

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Outcome:</b>	5	<b>Question No:</b>	151
<b>Program:</b>	5.1		
<b>Division/Agency:</b>	Screen Australia		
<b>Topic:</b>	Screen Australia – Reports on PC/Mac platform		
<b>Hansard Page ECA:</b>	125 (19/10)		

**Senator LUDLAM asked:**

**Senator LUDLAM**—...You commissioned a number of reports that recommended adopting a Mac platform over a PC. Is that the case?

**Dr Harley**—I asked my staff to form a view, and their view was Mac. I was concerned that that was not a very close look at the issues. We then commissioned PWC to do a second report. They also recommended Mac. I also took the view that they had not looked at the issues as thoroughly as I would like and I took my own view that we would move to PC.

**Senator LUDLAM**—Was the first review, the staff review, just anecdotes and talking to people at the coffee machine, or did you commission a study?

...

**Dr Harley**—The IT team wrote a report.

**Senator LUDLAM**—Are you able to table those two reports—the staff one and the PWC one—for the committee?

**Dr Harley**—I am sure I am. I cannot see why not.

**Senator LUDLAM**—You can check that if you need to.

**Answers:**

- Initial internal Screen Australia (February 2009) report at Attachment A
- PricewaterhouseCoopers (June 2009) report at Attachment B
- Screen Australia ICT decision rationale at Attachment C

# Screen Australia Desktop Platform Recommendation

Version Number:	<b>1.0</b>
Date Issued:	5 Feb 2009
Author(s):	Newton Braga John O'Keeffe
SA File Number:	TBA
Related Documents	SA ICT Infrastructure Summary

## **Purpose**

This document presents a high-level comparison and recommendation for consolidating and procuring a computer desktop and laptop environment for Screen Australia (SA).

A further detailed analysis of implementation design, tasks and associated costs will need to be undertaken where further detailed costing is required or where implementation options require further consideration. Areas where this further detail may be required have been indicated in the document.

## **Assumptions / Environment**

- Apart from initial migration and conversion tasks, both platforms will allow the organisation to conduct its business.
- The analysis was based on 130 staff with a split of 100 desktop systems and 30 laptop systems, considering numbers of staff post restructure of stage 2 are yet to be confirmed.
- Both options will require replacement of server hardware over the coming years as a result of natural need for replacement of ageing systems and where consolidation is cost effective.
- Existing ICT support arrangements to be maintained, with in house ICT support and selective outsourcing arrangements to continue.
- Indicative costs do not include freight / travel costs associated with interstate implementations or revenue from the sale of equipment being replaced.

## **Background**

The merger of the AFC, FAL and the FFC combined three environments representing an approximate 80% to 20% combination of Macintosh and PC desktop/laptop systems combined with three supporting file and authentication infrastructures. The majority of the desktop/laptop equipment (PC and Mac) in the organisation are now 4 to 5 years old and require replacement to allow the organisation to run up to date versions of operating systems and software. The key objective is to implement a single desktop/laptop environment and consolidated supporting infrastructure across all four Screen Australia sites.

## **Broad Options**

Two broad options are presented for consideration for a Screen Australia default platform:

- 1) A PC Microsoft Windows / Intel hardware based environment by building a new desktop/laptop environment and infrastructure.
- 2) An Apple Mac OS X software / hardware environment building on the existing Screen Australia Apple environment and infrastructure.

Options for a combined Mac OS X/Windows or similar such as Linux desktop/laptop environment are not considered as they represent a potential increase in complexity and compatibility issues.

## **Option 1 - Microsoft Windows / Intel hardware**

This option involves replacing all existing desktop/laptop systems and essential supporting server infrastructure with Microsoft Windows / Intel hardware and includes:

- Migration of all ex AFC / FAL Apple OS X systems and supporting infrastructure to Microsoft Windows
- Refresh of all ex FFC Microsoft Windows systems.
- Design and implementation of Microsoft Active directory, with migration of existing Apple OS X directory.
- Replacement of existing Macintosh file server and storage with Microsoft Windows Server and hardware infrastructure across all sites where required for initial setup.
- Migration of relevant network services (DNS/DHCP) to Microsoft Windows equivalents.
- Development of a Windows based Standard Operating Environment (SOE) including procurement of Microsoft Office for Windows and anti virus software.

- Verification and update of SA Filemaker databases to ensure layouts and any Apple OS X dependent functionality is modified to be consistent with the Microsoft Windows environment.

As in house expertise does not exist for the design and development of the Active Directory / Windows environment and Windows based SOE, much of the work related to this option would require substantial use of external consultants to work with and train internal ICT staff. Additionally, ongoing consultant support would be required until the existing internal ICT support team became better able to support the new environment.

Server and storage hardware would be required to replicate existing home folder file storage and directory services across all sites. Over the following years, existing Mac OS X servers would be progressively replaced where a Windows server provides the host application support. Existing Macintosh based file servers would be utilised where possible to save initial costs.

Training would be required for a large number of staff and would need to be organised through a third party training company and would need to cover the Windows operating system and Microsoft Office 2007. Adequate training would also be required for ICT support staff.

Software purchases would include Microsoft Office for Windows and Anti virus software. Some existing ex FFC licences (anti virus) and SA server Client Access Licences (CALs) associated with the existing Citrix environment could save some expenditure in this area.

Screen Australia's Filemaker databases were originally developed within the AFC and FAL Macintosh environments. Although Filemaker is compatible with Microsoft Windows, modifications to database layouts and replacement of any Macintosh operating system dependant functionality would be required to ensure Windows consistency. This is potentially an extensive task and is likely to require database consultancy support to assist with the project.

*Note: Should this option be preferred, a detailed scope and solution design would be required to obtain accurate project costs for implementing the Windows environment and conversion of Filemaker Pro databases.*

## **Option 2 - Apple Macintosh**

This option involves building on the existing Mac OS server infrastructure and resources and includes:

- Migration of the existing ex FFC Microsoft Windows / Intel systems and infrastructure to Mac OS X.
- Development of a Mac OS X 10.5 SOE upgrade.
- Refresh ageing ex AFC systems.
- Optionally maintain existing ex FAL systems, which are 12 months old.
- Maintain existing Mac OS hardware server infrastructure at all SA sites, upgrading the standard operating environment for desktops/laptops and directory services to Apple's latest version of Mac OS X.

This option maintains existing backend Mac OS X server infrastructure at all SA sites with an upgrade of the existing directory services environment from Mac OS 10.4 to Mac OS 10.5. Additionally, the operating systems of some existing Mac OS X servers would also be upgraded. No additional server hardware would be required, as existing hardware would be maintained.

All aspects of the design and implementation (including migration and training for ex Windows PC users), would be undertaken by in house ICT staff personnel with the exception of the potential for 2-3 days consultancy time should assistance be required for the planning of the directory services upgrade or the actual cutover to the new computers.

Although the upgrade offers a good opportunity to also purchase the new version of Microsoft Office for Macintosh, this could be delayed until the following financial year to allow a focus on training staff in the new version of Lotus Notes 8.5 and the new version of the operating system. With the majority of staff currently using Macintosh systems, most of the training would only need to focus on alerting staff to new features. Full Mac OS X transition training would be organised for existing Microsoft Windows users. Sufficient Mac application software licences (e.g. anti virus, Microsoft Office, Citrix) are owned to cover the additional ex FFC staff systems.

### Indicative Cost Comparison

As Apple equipment differs to PC vendors, Dell was approached to provide an indicative quote on units with similar specifications to preferred Apple models. It should be noted that Apple units typically come with many standard features by default that may not be considered necessary should a Windows / Intel option be preferred (eg video cameras are not included in the Dell pricing for the desktop systems). Additionally both Apple and Dell have advised that special pricing could be obtained subject to quantities required. Note that implementation costs for option 1 are indicative only.

First Year Costs Item	Option 1 - MS Windows			Option 2 - Apple		
	Qty	Unit Cost	Line Cost	Qty	Unit Cost	Line Cost
<i>Desktops</i>						
Desktop Computers	100	\$1,795	\$179,500	100	\$1,476	\$147,636
Laptop Computers	30	\$3,296	\$98,880	30	\$3,060	\$91,800
MS Office	130	\$451	\$58,630			
Anti virus software	90	\$22	\$1,980			
Software assurance (windows7/Mac 10.6)	130	\$116	\$15,080	130	\$99	\$12,882
<i>Server Infrastructure</i>						
Sydney Primary AD	1	\$6,000	\$6,000			
Sydney Primary File Servers	1	\$8,000	\$8,000			
Sydney Primary Storage	1	\$15,000	\$15,000			
Melb / Lindfield Server	2	\$8,000	\$16,000			
Server Software (w/SA)	5	\$1,198	\$5,991	5	\$953	\$4,764
<i>Consultancy (days@rate)</i>						
Solution Analysis/Design	5	\$1,200	\$6,000	3	\$1,200	\$3,600
SOE Development	5	\$1,200	\$6,000			
Implementation/Sytem						
Builds/testing	8	\$1,200	\$9,600			
Roll out / Migration	5	\$2,400	\$12,000	5	\$1,200	\$6,000
Transition maintenance and support	5	\$1,200	\$6,000			
Filemaker Database conversions	10	\$1,200	\$12,000			
<i>Training</i>						
Staff Training (incl Office)	6	\$2,500	\$15,000			
ICT Staff Training (courses@rate)	4	\$3,000	\$12,000			
<b>FIRST YEAR TOTALS</b>			<b>\$483,661</b>			<b>\$266,682</b>

Second year costs	Option 1 - MS Windows		Option 2 - Apple		
Macintosh Office Upgrade	-	-	130	\$450	\$58,500
MS Office Training	-	-	2	\$2,500	\$5,000
<b>SECOND YEAR TOTALS</b>	-	-			<b>\$63,500</b>
<b>TOTAL including second year component</b>			<b>\$483,661</b>		<b>\$330,182</b>

*Option 2 Notes: Utilising existing ex Film Australia hardware could reduce cost of Macintosh hardware. This would reduce the indicative cost by approx \$29K reducing the total first year cost from \$266,682 to \$237,682 however it is not a preferred option.*

## Analysis

The following is a broad analysis of the strengths/weaknesses of the two options as well as the opportunities / threats represented by each implementation.

**Option 1 – Microsoft Windows / Intel**

<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>Native client access to TRIM, Finance 1 and Aurion, reducing usage of extra access software applications (e.g. Citrix, Windows virtualisation, ICE).</li> <li>Extensive market support options (software applications, hardware and services)</li> <li>Multi hardware vendor choice</li> <li>Strong compatibility and integration with third party software and hardware platforms.</li> <li>Windows is the dominant platform in Government Agencies.</li> </ul>	<ul style="list-style-type: none"> <li>High initial cost</li> <li>“Starting from scratch”</li> <li>High susceptibility to virus and other malicious attacks</li> <li>Currently limited in-house ICT support.</li> <li>Potential considerable reworking of Filemaker databases.</li> <li>Initial implementation requires considerable use of external consultants.</li> <li>Uncertainty regarding Vista, which may require implementation of Windows XP.</li> <li>Higher initial training / support requirement for staff.</li> </ul>	<ul style="list-style-type: none"> <li>Offers wide range of software application choice.</li> <li>Potential future system implementation / integration, e.g. PABX Voice Over IP, server virtualisation, desktop virtualisation,</li> <li>Enables native TRIM based Electronic Document Management allowing for integration with Office.</li> </ul>	<ul style="list-style-type: none"> <li>Potentially represents an unpopular decision and an upheaval for staff during current restructure.</li> <li>Represents a potential risk should unforeseen dependencies or incompatibilities with the existing Macintosh environment emerge.</li> <li>Extent of modification to Filemaker databases is unclear.</li> <li>As a “start from scratch” approach, implementation times could be lengthened.</li> </ul>

**Option 2 – Apple Macintosh OS X**

<b>Strengths</b>	<b>Weaknesses</b>	<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>Based on existing infrastructure and systems requiring minimal additional backend infrastructure.</li> <li>Strong existing internal ICT expertise</li> <li>Lower initial cost</li> <li>Minimal requirement for external consultant support.</li> <li>Minimum disruption to the majority of staff.</li> <li>No impact to existing Filemaker databases.</li> </ul>	<ul style="list-style-type: none"> <li>Continued requirement for Citrix or virtualisation solutions to access TRIM, Finance1 and Aurion.</li> <li>Less extensive market support options (software applications, hardware and services).</li> <li>Generally limited access to integration with third party systems (e.g. PABX/VoIP integration) dominant in Windows environments.</li> <li>No current server / desktop virtualisation solutions</li> <li>Uncertainty as to whether TRIM web based ICE client can provide a sufficient EDMS solution.</li> </ul>	<ul style="list-style-type: none"> <li>Increasing market share of Mac platform represented by companies porting applications to the Apple platform.</li> <li>Potential to consider integration of other emerging Apple/Macintosh technologies (e.g. iChat, iPhone)</li> <li>Windows virtualisation offers alternatives to Citrix for key Windows application users.</li> </ul>	<ul style="list-style-type: none"> <li>Dependant on the continuing strength of Apple and commitment to the enterprise environment.</li> <li>Alternative Electronic Document Management System to TRIM to be considered if ICE is not suitable to deliver EDMS to a Mac platform.</li> </ul>

**Recommendation**

**It is recommended to consolidate the existing mixed Mac OS X / Microsoft Windows desktop environment by migrating to the Mac OS X 10.5 platform.**

The Macintosh OS X option represents a lower up front consolidation cost in terms of server hardware purchase, consultancy costs and FileMaker Pro database customisation, with minimum disruption to the majority of Screen Australia staff.

The Mac OS X desktop platform is a proven technology previously used successfully by the former AFC and FAL organisations, in environments with the same corporate applications currently in use by Screen Australia.

