2018-22
POWERLINK QUEENSLAND REVENUE PROPOSAL

Supporting Document

Powerlink Queensland
Non-Network Plan

Powerlink
QUEENSLAND

Delivering better value

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1 Introduction

The Non-Network Plan provides an analysis of forecast capital expenditure requirements for Powerlink's non-network assets that comprise business Information Technology (IT) and Support The Business assets (commercial buildings, motor vehicles and moveable plant).

Forecasting of business IT requirements has been undertaken through a planning process that has combined a top-down assessment of Powerlink's IT needs aligned to support the Powerlink Business Strategy, and bottom-up program planning that considered the overall state of Powerlink's existing business IT base and the investments required to achieve the business objectives.

Support The Business capital expenditure forecasts have been developed using a mix of historic trends and future expectations of specific business requirements.

The capital expenditure forecast for Commercial Buildings takes into account known initiatives to renew building fit-outs based on the need to enhance workforce productivity, in addition to provisions for future capital expenditure to replace assets forming part of buildings based on assessed condition and historical expenditure profiles.

The Motor Vehicle category includes cars, light commercial vehicles, trucks, trailers and other mobile plant. This has been forecast using current known costs and future business requirements, including a reduction in the size of the overall fleet to reflect the reduced capital expenditure on network assets.

The Moveable Plant category consists of tools and equipment and has been forecast using recent trends in capital expenditure for this category.

2 Assets under Consideration

This non-network plan provides information on the following two categories of capital expenditure that is required to support Powerlink's core regulated transmission network in Queensland:

- Business IT; and

- Support The Business.

2.1 Business IT

Business IT includes digital technology infrastructure and applications which support the operation of Powerlink's business. Business IT solutions are focussed on enhancing business capability and are a critical investment to secure improved productivity in the delivery of transmission services.

Assets delivered through business IT capital expenditure include servers, workstations, networks, software, licences, printers and so on.

2.2 Support the business

Support The Business capital expenditure includes all remaining non-network capital expenditure and has three sub-categories:

1) Commercial Buildings – Powerlink has three sites that have fit for purpose buildings located on them – Virginia (Head Office), Brendale (Disaster Recovery) and Narangba (Warehouse). Each of these sites has a range of different requirements for capital expenditure to ensure suitability to requirements is continued into the future;

2) Motor Vehicles – Powerlink's motor vehicle fleet includes a range of specialised service vehicles that have custom-built bodies or are custom made so as to carry out necessary expert maintenance or construction works whilst at site. These vehicles include elevated work platforms, service trucks, specialised cranes, highly modified trailers and cable brakes; and

3) Moveable Plant – These assets are composed of the (generally) hand held devices required to maintain the in-service assets, plant and equipment. These are varied in nature and allow maintenance to be properly carried out. They can include infra-red cameras to detect "hot spots" and avoid catastrophic failures, electronic diagnostic equipment, impedance meters, and so on.

3 Business IT

3.1 Introduction

This section of the Non-Network Plan summarises the strategic Business IT programs to be implemented over a seven year period up to 2022. It outlines:

- The performance of the IT program within the current regulatory period;

- The foundation of IT governance, delivery methodology, and organisation structures that have been established to support the execution of future IT strategy initiatives;

- The proposed IT program names and descriptions;

- Cost estimates across the outlook period;

- The roadmap for delivery across all programs;

- Program objectives and benefits;

- The alignment of each program to business strategy and business capability improvement;

- The program implementation complexity and risk assignments; and

- Summary details for each program.

This plan specifies the IT programs required in support of Powerlink achieving its business strategy and objectives.

Excluded from the scope are:

- Telecommunications;

- Intelligent Electronic Devices connected to the power network, as well as related telecommunications infrastructure and system components; and

- IT systems supporting Powerlink's operational technology services.

3.2 Current IT program performance

Powerlink's capital expenditure allowance for the 2013-17 regulatory period included a program of IT asset management life cycle upgrades and replacements, and a number of proposed new IT capability initiatives. Powerlink's IT expenditure performance across the current regulatory period is approximately $54.7m.

Powerlink's IT capital expenditure allowance for the 2013-17 period against actual and forecasted expenditure is presented in Table 1.

Table 1: Powerlink's 2013-17 actual IT vs 2013-17 allowance ($m nominal)

	2011/12 regulatory period	2013-17 regulatory period				
Year	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Allowance		16.2	15.5	17.0	16.9	17.4
Actual	16.4	8.0	5.4	9.7		
Forecast					15.2	16.3

The period since Powerlink's last revenue determination has been a time of significant change for Powerlink largely driven by external factors in the wider electricity industry and energy market. Powerlink's response to these changes included a restructure of the organisation to ensure it was better positioned to meet the changing needs of stakeholders, the market and the future demand for transmission services.

The organisation restructure commenced in 2013 and affected all business divisions of Powerlink. For most of the 2013 calendar year, organisational change management activities focused on the review and establishment of a new corporate structure. This resulted in Executive Managers making a prudent decision to defer, where appropriate, investments in Business IT initiatives until the new organisational changes had been embedded and as such, the focus has been on replacement and maintenance of existing Business IT systems.

The Business IT function was substantially modified in the organisational restructure, with new organisational structures, methodologies and governance process established to improve the organisational focus on benefits management. This is reflected in the actual IT expenditure for 2013 being significantly lower, and more so in the 2014 year. The implementation of the enhanced Business IT capability is now finalised and the organisation is confident that the changes will result in more efficient Business IT project delivery and benefits realisation in future.

The deferral of investments in Business IT during the current regulatory period has resulted in some of the forecast investment being carried over to the 2018-22 regulatory period; specifically those deferred were initiatives involving a high level of business subject matter expertise such as Network Asset Management, Business Intelligence and Network Operations support initiatives. With a changed organisational structure and an expected reduction in the size of the workforce, the implementation of the proposed Business IT initiatives is a complementary and fundamental step required to deliver expected improvements in productivity, business efficiency and cost reductions. In many regards, the implementation of this Business IT program is required for Powerlink to maintain a fit for purpose industry standard Business IT environment.

3.3 Business IT program planning

3.3.1 Top-down program definition

A top down and bottom up approach was undertaken to identify and define the programs required to support the realisation of Powerlink's business and Business IT strategies to 2022.

Top down planning for Business IT involves an assessment and understanding of Powerlink's business strategy, specifically in terms of it achieving its objectives to be agile and commercially focused. Powerlink's business strategy informs and shapes the organisation's Business IT Strategy in terms of:

- Vision;
- Scope;
- Capability; and
- Timing.

The inter-dependencies between Business and IT Strategy are illustrated in Figure 1.

Figure 1: Interdependencies between business and IT strategy

For high impact alignment, IT Strategy should be strongly lined to Business Drivers
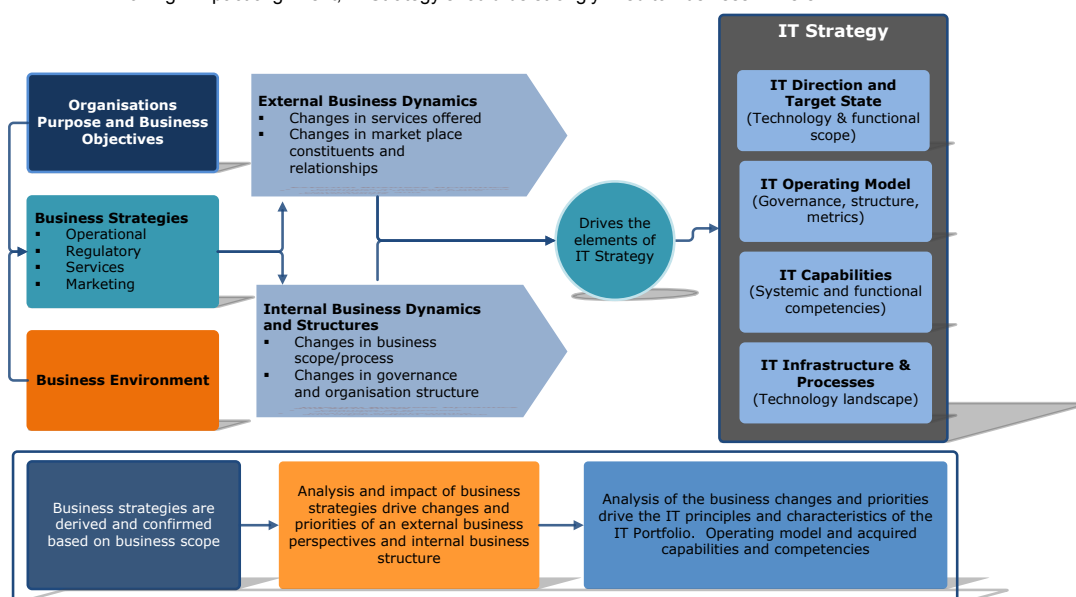
Top down planning also entailed understanding how global and industry trends may impact or influence Powerlink's Business IT landscape and the way Business IT is employed to support the realisation of business strategy objectives.

3.3.2 IT strategy

The IT Strategy has been defined to support achieving the strategic goals and objectives of Powerlink. The strategy focuses on utilising contemporary Information Technology to enable business capability, efficient performance and optimise information based decision making.

The Powerlink Business IT Strategy defines the future roadmap for IT and our key focus areas for the coming years. It focuses effort on strengthening IT capabilities and transforming services to meet Powerlink's changing requirements. It also ensures future IT investments and current IT resources are directed to areas that will deliver the optimal value for Powerlink.

The Business IT Strategy is structured into three focus areas with a number of enabling strategies that will drive actions and outcomes. The key focus areas are:

1) Strengthen the fundamentals – that build upon the results achieved to date by our Group IT function in improving existing IT capabilities and services. It is about ensuring our IT environment is stable, reliable and sufficiently flexible to respond to business change;

2) Invest in our information and technology – which extends our existing IT environment and implements new IT and business capabilities. It is about supporting business transformation by exploiting contemporary technologies and practices; and

3) Revitalise our people and services – which takes our IT capabilities and services to the next level of maturity to deliver optimal value for Powerlink. It is about improving IT competencies and services to ensure optimal IT planning, investment and delivery.

Figure 2: Business IT strategy focus areas

Strengthen the fundamentals …			
Ensuring our Business-IT environment is stable, reliable and sufficiently flexible to respond to business change	Strengthen and embed effective IT governance	Decommission obsolete technology	Standardise and simplify IT services
	Mature cyber security services	Commoditise IT services and products	Align IT workforce skills & competencies

Invest in our information & technology …			
Supporting business transformation by exploiting contemporary technologies and practices	Improve enterprise mobility	Enhance collaboration and information sharing	Improve system resilience to support business continuity
	Improve enterprise integration	Enhance decision making through IT	Optimise co-ordination between IT and OT to deliver business value

Revitalise our people & services …			
Improving Business-IT capabilities and services to ensure optimal IT planning, investment and delivery	Mature our IT capabilities to ensure responsive delivery	Improve IT supplier management	Optimise IT workforce capability & capacity
	Effective engagement with industry	Establish a contemporary business innovation culture	

3.3.3   Bottom-up program definition

Bottom up program planning considered the overall state of Powerlink's existing Business IT asset base, the capability it provides and supports, and the asset management treatment required (i.e. investment, consolidation, retirement) to achieve strategic and operational business objectives.

The harmonisation of the top down and bottom up approaches has resulted in a prudent Business IT capital investment plan and manageable business transformation.

3.3.4   IT asset management

The asset management of Powerlink's existing Business IT related software and hardware is undertaken in accordance with Powerlink's IT Asset Management Plan.

Budget forecasts for IT asset management are aligned to the Powerlink's IT asset management activities planned for the period to 2022.

3.4 Business IT governance

Powerlink requires strong IT Governance to achieve its strategic vision and objectives. It has established and operationalised an IT Governance Framework to address IT Governance requirements and will be the principal means by which IT activities are managed at a strategic, tactical and IT service delivery level. Governance is focused on achieving strategic alignment, value delivery, risk management and performance management of Powerlink's IT function.

Powerlink's IT Governance Framework is supported by the following Committees:

- Governance and Assurance Executive Committee (GAEC) – to inform the strategic direction and priorities of IT in Powerlink and provide input so that IT investments support business strategy and deliver value;

- IT Senior Leadership Committee (ITSLC) – to provide tactical management and oversight of Powerlink's IT function, facilitate its responsive and cohesive operations and monitor performance against agreed targets; and

- IT Sub Committees – to assist in managing the activities and accountabilities within each Group making up the Powerlink IT function.

Powerlink will drive the delivery of its IT Strategy through effective IT Governance. Both the Governance and Assurance Executive Committee (GAEC) and IT Senior Leadership Committee (ITSLC) will ensure ongoing alignment with Powerlink's business objectives and monitor progress towards achieving our IT goals and priorities. The Strategy is outcome-focused, and while it specifies a direction of travel, it remains flexible to be adjusted over time as priorities and circumstances change. It will be reviewed annually as part of Powerlink's Business-IT planning process.

3.4.1 IT risk and compliance

Powerlink is maturing a formal IT Risk and Compliance Framework. While risk management practices are undertaken within Powerlink, as part of the delivering the IT Strategy, risk management will be strengthened and matured over the next 12 months. Presently, a Business IT Risk Register has been defined and strategic risks are regularly reviewed as part of the IT Governance committee meetings.

3.4.2 Program scheduling and dependencies

The scheduling of the programs (i.e. the year/s in which the programs are planned to commence and the subsequent investment to occur) has been based on the following considerations:

- Business priorities and needs (e.g. corporate strategy outcomes, corporate risk mitigation, technology obsolescence, operational efficiency drivers, etc.);

- Interdependencies (i.e. one program is reliant, in part or whole, on the deliverables of another program);

- Powerlink's capacity to undertake the program based on investment (costs) and resource availability across one or more areas of the business; and

- The degree of business impact and change a program, or sequence of programs, has on the day-to-day operations of the business.

3.4.3 Program estimation

Estimates have been made based on calculations of time, effort, level of expertise and current industry costs of potential solutions for each of the program's requirements. The estimates have then been benchmarked to real world programs undertaken by other organisations of a similar size and similar maturity using external data sources and resources as inputs to ensure appropriateness. Program estimates are top down and assume the reuse of any existing technology where applicable.

The spend profile of each program is dependent on the nature of the project. That is, the type of activities undertaken, the nature of the expenses incurred (opex/capex), and when the expense is realised will vary according to the intended outcomes a program or its sub-projects.

In order to complete high level program estimates, the spend of operational and capital expenditure has been generalised, and in most cases, is based on the activity/spend profile which sees a larger investment in operational expenditure for the first phase of the program and a larger investment in capital expenditure in the second phase.

The capital expenditure implementation activities were itemised into separate sections for estimation. Estimates used current resource costings against expected service, hardware and software requirements, and have been measured against industry benchmarks for similarly sized organisations for confirmation.

