Investment Evaluation Summary (IES) IT.INF.05

Project Details:

Project Name:	Desktops, Laptops and Printers
Project Id:	IT.INF.05
Thread:	IT Infrastructure
CAPEX / OPEX:	CAPEX + OPEX
Scope Type:	C
Service Classification:	Standard Control
Work Category Code:	AMITS
Work Category Description:	IT Software General – Standard Control
Project File Location:	DD17 Infrastructure
Preferred Option Description:	Replace desktop and laptop fleet according to the schedule planned by the Asset Manager. Refresh SOE periodically. Continue with leased printer service.

	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Estimate ($M)	[redacted]									
Total ($) 2017-2019	**1,620,000**									
Total ($) 2017-2027	**8,850,000**									

Governance:

Project Initiator:	[redacted]		
Thread Approved:	[redacted]		
Project Approver:	[redacted]	**Date:**	< APPROVALTIMESTAMP>

Document Details:

Version Number:	1.0

Section 1 (Gated Investment Step 1)

1. Background

This Investment Evaluation Summary (IES) documents planned expenditures for the determination period for corporate desktop, laptops and printers. The document is one of eight planned documents covering anticipated activities as described in the IT Infrastructure Asset Management Plan.

TasNetworks IT department is responsible for the configuration, maintenance and security of approximately [redacted] 'endpoint' devices, divided broadly into the following categories:

a. Desktop hardware
b. Laptop notebook hardware
[redacted]

The desktop Standard Operating Environment is based on the use of [redacted] this environment was rolled out from [redacted] and can be reasonably expected to remain in use until [redacted]

At the time of writing, TasNetworks also operates a large printer fleet of varying types, vendors and capabilities. The printer fleet was inherited from both Aurora Energy and Transend, and as a result lacks standardisation in configuration and ownership/operating model. For the purposes of this determination, the model for printing will be to standardise on the managed service approach.

The initiative scope is documented in detail below in Scope, at a high level the document scope extends to:

- Laptop and desktop hardware (including monitors but not including other peripherals such as keyboards and mice)
- Desktop Standard Operating Environment
[redacted]
- Corporate printing (as a managed service)

1.1 Investment Need

Investment drivers fall into the following categories:

1. Reliable and effective delivery of IT services to the TasNetworks business and external customers.
2. Compliance with state and federal legislative and regulatory requirements, including:
    a. Industry-specific requirements
    b. State and federal privacy legislation
    c. Occupational Health and Safety requirements
3. The need to maximise the efficiency and cost-effectiveness of service delivery.
4. Providing appropriate computer equipment to staff that is up to date, secure and capable of running the office productivity and line of business applications required to perform their duties

Activities and requirements driving the requirement for capital expenditure in this IES are documented in Section 4 of the IT Infrastructure Asset Management Plan. To summarise, activities will fall into one of the following categories:

- Desktop and notebook fleet maintenance and replacement
- Desktop platform review and selection
- Desktop Standard Operating Environment (SOE) review and refresh
- [redacted]
- Printer operations and maintenance (procured as a managed service)

1.2 Customer Needs or Impact

The TasNetworks personal computing fleet is critical to the reliable, timely and effective delivery of business application and data services to operational and administrative staff. These services are directly related to TasNetworks ability to deliver efficient and effective services to our external customers.

The Corporate IT department is strongly focussed on service delivery to internal customers. These services are delivered in a manner that aligns with TasNetworks mission, commitments and values. The customer consultation program for the Infrastructure Program of Work documented in this IES reflects an approach of constant and direct engagement with business customers through:

- Regular direct meetings with management teams from all business units at least every six months. These meetings are broadly scoped and cover all services provided by Corporate IT as well as discussing current and emerging requirements from the business.
- A formal project prioritisation process that includes full transparency, extensive customer consultation and business-determined priorities.

- A fully consultative project management methodology that embeds Corporate IT customers in every stage of the project.

1.3 Regulatory Considerations

As the infrastructure documented in this Initiative Statement constitutes a supporting platform for TasNetworks business operations, there are no identified direct regulatory considerations.

However, the platforms documented in this Initiative Statement host applications and data used by TasNetworks staff in day-to-day operational and administrative processes. These processes are critical to ensuring business compliance with regulatory requirements.

2. Project Objectives

The primary objective of this initiative is to ensure TasNetworks ability to deliver prescribed, negotiated and non-prescribed services to customers. This objective is achieved through meeting the following initiative objectives:

1. Provide sufficient capacity for the following resources in order to meet IT service level requirements through the determination period:
    a. Desktop and laptop hardware [redacted]
    b. Desktop and laptop software [redacted]
    c. Corporate print services
2. Provide sufficient capacity over the period for:
    a. Growth in existing business services and activities
    b. Anticipated new business services and activities
3. Ensure that the availability of desktop application and print services meets or exceeds IT service level targets through appropriate design, configuration and procurement of suitable support agreements.
4. Guarantee the ability of TasNetworks to access IT business services and data in accordance with TasNetworks Disaster Recovery/Business Continuity requirements.
5. Ensure that desktop application and print services are securely configured and operated to meet TasNetworks compliance requirements for data privacy and data retention.
6. Ensure that personal computing (desktop and laptop) resources are standardised and consistent to minimise deployment overheads operational support cost
7. Ensure that personal computing resources are up to date, compatible with current applications and enable our people to access their applications and share their data effectively

The objectives will be met through the execution of maintenance, upgrade and replacement activities as described below.