A comprehensive implementation plan will be developed, including the development of a Mac OS 10.5 desktop SOE upgrade and procurement of an appropriate number of desktops and laptops as a result of the final stage 2 restructure. Replacing all the existing hardware will allow for the development of a single desktop SOE and a single laptop SOE, reducing support, administration and management costs. A clause could be added to the tender process to include the buy back of the existing desktop and laptop hardware owned by Screen Australia. A verification will be undertaken to identify any issues relating to migrating the ex FFC environment to Macintosh.

To increase the Windows in-house support skills of ICT staff in support of existing Windows Server Infrastructure, a training strategy will be developed with the aim of significantly reducing the requirement for external third party support currently used for these systems.

The indicative total cost to implement the solution based on the 130 systems *including* the subsequent upgrade of Microsoft Office is \$330,182. The Windows option is estimated at \$483,661. If further detailed cost analysis/comparison is required it is recommended that a suitably experienced company be engaged to design and submit a proposal.

As part of the implementation, appropriate measures should be identified and established to provide a baseline to measure whether the solution is continuing to deliver an effective and efficient service for Screen Australia and that the platform continues to be consistent with directions set by the Corporate Plan and corresponding ICT Strategic plan. Opportunities presented by emerging technologies especially in the realm of virtualisation should continue to be evaluated especially where cost effective solutions to deliver increased availability, disaster recovery and business continuity for the Screen Australia ICT environment.

With the progressive ageing of the existing file and application server infrastructure over the next couple of years, virtualisation of the server environment will be considered when developing a server replacement and implementation plan. The evaluation of a centralised desktop virtualisation will also be considered to determine the feasibility of delivering a desktop hardware independent environment to SA for the future.

Ross Pearson  
Chief Commercial Officer  
Screen Australia  
Level 4, 150 William Street  
Woolloomooloo NSW 2011

**PricewaterhouseCoopers**  
**ABN 52 780 433 757**

Freshwater Place  
2 Southbank Boulevard  
SOUTHBANK VIC 3006  
GPO Box 1331  
MELBOURNE VIC 3001  
DX 77  
Telephone 61 3 8603 1000  
Facsimile 61 3 8603 1999  
Direct Phone Enter your phone  
number  
Direct Fax Enter your fax number  
Website:www.pwc.com/au

Dear Ross,

Following your query to Ash relating to distributing the PwC deliverable for the Screen Australia Platform Review, I can confirm that the deliverable can be distributed as per your request with the following understanding:

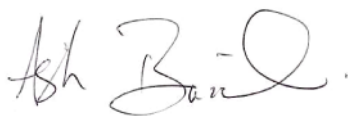
*Our work did not constitute an audit or review in accordance with Australian Auditing Standards and consequently no assurance or audit opinion is expressed. Except where otherwise stated, we have not "subjected the financial or other information contained in this report to checking or verification procedures. Accordingly, we assume no responsibility and make no representations with respect to the accuracy or completeness of the information in this report, except where otherwise stated.*

*This report has been prepared solely for Screen Australia's internal use for the purpose set out in the letter of engagement. We do not accept any responsibility for losses occasioned to Screen Australia or to any other party as a result of the circulation, reproduction or use of our final or draft report contrary to the provisions of this paragraph.*

*The report is based on information supplied by Screen Australia and interviews conducted with Screen Australia staff. This information has not been independently verified by us and we therefore do not provide any assurance as to its completeness or accuracy.*

I hope this meets your expectations, please advise if you require any additional information.

Kind Regards,



Ash Bassili

---

PricewaterhouseCoopers is committed to providing our clients with the very best service. We would appreciate your feedback or suggestions for improvement. You can provide this feedback by talking to your engagement partner, calling us within Australia on 1300 792 111 or visiting our website <http://www.pwcfeedback.com.au/>

---



Performance Improvement  
Technology

# Screen Australia Platform Review

June 2009





## Table of contents

1	Executive summary	3
2	Introduction	4
	2.1 Background	4
	2.2 Purpose	4
	2.3 Scope	5
3	Evaluation and recommendation	6
	3.1 Recommendation	6
	3.2 Evaluation Criteria	7
	3.3 Evaluation Summary	7
	3.3.1 Migration cost	8
	3.3.2 Total Cost of Ownership	9
	3.3.3 Support Skills	9
	3.3.4 Security	9
	3.3.5 User Access and Password Management	10
	3.3.6 Productivity	10
	3.3.7 End User Skills	10
	3.3.8 Sociability	10
	3.4 Proposed Timeline / Roadmap	11
4	Current ICT environment	12
	4.1 Evaluation of current environment	12
	4.2 Core application profile	13
	4.2.1 Standard application profile	13
	4.2.2 Additional applications	14
	4.3 Skills profile	14
	4.4 Business requirements	16
5	Apple OSX	18
	5.1 Solution description	18
	5.1.1 Pre-platform upgrade activities	19
	5.1.2 Review Mac network and server architecture and build of Servers and Standard Operating Environment	20
	5.1.3 Testing	21
	5.1.4 Change Management	22
	5.1.5 Procurement	22
	5.1.6 Rollout and Training	22
	5.2 Assumptions	23

5.3	System specifications	24
5.4	Implementation project plan	25
5.5	Costing	26
5.6	Benefits	27
5.7	Risk assessment and SWOT analysis	28
6	Windows	30
6.1	Solution description	30
6.1.1	Training of IT support staff	31
6.1.2	Windows Network Design	31
6.1.3	Design and build of servers and the Standard Operating Environment	32
6.1.4	Conversion and testing FilemakerPro databases	32
6.1.5	Rollout and Training	32
6.2	Assumptions	33
6.3	System specifications	33
6.4	Server specifications	34
6.5	Implementation project plan	35
6.6	Costing	36
6.7	Benefits	36
6.8	Risk assessment and SWOT analysis	37
<b>Appendices</b>		
Appendix A	Detailed business requirements	40
Appendix B	Detailed costings	45
Appendix C	Interview list	47
Appendix D	Solution Design Diagrams	48

# 1 Executive summary

PwC has conducted a review of Screen Australia's ICT operating system environment. This review comprises an evaluation of the two alternatives of migrating to a consolidated Apple Mac OSX or Microsoft Windows environment, including a detailed cost analysis and implementation project plan for both considered options, and a recommendation as to the most cost effective, efficient and sustainable ICT environment.

The key findings from this review are:

- The migration cost and total cost of ownership (TCO) over a five year period was more favourable for the Apple Mac OSX environment (\$768k) as opposed to the Windows PC environment (\$945k). This is due to the need for increased consulting resources and an immediate server refresh in the Windows environment. Longer term the refresh costs are equivalent.
- There are significant risks and costs with migrating to the Windows environment due to the limited skills available to support a Windows environment in the organisation.
- The current team have the required skills and experience to manage an Apple Mac OSX migration, but require significant support to deliver a Windows migration.
- The Windows environment provides seamless integration between Microsoft Office tools and corporate applications including Finance (Technology1), HR (Aurion) and enterprise document management systems (TRIM). While there are workarounds available in the Apple Mac OSX environment, this does make for more cumbersome business processes relating to document management (Word, Excel and PowerPoint documents).
- User authentication and password management will be managed by a single Active Directory server in the Windows environment. User authentication and password management will be more complex in the Apple Mac environment as two directory servers will be required (Open Directory for Mac clients and Active Directory for Windows based corporate applications). The end-user impact is that users may need to logon separately to corporate applications in the Apple Mac environment.

Based upon the lower TCO and reduced implementation risk, the recommendation is to migrate to a consolidated Apple Mac environment.

The project plan for both migration activities are provided within this document. The timeline for implementation is 5 months for both platforms. The recommended next steps to commence the rollout of the chosen platform are:

- Detailed design of network and server architecture needs to be finalised to support the procurement process.
- RFP development as part of the procurement process. The procurement process will be critical path for the rollout, so the development of the RFP should commence in parallel with detailed design and then incorporate the results of detailed design.
- Change management and impact assessment. Commence the impact assessment on organisational roles, business processes and support.
- Develop a communication and stakeholder management plan to ensure all relevant parties maintain engagement throughout the rollout.
- Confirm a technology partner to support the rollout through review of the solution architecture, design and quality assurance activities.
- Develop and rollout training related to the new environment. Allow adequate consideration for training all Screen Australia users to be proficient in the new environment.

## 2 Introduction

### 2.1 Background

Screen Australia is the Australian Government's screen support agency, with offices in Woolloomooloo, Lindfield and Melbourne, operating under the Screen Australia Act 2008 (Department of the Environment, Water Heritage and the Arts). The Agency commenced operation on 1 July 2008 bringing together the Australian Film Commission (AFC), Film Australia (FAL) and the Film Finance Corporation (FFC).

This merger combined three Information and Communication Technology (ICT) environments representing an approximate 80% to 20% combination of Macintosh to PC desktop/laptop systems with three supporting file and authentication infrastructures. The majority of the desktop/laptop equipment (PC and Mac) in the organisation is now 4 to 5 years old and requires replacement to allow the organisation to implement a standard operating environment (SOE) based on current versions of operating systems and software available in the market.

Screen Australia's goal for ICT is to implement a single desktop/laptop platform environment and supporting server and storage infrastructure across all three Screen Australia sites. In achieving this goal, Screen Australia required the service of a suitably qualified and experienced ICT consultant to undertake a computer platform review to provide a recommendation for refreshing the Screen Australia ICT environment. Two broad computer platform environment options are to be considered:

- 1 An Apple Mac OSX software / hardware environment.
- 2 A Microsoft Windows software / Intel hardware based environment.

### 2.2 Purpose

The purpose of this document is to present a review of the existing Screen Australia's ICT operating system environment, an evaluation of the two alternatives of migrating to a single Apple Mac OSX or Microsoft Windows environment, including a detailed cost analysis and implementation project plan for both considered options, and a recommendation as to the most cost effective, efficient and sustainable OCT environment.

## 2.3 Scope

The scope of this document is:

- 1 An analysis of the current Screen Australia IT environment which includes:
  - 1.1 A full analysis of the existing Screen Australia ICT operating system environment (server and workstations hardware and operating systems).
  - 1.2 Identification of the core business and productivity applications, DBMS environment and respective user base.
  - 1.3 Skills profile of current IT Staff.
  - 1.4 Detailed documentation of staff user requirements for a computer environment, obtained through interviews with key Screen Australia staff, including the development of two desktop (Power User and Normal User) and one laptop user computer hardware profiles to be used to develop the desktop hardware replacement cost analysis. The desktop replacement cost is a sub-set of the whole solution cost analysis for the two considered options.
  - 1.5 Strengths and weaknesses of the existing ICT platform environment considering existing and future agency requirements.
- 2 For each of the two options of either moving to an Apple Mac OSX or a Microsoft Windows based computer platform environment, deliver the following:
  - 2.1 A detailed solution design for a consolidated environment for each of the two options.
  - 2.2 Identification, where applicable, of any required application software, development or delivery infrastructure required as part of the solution adoption.
  - 2.3 A detailed implementation project plan for each of the two solutions. The project plan must detail all phases, key tasks and required resources for each solution implementation and a detailed timeline.
  - 2.4 Detailed costing for each solution including where applicable, all desktop/laptop, server and storage hardware, operating system and application software, development and system customisation, ICT staff training, end user training, SOE development, project management and consultant costs. All costs should be based on Government contract pricing and backed up by supporting evidence.
  - 2.5 Detailed projected on going costs (and cost savings) for each solution over five years.
  - 2.6 A risk analysis based on the adoption of each solution design, identifying the risk issue, its description, risk likelihood rating, risk consequence evaluation and also a risk mitigation proposal for each identified risk.
  - 2.7 A SWOT analysis of each option.
- 3 A recommendation identifying the better platform option that delivers a cost effective, efficient and sustainable ICT environment for Screen Australia's existing and future operations. The recommendation should also clearly present the reasons for moving to the recommended platform.



## 3 Evaluation and recommendation

### 3.1 Recommendation

Based upon the findings in this review, the recommended ICT platform for Screen Australia is the Apple Mac platform.

Screen Australia requires an ICT platform refresh that meets the objectives of being cost-effective and low risk. The ICT platform refresh is critical for Screen Australia to underpin a highly productive workforce, and enable improved ICT facilities.

The ICT platform review defined the solution costs, risks and implementation timeline for both an Apple Mac and Windows PC based ICT platform. The key findings from this review are:

1. The total cost of ownership was significantly lower for the Apple Mac environment (\$768) as opposed to the Windows PC environment (\$975k). While the unit cost of Windows hardware was slightly lower, the costs associated with Windows server migration and up skilling support staff were significant.
2. The Mac environment is favourable for Screen Australia in terms of meeting supportability (based upon existing skills within the organisation) and security requirements.
3. The Windows environment is favourable for Screen Australia in terms of facilitating enhanced productivity in terms of document and knowledge management due to integration between corporate applications (Technology1, Aurion and TRIM) and Microsoft Office.
4. The risks associated with the migration to the Windows environment were higher due to the limited support skills available within the existing organisation. In addition, changes to both the server environment and desktop computers will also increase the risks of migration.
5. A 5 month implementation timeline is defined for both ICT platforms. This is largely due to procurement activities forming the critical path for both ICT platforms.



## 3.2 Evaluation Criteria

The following evaluation criteria was discussed and reviewed with Screen Australia. It outlines the conditions on which each operating system will be measured upon. The evaluation criteria are listed in order of decreasing priority, with the financial cost of each platform being a critical factor to the evaluation process.

