

**APA GROUP**

**Business Case IT AM03**

**Infrastructure Upgrades**

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| PROJECT REFERENCE |
| **Network** | Amadeus Pipeline NT |
| **Project No.** | IT AM03 |
| **Project Alias No.** |  |
| **Project Name** | Infrastructure Renewals |
| **Budget Category** | SIB Capex |
| **Risk Rating** | High  |
| **Reference Docs** |  |
| PROJECT APPROVAL |
| **Prepared By:** | Simon Mackay, Infrastructure & Support Manager, Information Technology |
| **Reviewed By:** | Heather Reynolds, Vendor Manager Information Technology |
| **Approved By:** | Bill Fazl, General Manager Information Technology |

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# issUe/oppoertunity description

The purpose of this proposal is to describe the business case for investment in the IT desktop and telephony systems to ensure they continue to support and enhance the operations of the APA Amadeus Pipeline business.

The infrastructure renewal project proposes to upgrade two key pieces of APA infrastructure:

* Desktop infrastructure
* Telephony infrastructure

These projects enable the periodic upgrade of APA’s critical information technology (IT) systems over the period 1 July 2016 to 30 June 2021. This will ensure that APA continues to maintain reliable, compliant and efficient business processes and systems and preserves the on-going integrity of the services.

* **Desktop Infrastructure**

Benefits include modernisation of the desktop, office and mobility platforms:

* Reduced exposure to system and security related vulnerabilities;
* New capability realisation including touch screen and stylus for mobility;
* Modern platform for leveraging new capabilities; and
* Collaboration application and services offerings.

The impact of not upgrading is increased security risk exposure to the whole of the business. The ability to remain agile and deliver new capabilities to the business is also a key consideration.

* **Telephony Infrastructure**

On completion of the rollout, the APA Amadeus Pipeline business will have:

* A modern, supported, resilient communication and collaboration platform;
* Integrated and enhanced communications channels across the business; and
* Capability to leverage future line of business and communication integrations.

The impact of not replacing the current telephony infrastructure will significantly increase the risk and exposure of communications both within the business and customers.

# objectives / outcomes

This project proposal covers the project to upgrade desktop and telephony infrastructure for APA.

There are two components to this project:

## Desktop Infrastructure

The Next Generation Operating Environment stream will upgrade all corporate systems to the Windows 8/10 Operating System. This will provide a robust platform that underpins strategic application initiatives, support deployment of future applications, and maintains and enhances security levels.  The platform allows the business to leverage new capabilities including touch screen, modernisation of the corporate desktop and mobility solution offerings.

On completion of this rollout, APTNT will be supported by a robust enterprise desktop platform that aligns to key Enterprise IT systems.

## Telephony Infrastructure

The Unified Communications stream will replace legacy telephony hardware with a solution that integrates telephony, presence, voicemail and conferencing across the enterprise.

On completion of this rollout, the APTNT will be supported by a robust enterprise telephony infrastructure that supports key Enterprise IT systems.

# benefits

The major benefit from the proposed project is continued secure and supported operation of desktop and telephony infrastructure.

This includes:

* Continuation of IT vendor support, which will require movement to a recent version of the relevant software;
* Security and integrity of business information which will improve with upgrades with the continued emphasis that vendors place on these solutions.
* Improved stability of IT systems over time;
* Integrated and enhanced communications channels across the business;
* Continued access to relevant support and spare parts; and
* Compliance of the latest IT systems with market requirements.

# delivery concept

The Infrastructure upgrade plan is based on a stay in business program of work to ensure that the systems are kept up-to-date.

These projects enable the periodic upgrade of APA’s critical information technology (IT) infrastructure over the period 1 July 2016 to 30 June 2021. This will ensure that APA continues to maintain reliable, compliant and efficient business processes and systems and preserves the on-going integrity of the services.

# estimate and timeframe

The APA infrastructure environment is comprised of a number of systems that are tightly integrated. With tightly integrated systems there is a resulting interdependency of associated technologies. Upgrades to applications, infrastructure and associated technologies, are typically not completed in isolation of one another and due to this complexity will be run as internal Business & Technology (B&T) projects.

* APA utilises an industry standard B&T Project Methodology which is managed through formal governance.
* This B&T Methodology divides the projects into key stages – concept, develops, plan, deliver and close. Each stage comprises of key tasks and activities to ensure the consistency and standardisation across projects. Overview of B&T Methodology is included in Appendix B.
* The methodology includes an Estimation Tool, to ensure project estimates are standard and consistent.
* This estimation tool has been used to forecast the work and cost estimates for the infrastructure upgrade program of work. Breakdown of costs by major project phases is included in Appendix A.
* The work estimates are based on a complexity matrix tool, which uses a series of questions to categorise projects into simple, medium and complex.
* The resource rates are based on actual resource costs, utilising a combination of internal and external (through vendors and trusted recruitment agencies) to ensure that services are carried out in a prudent and efficient manner.

There is a risk with an increased rate of failure in older infrastructure. The impact of not replacing the current telephony infrastructure will significantly increase the risk and exposure of communications both within the business and customers.

The proposed expenditure for the 2017 – 2021 is provided below ($000 real 2014/15, before escalation)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Project name** | **2016/17** | **2017/18** | **2018/19** | **2019/20** | **2020/21** | **Total** |
| IT infrastructure renewal program | 55 | 110 |  |  | 55 | **221** |

# RISK ASSESSMENT

A risk assessment has been undertaken by identifying existing and potential network operational risks (and residual risks) in terms of the consequences and the likelihood of the risk. This is carried out using APA’s established evaluation criteria to produce an estimated level of risk and to rank and prioritise the risk based on APA’s established risk management and control criteria.

