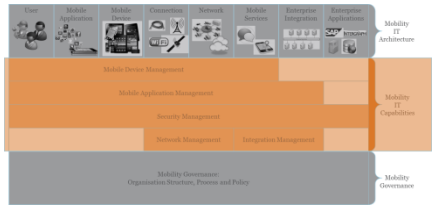
The goals of the Mobility IT Strategy are based on the Mobility Solution Framework



Mobility IT Goals (1/4) – Mobility Architecture Goals

1. Applications and information delivered to any device, anywhere
2. Align Mobility IT Architecture with Mobility Strategy
3. Keep application data secure and ensure that only authorised users are accessing applications and information
4. Easily deliver apps on a new mobile/tablet device or operating system (that may not even exist today)
5. Capability to provide users with new features and data from internal systems and public cloud services
6. Ensure compliance with regulatory and corporate policies
7. Address what drives SA Power Networks business
    a. Deliver on the applicable Use Cases
    b. Right information, at the place of work at the right time

Mobility IT Goals (2/4) – Mobility IT Capabilities Goals



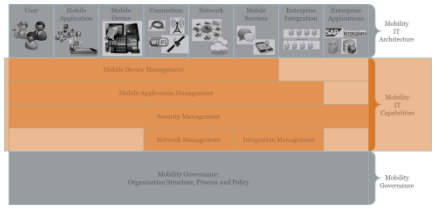
Mobile Device Management

- Implement enterprise-wide Mobile Device Management platform that supports heterogeneous mobile device
- Develop internal expertise for development and deployment on targeted mobile device platforms
- Support for remote device configuration management
- Support for remote device fault management
- Ability to track mobile devices as required (device asset management)
- Work in conjunction with Fleet Management to leverage their mobility capability, e.g. the use of fleet's GPS vs. device's GPS (location management)
- Ability to decommission mobile devices when lost, stolen or at the end-of-life
- Support for content management in enterprise cloud
- Ability to manage BYOD

Mobile Application Management

- Implement an enterprise-wide Mobile Enterprise Application Platform
- Develop internal expertise for targeted mobile application platform
- Support for mobile application provision and deployment in enterprise application store
- Support for deployment of allowed public apps

Mobility IT Goals (3/4) – Mobility IT Capabilities Goals



SA Power Networks

Security Management

- Implement end-to-end security management, covering all of the architecture layers, e.g. user, device, network and application authentications
- Implement device security to protect sensitive data, e.g. remote device lock and wipe, encryption etc.
- Perform regular assessment of security risks
- Ensure compliance with regulatory, corporate policies, directives and standards, specifically with ISO 27001, Information Management Security Framework, and Information Classification and Handling directives

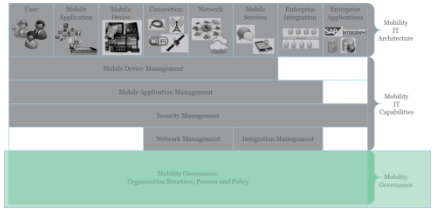
Network Management

- Ability to securely and safely deliver over public networks in a given geography
- Ability to provide a continually connected application experience even when a connection is not available, i.e. seamlessly moving from one type of connection to another, store and forward
- Provide VoIP and streaming capabilities
- Implement mobile access gateway and leverage existing tools

Integration Management

- Implement a fully service-based infrastructure (decouple Information from Application layers)
- Implement enterprise-wide messaging, integration and rendering services
- Provide gateway to enterprise applications

Mobility IT Goals (4/4) – Mobility Governance Goals



Roles and Responsibilities

- Design and implement a governance structure that includes:
  - Representatives from across the organisation, i.e. business and IT
  - Decision making responsibilities across the mobility architecture (i.e. device, application etc.) – mobility decisions must go through the governance group to ensure that decision outcomes are aligned with the Mobility strategy
- Align the Mobility Governance structure with existing IT and Business governance

Policy and Procedure

- Identify and develop required policies and procedures, which include but not limited to -
  - Device policies: sourcing and provisioning of devices, security throughout the device lifecycle, lost or stolen device
  - BYOD policies: allowed mobile applications, allowed roles
  - Mobile application policies: sourcing and provisioning of apps
  - Security policies: authentication, device security
  - Location tracking policies

Operations

- Design and implement an effective decision making process
- Centralise the management of all of mobility investments
- Define mobility reporting framework

Section 3: Mobility IT Strategy

Mobility IT Principles (1/3)

We will have modular mobility solutions and build technical flexibility

- Our mobility solutions will be assembled from components in the mobility architecture that are modular, to enable separation of:
  - Presentation and Information
  - User profile (identify) and Information
  - Application and Device
  - Mobile Application and Enterprise Application etc.
- Our mobility solutions will be service-based enabled by the Integrated Information Layer
- Our mobility solution will consist of multiple applications that support different functional requirements
- We will manage our mobility solution holistically, across the components of the mobility architecture
- The integrity of the solution must be maintained through the mobility governance framework
- Borderless Network and the Integrated Information Layer will form the common mobility architecture
- Our mobility solutions will leverage existing telecommunication networks and use common networks
- We will take advantage of new mobility technology to achieve business benefits

We will balance the need between buying or building mobility solutions

- We will use best practice out-of-the-box products for relevant mobility transactions
- We will configure to satisfy our business requirements and will only customise for critical business requirements
- We will maximise investment from existing solution through vendor partnership
- The process of leveraging existing solution, functionalities and vendor relationship will be enabled by the mobility governance framework

Mobility IT Principles (2/3)

We will balance the need for specific mobile device platform vs. heterogeneous mobile device platforms

- We will provision corporate-owned devices or specify device requirements for (complex) mobility transactions that require a specific mobile device platform
- We will support employee-owned devices and ensure their compliance with corporate standards (BYOD compliant)
- The balancing decision will be enabled by mobility governance framework, taking into account business needs, priorities, capital and operating costs, and the overall investment portfolio

We will have portable mobile applications that meet business requirements

- Mobile applications must be designed once with multiple mobile device platforms in mind
- Mobile applications must be developed once and deployed to multiple mobile device platforms