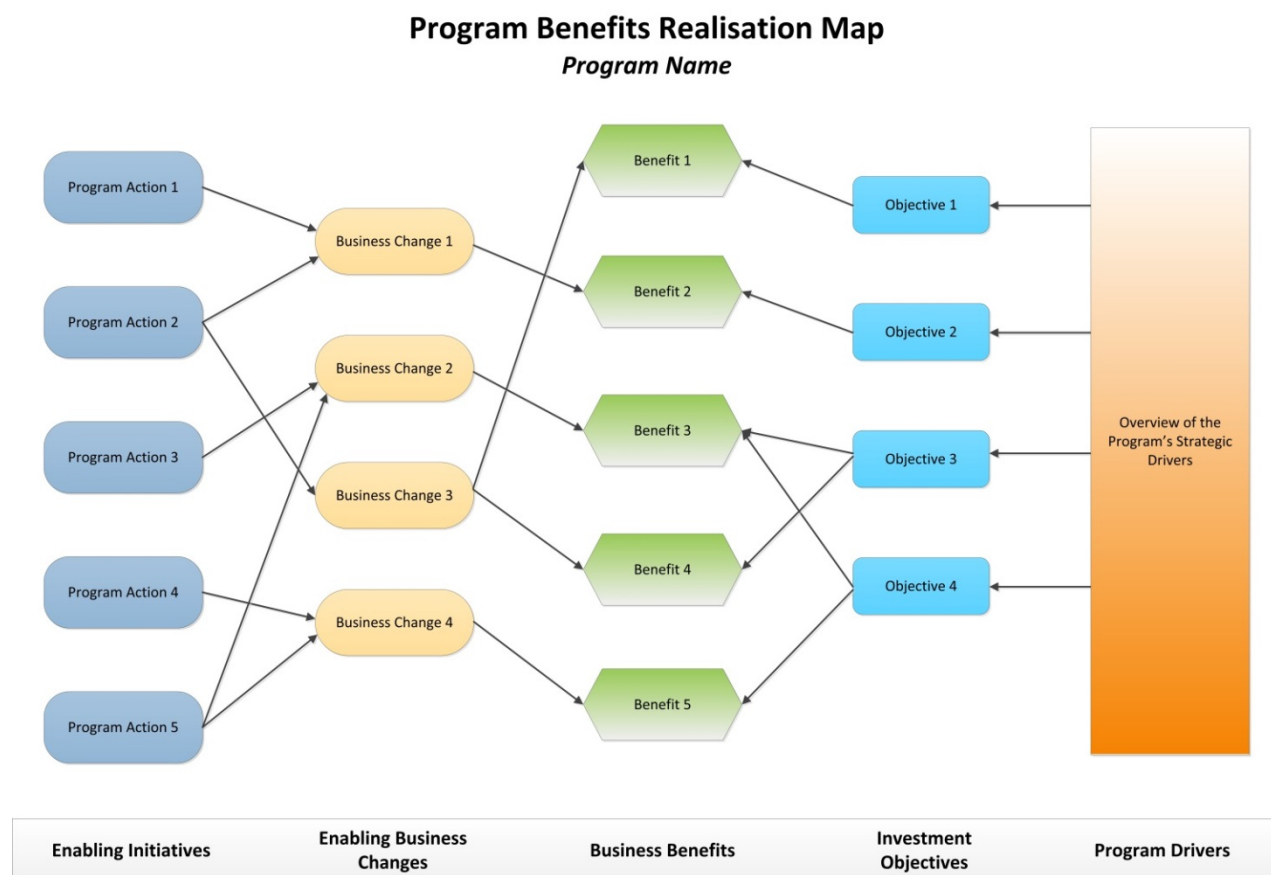**Table 2: Program capital expenditure cost areas**

Cost area	Cost type	Cost inclusions
Hardware and software setup costs	Capex	Includes new hardware and software for servers and end-users; and vendor software packages, and customisation as required.
Software licencing	Capex	First year and / or one off licencing costs.
Human resourcing	Capex	Labour for external consulting, project management, vendor management, business analysts, design and configuration engineers, database administrators, development engineers, and quality assurance.
System replacement	Capex	Includes costs associated with the removal or replacement of the existing solution.
Admin training	Capex	Includes administrator documentation and training of technical and business staff required to run and maintain the implemented solutions.
Enterprise upgrades	Capex	Includes any upgrades to network, security, and/or facilities required to accommodate the new solutions.
IT facilities	Capex	Includes any costs associated with data centre hosting of the solutions such as setup costs, disk capacity expansion, and rack provisioning.

3.4.4 Benefits realisation

Benefits realisation is a way of documenting and managing how time and resources are invested into making desirable changes to the business. The Benefits Realisation Map is a diagrammatic view of this management. It quickly and easily conveys which of the program's implemented actions (known as enablers) make or enable which change to the business, and correspondingly which desired benefit is realised. These benefits are further mapped to the strategic objectives of the program to show business strategy alignment and relevance.

Figure 3 is a template example of the Benefits Realisation Map used for these programs. This map has been completed for all programs and is included in the summary details within this document. The map is read from both left and right to the benefits in the middle. From the left, the diagram links the actions performed by the program, to the business changes that occur due to these actions, and then to the benefits realised by each business change implemented. The links from the right to the middle show how the strategic drivers and objectives sort by the business directly align to these benefits.

Figure 3: Template example of benefits realisation map

Program Benefits Realisation Map
Program Name

Enabling Initiatives	Enabling Business Changes	Business Benefits	Investment Objectives	Program Drivers

3.4.5 Strategic alignment

Powerlink Queensland identifies four "Strategic Themes" as key focus areas for enhancing business performance:

1) SAFE FOR LIFE – Everyone. Everywhere. Everyday.;

2) Efficient performance and delivery;

3) Agile people and process; and

4) Stakeholder value proposition.

Figure 4: 2015 Powerlink business strategy

For the purpose of aligning the Business IT programs to the "Strategic Themes", these themes have been expanded to include strategic measures. All programs have been subsequently aligned to these strategic measures.

Figure 5: Business strategies framework

2015 Business Strategy
Strategic Alignment Framework
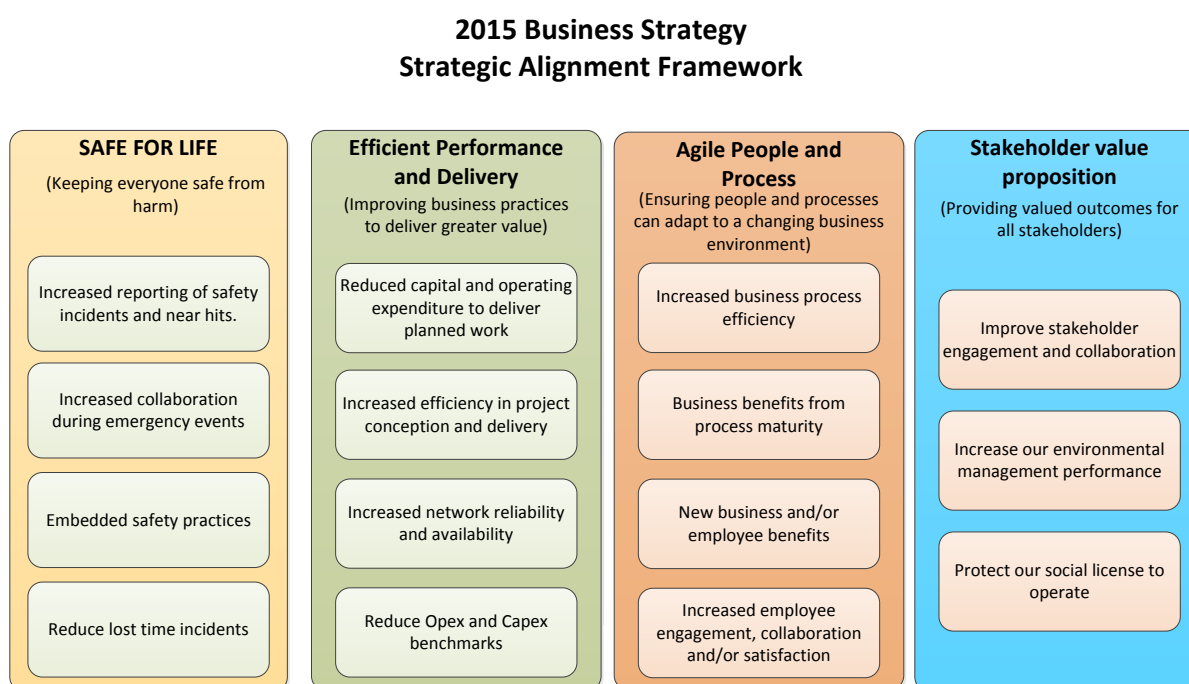
3.4.6 Business capability enhancements

A business capability is defined as the ability of an organisation to perform a business action. This requires the right people with the right skills using the right tools to follow the right processes in the right place at the right time, aligned to adequate governance and safety controls. The Powerlink Business Capability Model below identifies the capabilities uplifted by the programs identified to 2022. This model is a relevant subset derived from the Powerlink Business Process Architecture Model V2.0.

Figure 6: Powerlink Business Capability Model – relevant subsets
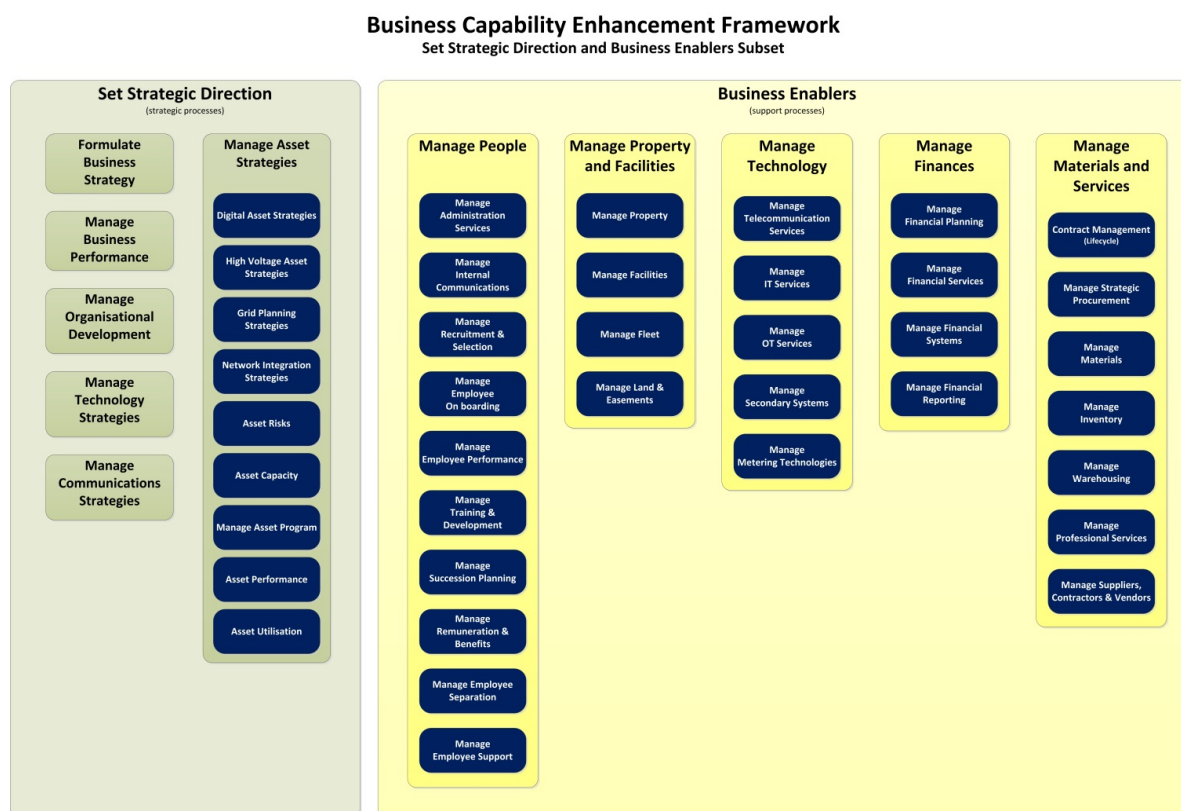
Each Business IT program supports particular areas of business capability improvement. These capability improvements have been identified and mapped for each program to this framework. All programs were then mapped together to gain a complete understanding of the full extent of capability enhancements across the portfolio as included in this document.

3.4.7   Capability level definitions

The capability levels referenced throughout this document are defined below.

Table 3: Definition of capability levels

Capability level	Definition
Level 1 - Incomplete	Processes are not well documented, poorly controlled and reactive.
Level 2 - Managed	Process is characterised for projects and is often reactive.
Level 3 - Defined	Process is characterised for the organisation and is proactive.
Level 4 - Quantitatively managed	Process is measured and controlled.
Level 5 - Optimised	Focus is on continuous quantitative improvement.

3.4.8　Program implementation complexity

The complexity of a program has significant impact on the actions that are required to ensure a successful implementation. For example programs of a high complexity require more rigour prior to design and solution selection, often involving complex requirements gathering from multiple sources. In such cases additional resourcing and analysis is required in the early stages, additional governance of architectures and dependencies is required during the implementation, and specialist actions may be required during the build and delivery phases.

Table 4 provides a matrix of complexity ratings based on four key areas of complexity:

1)　Procurement complexity;

2)　Level of business change;

3)　Level of support required; and

4)　Governance requirements.

A program's complexity is determined by the aggregate of these four areas, leaning toward the higher rating when in doubt. This ensures a programs complexity is not underestimated and appropriate mitigations strategies can be put in place.

Table 4: Program Implementation Complexity Model

Program implementation complexity	
Rating	**Definition**
Low	• Use of a service providers engaged through a simple internal procurement process • Minimal business change • Low support effort required from internal staff or external service providers • program based governance requirements managed internally of the program
Medium	• Use of a service providers engaged through a full internal procurement process • Medium level of business change • Medium support effort required from internal staff or external service providers • Governance requirements managed internally within the program, with alignment meetings with broader governance teams minuted
High	• Service provider engagement process requires detailed procurement process utilising external procurement and engagement assistance (e.g. QTender service) • Significant business change and impact to the business • Significant or dedicated support effort required from internal staff and/or external service providers • Full governance requirements, including formal project delivery methodology, steering committee, and stage gate reviews. May also require external assurance review

Each program has been analysed and classified to this complexity matrix to increase the accuracy of the cost estimation associated with identifying a program's design and discovery requirements.

3.4.9　Program implementation risk

The implementation risk of a program is a measure of the likelihood of unexpected issues, costs or obstacles that may be encountered during the implementation of a program. High risk implementations require additional controls and interventions to manage any issues or obstacles that arise and these have been allowed for in the estimated costs.

Table 5 provides a matrix of complexity ratings based on four key areas of complexity:

1. Technical complexity;
2. System integration requirements;
3. Availability of skills and resources; and
4. Risk in business change (adoption and acceptance).

A program's implementation risk is determined by the aggregate of these four areas, leaning toward the higher rating when in doubt. This ensures a programs risk of implementation failure is not underestimated and enables appropriate mitigations strategies to be put in place.

Table 5: Program Implementation Risk Model

Program implementation risk	
Rating	**Definition**
Low	• Low technical complexity • Minimal or no system integration • Ready availability of skills and resources internally and/or externally • Low risk in business change
Medium	• Medium technical complexity • Integration with other systems and information stores • Availability of skills and resources externally • Medium risk in business change
High	• High technical complexity • Complex integration with multiple systems and information stores • Scarce availability of skills and resources • High risk in business change

Each program has been analysed and classified to this risk matrix to increase the accuracy of the cost estimations associated with managing a program's implementation.

3.5 Business IT program summary

After considering Powerlink's Business Strategy, its Business IT Strategy, external industry trends (electricity, IT, etc.) and other key influences, the following programs have been identified as necessary for the achievement of Powerlink's business objectives.