3. Strategic Alignment

3.1 Business Objectives

[What are the current business objectives that this investment helps achieve?]

The following table highlights the problems that the initiative will solve.

Strategic Goal	Problems this initiative will address
"we enable our people to deliver value"	• The activities proposed in this initiative help to ensure an effective platform to support all IT systems.
"we care for our assets, delivering safe and reliable network services while transforming our business"	• There is substantial risk of doing nothing (see chapter titled 'Current Risk Evaluation'). • 'Do nothing' means TasNetworks IT may fail its remit to provide effective and efficient business systems solutions.

3.2 Business Initiatives

The activity proposed in this initiative underpins most other IT activity as it supports the basic method of access to almost all IT systems, and the provision of printing which is a key enabler for any workplace.

4. Current Risk Evaluation

The TasNetworks Risk Framework details the level of risk the business finds acceptable in each category (Safety & People, Financial, Customer, Regulatory Compliance, Network Performance, Reputation and Environment & Community).

This initiative addresses People risk, of which TasNetworks has a **Moderate** appetite.

Not maintaining TasNetworks fleet of Desktops, Laptops and Printers increases the risk of failure which will lead to employees being unable to effectively perform their roles. This can also result in employees becoming increasingly frustrated and disengaged.

4.1 5x5 Risk Matrix

TasNetworks business risks are analysed utilising the 5x5 corporate risk matrix, as outlined in TasNetworks Risk Management Framework.

Relevant strategic business risk factors that apply are follows:

Risk Category	Risk	Impact	Likelihood	Consequence
Safety & People	Aging hardware has an increased likelihood of failure	Older hardware can lead to degraded productivity and disgruntled users/employees	Likely	Negligible
Regulatory Compliance	[redacted]	[redacted]	Possible	Moderate
Reputation	[redacted]	[redacted]	Possible	Major

	[redacted]	[redacted]		

Section 1 Approvals (Gated Investment Step 1)

Project Initiator:	[Enter name]	Date	
Line Manager:	[Enter name]	Date	
Manager (Network projects) or Group/Business Manager (Non-network projects):	[Enter name]	Date	
[Send this signed and endorsed Summary to the Capital Works Program Coordinator.]			

Actions			
CWP Project Manager commenced initiation:	[Enter date here]	Assigned CW Project Manager:	[Enter name here]
PI notified project initiation commenced:	[Enter date here]	Actioned by:	[Enter name here]

Section 2 (Gated Investment Step 2)

5. Preferred Option

The preferred option is for TasNetworks to continue providing desktop application and data access services using the current Standard Operating Environment into the determination period. During the period, TasNetworks will update review application access methods and infrastructure (see IT.INF.06) and update both hardware architecture and software SOE based on the outcome of that review.

The provision of print services will also be reviewed in the period and the service architecture, configuration and operations model will be amended according to the result of this review.

The program of work documented below is the preferred option for continued delivery of storage services in support of business activities and initiatives.

Risks associated with not proceeding with this option include:

- Increased risk of service disruption due to:
  - Inability to execute required applications
  - Hardware failure
- Inability to access vendor support for desktop operating system and application software
- Security breaches due to exploitation of unpatched vulnerabilities in out-of-support software

Potential business impacts associated with these risks include:

- Delays to business operations arising from interruptions to or degraded performance of business applications
- Degraded performance across all application services used by business and operations teams arising from capacity constraints
- Reduced ability to restore business application services in the event of a disaster
- Potential breaches of TasNetworks systems hosted on obsolete platforms
- Increased operational costs associated with support of obsolete platforms

5.1 Scope

The scope of this initiative encompasses the following items:

Item	Description/Notes
Endpoint, excluding peripheral devices	Excludes mice, keyboards and other low-value peripheral hardware
Laptops and notebooks	As above
Monitors	
[redacted]	
Endpoint operating systems	
Endpoint application software	Generally used application software (e.g. office suite)

The program of work activities below reflect the preferred plan for desktop application, data access and print services:

Project Activity	Schedule	Description
Desktop Hardware Refresh	Ongoing	Update desktop hardware standards to reflect changes in technology and model availability
Notebook Hardware Refresh	Ongoing	As Above
[redacted]	[redacted]	As Above
Printer Leasing Review	[redacted]	Review and select preferred operating model (own/lease/service)
Desktop SOE Refresh	[redacted]	Update the desktop/notebook SOE (OS version, packaged applications) to ensure continued support for operating system and major applications
Print Services Operational Costs	Annual	

5.2 Expected outcomes and benefits

Activities and requirements driving the need for capital expenditure in this IES are documented in Section 4 of the IT Infrastructure Asset Management Plan. To summarise, activities will arise from:

- Desktop and notebook fleet maintenance and replacement
- Desktop platform review and selection
- Desktop Standard Operating Environment (SOE) review and refresh
- Update of desktop applications as required
- [redacted]
- Operational maintenance, support and licensing of desktop software
- Printer operations and maintenance

Implementation of the recommended option will ensure that desktop and laptop hardware is maintained and replaced in accordance with the Asset Management Plan, and that the relevant software is appropriately licensed and supported. The provision of printing services will continue, either under a leasing model (as is currently in place) or a direct ownership model, depending on a review of these alternatives.