We will comply to enterprise information security strategy and framework

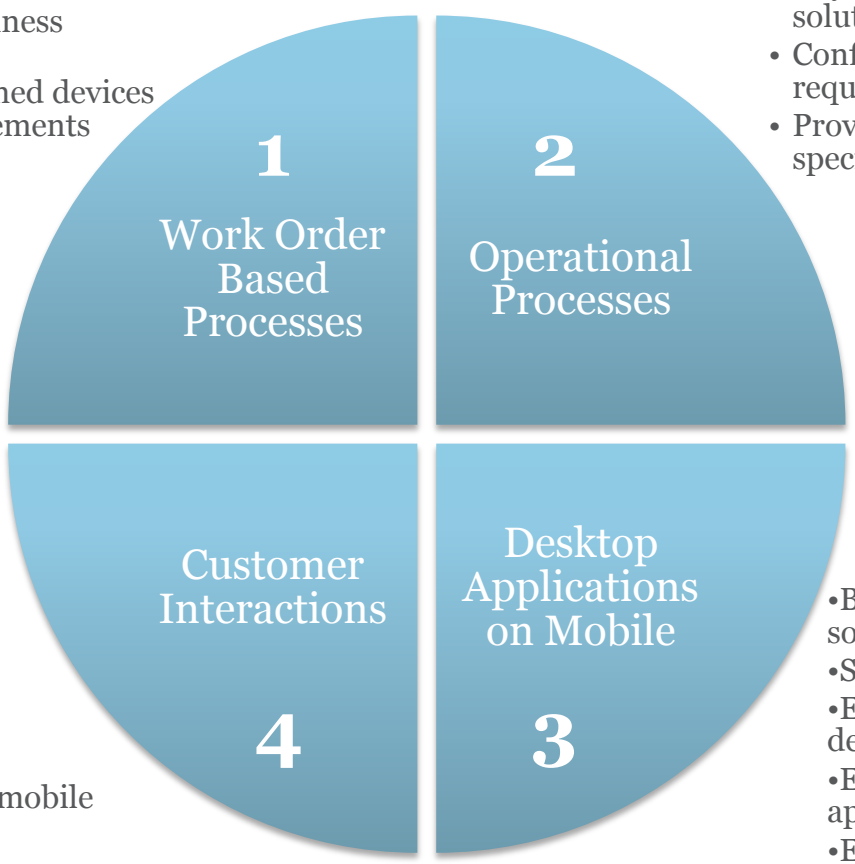
- We will consider and manage security threats across the components of the mobility architecture
- We will design role-based and identity-based mobility solutions
- We will control mobile applications with access to corporate data
- Contractors will use SA Power Networks' mobility applications for access to corporate data

We will have mobility standards, policies and management processes

- Our mobility solutions (developed or acquired) will comply with relevant industry standards
- Management processes (e.g. Mobile Device Management, Mobile Content Management etc.) will support our mobility solutions

Specific Principles for each Mobility Transaction Types (3/3)

- Buy COTS solution
- Configure to satisfy business requirements
- Provision corporate-owned devices or specify device requirements



- Buy COTS solution or build custom solution
- Configure to satisfy business requirements
- Provision corporate-owned devices or specify device requirements

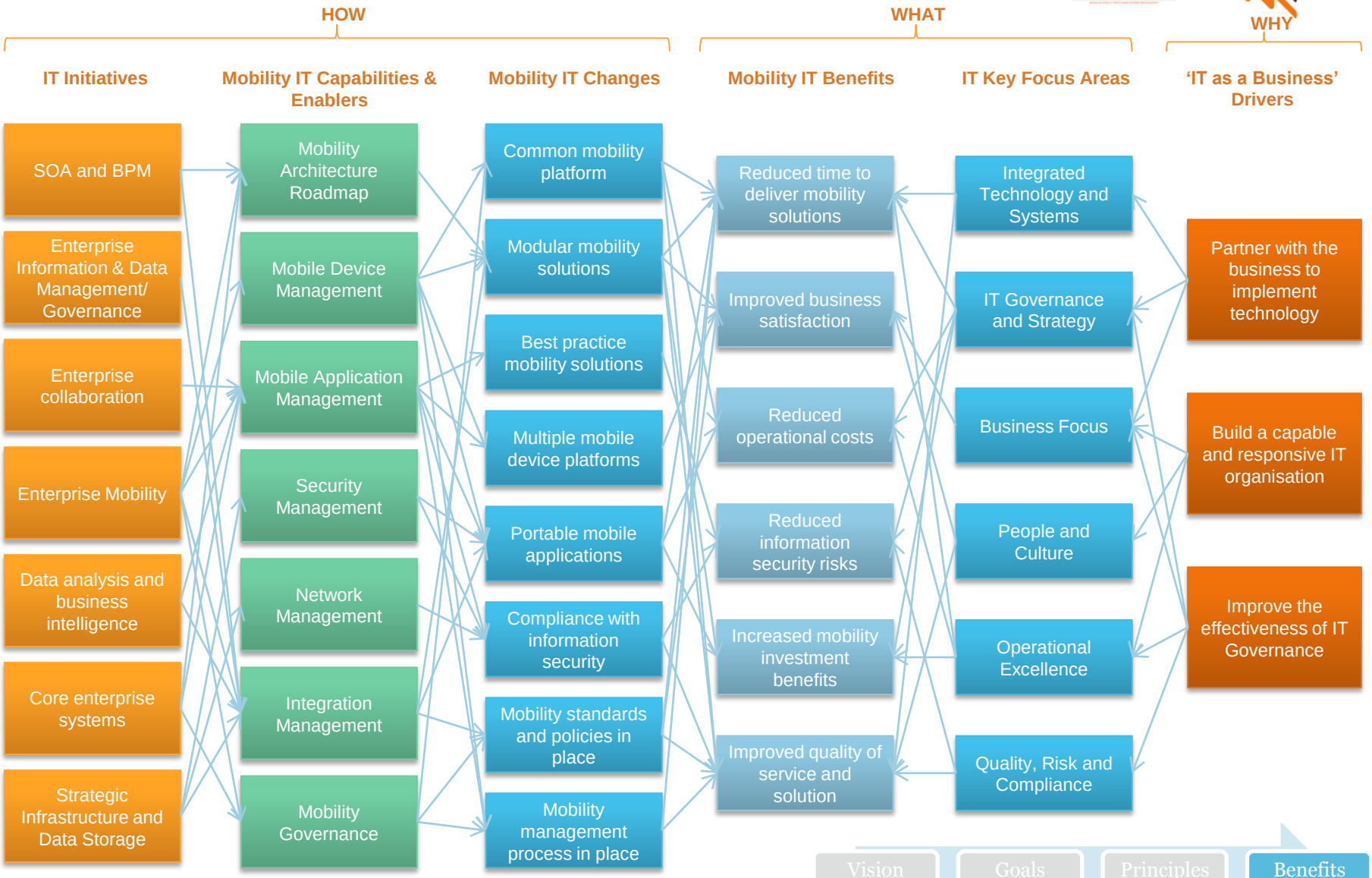
- Build custom solution
- Enable heterogeneous mobile devices