3.5.1 Business IT program outlook to 2022

Table 6: Business IT programs to 2022

No.	Program name	Program value brief
Business IT programs to 2022		
1	Human capital management	The introduction of a technology supported end-to-end Human Capital Management solution (excluding Payroll) will provide Powerlink Queensland employees and their managers the ability to seamlessly and efficiently perform the majority of their HR needs online via a self-service portal. This includes strategic and operational resource management, employee performance management, organisational inductions, employee's remuneration, leave and benefits reporting.
2	Network asset management	The aim of this program is to modernise and consolidate existing Network asset data and Network asset management technologies to deliver improvements in network asset management practices, and increases in operational efficiencies across network asset planning, maintenance functions as well as related asset management support activities.
3	Enterprise integration	This program will provide a common integration platform for information sharing between solutions operating across the organisation and enable secure and seamless business-to-business information sharing between Powerlink and its service providers and business partners. This program will also remove the need for multiple point-to-point integration builds in future IT solutions.
4	Identity and access management	This program will provide a common identity and access management platform to better manage user access to employees and business partners to sites and information thereby increasing security compliance whilst decreasing risk of breaches and incidents.
5	Enterprise mobility	To connect enterprise data with personnel in the field when and where it's needed to increase the safety and efficiency of workers, and improve Powerlink's ability to perform as a modern, efficient and effective provider of transmission services.
6	Emergency alert management	To replace Powerlink's existing disaster/emergency communication solution with a modern real time collaboration platform and mass notification capability to support rapid communication between staff, partners and stakeholders in the event of a disaster or emergency.
7	Cyber security	To implement security technologies and tools to enhance the management, monitoring and continuous improvement of all IT security related functions to ensure Powerlink's information assets are sufficiently protected from the ever-growing risks of external cyber related attacks and threats (i.e. hacks, malware etc.).
8	Spatial business intelligence and Analytics	This program will support better asset and resource management across Powerlink by providing users with the ability to extend the use of spatial information beyond maps/mapping into areas such as decision support, reporting and analytics for resource and network planning, network construction, business and network operations and maintenance.
9	Enterprise Resource Planning (ERP) modernisation	To deliver improvements to the processes and the ERP system associated with asset management, logistics, human resource management, finance, investment and project management to delivery greater business value and performance across core business functions.
10	Software/hardware refresh	To replace and refresh existing assets as they reach end of life.
11	Minor software	For minor projects to support the business across the organisation.

3.5.2 Planned capital investment summary

Table 7 outlines the estimated year on year capital expenditure for each program:

Table 7: Business IT program financial estimate summary ($ 2016/17)

Program	Start Date	Duration (months)	2017/18	2018/19	2019/20	2020/21	2021/22	Five year total ($k)
Human capital management	July 2021	18	$0	$0	$0	$0	$1,009k	$1,009k
Network asset management	January 2018	54	$1,663k	$1,875k	$1,201k	$3,824k	$1,367k	$9,930k
Enterprise integration	July 2017	54	$520k	$521k	$627k	$629k	$841k	$3,137k
Identity and access management	July 2017	36	$1,559k	$521k	$522k	$0	$0	$2,602k
Enterprise mobility	January 2019	24	$0	$885k	$888k	$450k	$0	$2,223k
Emergency alert management	January 2018	9	$738k	$370k	$0	$0	$0	$1,108k
Cyber security	July 2017	60	$1,455k	$521k	$522k	$524k	$1,682k	$4,704k
Spatial business intelligence and analytics	January 2019	42	$0	$1,198k	$2,193k	$1,938k	$2,471k	$7,800k
ERP modernisation	July 2017	36	$1,351k	$1,354k	$1,358k	$0	$0	$4,063k
Software/hardware refresh	Recurring/Periodic		$4,671k	$3,636k	$4,681k	$4,688k	$3,914k	$21,590k
Minor software	Recurring		$467k	$468k	$469k	$469k	$470k	$2,343k
Total of all programs ($m)			$12.43m	$11.35m	$12.46m	$12.52m	$11.75m	$60.51m

3.5.3   Program strategy and capability alignment

All programs have been aligned to both Business Strategy as well as Business Capability enhancements. The summary of these alignments is included below:

Figure 7: Program Strategic and Capability Alignment Model
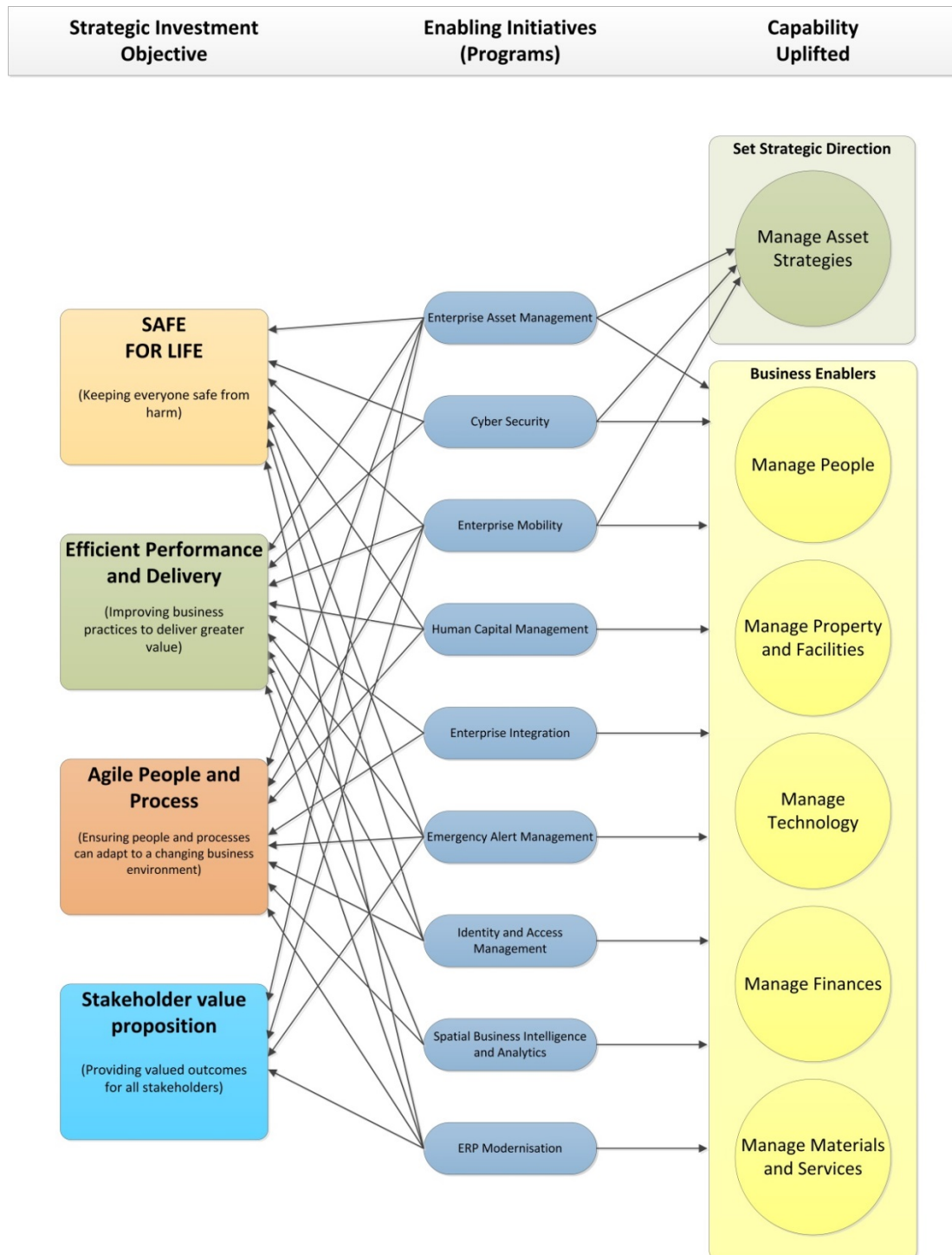
3.5.4 Program implementation complexity and risk matrix

As noted in Section 3.4, the overall program implementation complexity and risk is determined by the aggregate of each of the four relevant criteria.

Each program has been assessed and the following levels determined:

Table 8: Program implementation complexity and risk assessment

Program implementation complexity and risk summary			
No.	Program name	Implementation complexity	Implementation risk
1	Human capital management	High	High
2	Network asset management	High	High
3	Enterprise integration	Medium	High
4	Identity and access management	Medium	Medium
5	Enterprise mobility	High	High
6	Emergency alert management	Low	Medium
7	Cyber security	Medium	Low
8	Spatial business intelligence and analytics	High	High
9	ERP modernisation	High	Medium
10	Hardware refresh	Low	Low
11	Minor software	Low	Low

3.6 Individual IT program summaries

The following pages outline the Business IT programs which define the initiatives required to uplift business capability from Level 1 to Level 3 by 2022. These programs, if implemented, will ensure Powerlink has fit-for-purpose Business IT solutions that support the realisation of Powerlink's Business Strategy objectives.

3.6.1 Human capital management

Description

Human capital management (HCM) is a set of practices related to people resource management. These practices are focused on the organisational need to provide specific competencies and are implemented in three categories: workforce acquisition, workforce management and workforce optimisation[1].

The technology to enable this is comprised of a suite of supporting systems and applications such as Human Resources Management System (HRMS), Workforce Management, Expense Management, Employee Leave Management and other administrative or transactional management tools.

The introduction of an end-to-end HCM solution (excluding Payroll) will provide Powerlink employees the ability to perform the majority of their HR needs online via a self-service portal. This includes strategic and operational resource management, employee performance management, organisational inductions, employee's remuneration, leave and benefits reporting.

To realise this program Powerlink Queensland will adopt industry standard methods for identifying, developing and documenting the business requirements and scope of services, and to ensure information complexity is managed appropriately. Due diligence will be completed via industry engagement with a full formal procurement process to acquire a contemporary solution from the market that aligns to Powerlink's requirements.

It is estimated that the solution would most likely take 18 months to implement, with activities continuing into 2023. The total capital investment to 2022 is expected to be $1.0m.

Business benefits

The implementation of the Human Capital Management program aims to deliver improved efficiencies across many human resource management processes, resulting in greater business performance through better utilisation, alignment and management of resources to changing work demands.

Through the delivery of an integrated end-to-end Human Capital Management solution, the program also aims to deliver a reduction in manual administrative activities by providing employees with direct access to a range of self-service HR resources and employee support services.

The following benefits are expected from the program implementation:

* Supports HR identification of the people assigned to roles;

* Improved efficiency of administrative activities; and

* Improved management oversight and monitoring of employees including performance management and reward and recognition.

The purpose of Figure 8 is to clearly show how the program provides business benefit, fully aligned to the organisation's strategic drivers and objectives.

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[1] Gartner IT Glossary - http://www.gartner.com/it-glossary/hcm-human-capital-management

Figure 8: Human capital management benefits realisation map

Program Benefits Realisation Map
Human Capital Management

Enabling Initiatives	Enabling Business Changes	Business Benefits	Investment Objectives	Program Drivers
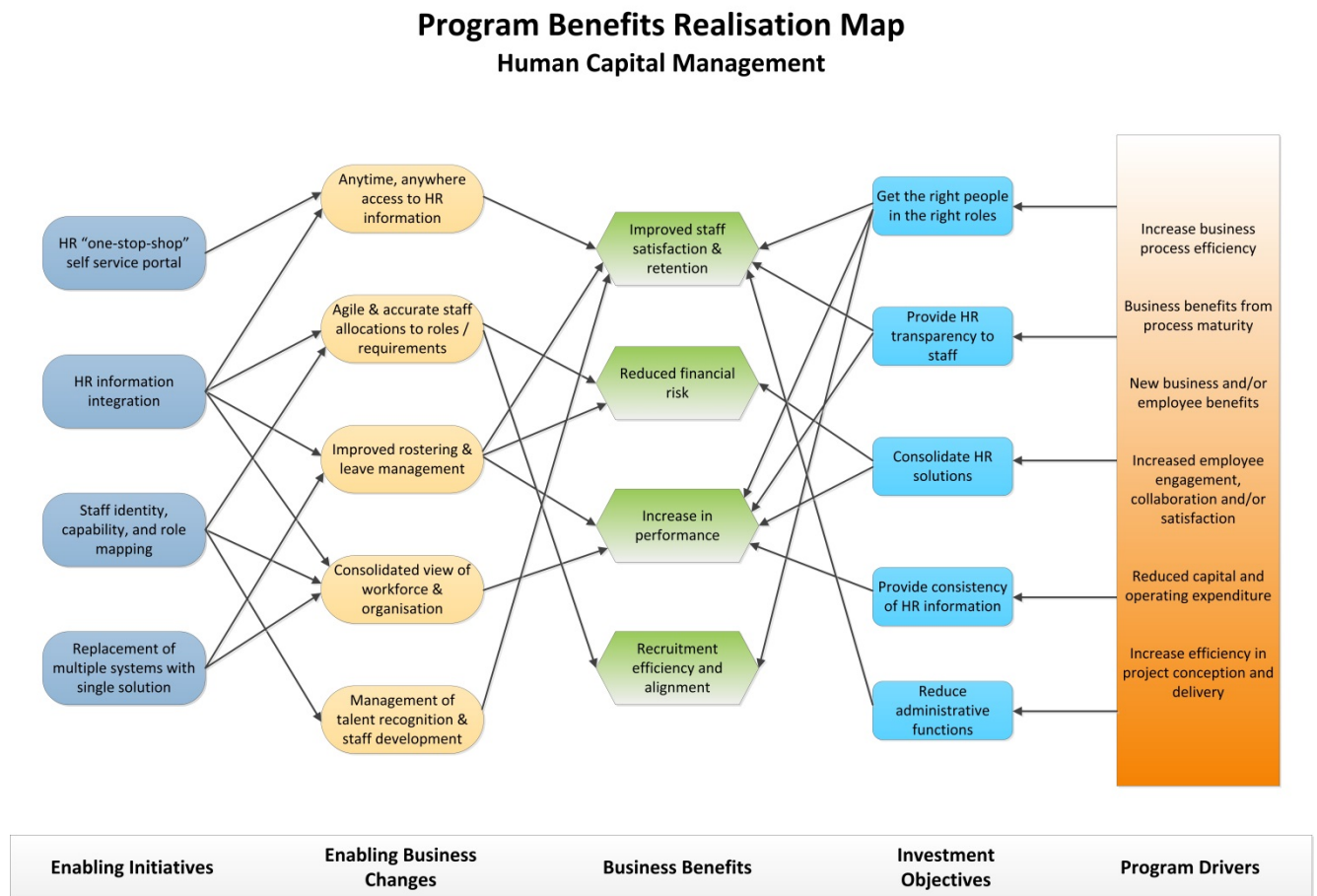
Strategic alignment

The Human Capital Management program aligns to all strategic measures within the "Agile People and Process" theme through increases in process efficiency, maturity, and employee engagement. It aligns to "Efficient Performance and Delivery" by reducing expenditure and increasing efficiency of employees performing new and existing business activities.

Business capability improvements

The Human Capital Management program aims to provide Powerlink with an integrated solution that enhances the ability for Powerlink to more efficiently manage its employees and resources. Capability enhancements of the program are targeted in the "Manage People" domain, with significant increases in maturity for several Human Resource processes.

Program summary

Human capital management – IT

Summary description
Human capital management (HCM) is a set of practices related to people resource management. These practices are focused on the organisational need to provide specific competencies and are implemented in three categories: workforce acquisition, workforce management and workforce optimisation.

The Human Capital Management program is required to modernise the processes and systems that support the end-to-end management of Powerlink's frontline and corporate support human resource services, and ensure Powerlink's HR processes and systems support the organisation's future needs and demands.

The introduction of an end-to-end Human Capital Management solution (excluding Payroll) will provide Powerlink Queensland employees the ability to perform the majority of their HR needs online via a self-service portal. This includes strategic and operational resource management, employee performance management, organisational inductions, employee's remuneration, leave and benefits reporting.