5.3 Regulatory Test

N/A

6. Options Analysis

6.1 Option Summary

Option 0 – Do Nothing

Continue to operate existing hardware and software SOE, replacing equipment only on failure

Criteria	Advantages	Disadvantages
Solution effectiveness		Existing systems will continue to degrade over time and become less effective
Cost	Reduced CAPEX	
Business impact		Potentially incompatible software, unstable systems
Business strategic alignment		Poor alignment with strategy
IT strategic alignment		Poor alignment with strategy
Project complexity	N/A (nothing to implement)	
Risk profile		Higher risk of hardware failure Lack of hardware and software support Higher risk of security vulnerabilities
Ability to achieve compliance		Potential difficulty remaining compliant due to software incompatibility
Time - ability to implement within a deadline	N/A (nothing to implement)	

Option 1 – Recommended Option

Update hardware and software according to the proposed program of work, in conjunction with planned Application Delivery activities in IT.INF.06

Criteria	Advantages	Disadvantages
Solution effectiveness	Maintains an up to date and effective operating environment	
Cost		Expenditure required
Business impact	Allows for continued support of both hardware and software components	
Business strategic alignment	Good strategic alignment	
IT strategic alignment	Good strategic alignment	
Project complexity		Relatively complex activity but has been completed many times in the past
Risk profile	Better residual risk profile than alternative options	
Ability to achieve compliance	Higher likelihood to support compliant and up to date systems	
Time - ability to implement within a deadline		Relatively time consuming but has been completed many times in the past

Option 2 –Defer SOE Upgrades

Upgrade the desktop software SOE less often

Criteria	Advantages	Disadvantages
Solution effectiveness		Hardware fleet will continue to degrade over time
Cost		Lower NPV than the Preferred Option
Business impact		
Business strategic alignment		Poor strategic alignment
IT strategic alignment		Poor strategic alignment
Project complexity		Deferring a SOE refresh possible makes each refresh more complex
Risk profile		Increasing likelihood of hardware failure on aging devices
Ability to achieve compliance		Less likelihood to support compliant and up to date systems compared to Preferred Option
Time - ability to implement within a deadline		Relatively time consuming but has been completed many times in the past

6.2 Summary of Drivers

The following table compares the options presented with regard to the criteria assessed in the previous chapter.

Criteria	Option 0	Option 1	Option 2
Solution effectiveness			
Cost			
Business Impact			
Business strategic alignment	N/A	N/A	N/A
IT strategic alignment			
Project complexity			
Risk profile	N/A		
Ability to achieve compliance			
Time - ability to implement within a deadline	N/A		

6.3 Summary of Costs

Option	Total Costs ($)
Option 0 – Do Nothing	No Capital Expenditure
Option 1 - Recommended	$8,850,000
Option 2 – Defer SOE Upgrades	$8,915,000

6.4 Preferred Option Cost Breakdown

	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Estimate ($M)	[redacted]									
Total ($) 2017-2019	1,620,000									
Total ($) 2017-2027	8,850,000									

6.5 Summary of Risk

The preferred option addresses Safety & People risks, as analysed utilising the 5x5 corporate risk matrix, as outlined in TasNetworks Risk Management Framework.

Risk Category	Risk	Impact	Likelihood	Consequence
Safety & People	Aging hardware has an increased likelihood of failure - mitigated by replacing hardware	Older hardware can lead to degraded productivity and disgruntled users/employees	Unlikely	Negligible
Regulatory Compliance	[redacted]		Unlikely	Moderate
Reputation	[redacted]		Unlikely	Major

This initiative introduces no specific risks.

6.6 Economic analysis

Option No.	Option description	NPV	Reason got selection/rejection
0	Do nothing	$0	Infeasible
1	Preferred Option	-$6.01M	
2	Defer SOE Upgrade	-$6.06M	Slightly worse NPV, higher residual risk and fewer benefits than Preferred

Further details of the NPV calculations can be found here:

IT.INF.05 NPV Calculations.xls

6.6.1 Quantitative Risk Analysis

N/A

6.6.2 Benchmarking

N/A

6.6.3 Expert findings

N/A

6.6.4 Assumptions

ITA-027	Proposed approach to fleet management is adopted during 2015-2017
ITA-028	Desktop SOE as at [redacted]
ITA-038	No increase in printing page count across the business

Section 2 Approvals (Gated Investment Step 2)

Project Initiator:	[Enter name]	**Date:**	
Project Manager:	[Enter name]	**Date:**	

Actions			
Submitted for CIRT review:	[Enter date of CIRT here]	**Actioned by:**	[Enter name]
CIRT outcome:	[Enter details here] [Reference any minutes as appropriate.]		