Investment Evaluation Summary (IES) IT.INF.07

Project Details:

Project Name:	Platform Software
Project Id:	IT.INF.07
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:	Periodically upgrade ███████████████. Continue with software licensing agreements as described.

	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Estimate ($M)	██	██	██	██	██	██	██	██	██	██
Total ($) 2017-2019	2,284,000									
Total ($) 2017-2027	11,554,000									

Governance:

Project Initiator:	███████████
Thread Approved:	████████
Project Approver:	████████████ ███ ██████████████████

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 client and server software as defined in Scope below. The document is one of eight planned documents covering anticipated activities as described in the IT Infrastructure Asset Management Plan.
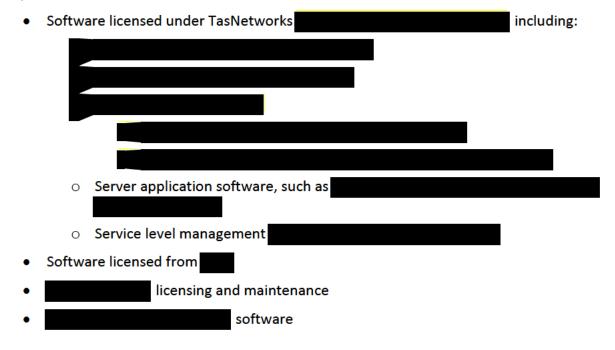
This initiative covers a wide range of software purchases, licenses and maintenance. Major vendor agreements are included as a whole to avoid splitting costs between initiatives. As such, platform software forms a major component of TasNetworks IT operational expenditure.

Many of the services enabled by the software documented in this initiative are considered to be critical to TasNetworks operations.

The services will continue to be maintained by TasNetworks through to the beginning of the determination period. It is expected and assumed that current versions of server-side software underpinning delivery of these services will remain largely as-is in the lead up to the determination period:

- No platform changes are planned for 2015-16

- No major version upgrades are planned for 2015-16

- Service packs and other updates will continue to be applied to the infrastructure as operational requirements require

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

- Software licensed under TasNetworks ███████████████████ including:

  ███████████████████████
  ███████████████████
  ███████████

  ████████████████
  █████████████████████

  o   Server application software, such as ███████████████████
      ███████████

  o   Service level management ████████████████

- Software licensed from ████

- ████████████ licensing and maintenance

- ████████████████ software

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.

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, Platform Software activities will consist of:

- Operational licensing, support and maintenance of software (other than application software) installed at TasNetworks
- Review of Enterprise Service Level Management approaches and software
- Major version upgrades of existing management systems, including:

- Operational licensing, support and maintenance of messaging services infrastructure installed at TasNetworks
- Major version upgrades to this software
- Upgrades to ███████████████████ hardware

1.2 Customer Needs or Impact

TasNetworks platform software 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 all required system and management software infrastructure to meet IT service level requirements through the determination period
2. Provide effective and efficient monitoring and management of services delivered to the business as well as infrastructure underpinning service delivery
3. Ensure that the availability of business application services meets or exceeds IT service level targets through appropriate configuration and procurement of suitable support agreements.
4. Provide sufficient capacity over the period for:
   a. Growth in existing business services and activities
   b. Anticipated new business services and activities
5. Ensure that all software in use is licensed appropriately
6. Ensure that the provision of messaging services continues to meet business functionality requirements
7. Take advantage of technology advances to improve the scope and performance of service delivery to the business
8. Ensure that business application services are operated to meet TasNetworks compliance requirements for data privacy and data retention.

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

3. Strategic Alignment

3.1 Business Objectives

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 a stable 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 common underlying platforms and software to almost all IT systems.

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 Reputational risk, of which TasNetworks has a **Moderate** appetite.

Not maintaining TasNetworks range of software licenses incurs the risk of financial penalties from breaches, and has the potential to attract unwarranted media coverage.

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
Reputation	Violation of software license agreements	Financial penalties, non-compliance, damage to reputation	Likely	Moderate

Section 1 Approvals (Gated Investment Step 1)

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

(Network projects) or Group/Business Manager (Non-network projects):			
[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 recommended approach for TasNetworks platform software over the determination period is to:

- Continue licensing ███████ oftware through the ████████████████████████
- Retain or replace █████████████ according to the outcome of the ████████ ████████████████████████████
- Continue to use ███████████████ to perform service level monitoring and management functions, subject to the outcome of planned review activities.
- Continue using ████████████████████████████████ to deliver the messaging services nominated in this document.
- ███
- Explore the use of █████████████████████████████████████ ███████████████████████
- Carry out major version upgrades to each of these products to ensure support availability and take advantage of new functionality
- Replace ███████████████████ associated with these services to ensure the continued operation of these platforms

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

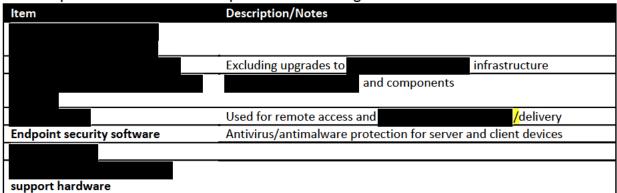Risks associated with not proceeding with this option include:

- Increased risk of service disruption due to inability to execute required applications
- Increased risk of service disruption due to lack of monitoring and management capability for underlying platforms
- Inability to access vendor support for platform software
- Non-compliance with software licensing agreements
- Security breaches due to exploitation of unpatched vulnerabilities in out-of-support software
- Reduced ability to respond to changing business conditions and imperatives in a timely manner