Expected business enhancements			
Benefits	The following benefits are expected from the program implementation: • Supports HR identification of the right people in the right roles; • Improved efficiency of administrative activities; and • Improved management oversight and monitoring of employees including performance management and reward and recognition.		
Objectives	This program aims to modernise Powerlink's end to end Human Resource (Human Capital) Management capability.		
Strategic focus	• Agile People and Processes • Efficient Performance and Delivery • SAFE FOR LIFE	Capability focus	• Managing People • Managing Finances
Strategic goals	• Support business process efficiency • Business benefits from process maturity • New business and/or employee benefits • Improved employee engagement, collaboration and/or satisfaction • Optimised capital and operating expenditure to deliver planned work • Improved efficiency in project conception and delivery	Capabilities uplifted	• Manage Administration Services • Manage Internal Communications • Manage Recruitment and Selection • Manage Employee On-boarding • Manage Employee Performance • Manage Training and Development • Manage Succession Planning • Manage Employee Separation • Manage Financial Planning • Manage Financial Reporting

Estimated program implementation			
Complexity	High	Risk rating	High
Duration	18 Months	Start date	July 2021
Dependencies	Although this program does not depend on any specific programs or projects that are currently active or scheduled, it does rely on accurate and complete understanding of information and data stores of all current Powerlink HR data, and will integrate with the ERP program.		
Constraints	The program must adhere to Powerlink Queensland's Enterprise Architecture, Procurement and Governance standards. No other constraints are envisaged.		

Estimated program investment						
Implementation years		2017/18	2018/19	2019/20	2020/21	2021/22	Five year total
Implementation cost		$0k	$0k	$0	$0	$1,009	$1,009k

3.6.2   Network asset management

Description

Asset Management is the process of ensuring an organisation's assets perform to support the organisation's mission and satisfy the expectations of the various stakeholders. Without effective network asset management, Powerlink cannot take advantage of synergies that exist between different asset classes and cannot guarantee the timely consistent and effective management of its assets.

The management of assets improves when the asset management system takes into account all of the stages and cycles that the plant will experience through its life. Network asset management in Powerlink plays a key role in the detection and evaluation of decisions leading to long-term lowest cost delivery of services. Therefore, deployment and utilisation of appropriate technologies that support and integrate network asset data is critical for the successful performance of these functions.

The aim of this program is to modernise and consolidate the solutions and technologies which support Powerlink's network asset data and network asset management functions.

This program will deliver solutions required to support network asset management, commencing with the inception of the asset through to decommissioning. This program will also deliver network asset performance and analysis tools to support improved end-to-end asset management.

To realise this program Powerlink Queensland will adopt industry standard methods for identifying, developing and documenting the business requirements and scope of services, and to ensure information complexity is managed appropriately. Due diligence will be completed via industry engagement with a full formal procurement process to acquire a contemporary solution from the market that aligns to Powerlink's requirements.

It is estimated that the program would most likely take 4.5 years to implement and would be completed at an estimated capital expenditure cost of $9.9m.

Business benefits

The following benefits are expected from the program implementation:

- Enhance strategic network asset risk assessments;

- Improve strategic network asset risk mitigation activities;

- Allow improved management of network asset maintenance costs; and

- Optimise network asset reliability and performance.

The purpose of Figure 9 is to clearly show how the program provides business benefit, fully aligned to the organisation's strategic drivers and objectives.

Figure 9: Network asset management benefits realisation map

Program Benefits Realisation Map
Network Asset Management

Enabling Initiatives	Enabling Business Changes	Business Benefits	Investment Objectives	Program Drivers
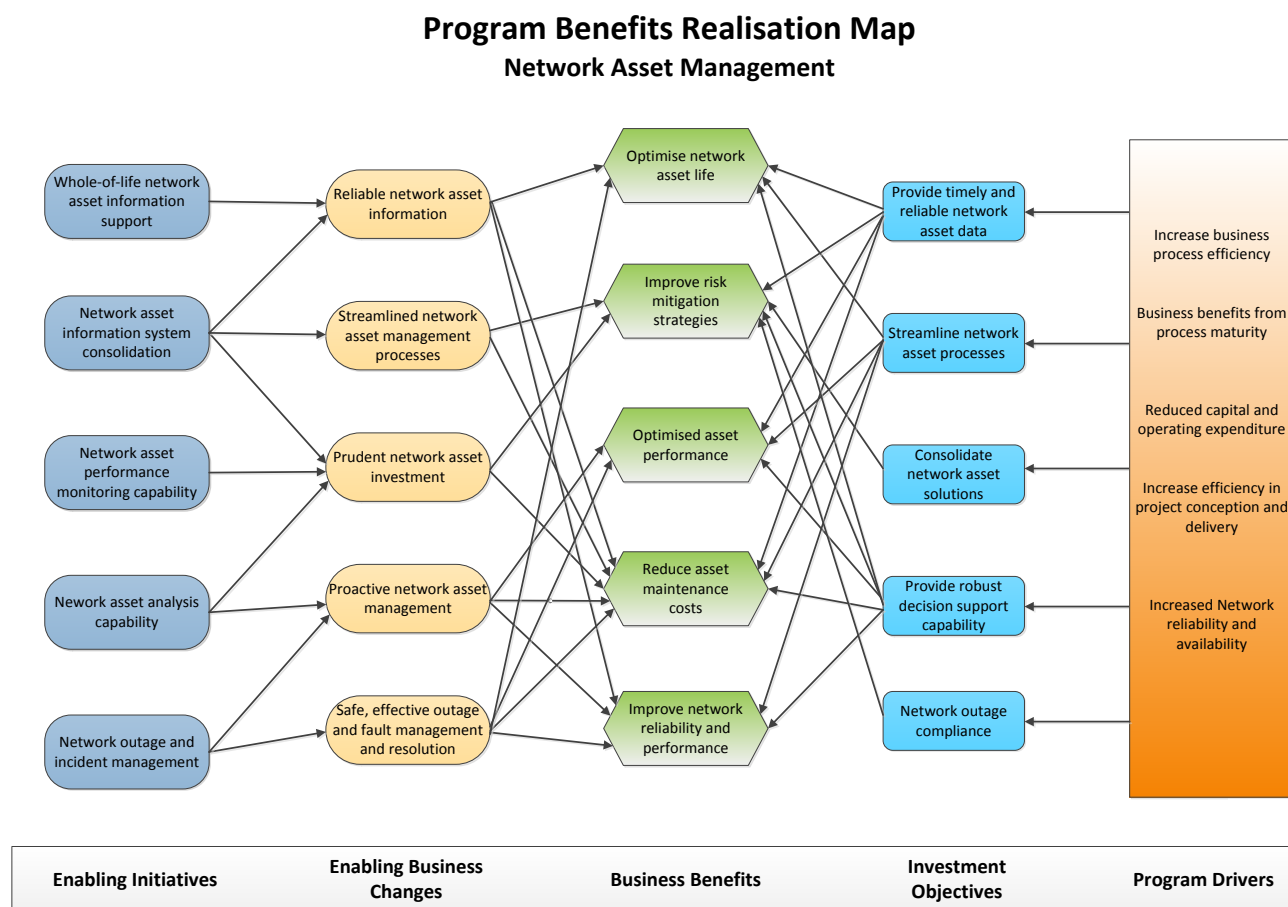
Strategic alignment

The Network Asset Management program aligns to strategic measures within the "Agile People and Process" theme through increases in process efficiency and maturity. It also aligns to "Efficient Performance and Delivery" by reducing expenditure, increasing efficiency of staff performing new and existing business activities, increasing network reliability and reducing operational and capital expenditure benchmarks for Transmission Services. "SAFE FOR LIFE" is supported through improved asset management processes that deliver better quality information to field based employees engaged in asset maintenance and management activities while Powerlink Stakeholder value proposition is supported through the delivery of performance improvements.

Business capability improvements

The Network Asset Management program increases the capability level of the "Manage Asset Strategies" domain.

Program summary

Network asset management

Summary description
Asset Management is the process of ensuring an organisation's assets perform to support the organisation's mission and satisfy the expectations of the various stakeholders. Without effective Network Asset Management, Powerlink cannot take advantage of synergies that exist between different asset classes and cannot guarantee the timely consistent and effective management of its assets. Asset management improves when the asset management systems take into account all of the stages and cycles that the plant will experience through its life. The aim of this program is to modernise and consolidate the existing network asset data and network asset management technologies and implement a unified suite of network asset solutions so Powerlink will be able to better manage network asset records and network asset management processes. This program will deliver solutions required to support network asset management, commencing with the inception of the network asset through to its decommissioning. This program will also deliver network asset performance and analysis tools to support improved end-to-end asset management.

Expected business enhancements				
Benefits	The following benefits are expected from the program implementation: • Enhance strategic network asset risk assessments; • Improve strategic network asset risk mitigation activities; • Allow improved management of network asset maintenance costs; and • Optimise network asset reliability and performance.			
Objectives	This program aims to implement a unified suite of network asset solutions to: • Better manage network asset records to ensure high quality network asset data is available to the enterprise as and when required; • Ensure seamless re-use of network asset data across all Network asset transmission service capabilities; • Support network asset performance monitoring; and • Enable complex network asset analysis.			
Strategic focus	• Agile People and Processes • Efficient Performance and Delivery	Capability focus	• Manage Asset Strategies	
Strategic goals	• Optimised capital and operating expenditure to deliver planned work • Improve efficiency in project conception and delivery • Sustained network reliability and availability • Improved business process efficiency • Business benefits from process maturity	Capabilities uplifted	• Manage Asset Strategies • Network Asset Strategies • Grid Planning Strategies • Asset Risks • Asset Capacity • Manage Asset program • Asset Performance • Asset Utilisation	

Estimated program implementation			
Complexity	High	Risk rating	High
Duration	54 Months	Start date	January 2018
Dependencies	To realise the benefits of this program, Powerlink must have an accurate and complete understanding of information and data stores of all current Powerlink network asset data.		
Constraints	The program must adhere to Powerlink Queensland's Enterprise Architecture, Procurement and Governance policies and standards. No other constraints envisaged.		

Estimated program investment						
Implementation years	2017/18	2018/19	2019/20	2020/21	2021/22	Five year total
Implementation cost	$1,663k	$1,875k	$1,201k	$3,824k	$1,367k	$9,930k

3.6.3 Enterprise integration

Description

Enterprise Integration is defined as the practices, architectural techniques and tools for achieving consistent access to, and delivery of data across the spectrum of data subject areas and data structure types in the enterprise, to meet the data consumption requirements of all applications and business processes[2].

To Powerlink this means defining how information is shared between IT systems, where the information comes from (it's source of truth), how the information is classified and secured for correct access by authorised personnel, and what tools and IT standards are used in delivering these capabilities.

This program aims to deliver the architectures and technologies required to support enterprise integration capabilities including, but not limited to, messaging, application integration, workflow, process automation and management, mobile integration, enterprise portals, business-to-business (B2B) integration, and Web services.

The program achieves this by implementing an integration platform and common set of architectural structures that provide the governance, structure and tools required to replicate information and data sets between disparate applications and solutions. The common platform enables Powerlink to readily share data both internally and externally with relative ease. The centralised management of information sharing and integration also provides a one-stop-shop for all project and service related issues or activities to be managed from, increasing efficiency of operational activities and strategic initiatives.

To achieve this the program requires a good understanding of the business processes and information sharing that currently exists, the new initiatives that will use, interact or consume this data, and the business requirements for sharing data externally to the organisation. A strong focus of the program will be on the data architecture modelling and standards to ensure this is possible.

It is estimated that the integration activities will be scheduled across the five years to 2022, with the total capital cost expected to be $3.1m.
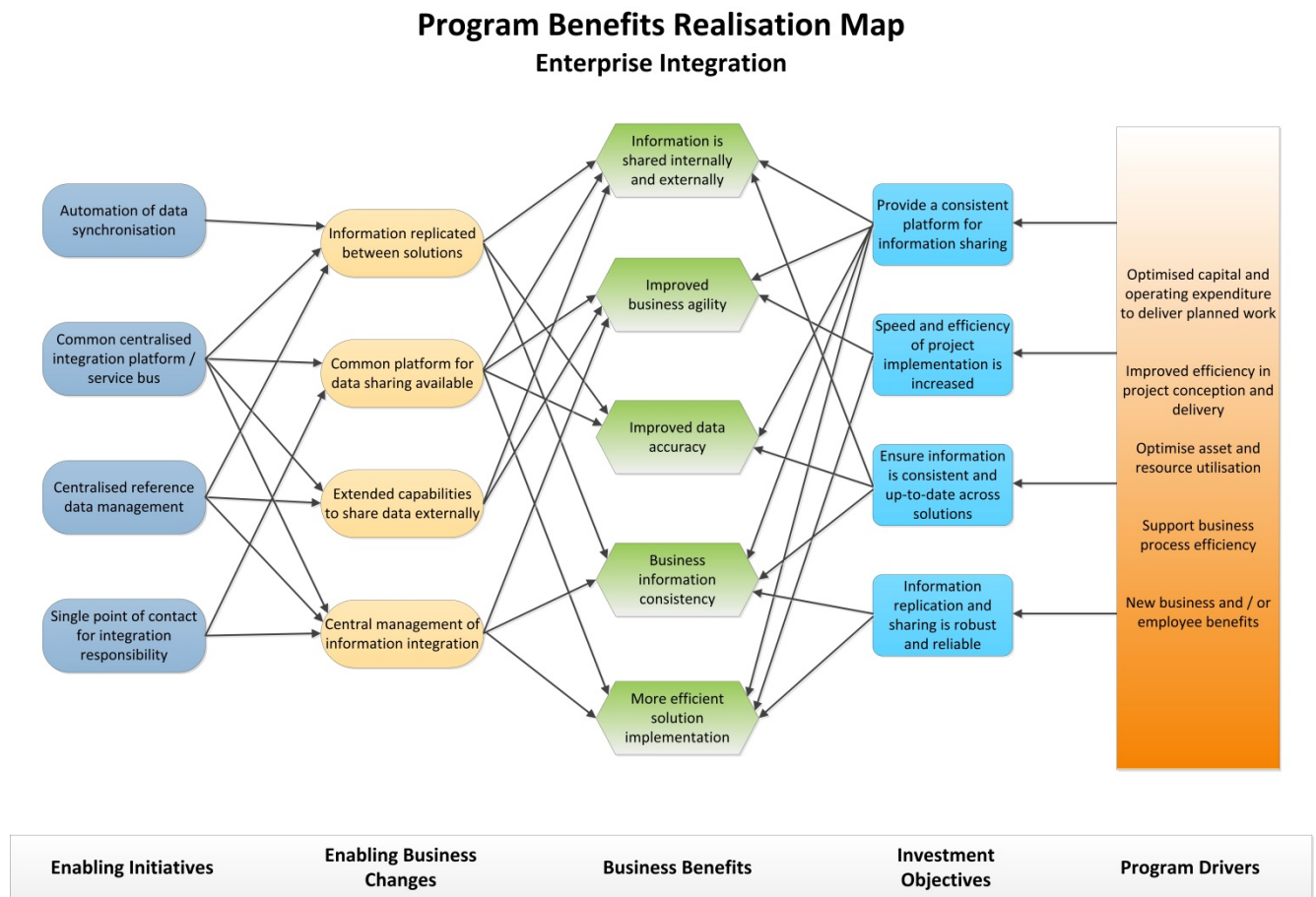
Business benefits

The implementation and adoption of an enterprise wide integration platform and related architectural data standards will benefit Powerlink across a wide range of business functions. The program as a whole will enhance the information sharing capability across various functions within the organisation, as well as those externally. As a result Powerlink expects to see an increase in data accuracy due to the increase in usage by different staff members and customers, and the consistency provided by the propagation of data changes across data stores.

In addition Powerlink will improve the efficiency of solution change management and project implementation through the use of the common integration platform, negating the need for multiple point-to-point integration designs and builds. The resulting solutions are also easier to monitor and manage, with less technical capability required to ensure consistent operation of solutions adopting the platform.

The purpose of Figure 10 is to clearly show how the program provides business benefit, fully aligned to the organisations strategic drivers and objectives.