Evaluation Criteria	Description
<b>Migration Cost</b>	The total cost of migrating to the specified platform.
<b>Total Cost of Ownership</b>	The total cost of ownership over a 5 year period for each specified platform.
<b>Support Skills</b>	The current skills available within the organisation to support each platform.
<b>Security</b>	Ability to meet security requirements.
<b>User Access and Password Management</b>	Support for single sign-on and application access management
<b>Productivity</b>	Support for employee productivity.
<b>End User Skills</b>	The current end user skills within the organisation to utilise each platform.
<b>Sociability</b>	The ability for the platform to fit into the current Screen Australia environment with minimal impact.

## 3.3 Evaluation Summary

Evaluation Criteria	Key Findings	Apple	Windows
<b>Migration Cost</b>	Cost savings from reduced windows desktop specifications are outweighed by costs for the design of the new Windows environment and purchase of new servers.	✓	
<b>Total Cost of Ownership</b>	Total cost of ownership is lower for Mac environment.	✓	
<b>Support Skills</b>	There is a high level of proficiency in Mac environment. Significant re-skilling of staff required for migration to Windows environment.	✓	
<b>Security</b>	Windows will continue to face increased security threats, Apple is far less likely to be targeted. Screen Australia will require an increase in resources to manage security within a Windows environment.	✓	
<b>User Access and Password Management</b>	Windows is better able to support single sign-on requirements. Screen Australia will require the use of a Windows		✓

	ActiveDirectory and Apple OpenDirectory within a Mac environment.		
<b>Productivity</b>	Integration between Microsoft Office Suite and core applications will support enhanced productivity. The use of Citrix in an Apple environment will remain a limitation for users.		✓
<b>End User Skills</b>	Screen Australia features a large population of experienced Mac users. However, a majority of user have experience with both environments.	✓	✓
<b>Sociability</b>	Film industry is predominantly a Mac environment; possible issues may arise when accessing externally sourced material. Screen Australia currently faces and will continue to have difficulties in interacting with government departments which are Windows based.		✓

### 3.3.1 Migration cost

The cost of migration is less for the Mac platform. This is due to the fact that the desktop and laptop hardware costs are roughly similar. However, a Windows migration also includes additional costs for new Windows servers, consultancy fees and training costs. No additional Mac servers are required and cost of consultants and training is reduced. This represents a significant saving for the Mac migration.

The migration costs are significantly cheaper for Mac.

Migration Costs		Apple	Windows
1	Total cost of desktops and laptops	\$247,203	\$251,972
2	Total cost of new servers		\$101,959
3	Software costs	\$66,220	\$66,220
4	External consultants	\$70,000	\$180,000
4.1	IT architecture design	\$30,000	\$60,000
4.2	Deployment specialist		\$40,000
4.3	Additional IT support	\$40,000	\$80,000
5	Training Costs	\$48,000	\$80,000
	<b>Total Migration Costs</b>	<b>\$431,423</b>	<b>\$680,151</b>

A more detailed costing is provided within Appendix B – Detailed Costing.

### 3.3.2 Total Cost of Ownership

The system refresh costs are less for the Windows environment. This is primarily due to the refresh of the Mac fileserver raid array. Without the refresh of the raid array, the system refresh costs are quite similar. The cost of file server array does not outweigh the additional costs of the Windows migration.

The total cost of ownership is significantly cheaper for Mac

Ongoing Costs		Apple	Windows
1	System refresh costs	\$337,039	\$295,455
1.1	Desktop and laptop replacement	\$247,203	\$251,972
1.2	Server replacement	\$79,836	\$23,483
1.3	Migration costs (External consultants)	\$10,000	\$20,000
2	Total Migration Costs	\$431,423	\$680,151
	<b>Total cost of ownership</b>	<b>\$768,462</b>	<b>\$975,606</b>

### 3.3.3 Support Skills

Screen Australia's support staff are highly skilled in within the Apple environment. Additional training will be required for IT support staff to facilitate an upgrade of either platform. A migration to a Windows environment will require the significant retraining and re-skilling of Screen Australia IT Support staff.

The Mac environment also features a number of built in system administration tools such as Apple Software Restore, Apple Remote Desktop and Apple Hardware Test. Screen Australia will require additional support and administration tools in the Windows environment such as Remote Administration and Image Deployment software

It should be noted that the Mac platform will still need to maintain a dual environment, including Windows servers for the hosting of a Windows ActiveDirectory and core applications, Technology1, Trim and Aurion as well as Citrix.

In terms of the support skills of Screen Australia's IT staff, the Mac platform is considered to be the better platform.

### 3.3.4 Security

The Windows platform is widely acknowledged to have an increased presence of viruses and malicious activity. Screen Australia will require additional resources to manage the Windows environment.

Mac is designed with built-in technologies that provide protection against malicious software and security threats. As a result there are very few malware or viruses that affect the Mac platform. In addition, the Apple platform is considered to be a more stable platform.

In terms of the security and stability of the operating system, the Mac platform is considered to be the better platform.

### 3.3.5 User Access and Password Management

The Windows environment will be able to support single sign-on requirements to enable access to all applications after log in. In a Mac environment, Screen Australia will require the use of a combined Windows ActiveDirectory and Mac OpenDirectory in order to support authenticate users. In addition, password management and administration is more complex given the two authentication servers.

In terms of User Access and Password Management, the Windows environment is considered to be the better platform.

### 3.3.6 Productivity

With the exception of FilemakerPro, Screen Australia's core applications are primarily Windows based. In particular, Technology1 is based on Windows .Net technology and features integration with the Microsoft Office Suite. It should be noted that the Citrix environment will still need to be maintained within a Windows environment in order to facilitate access to core applications by Melbourne users.

The Mac platform will require the use of Citrix in order to access Technology1, Aurion and TRIM. These represent core applications for finance and hr staff. Users have reported a decreased level of efficiency because of the use of the Citrix application. Limitations to the functionality of the Trim application within a Mac environment have prevented increased utilisation of the records management software.

In terms of productivity of the operating systems, the Windows platform is considered to be the better platform.

### 3.3.7 End User Skills

As a result of the interviews with Screen Australia users, it was identified that a majority of users are experienced with both the Windows and Mac environment. It is noted that users have reported a greater level of satisfaction and usability within the Mac environment. It is not anticipated that there will be a significant level of user training required to support the migration to either platform.

In terms of end user skills, the Windows and Mac platform are considered to be equal.

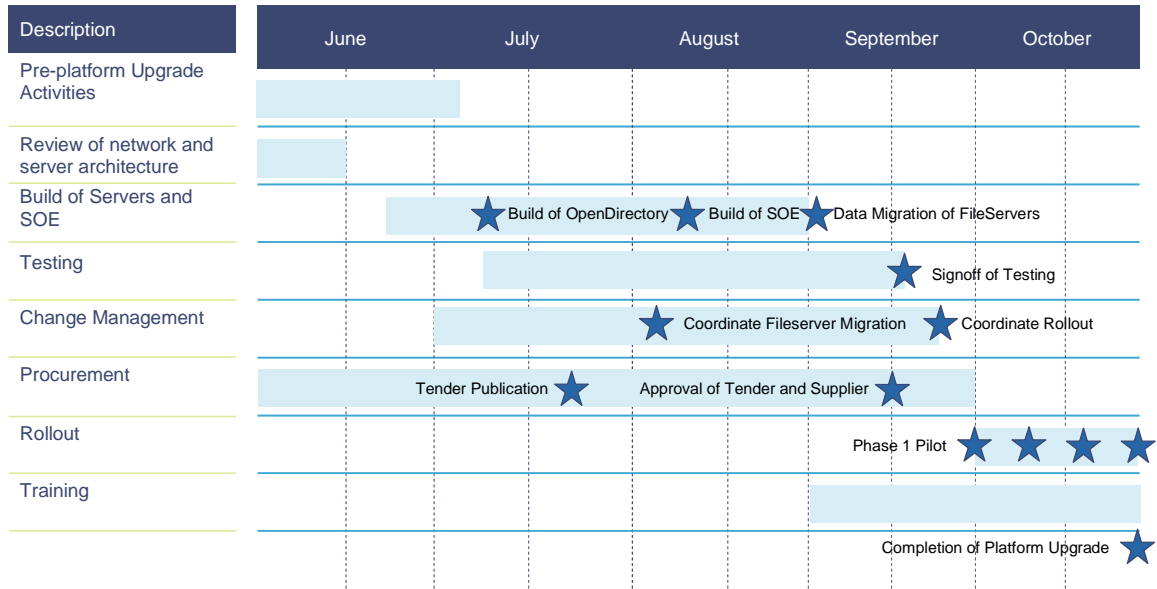
### 3.3.8 Sociability

The Apple platform remains the platform of choice for the Film Industry. In a Windows environment, Screen Australia may face possible format and platform issues when interacting with members of the film industry. However, as a majority of government department are Windows-based, Screen Australia currently faces and will continue to face format issues in dealing with government bodies if it continues with a Mac platform.

In terms of sociability of the operating systems, the Windows platform is considered to be the better platform.

### 3.4 Proposed Timeline / Roadmap

It is recommended that Screen Australia proceed with the Mac project plan outlined in the Apple solution design. The key tasks and milestones have also been listed below.



## 4 Current ICT environment

### 4.1 Evaluation of current environment

Screen Australia has inherited various servers from the merger of the AFC, FFC and FAL. In general, the current environment features several servers performing similar functions. In addition, previously each organization was at a different level of maturity with respect to the management, support and administration of their IT environment. Consolidation and decommissioning activities to resolve these issues have been delayed and are awaiting the outcome this review.

Screen Australia's current server environment can be viewed as a mixed Windows/Apple environment. Lotus Notes, TRIM, Technology1 and Aurion applications and associated Oracle databases are hosted on Window servers. Specialized applications such as the content management system, building management, mailing list server and "Now-Up-to-Date" calendar system are also hosted within a Windows environment. Screen Australia's key FilemakerPro databases, file servers and backup processes are hosted within the Mac environment. Network management and system administration activities such as DHCP, DNS, authentication and user profile management are performed by both Mac and Windows servers.

PwC has identified the following key findings with respect to Screen Australia's current environment.

Key Finding	Detail
No Standard Operating Environment	Screen Australia does not have a standard operating environment. This creates an impact in terms of increased support complexity, increased IT risks (eg. security risks) and inability to standardise desktop tools and processes.
End of Cycle ICT Platform	The current desktop environment utilises outdated desktop hardware for both the Mac and Windows environment. This creates a significant issue for end users in terms of performance and ability to utilise current software.
Limited Support for Windows environment	The current support team requires skills to support the Mac and Windows environment. There is only one highly skilled Windows support resource to support Windows environment. All four IT support staff are highly skilled in managing the Mac environment with a moderate knowledge of Windows.
Recent Security Incidents	The PC environment has been affected by viruses and malware that has had a significant effect on productivity. This has not occurred in the Mac environment.
Impact on End User Productivity	The complex environment has a significant impact on end-user productivity due to the need to spend excessive time on file management, re-formatting and manual backup activities.
Limited Change Management	End-users are concerned about the impact of the migration to a new ICT platform due to historically limited change management, skills development and training.
WAN performance is	Satellite offices are affected by limited WAN capacity. This affects the ability to support collaboration activities and adversely affects

poor	performance.
------	--------------

## 4.2 Core application profile

### 4.2.1 Standard application profile

The standard application profile contains a list of applications which are most commonly used within Screen Australia. They are expected to be installed and configured as part of the Standard Operating Environment. It should be noted that Citrix will be only necessary if the desktop environment is Mac based.

Applications	Description	Infrastructure requirements
Windows MS Office 2007/ Apple MS Office 2008	Office productivity suite including Microsoft Word and Excel.	
Notes/Sametime	Screen Australia's Email and Instant Messaging System.	Notes Domino Servers (PC).
FilemakerPro	FilemakerPro is a database development tool. Many key Screen Australia databases are designed using FilemakerPro.	FilemakerPro Server.
Citrix	CITRIX is required to access Technology1, TRIM and Aurion if desktop platform is Mac based.	Citrix Server (PC). Additional Windows MSOffice licenses.
Technology1	Screen Australia's Finance System.	Servers to be hosted in a Windows environment.
TRIM	Screen Australia's Records Management System, primarily used for the administration and tracking of hard copy files.	Servers to be hosted in a Windows environment.
Aurion	Human Resource Management Information System.  Access to client required for HR staff. Normal users will use web based forms.	Servers to be hosted in a Windows environment.
Firefox	Internet browser.	
Symantec	Virus scanning.	
Remote Administration	Remote Administration tool required for the remote support of users, in particular, for screen sharing and remote control.	
Adobe Acrobat Reader	For the viewing of PDF files.	

## 4.2.2 Additional applications

Screen Australia users have also identified a number of additional specialised applications that may be requested to be installed. The number of licenses required and access to these applications will need to be reviewed as part of the pre-platform upgrade activities.

Application	Description
MSPProject/Merlin	Project management software.
MSVdio/Omnigraffle	Drawing and charting tool.
Toast	CD/DVD burning software.
Adobe Professional	Adobe Professional allows the creation and editing of PDF files.
AdobeCreativeSuite	Adobe Creative Suite features a suite of graphic design, video editing and web development applications.
Final Draft	Final Draft is a screenwriting application for writing and formatting a screenplay to meet the screenplay submission standards set by the theatre and film industry.
Apple FinalCut	FinalCut is a professional film making and editing software package. It is expected that this will only be required if the movie library remains as part of Screen Australia.
QuicktimePro	Quicktime Pro is a film editing application.

## 4.3 Skills profile

Screen Australia's IT support group is highly experienced within the Mac environment with each person possessing a minimum of 5 years of experience in the support and administration of Mac computers and servers. As a result of Screen Australia's current ICT environment containing both Windows and Mac servers, the IT support group is also fairly experienced within the Windows environment.