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
- Potential breaches of TasNetworks systems hosted on obsolete platforms
- Increased operational costs associated with support of obsolescent and obsolete platforms
- Increased cost and duration of business application delivery project activities

5.1 Scope

The scope of this initiative encompasses the following items:

Item	Description/Notes
███████████	
███████████	Excluding upgrades to ████████ infrastructure ████████ and components
███████████	Used for remote access and ██████████ /delivery
Endpoint security software	Antivirus/antimalware protection for server and client devices
███████████	
███████ **support hardware**	

Planned program of work activities are:

Project Activity	Schedule	Description
████████████	██████	Upgrade of operations, configuration and service management components
████████████	██	
████████████	██	
████████████	Annual	
████████████	██████	
████████████		
Services Renewal	Annual	Renew maintenance and service agreements associated with messaging services
████████████	Annual	
	Annual	

5.2 Expected outcomes and benefits

Activities and requirements driving the need for capital expenditure in this IES are documented in Section 5 of the IT Infrastructure Asset Management Plan. To summarise, activities will fall into the following categories:

- Operational support and maintenance of operating system and platform software
- Upgrade and refresh of management systems
- Upgrade and refresh of messaging platforms

Implementation of the recommended option will ensure that these systems maintained and replaced in accordance with the Asset Management Plan, and that the associated software is appropriately licensed and supported.

5.3   Regulatory Test

N/A

6.   Options Analysis

This option matrix provides a comparison of the options against the investment drivers detailed in section 2.

6.1   Option Summary

Option 0 – Do Nothing		
Continue to use existing systems until failure		
Criteria	**Advantages**	**Disadvantages**
Solution effectiveness		Unable to update operating system platforms to maintain support
Cost	Reduced CAPEX	Increased OPEX
Business impact		Increased risk of service outages due to security breaches Increased risk of service disruption due to platform failure
Business strategic alignment		Does not align with business strategy
IT strategic alignment		Does not align with IT strategy
Project complexity	N/A	
Risk profile		Increased risk of security breaches and system failures
Ability to achieve compliance		Unable to maintain security/data integrity safeguards due to unpatched

		operating system and software platform versions
Time - ability to implement within a deadline	N/A	

Option 1 – Recommended Option

Upgrade and replace platform software as documented

Criteria	Advantages	Disadvantages
Solution effectiveness	Stays up to date with technology progression	
Cost		Moderate cost
Business impact	Lower likelihood of service outages, better functionality	
Business strategic alignment	Aligns with strategy	
IT strategic alignment	Aligns with IT strategy	
Project complexity		Low to moderate project complexity spread throughout the determination period
Risk profile	Low technical risk associated with the activity, better risk profile than Do Nothing	
Ability to achieve compliance	Better able to maintain adequate security controls and up to date platform software versions	
Time - ability to implement within a deadline	Known implementation processes, all required skills exist in-house	

Option 2 – Defer Upgrades

Operate systems over a longer lifespan, deferring upgrade activity accordingly

Criteria	Advantages	Disadvantages
Solution effectiveness	Stays more up to date with technology progression than Do Nothing	Less up to date with technology progression than Preferred
Cost		Moderate cost, slightly lower than Preferred
Business impact		Slightly higher likelihood of service outages than Preferred
Business strategic alignment	Aligns with strategy	
IT strategic alignment	Aligns with IT strategy	
Project complexity		Low to moderate project complexity spread throughout the determination period
Risk profile	Low technical risk associated with the activity, better risk profile than Do Nothing	Low technical risk associated with the activity, worse risk profile than Preferred
Ability to achieve compliance	Better able to maintain adequate security controls and up to date platform software versions than Do Nothing	Less able to maintain adequate security controls and up to date platform software versions than Preferred
Time - ability to implement within a deadline	Known implementation processes, all required skills exist in-house	

○ Summary of Drivers

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

6.2　Summary of Costs

Option	Total Costs ($)
0 – Do Nothing	N/A
1 – Preferred Option	$11.77 M (2017-2027)
1 – Defer Upgrades	$11.16 M (2017-2027)

6.3   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 ($M)	■	■	■	■	■	■	■	■	■	■
Total ($) 2017-2019	2,284,000									
Total ($) 2017-2027	11,554,000									

6.4   Summary of Risk

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

Risk Category	Risk	Impact	Likelihood	Consequence
Reputation	Violation of software license agreements - mitigated by complying with licenses appropriately	Financial penalties, non-compliance, damage to reputation	Unlikely	Negligible

Due previous projects and activities it is possible the project budget will increase due to unstable pricing and inability to predict this fluctuation.

6.5   Economic analysis

Option No.	Option description	NPV	Reason got selection/rejection
0	Do nothing	$0	Infeasible
1	Preferred Option	-$7.82 M	
2	Defer system upgrades	-$7.46 M	Risks not addressed

Further details of the NPV calculations can be found here:

IT.INF.07 NPV Calculations.xls

6.5.1   Quantitative Risk Analysis

N/A

6.5.2   Benchmarking

N/A

6.5.3 Expert findings

N/A

6.5.4 Assumptions

ITA-033	No major shifts in price for the nominated software licenses during the determination period
ITA-034	████████ remains in place until 2017 or beyond
ITA-035	No major version upgrade for ████████████
ITA-132	████████████████
ITA-133	████████████████████

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.]		