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[2] Gartner IT Glossary - http://www.gartner.com/it-glossary/data-integration-tools/

Figure 10: Enterprise Integration Benefits Realisation Map

Program Benefits Realisation Map
Enterprise Integration

Enabling Initiatives	Enabling Business Changes	Business Benefits	Investment Objectives	Program Drivers

Strategic alignment

The Enterprise Integration program aligns to a number of measures within the "Efficient Performance and Delivery" and "Agile People and Process" themes by enhancing the quality and consistency of information across core solutions, leading to more efficient and agile practices across both operational and initiative based activities. It also aligns to "Stakeholder value proposition" through improved engagement and collaboration.

Business capability improvements

The Enterprise Integration program increases the capability level of all areas of business support. This is due to the cross sectional nature of enterprise data and the impact data quality has on the management of all of these areas. It also impacts the quality of data provided to front line services, and hence provides a capability lift to service delivery as well.

Program summary

Enterprise integration	
Summary description	
Enterprise Integration is defined as the practices, architectural techniques and tools for achieving consistent access to and delivery of data across the spectrum of data subject areas and data structure types in the enterprise, to meet the data consumption requirements of all applications and business processes. The Enterprise Integration program aims to provide the infrastructure and tools required to support the integration and sharing of data across the organisation's core applications and solutions. It will also support rapid change and business agility by providing technology that supports and enables rapid deployment of new solutions while leveraging existing IT investments. This program will deliver the technologies required to support enterprise integration capabilities including, but not limited to, messaging, application integration, workflow, business process modelling, process automation and management, mobile integration, enterprise portals, business-to-business (B2B) integration, and Web services.	

Expected business enhancements			
Benefits	The following benefits are expected from the program implementation: • Ability to share information across all solutions in the organisation; • Improved agility of IT solutions – able to meet business change expectations quickly; • Improved data accuracy through the sharing and consumption of data across different areas of the organisation; • Improved consistency of information used by different functions; and • More efficient solution implementation		
Objectives	The primary objectives of the program are to: • Provide a consistent platform for information sharing; • Increase the speed and efficiency of project implementation; • Ensure information is consistent and up-to-date across solutions; and • Ensure information replication and sharing is robust and reliable.		
Strategic focus	• Efficient Performance and Delivery • Agile People and Process	**Capability focus**	• All Business Enablers (support processes)
Strategic goals	• Optimised capital and operating expenditure to deliver planned work • Improve efficiency in project conception and delivery • Optimised asset and resource utilisation • Support business process efficiency • New business and/or employee benefits	**Capabilities uplifted**	• All capabilities across the support processes will be uplifted

Estimated program implementation			
Complexity	Medium	**Risk rating**	High
Duration	54 months	**Start date**	July 2017
Dependencies	This program is not dependent on any other specific programs or projects.		
Constraints	The program must adhere to Powerlink Queensland's Enterprise Architecture, Procurement and Governance standards.		

Estimated program Investment						
Implementation years	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**Five year total**
Implementation cost	$520k	$521k	$627k	$629k	$841k	**$3,137k**

3.6.4   Identity and access management program

Description

Identity and Access Management (IAM) is the security discipline that enables the right individuals to access the right resources at the right times for the right reasons[3].

IAM addresses this mission-critical need to ensure appropriate automated access to information and resources across differing technology environments and to meet increasingly rigorous access compliance requirements.

IAM is required to ensure Powerlink is able to effectively mitigate compliance and security risks related to unauthorised individuals accessing Powerlink's information and resources.   The mismanagement of identify and access management increases the possibility of greater damages from both external and inside threats.

This program aims to provide identity and access solutions that safeguard valuable data and applications with context-based access control, security policy enforcement and business-driven identity governance. The program will include user metrics and audit reports on user entitlements and access activities, to support identification of insider threats and compliance requirements.

IAM will ensure that appropriate access is provided to information and systems in accordance with corporate and regulatory standards and policies including privacy legislation. Users are granted the right level of access to the right resources, in a timely manner, to perform their job functions. All exceptions to policy can be inventoried and approved by management. In addition to employees, this service can potentially be made available to business partners and outsourcers for service delivery and network support.

It is estimated that the program would most likely take 18 months to implement and would be completed at an estimated capital expenditure cost of $2.6m.

Business benefits

The implementation of IAM will primarily benefit the business by improving the management of access to resources, sites and information. This will indirectly increase the safety, privacy and security of all workers by ensuring only the right people have access to the right areas and information they are qualified and permitted to access. An enhanced audit trail will also allow for better management of incidents and security breaches, improving investigative abilities and compliance to safety, security and regulatory requirements.

The implementation of this program directly benefits the business by providing support of "back-end" efficiency improvements across the majority of IT solutions. End users will gain process improvement benefits from IAM's single sign on and self-service abilities. These features will reduce the time taken to log into systems, reduce the need to chase up rights to access information and systems, and speed up basic account support requirements such as password resets.

The benefits to Support Systems achieved by the program's implementation include:

- Service Management efficiency – optimised maintenance processes, improved provisioning and access rights processes, better volume management, process optimisation through the adoption of self-service, and centralised administration

- Security, governance and compliance – improved control and reporting, improved permission management, improved access security and accuracy, better personal privacy, common application security implementation, greater alignment to external audit and regulatory

- Project provisioning efficiency – faster user access provisioning, more accurate security profile alignment, reusable processes across projects.

- A common access management layer comprises reusable components that limit the need for redundant identity and security services in every application (i.e. no longer required to build unique security components into every application).

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[3] Gartner IT Glossary - http://www.gartner.com/it-glossary/identity-and-access-management-iam/

The purpose of Figure 11 is to clearly show how the program provides business benefit, fully aligned to the organisations strategic drivers and objectives.

Figure 11: Identity and Access Management Benefits Realisation Map

Program Benefits Realisation Map
Identity and Access Management
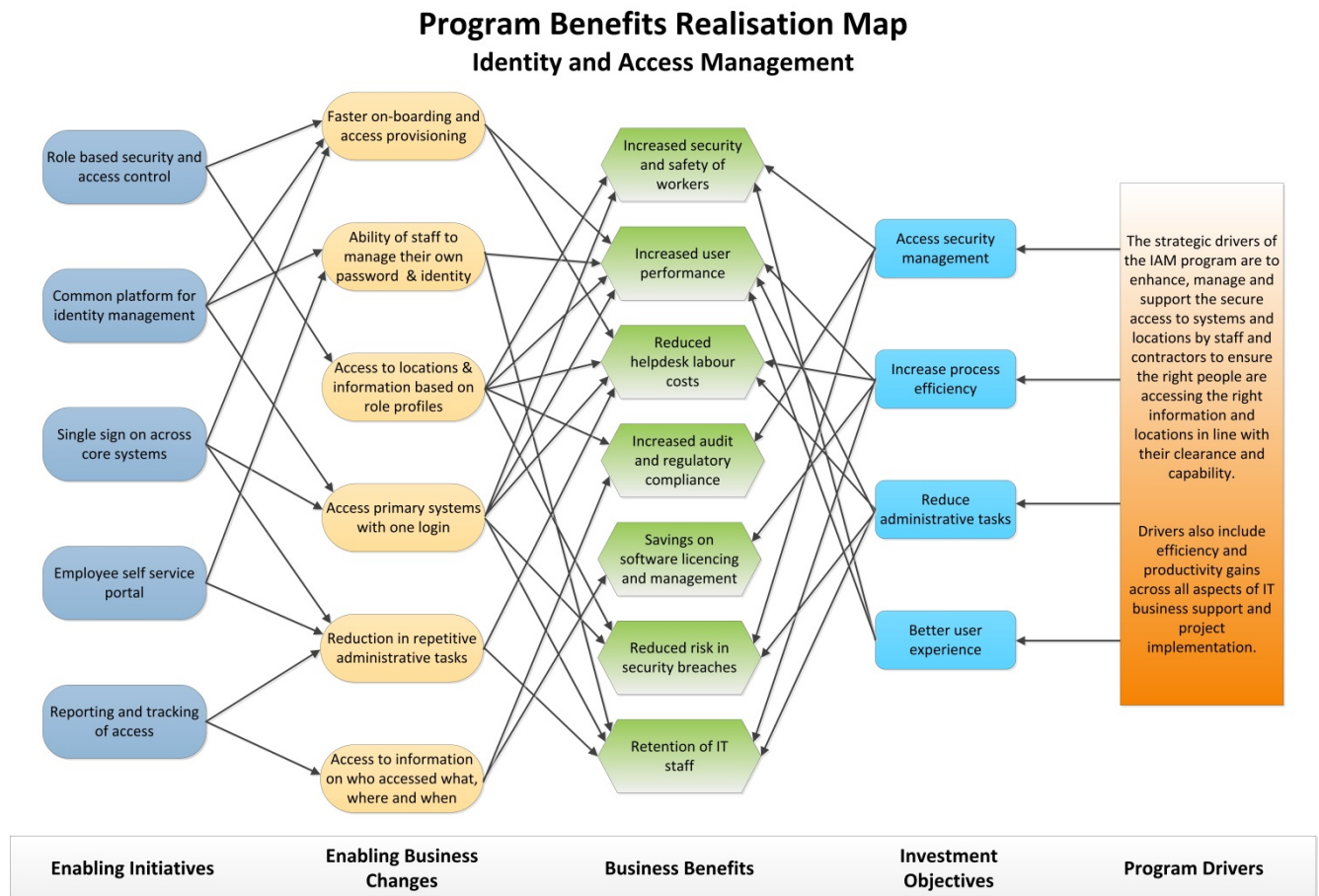
Strategic alignment

Identity and Access Management is required to underpin, support and manage the growth of corporate and business information. While not directly linked to a specific strategic goal, this initiative is a pre-requisite IT service that underpins the "SAFE FOR LIFE", "Efficient Performance and Delivery" and "Agile People and Process" strategic themes.

Business capability improvements

The IAM program increases the capability level of all areas of business support through the implementation of a common and consistent set of tools and processes for the provision, management and governance of system and information access across the organisation.

Program summary

Identity and access management (IAM)	
Summary description	
Identity and access management (IAM) is the security discipline that enables the right individuals to access the right resources at the right times for the right reasons. IAM is an integrated system of business processes, policies and technologies that will enable Powerlink to control and administer users' access to applications and information, whilst protecting confidential personal and business information from unauthorised users. IAM requires interrelated solutions to be employed to standardise administration of user authentication, access rights, access restrictions, account profiles, passwords, and other attributes supportive of a users' role / profile on one or more applications or systems. This program aims to provide identity and access solutions that safeguard valuable data and applications with context-based access control, security policy enforcement and business-driven identity governance. The program will include user metrics and audit reports on user entitlements and access activities, to support identification of insider threats and compliance requirements.	

Expected business enhancements

Benefits	The following business benefits are expected from the IAM program's implementation: • Improved security and safety of workers; • Improved user performance; • Optimised utilisation of IT resources; • Improved audit and regulatory compliance; and • Improved risk mitigation against security breaches.		
Objectives	The objectives of the program is to increase the process efficiencies and control of user's identity and access management across IT systems, and provide a more streamlined user experience for accessing systems across the organisation.		
Strategic focus	• Efficient Performance and Delivery • Agile People and Process • SAFE FOR LIFE	**Capability focus**	• Business Enablers
Strategic goals		**Capabilities uplifted**	• All capabilities

Estimated program implementation

Complexity	Medium	**Risk rating**	Medium
Duration	36 Months	**Start date**	July 2017
Dependencies	The IAM program does not depend on any current programs or projects to be implemented, but does require accurate and complete understanding of user security profiles and access requirements prior to full implementation and adoption.		
Constraints	The program must adhere to Powerlink Queensland's Enterprise Architecture, Procurement and Governance standards.		

Estimated program investment

Implementation years	2017/18	2018/19	2019/20	2020/21	2021/22	Five year total
Implementation cost	$1,559k	$521k	$522k	$0	$0	**$2,602k**

3.6.5 Enterprise mobility

Description

Enterprise Mobility is defined as "A shift in work habits, with more employees working out of the office and using mobile devices and cloud services to perform business tasks."[4]

This program aims to implement a mobility platform which delivers a standardised solution that enables true remote processing and information access to employees and suppliers engaged to undertake work activities for Powerlink. It enhances safety by providing access to up-to-date information, by allowing workers to keep in touch with emergency services and Health and Safety officers, and by tracking access to and from potentially hazardous locations. It secures information by removing insecure workarounds and preventing data leakage. It enhances workflows by providing the right people with access to and the ability to update vital information core to their duties and tasks.

The objective of this program is to transform the way Powerlink assets and service management activities are undertaken from any location to increase organisation performance in a secure, cost effective manner.

It is estimated that the solution would most likely take 24 months to implement and would be completed at an estimated capital expenditure cost of $2.2m.

Business benefits

The implementation of an integrated mobility platform will benefit Powerlink broadly by enhancing the capability of workers to perform their current activities. These broad benefits are:

- Improved communications between field workers, partners and management;

- Improved workforce safety management and incident reporting;

- Improved workforce efficiency and accuracy;

- Optimised use of field services resources; and

- Enhanced mobile user provisioning and optimised support services.
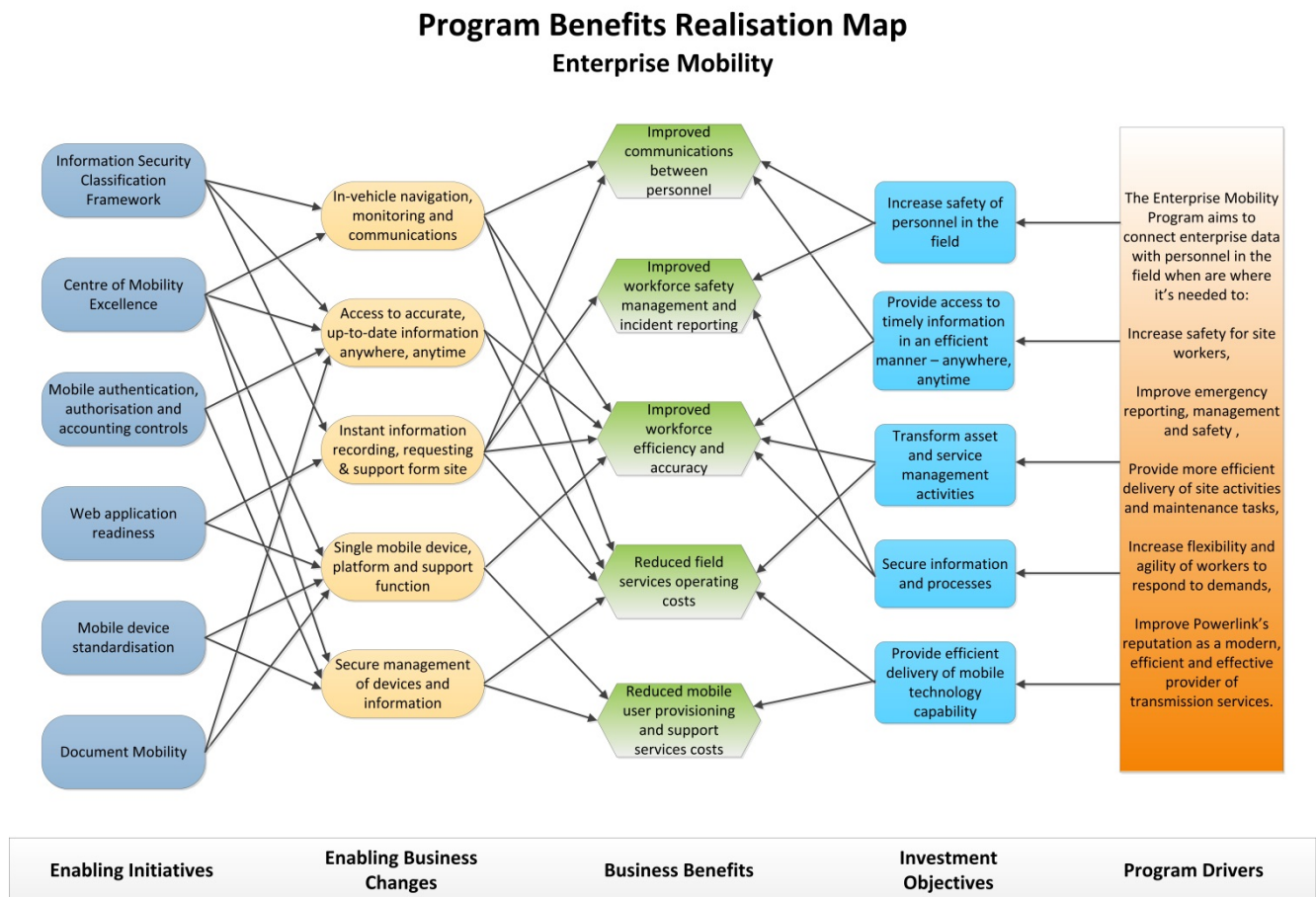
Specifically these benefits directly provide workers:

- Emergency response – workers have access to the right channels and support at all times in the case of incident or emergency

- Integrated navigation – use geospatial information and an in vehicle management system to locate facilities and access best routes between sites;

- Instant access to up-to-date information – prior to entering a site, workers can check for safety alerts and updated substation schematics, reducing the need to work from incomplete or inaccurate information, and reducing unnecessary site visit repetition;

- Instant input of data – worker takes photo pre and post installation tagged with location data and updates work ticket including job timesheet;

- Asset change management improvements – worker reviews work order and undertakes the changes required (e.g. testing and replacement of the failed equipment);

- Optimised use of field-based resources – worker receives next work order request and confirms acceptance as soon as the previous work order is completed;

- Faster on-boarding – workers receive a common mobile solution, can get peer level support from other workers in the field. Training is simplified due to the reduced number of variations, which also facilitates faster device provisioning and setup, with streamlined information access configuration through the implementation of a common information security framework; and

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[4] TechTarget - http://searchmobilecomputing.techtarget.com/definition/enterprise-mobility

- Improved communications with management – decision making capability, timeliness and recording is improved with workers able to submit requests and receive approvals while in the field.