- Buy COTS solution or build custom solution
- Specify device requirements
- Enable the use of employee-owned devices
- Enable the use of approved public apps
- Enable employee-selected apps through enterprise apps store

Section 3: Mobility IT Strategy

Mobility IT Benefits

SA Power Networks



Section 4

Mobility Roadmap

Section 4: Mobility IT Roadmap

Section 4: Mobility IT Roadmap

The Mobility IT Roadmap comprises three parts

Stream View

- This view is a high level summary.
- It shows on one page the key milestones, the streams of work and the key initiatives

Initiative View

- This view shows an individual initiative-level view of each stream

120-day Mobilisation Plan

- This view shows the detailed tasks and durations to be completed in the first 120 days

*Please refer to *SA Power Networks Mobility Roadmap 2020 v2.3.xlsx* for more details

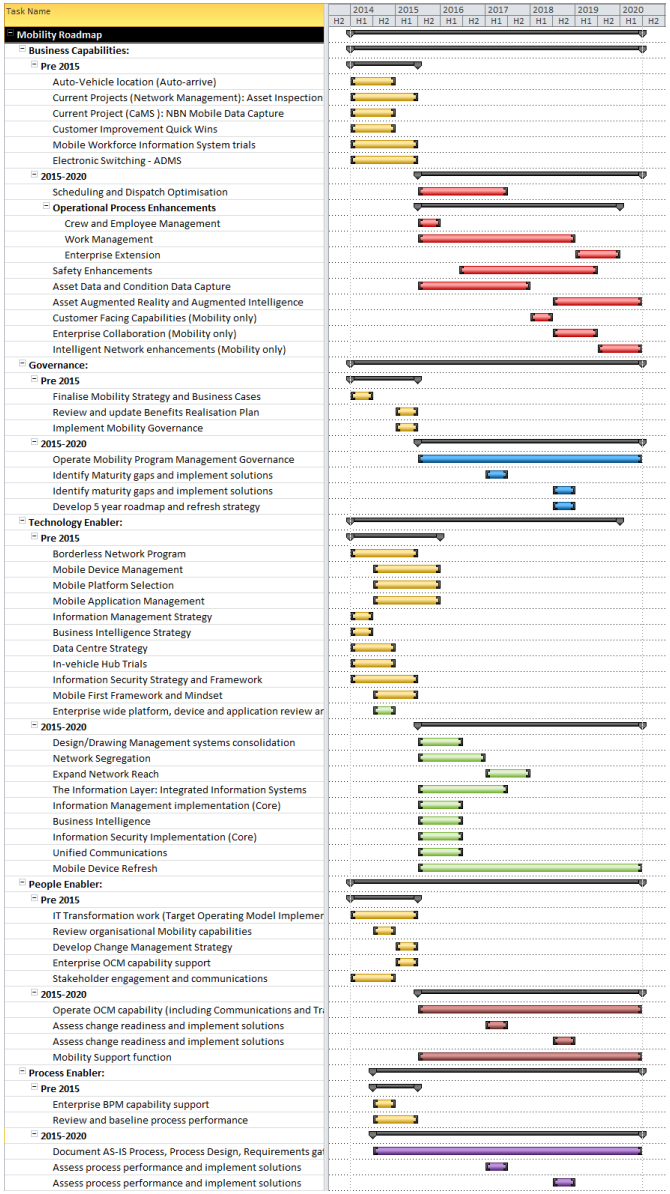
Section 4: Mobility IT Roadmap

SA Power Networks Mobility Roadmap 2015-2020 – Stream View

Work Streams	2014		2015		2016		2017		2018		2019		2020
	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	H1
Key Milestones				❖ Reset 2015-2020 commences						❖ Prepare for 2020-2025 Reset submission			
Business Capabilities: Implement mobility functionalities to enable or improve core business capabilities	Continue with existing and planned initiatives			Automated status and location update Build asset database (incl. condition data) Enhance spatial capability on the field Electronic time sheeting Fatigue Management and Heavy Vehicle Driving Management Enhance Schedule & Dispatch process Drawing mark-ups Electronic job folders			Extend safety functionalities Optimise works management through analytics Enhance customer self-service capabilities Enable service order processing for electrical contractors Integrated customer application Real-time outage notification and status update to customer Condition-based risk maintenance Work order pull-based system Automate work order close-out Single view of asset, customer and network data Mobile inventory and warehouse management Enterprise desktop tools extension			Improve field-to-field and field-to-base collaboration Enterprise social networks Asset augmented reality Asset augmented intelligence Intelligent Network Mobility Enhancements	
Governance: Establish decision rights, accountabilities, processes and reporting to ensure effective delivery of the roadmap	Define key roles and responsibilities Establish Mobility Governance Define process for initiative prioritisation and investment decision			Deliver ongoing Mobility Governance Reassess maturity model, identify gaps and implement solutions								Refresh strategy Develop next 5 year roadmap	
Technology Enabler: Build and configure the technology platforms and integration required to provide the necessary functionality	Deliver Borderless Network Develop Information Management Strategy and Architecture Develop Business Intelligence Strategy Develop Information Security Strategy Review currently used Mobility Platform, Devices and Applications Establish Mobile Application Development Platform Review the use of currently available telecommunication networks Establish framework for mobile information and application delivery			Deliver and expand on mobile information and applications as per established framework Account federation Improve user experience Establish an enterprise information layer Establish business intelligence platform Implement Information Security Management Framework Converge voice and data networks Design/Drawing Management consolidation Mobile device refresh			Establish an enterprise information layer (Contd..) Expand the network reach Mobile device refresh				
People Enabler: Support the delivery of mobility capabilities through change management (OCM), communication, training and incentives	Implement IT Target Operating Model Establish OCM capability Review organisational mobility capabilities Engage stakeholders to communicate strategy and roadmap			Deliver ongoing stakeholder engagement, communication and training Review and establish training framework Develop OCM methodology, tools, techniques and templates Continually assess change readiness and implement solutions to ensure adoption								Provide input to strategy refresh and next 5 year roadmap	
Process Enabler: Continuously improve the performance of work processes	Document high-level whole-of-business requirements for mobility Establish BPM capabilities Review and baseline process performance			Document as-is and to-be processes Review and establish process architecture Develop BPM methodology, tools, techniques and templates Continually assess process performance and implement solutions to optimise Deliver ongoing continuous improvement service Deliver ongoing continuous improvement service								Provide input to strategy refresh and next 5 year roadmap	