The skills of the IT support group are weighted towards the Mac environment, and it is expected that service levels may be affected during the transition to a Windows environment. Additional training for the IT support group is recommended to mitigate this issue.



The following table illustrates the proficiency of the members of Screen Australia's IT support staff.

		Server Administration		Desktop Support	
		Mac	Windows	Mac	Windows
ICT Staff	John O'Keefe	High	Medium	Very high	Medium
	Dennis Casili	Very High	High	Very high	Medium
	Mark Adams	Very High	Medium	Very high	Very High
	Michael Surina	Medium	Low	Very high	Low

Explanation of proficiency levels

Level	Description
Very High	Highly skilled with more than 5 years of experience
High	Highly skilled with less than 3-5 years of experience
Medium	Moderately skilled with 2-3 years of experience
Low	Low skill level with less than 2 years of experience
Very Low	Low skill level with little or no experience

## 4.4 Business requirements

Screen Australia business requirements for a computer platform was identified through a series of interviews with key staff members of Screen Australia. The results of the interviews have been summarised below. Detailed requirements have been recorded within Appendix A – Detailed Business Requirements. These requirements have also lead to the development of Desktop, Laptop and Server specifications, which are detailed within the System Specifications sections for Mac and Windows.

Requirement	Detail
Standard Hardware Environment	<p>The standard system hardware for Screen Australia environment comprises of a Standard Desktop Profile, a PowerUser Profile and a Laptop Profile.</p> <ul style="list-style-type: none"> <li>• The Standard Desktop and Laptop profiles are designed to ensure that a number of Screen Australia’s standard applications can run at the same time.</li> <li>• The PowerUser Profile has been designed to take into a account Screen Australia’s additional applications, in particular, these specifications are design to support heavy film and image processing activities that required by selected users.</li> <li>• Specifications have also been developed for the replacement and refresh of key servers within Screen Australia’s ICT architecture.</li> </ul>
Standard Applications	<p>Screen Australia requires the following core applications to be supported within the new platform environment:</p> <ul style="list-style-type: none"> <li>• Microsoft Office Suite (Word, Excel, PowerPoint)</li> <li>• Mozilla Firefox or equivalent</li> <li>• Email (Lotus Notes version 8.5) – enhanced collaboration and Office integration <ul style="list-style-type: none"> <li>– Adobe Creative Suite</li> <li>– FilemakerPro</li> <li>– TRIM</li> <li>– Finance 1</li> <li>– Aurion</li> <li>– Citrix (only required for Mac environment)</li> <li>– Remote administration</li> <li>– Anti-virus.</li> </ul> </li> </ul>
Additional Applications	<p>Screen Australia require the following additional applications to be supported within the new platform environment</p> <ul style="list-style-type: none"> <li>• Vmware (only require for Mac environment)</li> <li>• MSPProject or Merlin</li> <li>• MSVdio or Omnigraffle</li> <li>• Toast</li> <li>• Final Draft</li> <li>• AdobeProfessional</li> <li>• AdobeCreativeSuite</li> <li>• Apple FinalCut or QuicktimePro.</li> </ul>

Requirement	Detail
IT Support	<p>Screen Australia requires the following areas to be addressed with the new platform environment:</p> <ul style="list-style-type: none"> <li>• Screen Sharing</li> <li>• Fault management</li> <li>• Configuration management</li> <li>• Workstation and user management.</li> </ul>
Single Sign-On	Screen Australia requires single sign-on capabilities for ease of authentication and authorisation activities.
Server Consolidation	Screen Australia requires consolidation of directory and file servers to simplify the environment and improve file management.
Collaboration	Screen Australia requires the new platform environment to support for enhanced collaboration and productivity through standardised file management, messaging and knowledge sharing processes.

## 5 Apple OSX

### 5.1 Solution description

Due to the experience of the IT support staff, the solution design the Mac environment is relatively simple and straightforward. A diagram of the solution design can be found in Appendix D – Solution Design Diagrams.

The main activities involved in the platform upgrade of the Mac environment are as follows:

#### 1 Pre-platform upgrade activities

Before proceeding with the platform upgrade, the number of computers (desktops, power users and laptops) and additional applications should be reviewed. In addition, evaluation and testing of certain applications is required to confirm the applications to be included in the Standard Operating Environment.

#### 2 Review Mac network and server architecture and build of Servers and Standard Operating Environment

The design and build activities should be focussed on meeting Screen Australia's business requirements. It is recommended that a review of the design of the current network and server architecture is undertaken by an external Mac consultant to ensure that the network and servers are optimised for the Mac OS 10.5.

Once the design of the Mac network and architecture has been finalised, the build of the new Open Directory server, consolidation of the file servers and build of the Standard Operating Environment can be undertaken. The current Windows Active Directory will need to be maintained and synchronised with the new Open Directory server in order to maintain access to Citrix and the corporate applications.

#### 3 Testing

The platform upgrade will affect all desktops and a number of important servers and applications. Therefore, business and user acceptance testing will be important to ensure that the eventual rollout of the new computers occurs with the minimum of issues. It is recommended that testing is conducted by the users. This enables users to become familiar with the new environment and engages the users very early in the project. The bulk of the testing will be focused on the Standard Operating Environment and the file server data migration.

#### 4 Change Management

Due to the ongoing changes within Screen Australia, users have identified that good change management will be critical to the success of the Platform Upgrade Project. Change Management should identify the level of change, the people being impacted, defining the leaders and managers who need to be on-board and the risk of not managing the people side of change. The result of good change management will be to address any anticipated obstacle or resistance to change through the management and coordination of communications and training.

## 5 Procurement

Due to the large expenditure required for the platform upgrade, it is expected that Screen Australia will undertake a formal procurement process. Based on previous experience with the Procurement Process it is expected that this procedure will take a considerable amount of time before eventually receiving the computers. The steps involved in the procurement process have been outlined in the detailed description and further information can be found within the Screen Australia's Procurement Manual.

## 6 Rollout and training

Following the receipt of the computers, the design and build of the Servers and Standard Operating Environment, the rollout of the computers will take place through a phased approach. It is anticipated that the rollout will occur over a four week period.

The users have identified that training will be critical to ensure the implementation of a platform upgrade. As part of the platform upgrade it is anticipated that a new version of Office and Lotus Notes will be include. As a result, is expected that users should undergo 1 to 1.5 days of training as part of the platform upgrade. User will require familiarisation with the new MAC OSX environment, and additional training in Lotus Notes and MSOffice. Additional specific training will also be required for users migrating to a MAC environment and for Finance and HR staff as they will continue to use Windows to some extent.

### 5.1.1 Pre-platform upgrade activities

Prior to the move of Pre-platform upgrade activities, there will need to be some review and evaluation activities to confirm or change the current solution design. This will include:

#### Confirmation of computer allocations

Due to ongoing changes in the organisation structure, the current number of Desktop, PowerUser and Laptop allocations will need to be confirmed with the heads of each department.

- Laptop users should confirm that they require access to the network from a remote location.
- Power users should confirm that they undertake a large amount of video or image editing, therefore require a more powerful computer
- In addition, users that require additional applications on the Extended Application List and the total number of license should be established.

#### Evaluation of access to Windows environment: CITRIX or VMware

Due to certain Windows specific applications, AURION and Technology1, Screen Australia will require users to access a Windows environment. CITRIX and VMware are currently both used to facilitate access to Windows. Further evaluation of the cost, ease of use, and performance requirements for each solution should be undertaken.

#### Evaluation and testing of MSOffice

As part of the Mac platform upgrade it is expected that Screen Australia will migrate to MSOffice 2008 for Mac. Testing will be required to ensure that all Screen Australia documents are

compatible within the new environment. Further design work will be required to resolve the “1904” date issue, in which Windows use a 1900 date system and Mac uses a 1904 date system. The resolution of these issues may require the creation of Excel templates and user training.

In addition, MSOffice 2008 for Mac does not include support for Visual Basic Macros, consideration for the impact to users to continue to use MSOffice 2007 for Windows within a VMware or CITRIX environment or training users to convert existing VB Macros to AppleScript will be required.

### Evaluation of moving Now-Up-to-Date Calendar to Lotus Notes

As part of the Mac platform upgrade it is expected that Screen Australia will decommission the “Now-Up-to-Date” Calendar application, which is used by some users. Specific planning for a migration to Lotus Notes and a comparison of the functionality of Now-Up-to-Date to Lotus Notes will be required.

### Evaluation of moving Mailing List server to Lotus Notes

The mailing list server is also expected to be decommissioned as part of the platform upgrade. A review and comparison of the functionality within the Mailing List server and Lotus Notes and consideration for the migration of current mailing groups to Lotus Notes will need to be planned for.

### Evaluation of Web-based version of Oracle Discoverer

A key database for Recoupment is currently hosted within an Oracle environment, the interface for this database utilises web-based forms, however, the main data extract and query tool is Oracle Discoverer. Oracle Discoverer is currently run within a Windows environment. An evaluation of the web version of Oracle Discoverer or the utilisation of CITRIX is required to ensure that current saved queries and reports are still accessible on a Mac platform.

### IT Support Training - MacOSX 10.5 Training

Due to the amount of changes from Mac 10.4 to 10.5, it is recommended that Screen Australia’s IT Support Group undertake a training course in the administration and support of MacOSX 10.5.

## 5.1.2 Review Mac network and server architecture and build of Servers and Standard Operating Environment

The design and build of Screen Australia’s servers and SOE is an important part of the project plan. Activities will be focussed on the review of the current network and server architecture, the consolidation of the SA’s OpenDirectory and Fileservers and the build of the Standard Operating Environment. It is critical that these activities are directed towards meeting SA’s business needs and requirements.

### Review of Mac network and server architecture

It is recommended that Screen Australia consider an external Mac consultant review the design of the network and server architecture. An external consultant will be able to offer advice on additional changes that may lead to gains in performance or better position SA to take advantage of new developments.

Once the design of the Mac network and architecture has been finalised, the build of the new Open Directory server, consolidation of the file servers and build of the Standard Operating Environment can be undertaken. The design of the OpenDirectory will need to take into account the administration of the current Windows Active Directory in order to maintain access to Citrix and the corporate applications.

### Design of the standard operating environment

The design of the standard operating environment will be largely based on the current Mac operating environment. Additional changes are expected as a result of the Pre-Platform Upgrade and Planning Activities and will influence the standard application list.

In addition, testing will be required to ensure that changes to functionality are reviewed in the new operating environment.

### Consolidation of servers

Currently Screen Australia has a number of directory and file servers which are supporting different parts of the organisation. Consolidation of the OpenDirectory services to provide single sign-on and authentication for Screen Australia users is largely complete. A review of current active users and permissions associated with each user and group will need to be undertaken to complete this process. It should be noted that Screen Australia will need to maintain the existing ActiveDirectory server in order to support user and password management for Citrix and other core applications.

However, the consolidation of the file servers will require a large amount of time to complete. This is due to the design, planning and migration activities. These tasks include:

- 1 Design of the folder structure and security permissions.
- 2 Movement of current data and the archiving of old data.
- 3 Design and consolidation of backup processes.

A review of Screen Australia's fileserver setup should also be considered at this point, this would include a review of the current fileserver architecture and consideration for a move to a SAN based setup.

The Data migration process should be guided by completeness, integrity, accuracy and usefulness requirements. Data cleansing activities will be required to address any erroneous, missing or incomplete data. This will include archiving, deletion and correction steps where applicable.

A change in file servers is expected to have an impact of every part of Screen Australia and may require changes to procedure and changes to applications settings.

## 5.1.3 Testing

### Testing of the Standard Operating Environment

It is recommended that business testing teams are established to test that functionality of key applications of the Standard Operating Environment is maintained. The business testing teams should represent a range of users from the different units of Screen Australia and a high level of familiarity and experience with the applications their team uses on a daily basis. These

business testing teams will be responsible for identifying the key tests, the creation of the test scripts, execution of the tests and sign-off of the new SOE.

### Testing of the Fileserver data migration

Testing will also need to be performed regarding the file server consolidation. Testing of the file server consolidation will need to focus on verification of folder permissions and validation of the data migration. It is recommended business testing teams with users with a deep knowledge and experience of the data are utilised for the validation testing. These business testing teams will be required to develop and execute the test cases for the testing the file server folder permissions and validation of the data migration.

## 5.1.4 Change Management

Due to the ongoing changes within Screen Australia, users have identified that good change management will be critical to the success of the Platform Upgrade Project. Change Management will assist SA to defining the level of change, the people being impacted, identifying the managers who need to be involved and the risk of not managing the people side of change. It is expected that the use of a steering committee, Change Management strategy and communications plan, Screen Australia will be able to address any anticipated obstacles or resistance to change. The change management team will be responsible for the communication of key dates and ongoing progress regarding the platform upgrade and the management and coordination of training.

## 5.1.5 Procurement

Screen Australia will be expected to follow the Commonwealth Procurement Guidelines, as the total expenditure for the platform upgrade will exceed \$50,000.

The major steps involved with the procurement process include:

- 1 Prepare Procurement Plan, Statement of Requirements and Tender Evaluation Plan
- 2 Tender approval by senior management or board
- 3 Call to tender
- 4 Evaluation of tender responses and selection of Tender
- 5 Negotiation and finalisation of contract documentation
- 6 Contract fulfilment and receipt of computers

It is expected that the procurement process may take up to 3 months to complete and will be the key activity that will delay the rollout of desktops and laptops. Additional detailed information regarding the Screen Australia's Procurement Guidelines can be found within the Screen Australia Procurement Manual.