The purpose of Figure 12 is to clearly show how the program provides business benefit, fully aligned to the organisations strategic drivers and objectives.

Figure 12: Enterprise mobility benefits realisation map

Program Benefits Realisation Map
Enterprise Mobility

Enabling Initiatives	Enabling Business Changes	Business Benefits	Investment Objectives	Program Drivers

Strategic alignment

The Enterprise Mobility program underpins all facets of the corporate strategy, and aligns to all of the above strategic themes. Extending information and functionality to mobile devices increases the safety and efficiency of all workers in the field, partners and contractors working at Powerlink sites, and all staff either working directly with these workers or their related processes, including WHS and other supporting functions. It enables agility for a wide variety of personnel and processes, and adds stakeholder value directly by increasing Powerlink's reputation as a modern, efficient and effective provider of transmission services.

Business capability improvements

The Enterprise Mobility program most significantly increases Powerlink's capability to manage assets, as well as uplifting the capability level of a cross section of areas within Business Support. In conjunction with the Enterprise Integration, Identity and Access Management, and Cyber Security programs, this program enables remote personnel to perform activities and tasks previously only possible while connected to the corporate network or by accessing information and resources only available from head office.

Program summary

Enterprise mobility	
Summary description	
Enterprise Mobility is defined as "A shift in work habits, with more employees working out of the office and using mobile devices and cloud services to perform business tasks. This program aims to implement a mobility platform which delivers a standardised solution that enables true remote processing and information access to employees and suppliers engaged to undertake work activities for Powerlink. It enhances safety by providing access to up-to-date information, by allowing workers to keep in touch with emergency services and Health and Safety officers, and by tracking access to and from potentially dangerous locations. It secures information by removing insecure workarounds and preventing data leakage. It enhances workflows by providing the right people with access to and the ability to update vital information core to their duties and tasks.	

Expected business enhancements

Benefits	The following benefits are expected from the program implementation of integrated mobility services: • Improved communications between field workers, partners and management; • Improved workforce safety management and incident reporting; • Improved workforce efficiency and accuracy; • Optimised use of field services resources; and • Enhanced mobile user provisioning and optimised support services.		
Objectives	The primary objective of the program is to increase the capability and safety of field personnel by providing them with the information, communication and mechanisms required to perform tasks and activities accurately and efficiently while working away from the traditional office environment.		
Strategic focus	• SAFE FOR LIFE – Everyone. Everywhere. Everyday. • Efficient performance and delivery • Agile people and process • Stakeholder value proposition	**Capability focus**	• Manage Asset Strategies • Business Enablers • Manage People • Manage Property and Facilities • Manage Technology • Manage Materials and Services
Strategic goals		**Capabilities uplifted**	• Manage Asset Strategies • Manage Internal Communications • Manage Employee On-boarding • Manage Employee Separation • Manage Property • Manage Facilities • Manage Telecommunication Services • Manage IT Services • Manage Materials • Manage Inventory • Manage Suppliers, Contractors and Vendors

Estimated program implementation

Complexity	High	**Risk rating**	High
Duration	24 months	**Start date**	January 2019
Dependencies	The successful implementation of the Mobility program will depend on the successful conclusion of the Enterprise Integration program to enable integration of mobile information to workflows. It also relies on the development of the Information Security Framework being delivered as part of Cyber Security program, and the availability of the Identity and Access Management (IAM) platform. The Enterprise Mobility program will integrate with IAM during the integration phase of the IAM program.		
Constraints	The program must adhere to Powerlink Queensland's Enterprise Architecture, Procurement and Governance standards. The delivery of integrated information access in constrained by the ability of current applications and information sources to be delivered to mobile devices.		

Estimated program investment

Implementation years	2017/18	2018/19	2019/20	2020/21	2021/22	Five year total
Implementation cost	$0k	$885k	$888k	$450k	$0k	**$2,223k**

3.6.6 Emergency alert management

Description

Disaster/emergency management is the creation of plans through which an organisation reduces its vulnerability to hazards and defines its response to disasters.

The ability to communicate clearly and effectively with those impacted or involved in the disaster/emergency management response is pivotal to achieving a swift, safe and successful outcome.

Disaster/emergency collaboration and mass notification services provide secure collaboration capability, and the automated distribution and management of important alerts and critical messages to multiple recipients on multiple devices, activated via browser (PC or mobile device) or phone.

The objective of Emergency Alert Management program is to replace Powerlink's existing disaster/emergency communication solution with a modern, real time collaboration platform and alerting solution that enables rapid communication between employees, partners and stakeholders in the event of an emergency across a wide range of modern communication technologies.

This program aims to replace Powerlink's existing disaster/emergency communication solution with a modern real time collaboration platform and mass notification capability to support rapid communication between employees, partners and stakeholders in the event of a disaster or emergency.

It is estimated that the program would most likely take 9 months to implement and would be completed at an estimated capital expenditure cost of $1.1m.

Business Benefits

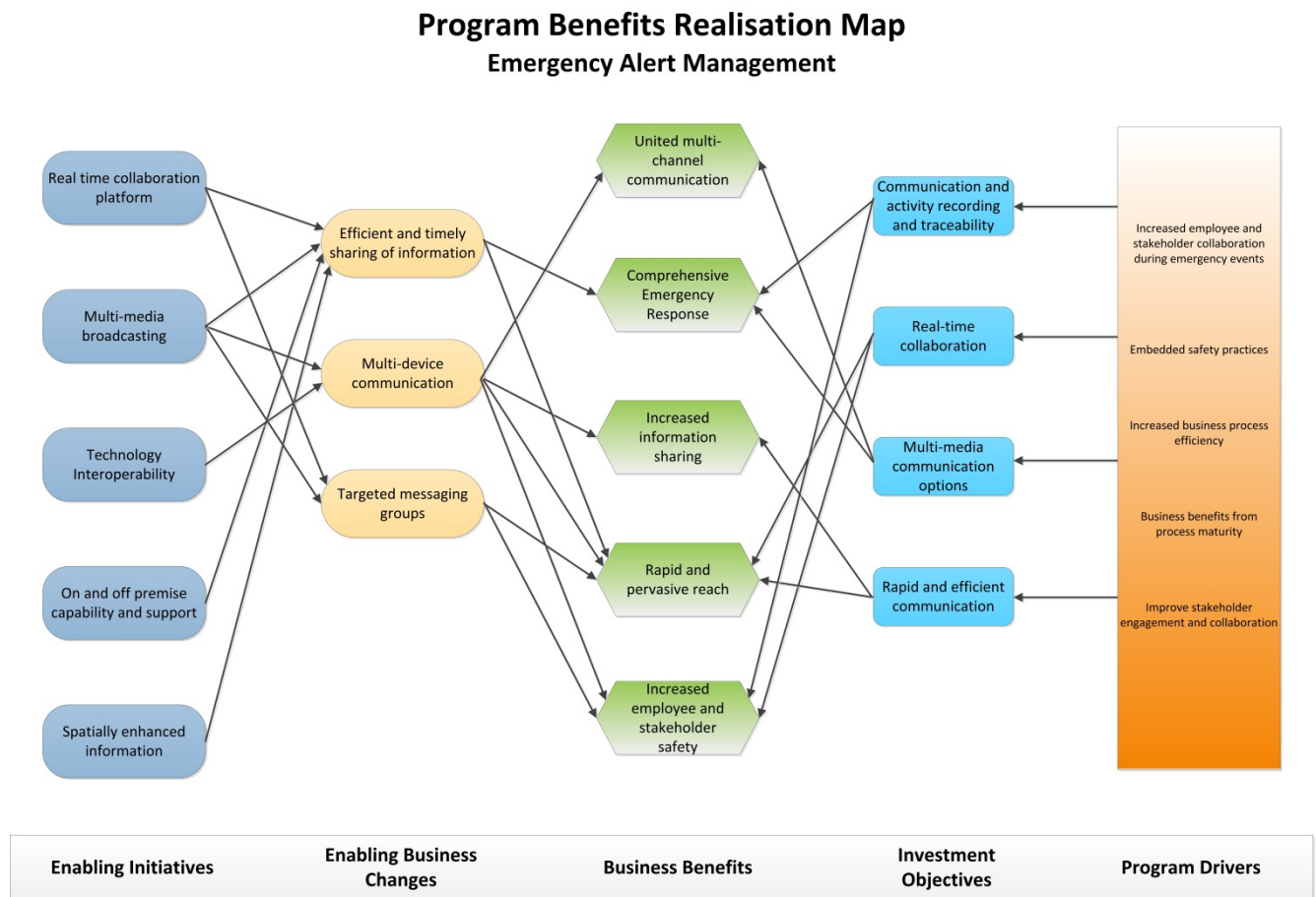The following benefits are expected from the program implementation:

- United multi-channel communication;
- Comprehensive emergency response;
- Improved information sharing;
- Rapid and pervasive reach; and
- Improved employee and stakeholder safety.

The purpose of Figure 13 is to clearly show how the program provides business benefit, fully aligned to the organisation's strategic drivers and objectives.

Figure 13: Emergency alert management benefits realisation map

Program Benefits Realisation Map
Emergency Alert Management

Enabling Initiatives	Enabling Business Changes	Business Benefits	Investment Objectives	Program Drivers

Strategic alignment

The Emergency Alert Management program aligns to strategic measures within the "Agile People and Process" theme through increases in process efficiency, and employee engagement and collaboration during emergency/disaster events. It aligns to "Efficient Performance and Delivery" by supporting improved information on the network availability during emergency events. It also aligns to "SAFE FOR LIFE" and "Stakeholder Value Proposition" by improving collaboration between employees and stakeholders during emergency or disaster events and recording high quality, vital information which can be used to continuously improve emergency management procedures.

Business capability improvements

The Emergency Alert Management program aims to provide Powerlink with a modern, real time collaboration platform and alerting solution that enables rapid communication between employees, partners and stakeholders in the event of an emergency across a wide range of modern communication technologies. Capability enhancements across the program are targeted at capabilities to better protect the organisation's people and assets. It achieves this by improving support to, and communication with, employees, stakeholders, and suppliers involved in emergency/disaster event management.

Program summary

Emergency alert management

Summary description
Disaster/emergency management is the creation of plans through which an organisation reduces its vulnerability to hazards and defines its response to disasters. Disaster/emergency collaboration and mass notification services provide secure collaboration capability, and the automated distribution and management of important alerts and critical messages to multiple recipients on multiple devices, activated via browser (PC or mobile device) or phone. The objective of this program is to replace Powerlink's existing disaster/emergency communication solution with a modern, real time collaboration platform and alerting solution to enable rapid communication between employees, stakeholders and/or partners in the event of an emergency across a wide range of modern communication technologies. By implementing a modern disaster/emergency collaboration and communication solution, Powerlink will be able to rapidly communicate important messages and information more efficiently to multiple recipients on multiple devices, thereby improving safety and stakeholder management during an emergency/disaster event.

Expected business enhancements			
Benefits	The following benefits are expected from the program implementation: • United multi-channel communication; • Comprehensive emergency response; • Improved information sharing; • Rapid and pervasive reach; and • Improved employee and stakeholder safety.		
Objectives	To ensure Powerlink has real time communication and mass alert notification solution to ensure disaster/emergency events can be safely and effectively managed.		
Strategic focus	• SAFE FOR LIFE – Everyone. Everywhere. Everyday. • Efficient performance and delivery • Agile people and process • Stakeholder value proposition	Capability focus	• Manage People • Manage Property and Facilities • Manage Materials and Services
Strategic goals	• Improved collaboration during emergency events • Improved reporting of safety incidents and near hits. • Sustained network reliability and availability • Support business process efficiency • Embedded safety practices	Capabilities uplifted	• Managing Facilities • Manage Fleet • Manage Supplier, Vendors, Contractors • Manage Administrative Services • Manage Internal Communications

Estimated program implementation			
Complexity	Low	Risk rating	Medium
Duration	9 Months	Start date	2018
Dependencies	To realise the benefits of this program, Powerlink must have an accurate and complete understanding of the Emergency Management process and the information and data stores required to support the process. This program also relies on some deliverables from the Enterprise Mobility and Enterprise Integration programs.		
Constraints	The program must adhere to Powerlink Queensland's Enterprise Architecture, Procurement and Governance policies and standards. No other constraints envisaged.		

Estimated program investment						
Implementation years	2017/18	2018/19	2019/20	2020/21	2021/22	Five year total
Implementation cost	$738k	$370k	$0k	$0k	$0k	$1,108k

3.6.7 Cyber security

Description

Cyber security, also known as computer security or IT security, is security applied to computers, computer networks, and the data stored and transmitted over them.

The Cyber Security program encompasses a set of technical solutions, procedures, management methodologies and control arrangements that are essential components in ensuring continuity of Powerlink's business operations, and the protection of Powerlink's information and assets. Cyber security is essential in Powerlink's role as a Critical National Infrastructure provider.

This program aims to:

- Enhance Powerlink's overall safety and security by increasing its IT security capability;

- Provide advanced mechanisms to prevent the loss of data and/or transmission services through breaches of network security; and

- Enable compliance with industry standard standards for security management and control (i.e. ISO 27001)

This program of works is specifically targeted at the effective management of Powerlink's operational Business IT environment in terms of the tools required to deliver, monitor and manage network and system availability. This is supported with an overarching security methodology and framework, to ensure the security and integrity of Powerlink's physical and intellectual assets are comprehensively managed and maintained.

The aim of the program is to increase the maturity and capability of the Cyber Security function into a proactive mechanism actioned across the whole of the organisation. This will be achieved by changing the monitoring, management and reporting methodologies, and enhancing the tools and technologies used to capture the information. The improvement in capability will not only enhance Powerlink IT security, but will directly enhance the safety and security of the organisation as a whole.