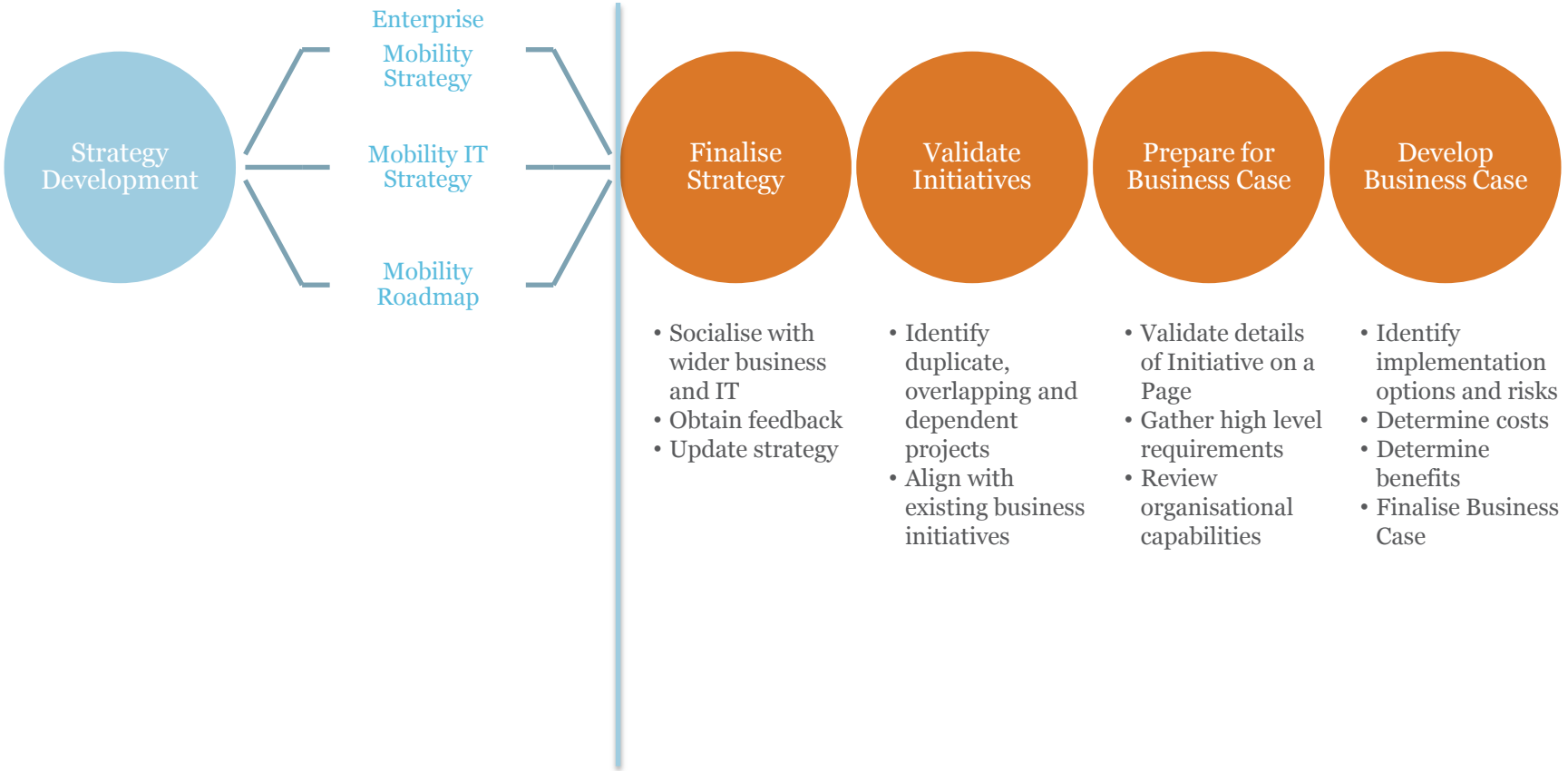
Section 4: Mobility Roadmap

SA Power Networks Mobility Roadmap 2015-2020 – Initiative View



Section 4: Mobility Roadmap

Next Steps: the Mobilisation Plan outlines the key activities required to be ready for implementation - the first step of which is to Develop the Business Case



SA Power Networks Mobility Roadmap – Potential 120-day Mobilisation Plan

Activity	week 1	week 2	week 3	week 4	week 5	week 6	week 7	week 8	week 9	week 10	week 11	week 12	week 13	week 14	week 15	week 16
Governance																
Finalise Mobility Strategy																
Identify relevant L2 and L3 managers	■															
Prepare briefing for L2 and L3 managers	■	■														
Brief relevant L2 and L3 managers		■														
Estimate initiative benefits		■	■	■	■											
Receive feedback and update strategy			■	■	■											
Finalise Mobility Strategy				■												
Align with SA Power Networks initiatives and CaMS																
Identify and document related SA Power Networks initiatives						■	■									
Identify and document related IT and CaMS initiatives							■	■								
Identify duplicate, overlapping and dependent projects								■	■	■						
Coordinate roadmaps and events										■	■	■	■			
Establish master schedule and resource heatmap												■	■	■	■	■
Technology																
Document dependent strategy and architecture																
Document Information Management Strategy	■	■	■	■	■	■										
Develop Information Architecture	■	■	■	■	■	■										
Document Information Security Strategy	■	■	■	■	■	■										
Implement Information Security Framework					■	■	■	■								
Develop Business Intelligence Strategy				■	■	■	■									
People																
Develop stakeholder engagement and communication plan																
Identify impacted stakeholders	■	■														
Define key messages and channels	■	■	■													
Prepare stakeholder engagement and communication plan		■	■	■												
Execute stakeholder engagement and communication plan				■	■	■	■	■	■	■	■	■	■	■	■	■
Business Case																
Document high level mobility requirements																
Input from process, organisational capability, technology and data requirements					■	■	■	■								
Document functional requirements							■	■	■	■						
Document non-functional and technical requirements									■	■	■	■				
Prioritise requirements									■	■	■	■				
Initiative on a Page																
Validate details of Initiative on a Page									■	■	■	■				
Develop Business Case																
Identify implementation options										■	■	■	■			
Identify implementation risks												■	■			
Determine costs													■	■	■	
Determine benefits													■	■	■	
Perform financial analysis													■	■	■	■
Document Business Case													■	■	■	■
Review and validate Business Case															■	■