## 5.1.6 Rollout and Training

At the end of the procurement, design, build and testing phases on the platform upgrade project, Screen Australia will be in a position to begin the rollout of new computers. This activity will require the coordination of the IT support group and the change management group to ensure that the computer rollout and training activities are coordinated.



## Rollout

Following the receipt of the computers, the design and build of the Servers and Standard Operating Environment, the rollout of the computers will take place through a phased approach. It is anticipated that the rollout will occur over a four week period. It is recommended that the organisational structure, type of computer (Desktop, Laptop or PowerUser), physical location and training requirements are considered when identifying the groups of users for each phase of the rollout.

## Training

As mentioned previously users have identified that training as a key requirement. It is recommended that an external training provider is engaged to design or provide part of the training program for Screen Australia. The key areas for training:

- 1 Familiarisation with the new MAC environment (2 hours).
- 2 Lotus Notes training (2 hours).
- 3 MSOffice training (4 hours).
- 4 Windows to Mac user training (4 hours).
- 5 Specific training for Finance and HR (1 day).

The design and implementation of a training program should be undertaken in partnership with a training provider as undertaken in the past. Depending on the training requirements this may require a tender process to be completed. Furthermore, additional follow up training is recommended to be conducted on a regular basis.

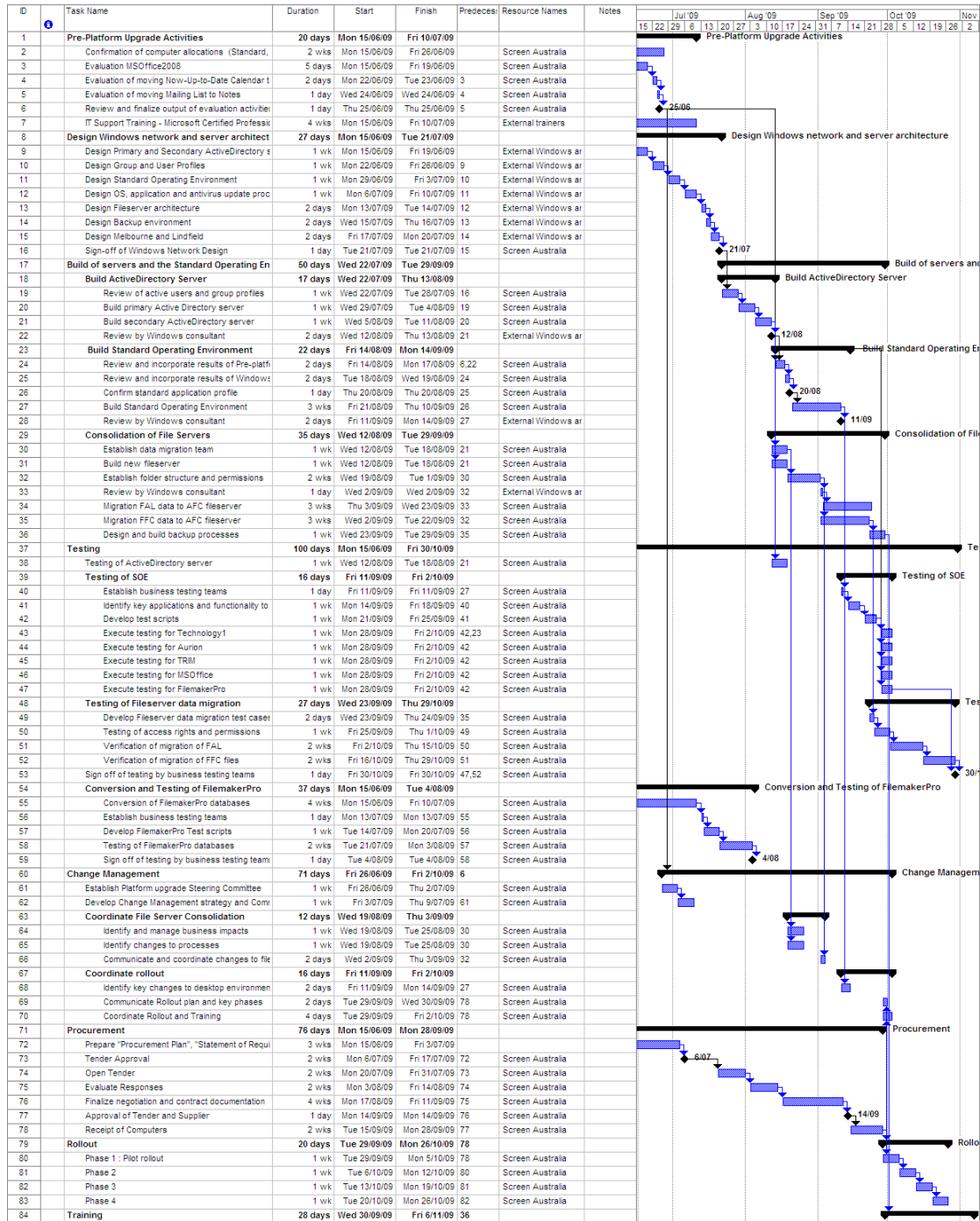
## 5.2 Assumptions

- It is assumed that the current network infrastructure such as routers and firewalls will not need to be modified as part of this upgrade.
- It is assumed that Screen Australia will be purchasing the computers instead of entering into a leasing agreement.
- It is assumed that current server migration activities such as the virtualisation of Windows servers will not be undertaken during the platform upgrade.
- Due to the duplication of some servers and consolidation of the OpenDirectory and Fileservers, it is assumed that no new MAC servers will need to be purchased.

### 5.3 System specifications

	Desktop (iMac)	Desktop PowerUser (iMac)	Laptop (MacBook)
Processor	2.66GHz Intel Core 2 Duo	2.93GHz Intel Core 2 Duo	2.0GHz Intel Core 2 Duo
Operating System	Mac OS X 10.5	Mac OS X 10.5	Mac OS X 10.5
Memory	2GB 1066MHz DDR3	4GB 1066MHz DDR3	2GB 1066MHz DDR3
Disk Space	320GB hard drive	320GB hard drive	160GB hard drive
Video card	NVIDIA GeForce 9400M graphics processor with 256MB of DDR3 SDRAM shared with main memory <sup>3</sup>	NVIDIA GeForce GT 120 graphics processor with 256MB of GDDR3 memory	NVIDIA GeForce 9400M graphics processor with 256MB of DDR3 SDRAM shared with main memory <sup>3</sup>
Drives	DVD drive	DVD drive	DVD drive
Display	20 inch	24 inch	13.3 inch Additional 23" LCD screen
Number of computers required	100	5	30

## 5.4 Implementation project plan



## 5.5 Costing

A high-level of summary of the costing to migrate to a Mac platform is listed below. A more detailed costing is provided within Appendix B – Detailed Costing.

A key feature of the costing is that there are no additional Mac servers required for the migration, this represents a significant savings in the costs of migration. It is expected that due to the consolidation of the directory and file servers, a number of existing Mac servers will be able to be repurposed. Furthermore, the consultancy fees associated with a detailed technical review of Screen Australia's architecture is less than the Windows cost due to the experience of Screen Australia IT support and the fact that a majority of core server architecture is current based on Mac.

<b>Migration costs</b>	<b>\$</b>
Cost of Desktops and Laptops	247,203
Cost of New servers	0
Cost of Software	66,220
Cost of Consultancy fees	70,000
Cost of Training	48,000
<b>Total cost of migration</b>	<b>431,423</b>
<b>System refresh costs</b>	
Cost of Desktops and Laptops	247,203
Cost of New servers	79,836
Cost of consultancy fees	10,000
<b>Total on-going costs</b>	<b>337,039</b>
<b>Grand Total</b>	<b>768,462</b>

## 5.6 Benefits

A migration to either platform will have several benefits including establishing a standard desktop environment, refresh of desktops and laptops, support for single sign-on, consolidation of directory and file servers and a new version of MS Office and Lotus Notes.

Specific benefits of migrating to a Mac environment are

### 1 Strong support skill base

A migration to a Windows environment will require the significant retraining and re-skilling of Screen Australia IT Support staff. A key financial and operational benefit of the Mac environment is the high degree of experience and expertise, leading to cost savings in training and a higher level of user support.

### 2 Users report better usability

Throughout the interview, although users did not identify main specific issues in migrating to a Windows environment, many users reported a high level satisfaction with the Mac environment. This ranged from the Apple Desktop interface to specific tools such as the Spotlight, Dashboard or Spaces.

### 3 Greater level integration of system administration and support

The Mac environment is built on Unix operating system which provides access to a number of Unix management tools. The Mac environment also features a number of built in system administration tools such as Apple Software Restore, Apple Remote Desktop and Apple Hardware Test. Such tools will need to be sourced in addition to the standard Windows support tools.

### 4 Greater level of security

As the Macs are based on a Unix environment, and the predominantly Windows environment, Mac faced a decreased level of threats from viruses and malware. Apart from contributing to the stability of the platform, this will translate a financial benefit as less resources will be required to review security and anti-virus protection within a Mac environment.

## 5.7 Risk assessment

Strengths	Weaknesses
<ol style="list-style-type: none"> <li>1 Strong support skill base.</li> <li>2 Users report better usability.</li> <li>3 Benchmarks indicate improved performance start-up, shutdown, application loading) in Mac OS environment.</li> <li>4 Will continue to face less of a threat from viruses and malware.</li> <li>5 Built on Unix operating system, providing access to Unix management tools.</li> <li>6 Features in-built tools such as Image Restore (Apple Software Restore).</li> </ol>	<ol style="list-style-type: none"> <li>1 Limited ability to integrate with corporate applications (TRIM, Aurion and Technology1).</li> <li>2 MSOffice2008 for Mac does not support VB macros.</li> <li>3 SA will need to maintain some form of access Windows based applications (i.e. Boot Camp, CITRIX or VMWare).</li> <li>4 SA will need to maintain more complex, dual. Windows/Mac server environment.</li> <li>5 SA will need to maintain and support a dual Opendirectory and ActiveDirectory servers.</li> </ol>
Opportunities	Threats
<ol style="list-style-type: none"> <li>1 Features Boot Camp tool to boot into Windows XP</li> </ol>	<ol style="list-style-type: none"> <li>1 Resistance from small number of employees who are only comfortable in PC environment.</li> <li>2 Poor change management.</li> <li>3 Potential issues integrating with possible future ICT projects, such as Unified Communication (VoIP / PABX / Email collaboration integration / Desktop VC).</li> </ol>

## 5.8 SWOT analysis

Risk	Likelihood	Impact	Recommended Mitigation Strategy
Extensive procurement period	High	Impact on critical path for the rollout.	<ul style="list-style-type: none"> <li>Ensure adequate contingency in plan.</li> <li>Adherence to Federal Government and Screen Australia procurement guidelines.</li> </ul>
Testing is not comprehensive	Medium	Impact on business functionality and success of rollout.	<ul style="list-style-type: none"> <li>Define a dedicated test team with business user engagement.</li> </ul>
Poor change management	High	Impact on user productivity and satisfaction.	<ul style="list-style-type: none"> <li>Define and execute change management activity that incorporate communications, identification and management of business impact, procedural changes, training and support.</li> </ul>
Poor data migration	Medium	Impact on data quality and integrity.	<ul style="list-style-type: none"> <li>Incorporate data migration activity with data cleansing activity incorporating business user engagement).</li> </ul>
Business are not satisfied with solution	Medium	Impact on business ability to leverage platform.	<ul style="list-style-type: none"> <li>Identify and engage business champions to be involved via regular steering committee and in business user acceptance testing.</li> </ul>
Limited vendor partnership opportunities	Low	Impact is higher procurement costs and impact on service (warranty, maintenance and support)	<ul style="list-style-type: none"> <li>Identify software and hardware vendor partnerships for 5 year program.</li> <li>Consider alignment to federal government partnerships.</li> </ul>

## 6 Windows

### 6.1 Solution description

Although separate project plans have been developed for the Windows and Mac platform upgrade, the following solution description will outline the activities which will differ in a Windows platform upgrade.

#### 1 Pre-platform Upgrade activities

Of the pre-platform upgrade activities, it would not be necessary to undertake an evaluation of VMware and Citrix or the web-based version of Oracle Discoverer as these applications would not be necessary within a Windows environment. However, due to the current skill levels of the IT support group, which are weighted towards Mac, it will be necessary to spend additional time in the training and development of the IT support group. This may include a Windows certification course in Windows network administration.

#### 2 Design Windows network and server architecture and build of Servers and Standard Operating Environment

The design and build of the new Windows environment will form a key activity within the Windows platform upgrade. Due to the current skills levels, it is recommended that an external Windows consultant is utilised to advise on the detailed design of the Windows environment. As mentioned earlier, the design and build activities should be focussed on meeting Screen Australia's business requirements. The key Windows activity within this part of the project will be the design and build of the primary and secondary Active Directory servers. The consolidation of the file servers and build of the Standard Operating Environment remain unchanged. Additional time has also been included to cater for ongoing review of the build by the external Windows consultant.

#### 3 Testing

The Windows platform upgrade will need to include the testing of the new Active Directory, SOE and Fileserver. As mentioned previously, business teams will need to be established to develop and execute test cases to ensure functionality is maintained during the platform upgrade.

A key additional activity within the Windows project plan is the conversion and testing of the FilemakerPro databases. Due to changes in the size of fonts, it is expected that each FilemakerPro database may need to be reviewed to ensure that form and print layouts are still acceptable within a Windows environment. Moreover, some FilemakerPro databases also include some AppleScript code which will also require conversion and testing. It should be noted that during this period, further development and changes that are not part of the platform upgrade will not be possible unless additional FilemakerPro resources are found.

#### 4 Change Management

Resistance to a change in platform from Mac to Windows is anticipated among some user groups. As a result, change management will be very important if a Windows environment is chosen as part of the Platform Upgrade Project.