It is estimated that the Cyber Security program will run active projects through to 2022 and would be completed at an estimated capital expenditure cost of $4.7m.
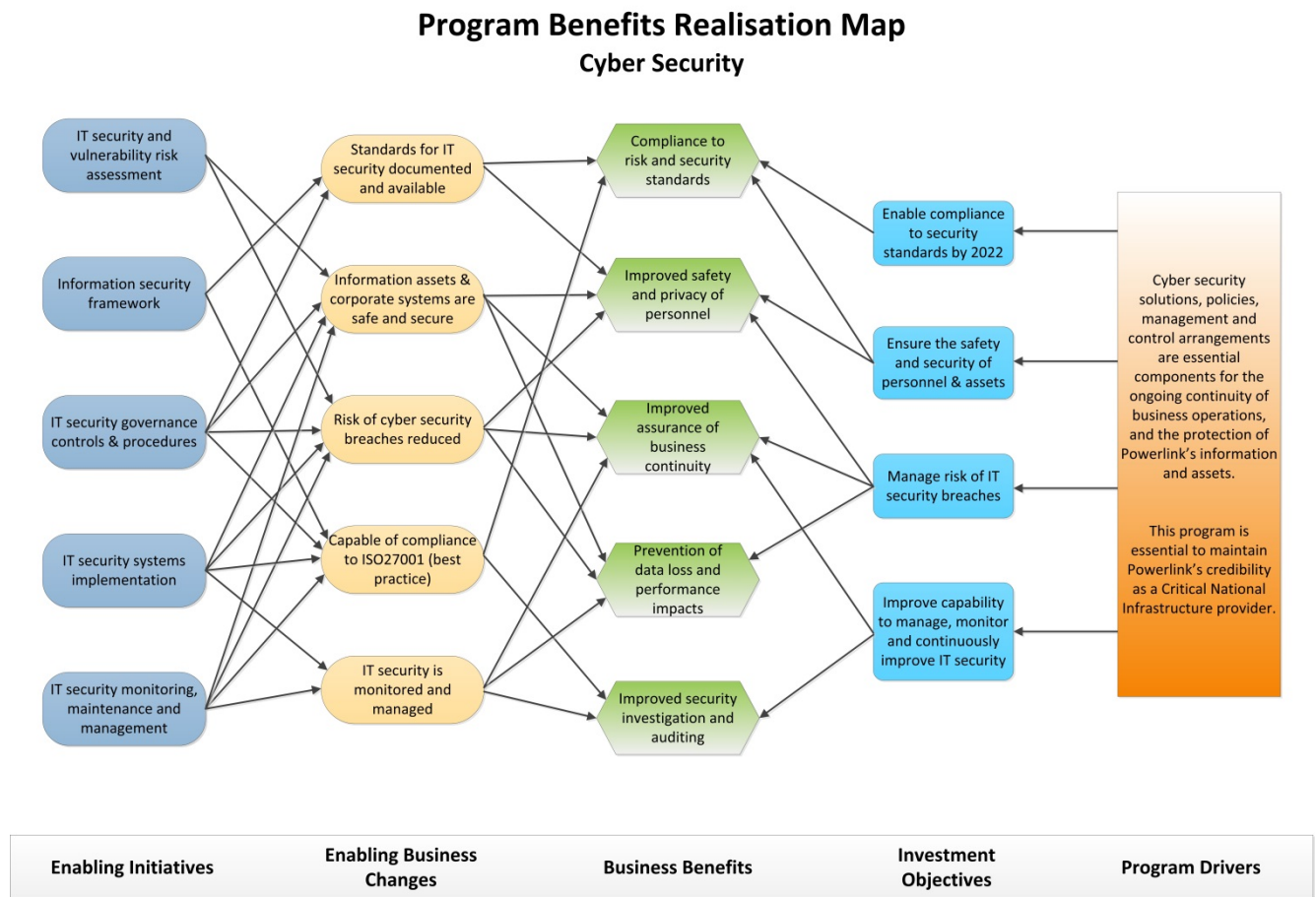
Business benefits

The primary benefit of the Cyber Security program is the increase in protection of Powerlink's information systems, industry partners, key stakeholders, and employees. By utilising improved technologies the program will provide better management and monitoring capabilities, enabling a range of safety enhancements across the majority of organisational practices. Holistically, the program expects to realise the following business benefits:

- Improved safety and privacy of personnel;

- Improved assurance of business continuity through better prevention, management and auditing of access breaches;

- Stronger security improving the prevention of productivity and/or data loss;

- Improved security investigative abilities through improved auditing and control abilities; and

- Alignment to industry expected security standards.

The purpose of Figure 14 is to clearly show how the program provides business benefit, fully aligned to the organisation's strategic drivers and objectives.

Figure 14: Cyber security benefits realisation map

Program Benefits Realisation Map
Cyber Security

Enabling Initiatives	Enabling Business Changes	Business Benefits	Investment Objectives	Program Drivers

Strategic alignment

The Cyber Security program provides the level of security required by Powerlink to ensure the safety and security of both information and physical assets. As such the program broadly aligns to the strategic theme "Efficient Performance and Delivery".

Business capability improvements

The Cyber Security program aims to influence the capability of the majority of business support services by providing the procedures and tools required to adequately manage the organisation's IT security risks in line with ISO 27001 standards. The implementation will provide guidance, frameworks and solutions that enable support personnel to analyse, manage, monitor and report on security services and breaches, or attempted breaches, and seek out potential areas of threat.

The improvement in IT security support reporting and analysis services will also uplift the capability of Managing Assets through the improved abilities to track and monitor security related events.

Program summary

Cyber security program	
Summary description	
Cyber security, also known as computer security or IT security, is security applied to computers, computer networks, and the data stored and transmitted over them. This program of works is specifically targeted at the effective management of Powerlink's operational Business IT environment in terms of the tools required to deliver, monitor and manage network and system availability, coupled with an overarching proactive methodology that ensures the security and integrity of Powerlink's physical and intellectual assets are comprehensively managed and maintained.	

Expected business enhancements			
Benefits	The following benefits are expected from the program implementation: • Improved safety and privacy of personnel; • Improved assurance of business continuity through better prevention, management and auditing of access breaches; • Stronger security improving the prevention of productivity and/or data loss; • Improved security investigative abilities through improved auditing and control abilities; and • Alignment to ISO27001 standards.		
Objectives	The objective of the program is to increase Powerlink's IT security capabilities to ensure the safety and security of personnel and information assets. This will be achieved through the implementation of security technologies, tools, processes, practices and controls to enhance the management, monitoring and continuous improvement of all IT security related functions. The program will provide Powerlink with the ability to comply to ISO 27001 standards and hence provide industry standard IT security services.		
Strategic focus	• SAFE FOR LIFE • Efficient Performance and Delivery	**Capability focus**	• Support Business Services • Managing Assets (deliver Transmission Services)
Strategic goals	• Sustain network availability and reliability	**Capabilities uplifted**	• Managing People • Managing Technology • Managing Finances • Managing Materials and Services • Managing Assets

Estimated program implementation			
Complexity	Medium	**Risk rating**	Low
Duration	60 months	**Start sate**	July 2017
Dependencies	The completion of the Information Security Framework, as documented in the Identity and Access Management (IAM) program, is a pre-requisite to portions of the Cyber Security program. The IAM program is scheduled to have a platform ready to integrate with by July 2018.		
Constraints	The program must adhere to Powerlink Queensland's Enterprise Architecture, Procurement and Governance standards.		

Estimated program investment						
Implementation years	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**Five year total**
Implementation cost	$1,455k	$521k	$522k	$524k	$1,682k	**$4,704k**

3.6.8 Spatial business intelligence and analytics

Description

Business intelligence (BI) is an umbrella term that includes the applications, infrastructure, tools, and industry standards that enable access to, and analysis of, information to improve and optimise decisions and performance. Typical BI systems handle the "who", "what" and "when" aspects of data.

Spatial Business Intelligence adds the "where" aspect to this data, and is comprised of a set of visualisation and analysis tools that allow for viewing, filtering and interrogating this data from a spatial context.

Business Analytics enables more complex "what if" analysis, and is comprised of solutions used to build analysis models and simulations to create scenarios, understand realities and predict future states. Business Analytics includes data mining, predictive analytics, applied analytics and statistics.

Spatial Business Intelligence and Analytics as a whole refers to the visual presentation of this information displayed in a spatial context, such as overlayed on maps, allowing knowledge to be readily identified, interrogated and filtered by geographic location.

The Spatial BI and Analytics program aims to uplift Powerlink's BI and spatial capability to enable the spatial inclusion and presentation of corporate information such as Finance, Budgeting, Workforce or Asset Management to be integrated with other data. That is, it will be possible to overlay workforce details over maps to identify the location of skilled resources. It will provide past historical data to research potential trends, to analyse the effects of certain decisions or events, or to evaluate the performance of a given tool or scenario.

It is estimated that the Spatial BI and Analytics program will take 3.5 years to design and implement and would be completed at an estimated capital expenditure cost of $7.8m.

Business benefits

BI is about the provision of data for use in decision making. Its benefits are therefore tightly bound to the perception and use of the outcomes and insights by business, as well as the capital and operational costs associated with delivery. Spatial data mapping increases the usability and visualisation of this BI information to the information consumers, empowering them with additional interrogation abilities and analytical possibilities through the integration of positional awareness across the organisation's data. Deeper insights and predictive analysis based on locational and situational awareness is therefore possible, providing more granular and specific intelligence of more value to the business.

For our stakeholders this will mean:

- Better value for money based on more efficient use of data and informed decisions; and
- Reliability of the supply chain based on proactive management.

For our staff this will mean:

- The availability of accurate timely data to inform decision making;
- Improved performance based on less duplication, accurate data and improved accessibility to data;
- Achieving reliable outcomes in less time; and
- More consistent work practices across Powerlink in regards to the management of structured data.

For our business partners this will mean:

- Powerlink is viable and sustainable based on the use of reliable, accurate and timely data to inform decisions; and
- Powerlink is agile and competitive.

The purpose of Figure 15 is to clearly show how the program provides business benefit, fully aligned to the organisations strategic drivers and objectives.

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Figure 15: Spatial BI and analytics benefits realisation map

Program Benefits Realisation Map
Spatial Business Intelligence and Analytics

Enabling Initiatives	Enabling Business Changes	Business Benefits	Investment Objectives	Program Drivers
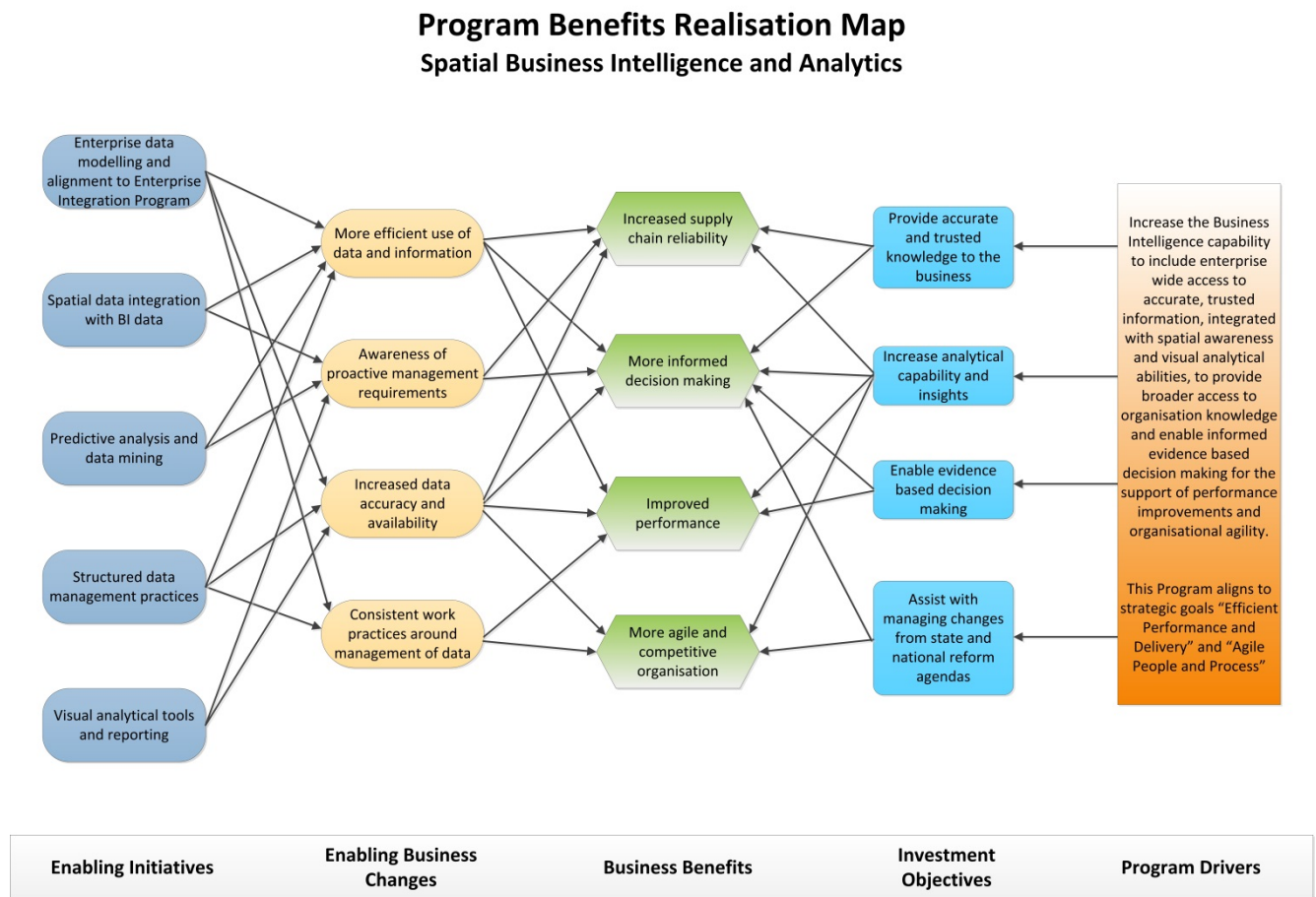
Strategic alignment

The Spatial BI and Analytics program strategically aligns to the "Agile People and Process" and "Efficient Performance and Delivery" themes, by providing better access to more accurate and comprehensive information, and better analytical abilities across this organisation wide data. It also aligns to "SAFE FOR LIFE" by enhancing collaboration during emergency events.

Business capability improvements

The Spatial BI and Analytics program will provide capability improvements to a number of Business Support services including the completed spectrum of Manage People capabilities, plus others from the Manage Technology, Manage Finances, and Manage Materials and Services.