Section 4: Mobility Roadmap

Risks to the implementation of Mobility Roadmap

Risk	Likelihood	Impact	Recommended Actions
High dependency on non-Mobility related initiatives will impact the execution of Mobility initiatives	High	High	Commence work on dependent initiatives, specifically in developing all of the strategy documents and foundational initiatives Whole-of-business management of mobility roadmap through governance Manage the roadmap as a program of work
Lack of attention on organisational change management impact the rate of benefits realisation	Medium	High	Establish OCM function early, decide accountability for this early
Lack of in-house resources and capabilities to deliver Mobility initiatives	Medium	High	Design for optimal IT target operating model Plan for required resources across the business to deliver the initiatives Partner with external vendors and experts as required
Unable to control device and application proliferation resulting in loss of corporate data and unauthorised access	Medium	High	Device and Application Management controls and processes are in place
Rapid change in mobility technology resulting in SA Power Networks becoming islanded	Medium	High	Implement modular mobility solutions, leveraging off-the-shelf solutions, enabled by enterprise integrated information systems and managed by mobility architecture

Section 6

Supporting Materials

Section 6: Supporting Materials

A	**Mobility Maturity Model**
B	Mobility Current and Future State
C	Mobility Solution Framework
D	Glossary

The *Mobility Maturity Model for Utility* assesses the level of Enterprise Mobility maturity vis-à-vis 7 capability and enabler domains

Legend: Enablers Capabilities

The Mobility Maturity Model consists of five level of maturity in enterprise-wide capabilities

SA Power Networks

1 INITIATING

- Disparate, manual systems
- No back-end integration
- Slow response times
- Awareness for Enterprise Mobility initiated at Executive level
- Research conducted on opportunities of Enterprise Mobility

Adhoc, no formal Enterprise Mobility strategy or processes

2 ENABLING

- Formal Enterprise Mobility policies developed
- Sophisticated technology introduced
- Awareness for Enterprise Mobility across workforce
- Trial back-end integration commenced

Implementing an Enterprise Mobility strategy

3 INTEGRATING

- E2E Enterprise Mobility strategy drives priorities and organisational change
- Corporate systems (asset maintenance, inventory, purchasing and logistics) integrated
- BI tools investigated and trialled

Enterprise Mobility processes implemented

4 OPTIMISING

- Efficiencies in Enterprise Mobility business processes
- Optimised resource utilisation/ workforce productivity
- Monitoring of Mobility work on real-time basis
- International benchmarking

Enterprise Mobility processes measured and controlled

5 PIONEERING

- Enterprise Mobility effectively supports development of new means of interacting with customers, partners customers and workforce
- Continuous improvements in Enterprise Mobility processes and capability

Focused on ongoing Enterprise Mobility Process Improvement

Vision & Strategy: Domain definition

Capability Attributes	Characteristic Description
5. PIONEERING	1. The organisation is customer-centric, providing safe, innovative, reliable services to customers, and sustainable returns to shareholders, the community and its workforce 2. New business model opportunities have arisen as a result of Mobility capabilities 3. Additional financial resources have arisen to enable continued investment in Mobility
4. OPTIMISING *2020 Goal*	1. Mobility is recognised as a core competency throughout the organisation 2. Mobility strategy aligned with and contributes to Organisation's corporate strategy
3. INTEGRATING	1. Mobility vision and strategy approved across the organisation 2. Management KPIs incorporate elements of the Mobility strategy 3. Business cases developed based on pilot outcomes 4. Funding approved for whole of business Mobility investment
2. ENABLING *Current*	1. Initial Investment planning and budgeting reflects the Mobility strategy and business unit plans 2. Operational investment is aligned to strategy 3. Funding for pilots expanded
1. INITIATING	1. Vision is developed with the goal of operational improvement. 2. Experimental implementation of Mobility solution supported. 3. Mobility Business case developed with an intention of operational improvement by business unit 4. Pilots approved

Organisation & People: Domain definition

Capability Attributes	Characteristic Description
5. PIONEERING	1. Collaboration with partners and suppliers is entrenched in the organisation, while its internal processes and structures allow it to adapt readily to changes in the business and regulatory environment 2. Mobility related innovation is encouraged and rewarded 3. Organisation is able to readily adapt to new business model opportunities
4. OPTIMISING *2020 Goal*	1. Mobility has increased workforce skills and flexibility. Staff are able to engage in value added activities, more complex problem solving, and feed insights gained in the field back to the organisation 2. Increased information and visibility from Mobility maturity allows management to drive further productivity and profitability improvements 3. Promotion and reward of cross-functional planning, design and operations
3. INTEGRATING	1. Mobility strategy drives organisational change. Measurement systems in place. 2. Mobility becomes embedded in organisational culture 3. Mobility vision and strategy drives organisational change and priorities 4. Linking of performance (KPIs) and compensation plans to achieve Mobility milestones 5. Organisation is aligned around end-to-end Mobility processes
2. ENABLING *Current*	1. Project teams include representatives from main functional areas. Corporate communications address Mobility roadmap. 2. L&D initiatives in place for workforce. Plans developed to address gaps in measurement systems 3. Workforce is aware of Mobility efforts 4. Mobility vision and strategy begins to drive organisational change and priorities 5. Organisational competencies and training have been identified and implemented
1. INITIATING	1. Formal / informal discussions have been held within the organisation. Vision has been articulated and communicated to workforce 2. Recognition of need to build Mobility capability 3. Leadership has demonstrated commitment to change

Technology: Domain definition

Capability Attributes	Characteristic Description
5. PIONEERING	1. The organisation partners with leading telecoms and suppliers of mobile devices in field trials and beta testing 2. Achieved Bring Your Own Device (BYOD) compatibility for workforce, customers and partners
4. OPTIMISING *2020 Goal*	1. An integrated IT architecture reduces the cost of enhancements and allows resources to be used more effectively. Managers spend less time dealing with day-to-day issues 2. Reporting of KPIs and drivers of productivity and profitability are in place 3. Productivity and profitability of field services are improved as a result of Mobility end-to-end system integration 4. Business processes are optimised and fully supported by the Mobility system implementation 5. Partnerships integration has been implemented
3. INTEGRATING	1. Enterprise tools and applications begin replacing tactical solutions; plans for enterprise data stores developed. 2. Activities related to Mobility renewal become part of the IT planning process 3. Mobility system implementations adhere to the IT architecture 4. There is a single-source of truth for data across all Mobility-related systems 5. Extended enterprise and customer integration has been implemented
2. ENABLING *Current*	1. Tactical IT solutions are rolled out to increase productivity and provide limited integration. 2. Decisions are made on future Mobility architecture; IT investment is aligned with this vision 3. IT architecture is aligned to Mobility vision and strategy 4. IT standards and policies are implemented to support Mobility deployment 5. Change control processes are in place 6. Data quality improvement is in progress
1. INITIATING	1. Enterprise architecture developed to support future Mobility implementation. 2. Technical evaluation of proposed infrastructure initiated 3. IT architecture has been evaluated to support the Mobility vision and strategy 4. Assessment of data quality is known 5. Mobility opportunities identified 6. Mobility pilots are underway