## 5 Procurement

Procurement activities are not expected to be substantially different within a Windows Platform Upgrade.

## 6 Rollout and training

Rollout and training activities are not expected to be substantially different within a Windows Platform Upgrade. Anecdotal evidence from interviews conducted with Screen Australia users suggests that, due to the prevalence of Windows outside of SA, it is not anticipated that significant additional training will be required for staff moving from a Mac platform to Windows.

### 6.1.1 Training of IT support staff

Due to their current experience and proficiency within a Mac environment, it is recommended that Screen Australia IT support staff undertake additional Windows administration and support training. Depending on each individual, this may be in the form of a Microsoft Certified Professional/Systems Engineer/Systems Administrator certification or selected courses in Windows Server and Vista administration.

### 6.1.2 Windows Network Design

A critical part of the Windows platform upgrade is the design of the new Windows environment. Currently key network activities such as DHCP, DNS and directory services are hosted on Mac servers. It is expected that a new Windows server is required to host Windows ActiveDirectory, DNS and DHCP services. These elements will need to take into the current network architecture. In addition, extra network management and support tools may be required to aid in the administration and support of the Windows environment.

#### ActiveDirectory, DNS and DHCP

The ActiveDirectory server will be the first servers that will need to be established and configured within the new Windows platform environment. This server will be responsible for a majority of the user and computer management. The Windows ActiveDirectory should be designed based off the current Mac OpenDirectory configuration. Additional design activities may be required to ensure authentication and security services are maintained and the management and planning of the transition from OpenDirectory and ActiveDirectory. The design of roaming user profiles in conjunction Group Policy, folder redirection and disk quotas will also be required during this phase. Key design activities will need to include a review of network addresses and architecture, testing and validation that current servers, desktops, printers and other devices will be compatible and the management and planning of the transition from current Mac DNS and DHCP to Windows DNS and DHCP.

#### Evaluation of additional Windows Support Tools

Although current Windows Server software include tools to assist deployment, remote administration, configuration management activities, it may be necessary to include additional 3<sup>rd</sup> party software which may be better suited to Screen Australia's needs. These may include additional tools:

- 1 Disk imaging and remote deployment.
- 2 Remote control and administration software, and

### Disk imaging and remote deployment

The Windows Deployment Services tool assist in the network based installations of Windows. Screen Australia may want to consider the use of additional software for disk imaging and remote deployments, such as Norton Ghost or Acronis.

### Remote control and administration

Remote control and administration of computer can be managed via Windows Remote Desktop Connection and ActiveDirectory, however, more advanced tools such as DameWare, PCAnywhere or VNC are able to better support remote control and administration activities.

## 6.1.3 Design and build of servers and the Standard Operating Environment

### Build of Primary and Secondary ActiveDirectory Servers

Networking and authentication services will be undertaken by a primary and secondary ActiveDirectory server. As the ActiveDirectory server form a critical part of the Windows environment, it is recommended that a Windows consultant reviews and validates the build of these servers.

### Design of the standard operating environment

Most applications within the standard application list are platform independent and therefore the design of the standard operating environment is not change greatly from the current Mac operating environment. It should be noted that CITRIX or VMware will not be required within a Windows environment. However, remote desktop software may be required to assist in the administration and support of the Windows environment.

Additional changes are expected as a result of the Pre-Platform Upgrade and Planning Activities and the Windows network design will influence the standard application list. In addition, testing will be required to ensure that changes to functionality are reviewed in the new operating environment.

## 6.1.4 Conversion and testing FilemakerPro databases

Screen Australia's FilemakerPro databases such as the Titles, Contacts and Film Funding Information System, contains critical information regarding the production, development and viewing of films. Although FilemakerPro is a cross-platform application, a majority of these databases are designed for the Mac environment. These FilemakerPro database require work to reformat forms and layouts for Windows and the conversion of Applescript macros. It is estimated that around 1 months of development and 2 weeks of testing would be required facilitate the conversion process.

## 6.1.5 Rollout and Training

A majority of training identified is related to Lotus Notes and MSOffice. Additional training will be required as a majority of users are experienced with the Mac environment. In interviews with staff members it has been reported that a majority of users are familiar with the Windows environment and do not anticipate significant problems in moving to a Windows environment. However, it is expected that additional time will be required to

ensure that users are comfortable with the new environment. As mentioned previously, this may require follow up training sessions.

## 6.2 Assumptions

- It is assumed that the current network infrastructure such as routers and firewalls will not need to be modified as part of this upgrade.
- It is assumed that Screen Australia will be purchasing the computers instead of entering into a leasing agreement.
- It is assumed that current server migration activities such as the virtualisation of Windows servers will not be undertaken during the platform upgrade.
- Due to the duplication of some servers and consolidation of the OpenDirectory and Fileservers, it is assumed that no new MAC servers will need to be purchased.

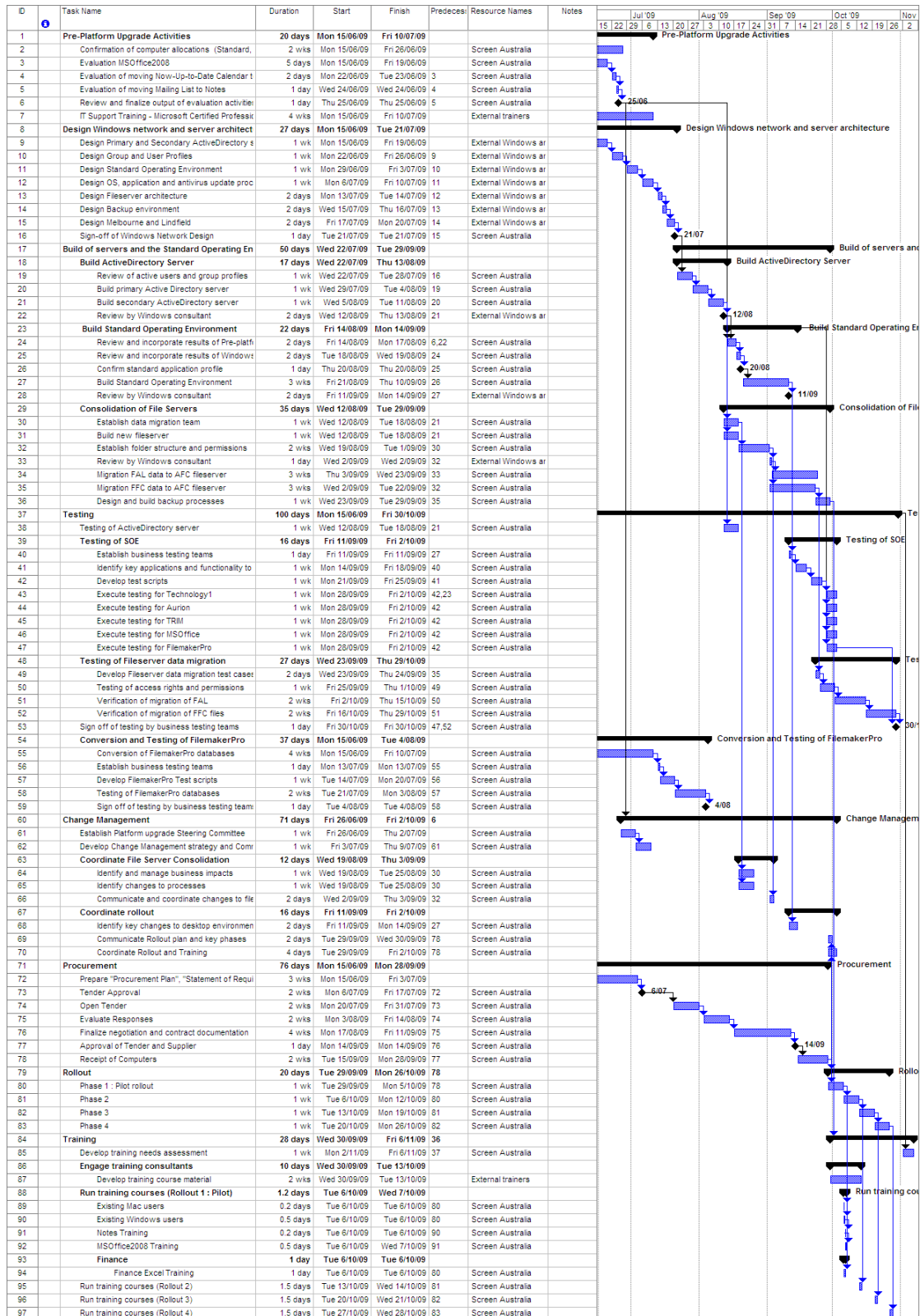
## 6.3 System specifications

	Desktop	Desktop PowerUser	Laptop
Processor	2 GHZ Intel Core 2 Duo	2.93GHz Intel Core 2 Duo	2.0GHz Intel Core 2 Duo
Operating System	Windows Vista with XP downgrade option	Windows Vista with XP downgrade option	Windows Vista with XP downgrade option
Memory	2GB RAM	4GB RAM	2GB RAM
Disk Space	160 GB hard drive	320GB hard drive	160GB hard drive
Video card	256 MB of graphics memory	256 MB of graphics memory	256 MB of graphics memory
Drives	DVD drive	DVD drive	DVD drive
Display	20 inch	24 inch	13.3 inch
Additional Accessories	Internal speakers, audio line in line out	Internal speakers, audio line in line out	Wireless N adapter Internal speakers, audio line in line out Additional 23" LCD screen
Number of computers required	100	5	30

## 6.4 Server specifications

	Server
Processor	3 GHz Intel Core 2 Duo
Operating System	Windows Server 2008 R2
Memory	16 GB RAM
Disk Space	1 TB hard drive
Number of computers required	4

## 6.5 Implementation project plan



## 6.6 Costing

A high-level of summary of the costing to migrate to a Windows platform is listed below. A more detailed costing is provided within Appendix B – Detailed Costing.

A key feature of the costing is increased costs of migration associated with the additional Windows servers, consultancy fees and training that would be required under a Windows migration. Each of these activities reflect the current Mac base in terms of hardware and technical skills. However, it is expected that system refresh costs after three years will be less than Mac.

<b>Migration costs</b>	<b>\$</b>
Cost of Desktops and Laptops	251,972
Cost of New servers	101,259
Cost of Software	65,220
Cost of consultancy fees	180,000
Cost of training	80,000
<b>Total cost of migration</b>	<b>680,151</b>
<b>System refresh costs</b>	
Cost of Desktops and Laptops	251,972
Cost of New servers	23,483
Cost of consultancy fees	20,000
<b>Total on-going costs</b>	<b>295,454</b>
<b>Grand Total</b>	<b>975,605</b>

## 6.7 Benefits

As mentioned previously, a migration to either platform will have several benefits including establishing a standard desktop environment, refresh of desktops and laptops, support for single sign-on, consolidation of directory and file servers and a new version of MS Office and Lotus Notes.

There are additional benefits in migrating to a Windows environment, they are:

### 1 **De facto standard so all applications (including TRIM, Technology1 and Aurion) work on PC environment**

A key benefit of the Windows environment is that all of Screen Australia's core applications will operate natively. The Mac platform requires the use of Citrix in order to access Technology1, Aurion and TRIM. This represents an operational benefit as some users will no longer need to use the core applications through Citrix. Users have reported a decreased level of efficiency due to this fact. It should be noted that the Citrix environment will still need to be maintained within a Windows environment in order to facilitate access to core applications by Melbourne users.

## 2 Integration of corporate applications with Microsoft Office Tools

Screen Australia core applications feature integration with Microsoft Office within a Windows environment. Currently some features of Trim and Technology1 are limited within on the Mac platform.

## 3 Higher skilled resources in broader labour market

Due to the predominance of Windows operating system, and, thus an increased number of skill Windows resources, the recruitment of IT staff in anticipated to be more straightforward.