Program summary

Spatial business intelligence and analytics		
Summary description		
Business intelligence (BI) is an umbrella term that includes the applications, infrastructure, tools, and industry standards that enable access to and analysis of information to improve and optimise decisions and performance. Typical BI systems handle the "who", "what" and "when" aspects of data. Spatial Business Intelligence adds the "where" aspect to this data, and is comprised of a set of visualisation and analysis tools that allow for viewing, filtering and interrogating this data from a spatial context. Business Analytics further provides the "what if" analysis, and is comprised of solutions used to build analysis models and simulations to create scenarios, understand realities and predict future states. Business Analytics includes data mining, predictive analytics, applied analytics and statistics. Spatial Business Intelligence and Analytics as a whole refers to the presentation of this information displayed in a spatial context, such as overlayed on maps, allowing knowledge to be readily identified, interrogated and filtered by geographic location. The Spatial BI and Analytics program aims to uplift Powerlink's BI and spatial capability to enable the spatial presentation of corporate information such as Finance, Budgeting, Workforce or Asset Management to be integrated with other data. That is, it will be possible to overlay workforce details over maps to identify the location of skilled resources. It will provide past historical data to research potential trends, to analyse the effects of certain decisions or events, or to evaluate the performance of a given tool or scenario.		
Expected business enhancements		
Benefits	It is expected the implementation of the Spatial BI and Analytics program, through easy access to, and the delivery of, high quality information will: • Improved the reliability of supply chain by transforming data into knowledge; • Improved the capability to inform business decisions through the interrogation and analysis of structured data; • Improve productivity by providing access to more accurate and trusted information; and • Support the ability for Powerlink to be a more agile and competitive organisation.	
Objectives	Increase the Business Intelligence capability to include enterprise wide access to accurate, trusted information, integrated with spatial awareness and visual analytical abilities, to provide broader access to organisation knowledge and enable informed evidence based decision making for the support of productivity improvements and organisational agility.	
Strategic focus	• Efficient Performance and Delivery • Agile People and Process • SAFE FOR LIFE	**Capability focus** • Manage People • Manage Technology • Manage Finances • Manage Materials and Services
Strategic goals	• Improved efficiency in project conception and delivery • Sustained network reliability and availability • Improved business process efficiency • Business benefits from process maturity	**Capabilities uplifted** • Manage IT Services • Manage Financial Planning • Manage Financial Reporting • Manage Strategic Procurement • Manage Inventory • Manage Suppliers, Contractors and Vendors
Estimated program implementation		
Complexity	High	**Risk rating**	High
Duration	42 months	**Start date**	January 2019
Dependencies	Dependent on completion of the enterprise service bus as delivered as part of the Enterprise Integration program.		
Constraints	The program must adhere to Powerlink Queensland's Enterprise Architecture, Procurement and Governance standards.		

Estimated program Investment						
Implementation years		2017/18	2018/19	2019/20	2020/21	2021/22	Five year total
Implementation cost		$0k	$1,198k	$2,193k	$1,938k	$2,471k	**$7,800k**

3.6.9 Enterprise resource planning modernisation

Description

An Enterprise Resource Planning (ERP) system is a shared database that supports multiple functions used by different business units. Essentially, this means that employees in different divisions, for example, finance and asset management can rely on the same information for their specific needs. An ERP supports the various processes essential to running a business, including, but not limited to; inventory and order management, accounting, human resources, and customer relationship management (CRM). ERP systems integrate these various functions into one complete solution to streamline processes and information across the entire organisation.

This program will deliver improvements to the ERP system and the processes associated with asset management, logistics, human resource management, finance, investment and project management. These improvements will drive business efficiencies enabling Powerlink resources to increase the time spent on higher value add activities.

It is estimated that program would take approximately three years to implement and would be completed at an estimated capital expenditure cost of $4.0m.

Business benefits

The implementation of the ERP Modernisation program aims to deliver improved efficiencies across many of the organisation's support processes, resulting in greater business performance through improved utilisation, alignment and management of resources to meet changing business demands.
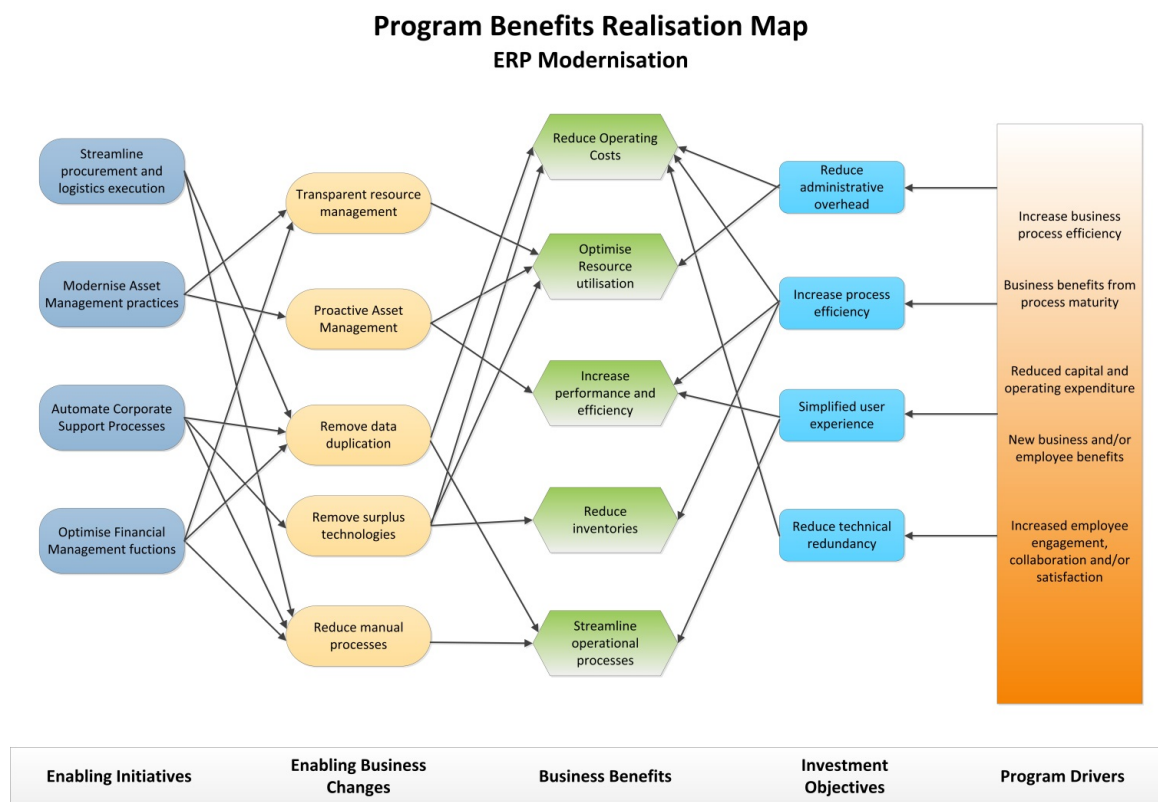
The implementation of a modernised ERP solution aims to deliver a reduction in manual handling and administrative activities, an increase in organisational responsiveness and improved access to on-demand business performance information.

The following benefits are expected from the program implementation:

- Optimised use of resources and an uplift in the overall performance of core business processes;
- Improved management of administrative tasks; and
- Efficient inventory management.

The purpose of Figure 16 is to clearly show how the program provides business benefit, fully aligned to the organisation's strategic drivers and objectives.

Figure 16: ERP Modernisation Benefits Realisation Map

Program Benefits Realisation Map
ERP Modernisation

Enabling Initiatives	Enabling Business Changes	Business Benefits	Investment Objectives	Program Drivers

Strategic Alignment

The ERP Modernisation program directly aligns to Powerlink's strategy focus areas by:

- Eliminating unnecessary manual handling across organisational processes to improve business efficiencies;

- Enabling timely, accurate management and reporting of asset and financial performance to underpin ongoing business efficiencies; and

- Delivering high quality asset and personnel information to support better management of employees, assets and safety matters.

Business Capability Improvements

The Modernise ERP program aims to provide Powerlink with an integrated solution that enhances Powerlink's ability to efficiently manage its key resources and assets. Capability enhancements of the program are expected to significantly improve processes related to asset management and corporate support processes, such as: Managing People Administration, Managing Materials and Services, Managing Finances and Managing Facilities.

Program Summary

Modernise ERP

Summary Description
Enterprise Resource Planning (ERP) is the name given to an organisation's management system which uses a software application to incorporate all facets of the business and automate the flow of data between critical back-office functions. These functions may include financing, distribution, accounting, inventory management, business planning, human resources, and other mission-critical components of the business.

Powerlink's existing ERP was implemented prior to 2000 when its operating environment was very different to the one it operates in today – and the one it will need to operate in the future. The new environment of tighter regulatory controls, increased shareholder expectations and falling consumer electricity demand means Powerlink's corporate support functions must continue to evolve to meet changes in business demand and stakeholder expectations.

Very little has changed in the SAP ERP since its original implementation. Whilst the ERP met Powerlink's needs at the time, the aforementioned business drivers mean that the existing configuration needs to be modernised to ensure it meets Powerlink's changing business needs.

By better utilising the capability in the existing ERP investment, Powerlink Queensland will be able to streamline its core support functions to improve business efficiency and performance in terms of both time and resource allocation and improve organisational responsiveness.

Expected Business Enhancements			
Benefits	The following benefits are expected from the program implementation: • Optimised use of resources and an uplift in the overall performance of core business processes; • Improved management of administrative tasks; and • Efficient inventory management.		
Objectives	This program will deliver configuration changes in the SAP ERP system to improve and modernise asset management, logistics, human resource management, finance, investment and project management processes.		
Strategic Focus	• Agile People and Processes • Efficient Performance and Delivery	**Capability Focus**	• Managing People • Managing Finances • Manage Materials and Services
Strategic Goals	• Optimised capital and operating expenditure to deliver planned work • Improve efficiency in project conception and delivery • Sustained network reliability and availability • Improved business process efficiency	**Capabilities Uplifted**	• Manage Administration Services • Manage Financial Planning • Manage Financial Reporting • Manage Materials • Manage Inventory • Manage Warehousing • Mange Suppliers, Contractors and Vendors • Manage Professional Services

Estimated Program Implementation			
Complexity	High	**Risk Rating**	Medium
Duration	36 Months	**Start Date**	July 2017
Dependencies	The ERP Modernisation program does not directly depend on the completion of any current programs or projects to be implemented, but does require accurate and complete understanding of the processes, people and data currently supported by the SAP ERP prior to the implementation of each sub project executed in the Enterprise Resource Planning program.		
Constraints	The program must adhere to Powerlink Queensland's Enterprise Architecture, Procurement and Governance standards. No other constraints are envisaged.		

Estimated Program Investment						
Implementation years	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	Five year total
Implementation cost	$1,351k	$1,354k	$1,358k	$0k	$0k	**$4,063k**

3.6.10 Software/Hardware refresh

Description

The Software / Hardware Refresh program aims to maintain Powerlink's existing Business IT hardware and software assets to ensure they are reliable and fit for purpose.

The program seeks to replace and refresh existing hardware as it reaches end of life and manage the software upgrades required, to ensure consistent delivery and conformance to Enterprise Architecture and industry standard standards.

Program Summary

Software / Hardware Refresh						
Summary Description						
To maintain, replace and refresh existing hardware and software assets as they reach end of life.						
Estimated Program Implementation						
Complexity	Low		**Risk Rating**		Low	
Duration	Recurring/Periodic		**Start Date**		July 2017	
Estimated Program Investment						
Implementation years	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	**Five year total**
Implementation cost	$4,671k	$3,636k	$4,681k	$4,688k	$3,914k	**$21,590k**

3.6.11 Minor Software

Description

The Minor Software program is required to provide specific business capability requirements that fall outside of the core programs identified. It includes provision for Minor projects to support lines of business across the organisation.

Program Summary

Minor Software						
Summary Description						
To support the implementation of minor business solutions within the organisation.						
Estimated Program Implementation						
Complexity	Low		**Risk Rating**		Low	
Duration	Recurring		**Start Date**		July 2017	
Estimated Program Investment						
Implementation years	**FY17/18**	**FY18/19**	**FY19/20**	**FY20/21**	**FY21/22**	**Five year total**
Implementation cost	$467k	$468k	$469k	$469k	$470k	**$2,343k**

4 Support The Business

4.1 Commercial Buildings

Powerlink relocated office premises to its current Virginia location in 1997.

A review of alternative property strategies is scheduled during the upcoming regulatory period. For the purposes of this plan, it is assumed that Powerlink continues to occupy its current Virginia premises.

Accordingly, capital expenditure is forecast to replace building fabric/fittings, air conditioning, lifts and electrical plant at end of life, as well as replace/upgrade fire system and lighting plant components, to maintain a safe, compliant and suitable working environment for Powerlink staff.

The age of most of the current office fitout exceeds its expected life of up to 15 years. Due to the aging nature of the fitout, an office fitout replacement is planned for the Edison, Brian Sharp and Tesla buildings at the Virginia site. The forecast levels of Commercial Buildings expenditure for the next period are as per the following Table 9.

Table 9: Forecast Commercial Building Capital Expenditure 2018-22 ($ 2016/17)

Description	2017/18	2018/19	2019/20	2020/21	2021/22	Total
Commercial Buildings	$2.2m	$4.3m	$8.0m	$8.0m	$2.0m	$24.5m

4.1.1   Office Fitout Replacement Project

Background:

The current office fitout in the Edison, Tesla and Brian Sharp buildings was constructed in 1997, 2002 and 2006, respectively. Accordingly, a large proportion of the fitout has either already reached end of life or will do so within the next five years.

Since the current fitout was installed, significant developments in office design have occurred, including enhanced flexibility and functionality, environmentally friendly and energy efficient design, and the trend towards activity-based workplace design. Similarly, Powerlink's external environment has changed significantly, and it is recognised that the office fitout contributes to workplace practices and culture. Powerlink will seek to maximise design, efficiency and collaboration opportunities as part of the fitout replacement project.

Key Objectives:

The office fitout replacement project provides an opportunity to support a transition to a more agile workplace that promotes efficient working, future flexibility and supports staff health, safety and culture. It also aligns with technological change, enabling employees flexibility of movement in terms of how they work, and options beyond the traditional desk and meeting room scenarios.

It is anticipated that design costs will be incurred in 2018/19, followed by a phased construction period during 2019/20 and 2020/21.

Table 10: Forecast Office Fitout Project Capital Expenditure ($ 2016/17)

Building	2018/19	2019/20	2020/21	Total
Edison	$1.6m	$6.5m		$8.1m
Brian Sharp	$1.1m		$4.2m	$5.3m
Tesla	$0.5m		$2.1m	$2.7m
Total	**$3.2m**	**$6.5m**	**$6.4m**	**$16.1m**

4.2 Motor vehicles

Powerlink's motor vehicle fleet and specialised mobile plant is utilised to support the maintenance and project activities of the organisation.

Since 2010, Powerlink's fleet has decreased from 453 units to 402 in 2015. During 2015/16, 78 reductions are budgeted as a result of vehicles which will become surplus due to the reduced capital expenditure outlook.

It is expected that the fleet size will be 324 at the commencement of 2017/18 and it is assumed that the fleet will remain relatively static during the 2018-22 regulatory period.

The following table outlines the capital budget for motor vehicles and mobile plant for the 2018-22 regulatory period.

Table 11: Forecast Motor Vehicles Net Capital Expenditure 2018-22 ($ 2016/17)

Description	2017/18	2018/19	2019/20	2020/21	2021/22	Total
Asset Replacements	40	53	56	73	52	274
Capital Expenditure (net of disposals)	$2.3m	$2.4m	$2.8m	$2.7m	$2.7m	$12.9m

Note that vehicle types that are up for replacement vary across commercials, cars, trailers, trucks and plant, and hence the motor vehicle expenditure on a per year basis is variable.

Procurement of new vehicles is undertaken in compliance with Powerlink's procurement standard. The services of the contracted fleet services provider are used to obtain three quotes for the required vehicle specification.

Powerlink replaces motor vehicles and mobile plant at the end of their economic lives, which is determined by age and usage and varies by vehicle type.

4.3 Moveable plant

Moveable plant consists primarily of tools and equipment that are the physical equipment used every day by the business that allows personnel to perform their roles in a safe and efficient manner.

This includes equipment as diverse as shrink-wrapping equipment for protecting equipment deliveries, GPS units, contour lasers through to digital test equipment for testing the integrity and performance of fibre optic cable. The forecast capital expenditure for Moveable Plant including tools and equipment is based on a five year rolling average of recurrent expenditure and is detailed in Table 12.

Table 12: Forecast Moveable Plant Capital Expenditure 2018-22 ($ 2016/17)

Description	2017/18	2018/19	2019/20	2020/21	2021/22	Total
Moveable Plant	$1.1m	$1.1m	$1.1m	$1.0m	$1.0m	$5.2m