Customer Engagement and Management: Domain definition

Capability Attributes	Characteristic Description
5. PIONEERING	1. The organisation is regarded as the supplier of choice with a reputation for quality, safety, reliability and cost-effectiveness 2. Targeted marketing and service campaigns directly to customers' mobile device
4. OPTIMISING *2020 Goal*	1. Customers are able to access a range of information about how to use products and services more economically, relevant to their profile 2. Broadcast services provide regular updates on planned maintenance outages and emergencies 3. Customers can raise work orders directly from their mobile device through text, pictures, voice, and video
3. INTEGRATING	1. Customers able to request and receive a greater range of information via the web – e.g., ticket tracking. 2. Some self-service measures are introduced. 3. Fix-on-first rates increase, along with measures of customer satisfaction 4. Field service requests from the customer are initiated directly from customer system 5. Field workers provide real-time status updates direct to the end consumer and customer with push messaging 6. Customers are able to engage using social media on their mobile devices
2. ENABLING *Current*	1. Customer services processes are streamlined and customers are provided with additional information to improve the customer experience. 2. Customers are contacted when unforseen events cause maintenance or other calls to be rescheduled. 3. Research undertaken into broadcast technologies – e.g. SMS – to update customers in the event of major outages
1. INITIATING	1. Research conducted into how Mobility can improve the customer experience. 2. Baseline levels of customer satisfaction are recorded

Works and Asset Management: Domain definition

Capability Attributes	Customer Characteristic Description	
5. PIONEERING	1. Assets are leveraged to maximise utilisation. Back-up systems and preventative maintenance virtually eliminates unplanned outages. 2. Advanced supplier management and quality assurance processes enhance the quality and lifetime of critical assets	3. Mobility facilitates predictive and preventative maintenance 4. Planning/dispatchers can respond and amend scheduled task activities when conditions of a Service Level Agreement are not being met for a particular service request
4. OPTIMISING *2020 Goal*	1. Maintenance schedules, incorporating routine and major works, are designed to optimise resource utilisation. 2. The organisation develops "bring your own device" capability 3. Service trips are planned based on factors such as travel time and distance, SLA priority, profitability and overtime costs	4. Head office can monitor execution of scheduled task activities and make adjustments or reschedule tasks if necessary
3. INTEGRATING	1. Remote monitoring devices rolled out, with an emphasis on remote and/or dangerous environments. 2. Asset maintenance, inventory, purchasing and logistics functions integrated. 3. Scheduling functions makes use of skills data stored in HR systems 4. The integration of remote asset monitoring with mobile workforce systems is underway and in place for all Mobility classes	5. Scheduling is based on decision factors such as required skills, service territory, customer site access hours, preferred technician, and spare parts inventory 6. Field workers can report additional information and notes describing how the problem was resolved and can create follow-up tasks or new service requests if, for example, the problem was not resolved during this visit, or additional service issues are discovered
Current		
2. ENABLING	1. Work orders issued and data captured electronically; use of digital forms (useability) is widespread. 2. Field staff have access to corporate portals for applications such as CRM and time recording. 3. Common productivity applications – e.g. e-mail, spread sheet – are available to field staff, as are specialised data capture devices.	4. GIS applications deployed 5. Remote monitoring piloted 6. Centralised scheduling of mobile resources is in place 7. The integration of remote asset monitoring with mobile workforce systems is underway and in place for at least one Mobility class 8. Field workers' skills and competencies are in a database
1. INITIATING	1. Business cases developed for application of Mobility for asset management and maintenance. 2. Remote asset monitoring and other field-specific technologies investigated 3. Field service requests from the customer are via email or FTP	4. Asset and workforce systems and equipment are being evaluated for alignment to the vision 5. Scheduling is largely manual with access to some systems 6. Field workers' skills are documented

Safety and Environment: Domain definition

Capability Attributes	Characteristic Description
5. PIONEERING	1. The organisation is regarded as a model corporate citizen and leverages its Mobility expertise to partner with community and environmental groups to develop and enhance S&E awareness 2. Improved safety and protection of the environment
4. OPTIMISING *2020 Goal*	1. Remote monitoring, advanced routing and sophisticated knowledge management tools increase the awareness of safety and environmental issues and continue to reduce environmental impacts 2. Emergency response partnerships are in place with shared communications and resources 3. Mobility has minimal impact on the environment
3. INTEGRATING	1. Environmental and safety impacts of Mobility demonstrated thru lost-time injury frequency rates (LTIFRs), fuel savings, carbon footprint data 2. GPS enables hazard location and proximity to staff 3. GPS capability implemented to improve safety, especially for solo operators 4. Initiatives are in place to minimise the impact on the environment of Mobility
2. ENABLING *Current*	1. Environmental and safety management plans available via web for all employees, and attached / referenced on work orders. Assessments made of the environmental savings to be achieved by Mobility strategy 2. GPS capability trialled 3. Notification to mobile workforce of hazards is possible in real-time
1. INITIATING	1. Mobility strategy acknowledges organisation's role in safety and environment. Expected benefits are developed and promoted

Enterprise Management: Domain definition

Capability Attributes	Characteristic Description
5. PIONEERING	1. Mobility is fully integrated with, and continues to evolve alongside, enterprise applications 2. Seamless integration to all extended enterprise systems and customer systems
4. OPTIMISING	1. Powerful decision-making tools are deployed, increasing organisational effectiveness. Locally deployed Mobility devices speed billing and payment processes 2. As staff update completed tasks status, inventory system reflects changes in inventory levels
3. INTEGRATING *2020 Goal*	1. Bi-directional data feeds enabled between Mobility and corporate systems. 2. High-speed network devices and cloud computing eliminate the need for data to be stored locally 3. Process bottle necks are removed 4. Online push/pull mobile connectivity 5. Field workers report time, expense, and service parts they install or recover from the site in real time
2. ENABLING *Current*	1. Bridges are built between Mobility and enterprise applications, but support for field workers is still largely uni-directional. 2. Data extracted from some corporate systems – e.g. Inventory – is held on local devices and must be refreshed regularly 3. Limited access and connectivity to enterprise systems available
1. INITIATING	1. Technology strategy reflects short, medium and long-term objectives. Impact assessments and planning undertaken to cater for future implementation activities 2. Options for access and connectivity to Enterprise systems assessed 3. Staff must return to office daily

Example of tangible benefits obtained by an Australian Electricity Utility from effective Field Mobility strategy development and implementation