## 6.8 SWOT analysis

Strengths	Weaknesses
<ol style="list-style-type: none"> <li>1 De facto standard so all applications work on PC environment.</li> <li>2 Existing applications (TRIM, Technology1, Aurion) are Windows based.</li> <li>3 Integration of corporate applications with Microsoft Office Tools.</li> <li>4 Higher skilled resources in broader labour market.</li> <li>5 Better of support of single sign-on, user access and password management through ActiveDirectory</li> </ol>	<ol style="list-style-type: none"> <li>1 Limited in-house skills to support PC environment.</li> <li>2 Increase resources required to manage response to viruses and security vulnerabilities.</li> <li>3 XP operating system.</li> <li>4 Current deployment of XP Operating System will require migration to Windows 7.</li> </ol>
Opportunities	Threats
<ol style="list-style-type: none"> <li>1 Enhance critical business processes relating to document and knowledge management by leveraging TRIM for electronic document management with integration to MS Office.</li> <li>2 Outsourced desktop management.</li> <li>3 Explore further VMWare virtualisation of servers and potentially implementation of desktop virtualisation.</li> </ol>	<ol style="list-style-type: none"> <li>1 Significant resistance from large number of employees who are supportive of Mac environment.</li> <li>2 Poor change management.</li> <li>3 Perceived to be inferior for management of media files, a significant component of Screen Australia documents.</li> <li>4 Film industry predominantly Mac users.</li> <li>5 Extensive FilemakerPro databases may require significant effort for migration to PC environment.</li> </ol>

## 6.9 Risk assessment

Risk	Likelihood	Impact	Recommended Mitigation Strategy
Extensive procurement period.	High	Impact on critical path for the rollout.	<ul style="list-style-type: none"> <li>Ensure adequate contingency in plan.</li> <li>Adherence to Federal Govt and Screen Australia procurement guidelines.</li> </ul>
Testing is not comprehensive.	Medium	Impact on business functionality and success of rollout.	<ul style="list-style-type: none"> <li>Define a dedicated test team with business user engagement.</li> </ul>
Poor change management.	High	Impact on user productivity and satisfaction.	<ul style="list-style-type: none"> <li>Define and execute change management activity that incorporate communications, identification and management of business impact, procedural changes, training, support.</li> </ul>
Poor data migration.	Medium	Impact on data quality and integrity.	<ul style="list-style-type: none"> <li>Incorporate data migration activity with data cleansing activity incorporating business user engagement).</li> </ul>
Business are not satisfied with solution.	Medium	Impact on business ability to leverage platform.	<ul style="list-style-type: none"> <li>Identify and engage business champions to be involved via regular steering committee and in business user acceptance testing.</li> </ul>
Limited in house support capability.	High	Impact on ability to provide the same existing level of in house support in the new ICT environment.	<ul style="list-style-type: none"> <li>Perform support impact assessment and develop comprehensive support development plan.</li> <li>Develop a comprehensive ICT support training program.</li> <li>Develop a strong relationship with a third party Windows support business to provide transitional support and mentoring to in house ICT support team</li> </ul>
Poor design and planning.	Medium	Impact is sub-optimal solution with functional gaps and/or increased cost.	<ul style="list-style-type: none"> <li>Engage external consultant for solution design/architecture period up-front.</li> </ul>



# Appendices

## Appendix A Detailed business requirements

Business Requirement	Comments	Desktop	
		Windows	Mac
Office application			
SA requires an application to provide office productivity, in particular word processing and spread sheets	<ol style="list-style-type: none"> <li>1 The handling of dates in Excel differs between Mac and Windows – date will differ by 4 years when opened on the different platforms.</li> <li>2 IT staff are limited in the level of support they provide for MS Office At present application support is not the remit of IT support, if this is required in the future additional training will be required for support staff.</li> <li>3 MAC Office 2008 does not support VB macros.</li> </ol>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SA requires an application to be able to open and view historical MS Office documents		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SA users require additional training in order utilize the full functionality of the MS Office package	It is recommended that Screen Australia undertake a training program for the latest version of MSOffice as part of the migration.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Email			
SA requires the capability for access to email, in the office and from remote locations (with either a Lotus Notes client or webmail)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SA may be required to mark a security warning on emails		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Internet			
SA requires access to Internet to view filmmakers content	Mozilla Firefox is considered to be a more reliable and safer browser than Microsoft Internet Explorer, and it will operate in both a Windows and Mac environment.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SA requires ability to access to a browser in order to utilize the FFC Oracle database	Oracle Discoverer is also used to access the FFC Oracle Database. Currently, there is no Mac version of Oracle Discoverer, however, it may be accessed through a web portal. Additional testing will be required to ensure that the queries and reports	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Business Requirement	Comments	Desktop	
		Windows	Mac
	saved within Oracle Discoverer can be accessed through this web portal.		
<b>FilemakerPro</b>			
Users require the ability to access key SA databases that are managed within FilemakerPro	<ol style="list-style-type: none"> <li>1 FilemakerPro is cross platform application. However, additional resources will be required to ensure functionality and screens can operate within a Windows Environment.</li> <li>2 Macros in FilemakerPro use MacScript which will require customization for a Windows environment.</li> </ol>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Oracle</b>			
Screen Australia requires ability to host Oracle databases for Technology1, Aurion, TRIM and FFC-database	Screen Australia will require Windows servers to host Technology1, Aurion, TRIM and the Oracle DBMS.		<input checked="" type="checkbox"/>
<b>Electronic Document storage and retrieval (File servers)</b>			
Users require folders with restricted access	Users report that MAC Spotlight tool makes it easy to search for files.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SA requires historical electronic documents to be accessible in a new environment		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Shared calendaring</b>			
SA requires an application to support shared calendaring	<ol style="list-style-type: none"> <li>1 Historically AFC and FAL staff used "Now Up-to-Date Calendar"), it is anticipated the calendaring features of Lotus Notes will be utilized in the future.</li> <li>2 Users have reported that the current version of Notes (usually 7.5) is limited in its calendaring capability. This is expected to be addressed in the new version of Notes (8.5).</li> </ol>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Business Requirement	Comments	Desktop	
		Windows	Mac
Windows only applications			
SA requires the capability to access windows only applications	<ol style="list-style-type: none"> <li>1 There are two main applications that may be used to access windows only applications in a Mac, CITRIX and VMware.</li> <li>2 Users have reported difficulties in managing different passwords required for access to the current CITRIX environment.</li> </ol>		<input checked="" type="checkbox"/>
Technology1 (Finance)			
SA requires capability to access the Technology1 application	Functionality will be limited if users are mainly in a MAC environment, Technology1 features integration with Windows Office. In particular, some workflow functions will only work Microsoft .Net environment and would only be possible within an Outlook/exchange email environment. In addition, The Technology1 client can only be run in a Windows environment.		<input checked="" type="checkbox"/>
SA require capability to manage and edit data extracts from Technology1	File extracts from Technology1 require the latest version of MSOffice (2008) for Mac or Windows		<input checked="" type="checkbox"/>
Finance users requires the capability to open and edit data within Microsoft Excel 2008 spreadsheets			<input checked="" type="checkbox"/>
Aurion (HR)			
SA HR staff requires capability to access the Aurion HRMIS application	<ol style="list-style-type: none"> <li>1 File paths within Aurion are configured for Windows directories, verification will be required to test that data extracts can be performed on MACs</li> <li>2 Access to Aurion system is limited to HR staff and in a MAC environment would require the use of CITRIX or VMWare.</li> </ol>		<input checked="" type="checkbox"/>
SA HR staff require capability to manage and edit data extracts from Aurion	File extracts from Aurion usually extracted and manipulated in Excel.		<input checked="" type="checkbox"/>

Business Requirement	Comments	Desktop	
		Windows	Mac
TRIM – Records Management system			
SA requires capability to access the TRIM Records Management application	<ol style="list-style-type: none"> <li>1 Functionality will be limited if users are in a MAC environment, TRIM features integration with PCNotes and POffice.</li> <li>2 Users report current TRIM environment is difficult to use, additional investment may be required to include the ICE web interface in Mac environment.</li> <li>3 Some units rely on hardcopy files or file servers for the storage of documents, additional processes and training may be required to utilize the TRIM application.</li> </ol>		<input checked="" type="checkbox"/>
SA requires Windows environment to host Facilities Management software <ol style="list-style-type: none"> <li>1 Woolloomooloo – Security system and Toll Courier system</li> <li>2 Lindfield – Security system and Building Management System</li> </ol>			<input checked="" type="checkbox"/>
SA requires capability to host Web Content Management and Hosting software		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SA requires the capability to utilize film editing software	There are two film editing packages currently utilized within Screen Australia, Adobe FinalCutPro and Apple QuickTimePro. Adobe FinalCutPro is a Mac only application.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SA requires the capability to utilize image management library software (Mac Artbox)	Lightbox, which is currently in use, is a Mac only application.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SA require the capability to create and edit Adobe PDF files	AdobeProfessional, which is currently in use, runs on both Windows and Mac.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SA requires the access to a suite of graphic design, video editing, and web development applications	AdobeCreativeSuite (toolkit for print design and production, includes InDesign, PhotoShop, Illustrator), which is currently in use, runs on both Windows and Mac.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Business Requirement	Comments	Desktop	
		Windows	Mac
SA requires the capability to communicate through video conferencing	WAN/bandwidth is limited or Melbourne and affects communication and collaboration such as conferencing and internet usages	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
IT Support requirements			
SA requires the capability to support screen sharing	IT support should be able remotely view and control a user's screen. This also can be used as a training mechanism.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SA requires the capability to perform configuration management activities such as : 1 software and hardware inventory audits 2 standardised desktop images to support a desktop rollout 3 remote software deployments	1 IT Support should be able to create reports of to determine Application versions, Operating system versions and Hardware specifications. 2 IT support should be able to create and apply desktop images. Images should be able to be deployed remotely. 3 IT support should be able to support the automated and remote deployment of new applications and OS and software updates.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SA requires the capability to support fault management activities such as : 1 Help desk issue management 2 Hardware management 3 Disk and file system management	1 IT support need applications for the testing of memory, hard drive, ports; video cards and other hardware. 2 It support need to be able to diagnose and repair corrupt disk file systems and clone hard drives from one workstation to another.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SA requires the capability for workstation and user management activities	1 Workstation management activities include changes to desktop settings and configuration and the remote restart/shutdown. 2 IT support should be able remotely view and control a user's screen. This also can be used as a training mechanism. 3 IT support should be able to manage users and groups to reset passwords and configure OS, software and folder permissions.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## Appendix B Detailed costings

First Year Costs	Mac			Windows		
	Units	Rate	Total	Units	Rate	Total
<b>Desktops</b>						
Desktop Computers	100	\$1,614	\$161,415	100	\$1,629	\$162,910
Desktops Powerusers	5	\$2,378	\$11,892	5	\$1,900	\$9,499
Laptops	30	\$2,463	\$73,896	30	\$2,652	\$79,563
<b>Sub-total</b>			<b>\$247,203</b>			<b>\$251,972</b>
<b>Servers</b>						
Sydney Primary AD				1	\$5,871	\$5,871
Sydney Fileserver				1	\$5,871	\$5,871
Melbourne & Lindfield servers				2	\$5,871	\$11,741
Sydney Fileserver Raid				1	\$76,476	\$76,476
System administration software				1	\$2,000	\$2,000
<b>Sub-total</b>			<b>\$0</b>			<b>\$101,959</b>
<b>Software</b>						
MSoftware	140	\$451	\$63,140	140	\$451	\$63,140
Anti-virus software	140	\$22	\$3,080	140	\$22	\$3,080
<b>Sub-total</b>			<b>\$66,220</b>			<b>\$66,220</b>
<b>Consultancy Fees (days)</b>						
Solution Design	15	\$2,000	\$30,000	25	\$2,000	\$50,000
ActiveDirectory, SOE and Fileserver Review				5	\$2,000	\$10,000
<b>Windows deployment consultant</b>				20	\$2,000	\$40,000
<b>Additional IT support</b>	20	\$2,000	\$40,000	40	\$2,000	\$80,000
<b>Sub-total</b>			<b>\$70,000</b>			<b>\$180,000</b>
<b>Training (per course)</b>						
Training consultants	10	\$2,000	\$20,000	10	\$2,000	\$20,000
Staff (specialised training courses)	10	\$2,000	\$20,000	10	\$2,000	\$20,000
ICT (support training)	4	\$2,000	\$8,000	4	\$10,000	\$40,000
<b>Sub-total</b>			<b>\$48,000</b>			<b>\$80,000</b>
<b>Total</b>			<b>\$431,423</b>			<b>\$680,151</b>

### System Refresh costs

<b>Desktops</b>						
Desktop Computers	100	\$1,614	\$161,415	100	\$1,629	\$162,910
Desktops Powerusers	5	\$2,378	\$11,892	5	\$1,900	\$9,499

Laptops	30	\$2,463	\$73,896	30	\$2,652	\$79,563
<b>Subtotal</b>			<b>\$247,203</b>			<b>\$251,972</b>
<hr/>						
<b>Servers</b>						
Server refresh	3	\$7,459	\$22,377	4	\$5,871	\$23,483
1 yr (Open Directory)	1	\$7,459	\$7,459			
Fileserver Raid array	1	\$50,000	\$50,000			
<b>Subtotal</b>			<b>\$79,836</b>			<b>\$23,483</b>
<hr/>						
<b>Migration and Upgrade Costs</b>						
Upgrade of operating system (MacOS10.6/Windows7)	5	\$2,000	\$10,000	10	\$2,000	\$20,000
<b>Total</b>			<b>\$337,039</b>			<b>\$295,454</b>
<hr/>						
<b>Grand Total</b>			<b>\$768,462</b>			<b>\$975,605</b>
<hr/>						