Risk analysis has been carried out (see below) that shows there is a risk to operational activities if the Renewal Program is not undertaken.

* IT systems may be exposed to increasing security risks if the systems are outside of the supported lifecycle;
* APA may be unable to address strategic imperatives and architectural weaknesses identified in the IT Strategic Plan; and
* An increased rate of failure in older infrastructure may occur, resulting in unplanned production outages.

On this basis the Infrastructure Refresh Program is considered essential in order to mitigate the existing risks.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |   | **Health & Safety** | **Environment** | **Operational** | **Customers** | **Reputation** | **Compliance** | **Financial** | **Total Score of Risk Levels** |
| **Risk Untreated** | **Likelihood** | *Possible* | *Unlikely* | *Possible* | *Possible* | *Possible* | *Possible* | *Unlikely* | *Priority 2**87* |
| **Consequence** | *Medium* | *Insignificant* | *Significant* | *Medium* | *Medium* | *Minor* | *Significant* |
| **Risk Level** | *Moderate* | *Negligible*  | *High* | *Moderate* | *Moderate* | *Low* | *Moderate* |
|  *14* |  *02* | *20*  | *14*  | *14*  |  *08* | *15*  |
|  | **Likelihood** | *Unlikely* | *Unlikely* | *Unlikely* | *Unlikely* | *Unlikely* | *Unlikely* | *Unlikely* | *Priority 3**73* |
| **Risk****Treated** | **Consequence** | *Medium* | *Insignificant* | *Significant* | *Medium* | *Medium* | *Minor* | *Significant* |
|  | **Risk Level** | *Moderate* | *Negligible* | *Moderate* | *Moderate* | *Moderate* | *Low* | *Moderate* |
|   | *12* | *02* | *15* | *12* | *12* | *05* | *15* |  |
|  | Cumulative Risk Reduction for Option 1 | ***14*** |

# OPTIONS CONSIDERED AND RECOMMENDATION

Two options were considered:

1. **Upgrade desktop and telephony infrastructure per good industry practice.**

This is the only option to address the risks associated with the failure to upgrade critical business IT infrastructure.

1. **Reduced scope:** Defer infrastructure renewal and do not proceed with the timeframe of the next regulatory window.

However, due to the timeframe of vendor release cycles, and the current age of telephony infrastructure, this is not considered to be a prudent solution as it may expose APA to:

* Unacceptable IT security risks;
* A reduction in the ability to deploy future applications;
* A reduction in availability of services;
* A reduction in integrity of services; and
* An inability to comply with regulatory obligations or requirements.

**Recommendation**

The recommendation is to proceed with option 1: desktop and telephony infrastructure on as per good industry practice. This is the only option to address the risks associated with the failure to upgrade critical business IT applications.

# JUSTIFICATION

Consistent with the requirements of rules 79(1)(a) and 91 of the National Gas Rules, APA considers that the capital expenditure to implement the applications renewals is:

* *Prudent* – the expenditure is necessary in order to maintain the integrity of services and comply with regulatory obligations and requirements. If the business IT infrastructure refresh is not implemented there is a risk of:
	+ Core infrastructure no longer supported by IT vendors;
	+ Core infrastructure vulnerable to security incidents;
	+ Being unable to address strategic imperatives and architectural weaknesses; and
	+ An increased rate of failure in older critical business IT telephony infrastructure, resulting in unplanned production outages.
* *Efficient* – The project will allow APA to maintain its cost effectiveness and operational efficiency and address the high risks of non-compliance with relevant regulations and legislation, potential customer and business interruptions and corresponding adverse financial and reputation impacts.

The material and direct labour costs, and applicable planning, design and commissioning charges, are based on historic actual costs of similar projects. Resource Unit Costs (both internal and external) are based on APA’s Project Management Office research, where actual placement costs have been used based on historical project resources and current resourcing rates (FY15).

APA confirms that it will use a formalised Project Methodology, utilising a combination of internal and external resources to deliver the program of work. The Project Methodology is outlined in Attachment B and provides a consistent, standard and quality assured project implementation framework. The Project Management Office (PMO) will provide guidance and governance to the project, ensuring that the work is carried out in a professional manner.

* *Consistent with accepted and good industry practice* – It is good practice to have all critical systems up to date and supported by vendors. This upgrade will ensure that APA remains in line with good industry practice
* *Necessary to achieve the lowest sustainable cost of delivering pipeline services* – the Upgrade Project is necessary to mitigate the risks associate with operating on older versions of the software with the resultant performance and cost implications should these systems fail.

## National Gas Rules Criteria

In response to rule 79(1)(b) of the National Gas Rules, AGN considers that the capital expenditure is justifiable under rules 79(2)(c)(i), (ii) and (iii) of the National Gas Rules. This is demonstrated in the table below.

|  |  |
| --- | --- |
| Justification | Applicability |
| the capital expenditure is necessary: (i) to maintain and improve the safety of services; or  | Making this investment reduces the risk of failure of the critical systems or security breaches. Any failure will have impacts on the safety of services |
| the capital expenditure is necessary: (ii) to maintain the integrity of services; or  | The integrity of the services will be impacted if there are risks on critical systems being available. |
| the capital expenditure is necessary: (iii) to comply with a regulatory obligation or requirement; or  | Regulatory obligations would be breached if the systems were not available.  |