Performance Improvements		
Completed Orders		+19%
Orders On Time		+20%
Resource Idle Time		-71%
Resource Time En Route		-19%
Resource Time On Site		-32%
Resource Time Unavailable		-56%
Total Number of Orders On Time		+34%
Completed Orders	Contractors	+65%
	Internal Staff	+12%
Office Savings	Planner capacity	+41%
	Paper savings	+10%
Field Savings	Travel time to first order (start of shift)	-4.2%
	Travel time to office (end of shift)	-4.2%
	Travel time between orders	-8.3%
	Travel time wasted (assuming 1% of trips are wasted)	-4.2%
	Total field crew time saving	+6.3%
	Total travel time	-8.0%

Section 6: Supporting Materials

A Mobility Maturity Model

B Mobility Current and Future State

C Mobility Solution Framework

D Glossary

Field Services Mobility

	Current State (2013)	Future State (2020)
Vision & Strategy	• To enhance current mobility solution for planned and unplanned jobs	• To provide field mobility solutions that enable Field Services staff to complete their work in an effective and efficient manner as well as improving the way people work
Organisation & People	• Approx. 200 field crews (2/3 of Field Services) – one laptop per field crew • Lines of business include the construction of: Customer Connect Projects, Customer Connect Project >$100k, Capacity & Refurbishment Projects, Maintenance Project, Maintenance Direct Issue, External Customer Supply Outage	• Mobility solution is enabled for all job types and field crews • 100% of Field Services using mobility solutions • Formalise the field mobility support function • Mobility solution for Inventory Management and Warehouse implemented • KPIs leveraging mobility solutions implemented • Lines of business to also include Customer Connect
Technology	• ClickMobile for planned work, iMobile TC for unplanned work, Sygic for navigation system • Panasonic Toughbook is the main device – laptops are also used	• Single view of planned and unplanned work • Spatial view of jobs and crews • Single view of asset and customer data (including customer information, NMI, life support) • Automatic status notification through geo-fencing
Customer Engagement/ Management	• Customers can access the SAPN website using their mobile/tablets and request for street light repairs etc.	• Customer raises service order from customer app • Real-time service order status update
Works & Asset Management	• Some degree of mobility solution is used in the process of receiving and creating order, planning and forecasting, scheduling work, dispatching work, performing work and closing out work.	• Inventory visibility, i.e. stock and location • Optimised works management through analytics • Enable real-time view of the network - Field integration with ADMS and OMS • Advanced crew composition management • Ability to capture structured (forms) and unstructured (images, videos etc.) data in the field • Ability to access original drawing and make mark-ups • Leverage mobility to enable variation management (e.g. project scope change)
Safety & Environment	• Paper-based job safety assessments	• Job safety assessments available and updatable electronically in the field • Advanced safety functionality, including integration with emergency services and other third party safety information providers • Real-time access to hazard information • Mobility solution for fatigue management • Push and pull access to real-time safety, hazard and environment information and documents based on location • Access to Job Safe Work procedures in the field
Enterprise Management	• No access to enterprise systems on mobility solution other than using smart phone	• Field crews have access to core enterprise systems such as email, intranet, HR functions etc.

Customer Relations Mobility

	Current State (2013)	Future State (2020)
Vision & Strategy	• Customer Service Strategy developed	• To provide mobile solutions that enable customers to request, monitor and manage their connection in an efficient and transparent manner • Single view of Customer details
Organisation & People	n/a	n/a
Technology	• Customers can access the SAPN website through their mobile/tablets	• Integrated customer app, including ability to raise service order and monitor status • Technology is set-up for customers to be able to request non-network options
Customer Engagement/ Management	• Customers receive outage notification based on their property detail • Customers can report public lighting faults	• Customers receive outage notification based on their location • Customers can manage their connection requests using mobile app in near real-time • Self-serve mobile app for electricians integrated with relevant back-end systems
Works & Asset Management	n/a	• Ability to look up information of customer requests (including history of requests, repairs etc.) in the field • Customer-side technology information available in the field
Safety & Environment	n/a	n/a
Enterprise Management	n/a	n/a

Network Management Mobility

	Current State (2013)	Future State (2020)
Vision & Strategy	• To remove paper-based asset inspection process and the current interim solution (Priority Asset) • To remove paper-based customer-connect process	• To enable condition-based risk maintenance of all assets • Leverage mobility for customer-connect process
Organisation & People	• Approx. 160 asset inspectors (including contractors) • Office based user for work package planning and allocation • 20 Customer Service Officers have access to SAP and email in the field	• "Smart" workforce empowered to make decisions in the field based on available information • Mobility solution is enabled for all field staff • KPIs leveraging mobility solutions implemented
Technology	• Geomatic application consists of mobile application for work execution and office-based application for work packaging and allocation • Toughbooks are integrated with the GIS system • Panasonic Toughbooks device, Windows 7 OS • Data input: asset map from Integraph GIS • Data output: asset information in hosted server	• Mobility application suite is integrated with relevant enterprise systems (e.g. SAP, GIS) • Drawing/ sketching can be done in the field • Business intelligence , dashboards and reporting information available in the field • Spatial view of mobile fleet assets
Customer Engagement/ Management	n/a	n/a
Works & Asset Management	• Asset inspection for cubicle switch gear asset class is currently enabled by mobility • Functionalities for other asset classes (approx. 50) will be progressively rolled-out by 2014 • Work packaging and allocation is manually executed by the coordinators • Implementing the ability to scope jobs in the field	• All of asset inspections will be enabled by mobility solution • Complete and up-to-date asset database • Ability to capture structured (forms) and unstructured (images, videos etc.) data in the field • Condition based risk asset maintenance • Effective defect reporting • Jobs can be scoped and shared with other field workers in the field • Ability to edit work order information in the field
Safety & Environment	• No safety functionality	• Push and pull access to real-time safety, hazard and environment information and documents based on location • Access to Job Safe Work procedures in the field
Enterprise Management	• No access to enterprise systems • Email access	• Mobile access to relevant enterprise systems and enterprise social networks

Enterprise Management Mobility

	Current State (2013)	Future State (2020)
Vision & Strategy	• None	• End-to-end process design (through to extending desktop applications) is incorporated in mobility implementation
Organisation & People	• Staff have the option to access emails using their smart phones	• Field crews and all staff have access to core enterprise systems using their mobile devices aside from smart phones • Field crews have access to learning materials , work instructions and tutorials on their mobility device. • Access to training qualifications, certifications and licenses off-site
Technology	• Email access through smart phones • Access to the intranet through mobility devices not user friendly	• Core enterprise systems are accessible through any mobile devices (device and OS independent) • Network access to enterprise systems away from the desk • Role-based access to applications and information through device security authentication
Customer Engagement/ Management	• n/a	n/a
Works & Asset Management	• n/a	• Users can submit time in the field • Users can close jobs in the field
Safety & Environment	• n/a	• Push and pull access to real-time safety and environment information and documents
Enterprise Management	• The only desktop application available on mobile is email	• Seamless integration extends enterprise systems to workforce, customers and partners • Most applications are “built for mobile first” • Enterprise social networks

Section 6: Supporting Materials

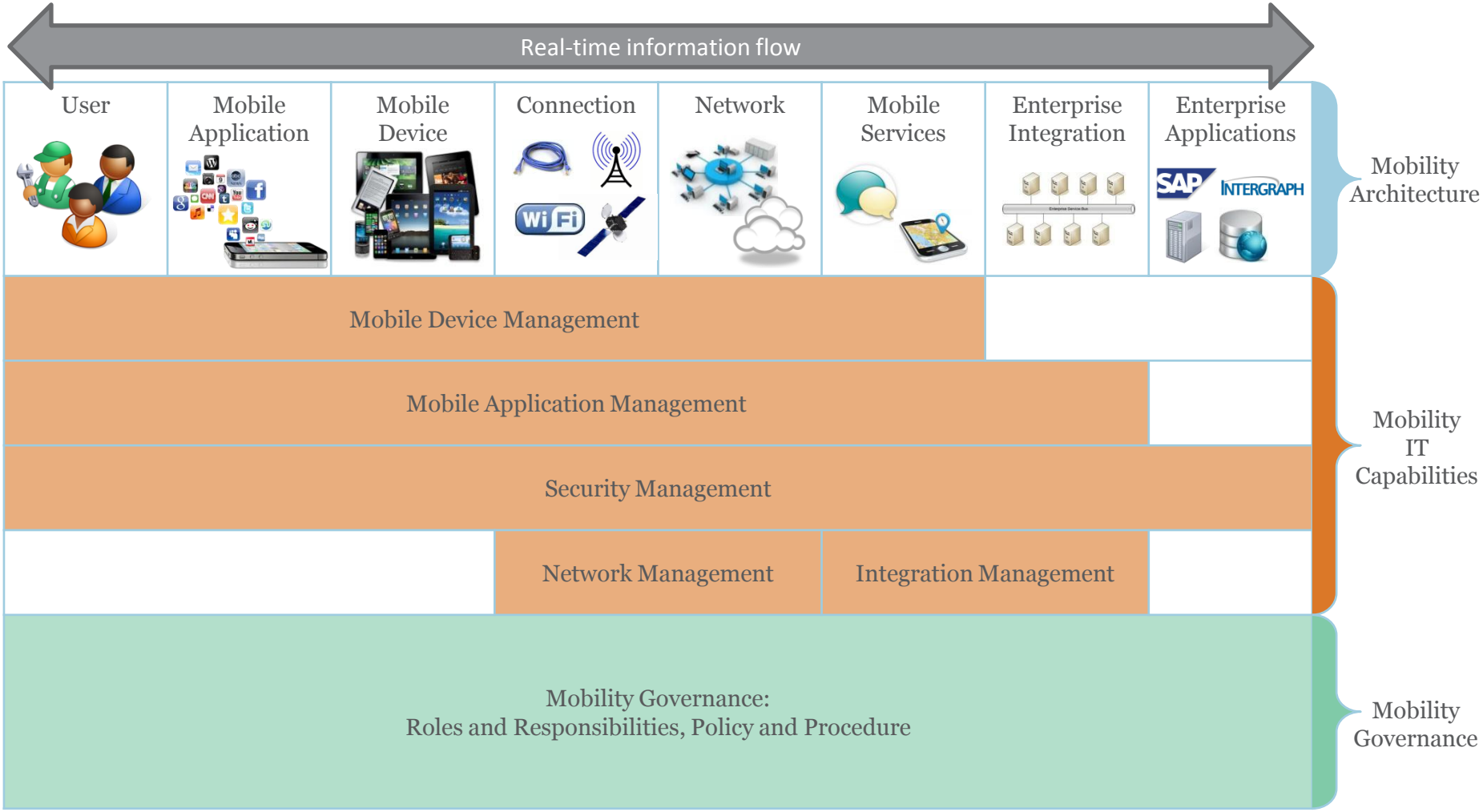
A Mobility Maturity Model

B Mobility Current and Future State

C **Mobility Solution Framework**

D Glossary

The *Mobility Solution Framework* consists of three layers of IT components



Mobility Solution Framework - Mobility IT Architecture

High level conceptual architecture for Mobility, consists of –

- Different types of Users interacting with Mobile Applications
- Different types of Mobile Applications available as per the User's Role
- Different types of Mobile Devices in which the Mobile Applications can run
- Different types of Connections in which the Mobile Devices can access the Network
- Different types of Networks that connect the Mobile Device and Application to various Mobile Services
- Different types of Mobile Services available based on the device and application profiles
- Enterprise Integration as a gateway to Enterprise Applications

Mobility Solution Framework - Mobility IT Capabilities

IT Capabilities required to manage the various components of the Mobility Architecture, which include –

- Mobile Device Management
- Mobile Application Management
- Security Management
- Network Management
- Integration Management

The capabilities along with their coverage and performance indicate the degree of IT organisational maturity.

Mobility Solution Framework - Mobility Governance

An overarching function to manage the architecture and capability development, which includes –

- Roles and responsibilities
- Method of operations
- Decision making process
- Prioritisation framework
- Reporting framework
- Policies and procedures
- Strategy development
- Strategy execution and monitoring

Section 6: Supporting Materials

Glossary

Term	Definition
Mobility Solution	A set of integrated software applications and associated technologies that together deliver the mobility capabilities needed to support the business objectives. A single mobility solution does not imply a single technology platform or application.
Mobile Device Management (MDM) **Definition by Gartner IT Glossary*	MDM includes software that provides the following functions: software distribution, policy management, inventory management, security management and service management for smartphones and media tablets. MDM functionality is similar to that of PC configuration life cycle management (PCCLM) tools; however, mobile-platform-specific requirements are often part of MDM suites.
Mobile Application Stores **Definition by Gartner IT Glossary*	Application stores offer downloadable applications to mobile users via a storefront that is either embedded in the device or found on the Web. Application categories in public application stores include games, travel, productivity, entertainment, books, utilities, education, travel and search, and can be free or charged-for. Private application stores can be created by enterprises for mobile workers.
Mobile Application	Mobile Application refers to both mobile web applications and mobile native applications that can be run on mobile devices.