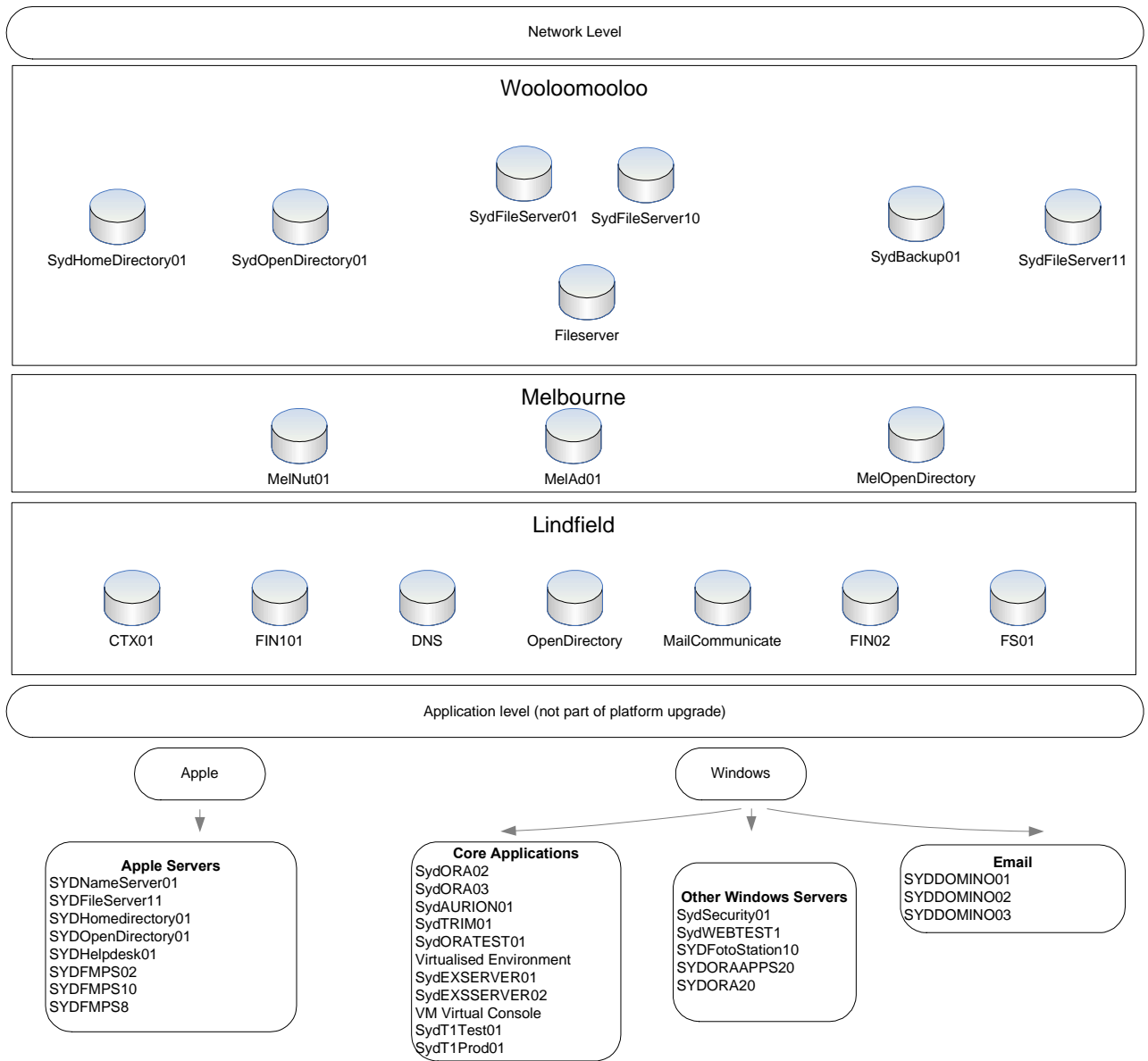


## Appendix C Interview list

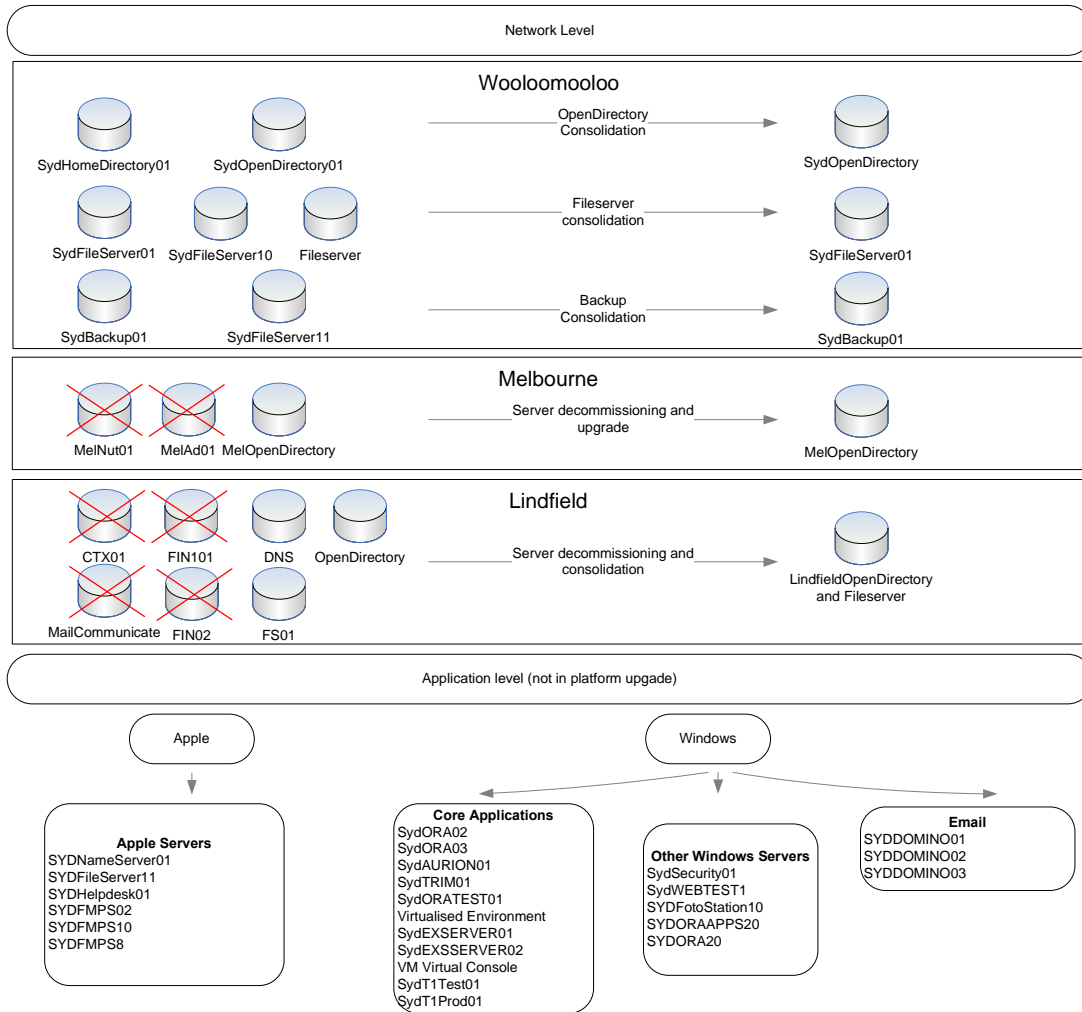
Date Time	Person
Tuesday 5/5 2pm	Nick Glenhorn
	Vaughan Bromfield
Tuesday 5/5 3pm	Martien Coucke,
	Yvonne Marshall
	Laura Mysak
Tuesday 5/5 4pm	Brain Wilson
	Sonia Esposito
	Jackson Pellow
Wednesday 6/5 9am	Rachael Cullen
	Natasha Aslanian
	Rebecca Mostyn
Wednesday 6/5 10am	John O'Keefe
	Dennis Casali
Wednesday 6/5 11am	Jennifer Stanley
Wednesday 6/5 12am	Michele MacDonald
Wednesday 6/5 1pm	Mathew Tucker
	Jane Donnelley
Wednesday 6/5 2pm	Betty Fehir
	Lutfi Balfas
	Mark Gregory
Wednesday 6/5 3pm	Megan McMurphy,
	Angela Chang
	Chelsea Butler

## Appendix D Solution Design Diagrams

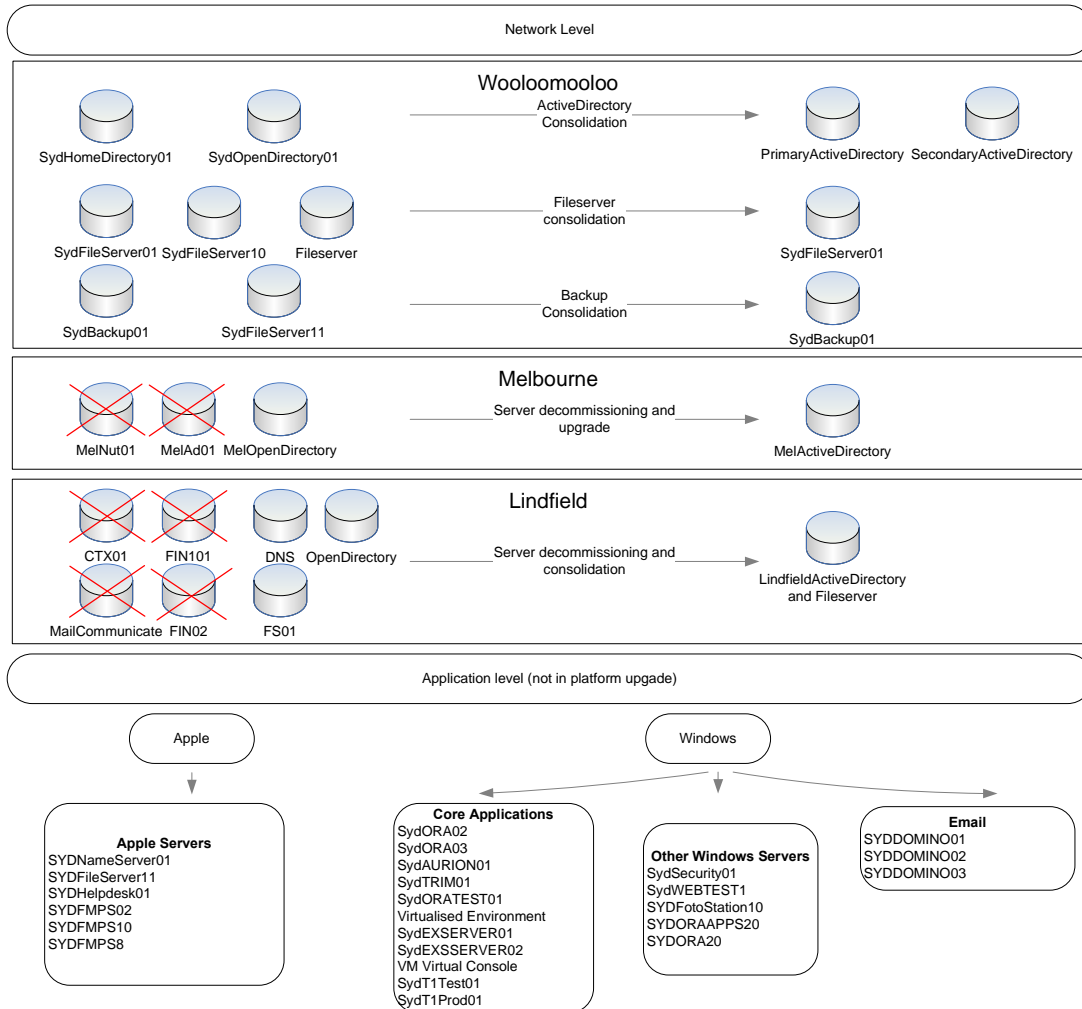
Current



# Apple



# Windows





**Screen Australia ICT Architecture Decision Rationale**

# Screen Australia ICT Architecture Decision Rationale

Version Number:	<b>1.0</b>
Date Issued:	3 Nov 2009
Author(s):	Newton Braga
SA File Number:	SA09/0034

Related Documents	SA Desktop Platform Recommendation Screen Australia Platform Review
-------------------	--

## **Screen Australia ICT Architecture Decision Rationale**

Screen Australia inherited a mixed Windows and Mac OSX server and workstation environment from the merger of the Australian Film Commission, Film Australia and Film Finance Corporation.

With the need to replace existing workstations (both Macintosh and Windows PCs), which were over 5 years old and a required refresh of a number of servers, the establishment of a single desktop / laptop environment, and supporting server infrastructure across all Screen Australia site was identified as a key objective.

Screen Australia's internal IT unit was briefed to provide a high-level review and initial recommendation report for the preferred Windows and Mac OS X desktop platforms. The document using the same desktop specification for Macintosh and PCs. identified higher up-front costs associated with a migration to a Windows environment, as a result of additional server infrastructure requirements, consultancy costs for the design and implementation of the Windows environment, training of in-house ICT staff due to the specialisation of the team in the Mac OS X environment and the overall risk of moving to a complete Windows environment across the organisation.

The estimated difference in up-front cost identified in the IT unit report was \$150K in favour of the Mac OS X environment resulting in its recommendation as the preferred platform as opposed to the higher upfront costs and risk of migrating to a completely new server / desktop environment.

To provide an external assessment, Price, Waterhouse & Coopers were commissioned to undertake a review and recommendation, which recommended Mac OS X as the preferred platform for Screen Australia, based on a lower total cost of ownership, which presented substantial lower migration costs, and reduced implementation risk. The report highlighted the risks in migrating to a Windows environment owing to the shortage of knowledge of the in-house ICT staff, the requirement for an external consultancy to provide design and implementation services, and the initial higher cost of migrating to the Windows platform.

The estimated difference in the total cost of ownership (TOC), over a 5 year period, was about \$207K in favour of the Mac OS X platform, due only to the upfront upgrade / migration costs. The ongoing hardware refresh cost only, over the next 5 year period, was estimated to be \$40K cheaper for the Windows environment, following the initial investment in the upgrade / migration, which indicated the Windows environment was a lower cost option on a system basis.

The PWC report had broader terms of reference than Screen Australia's internally produced document (which was originally requested to provide only an estimate of comparative platform costs). PWC were commissioned to also identify strengths and opportunities presented by deploying a Windows environment across Screen Australia. Their findings included the following:

### **Strengths:**

- Windows is the de facto standard Australian Government and business platform, with a broader resource, support and application market available.



## Screen Australia ICT Architecture Decision Rationale

- Existing corporate applications used by Screen Australia, such as Aurion (HR), TRIM (Record Management), Technology One (Finance) are Windows based with clients available for Windows environment only. Deployment to a Mac OS X environment requires additional access software (Citrix or desktop virtualisation technologies).
- Integration of corporate applications and Microsoft Office is easier to implement and feature rich, enhancing efficiency and productivity.
- Better support for single sign on and user access management across all applications through a common corporate directory.

### Opportunities:

- Enabling the enhancement of core business processes with the implementation of TRIM as an Electronic Document Management System, moving beyond its current usage as a physical records management system. Full functionality and integration with other corporate system such as email / collaboration is currently only available for the Windows environment.
- Further development of a server virtualisation environment with the potential for exploring the implementation of computer desktop virtualisation, furthering agency goals for a sustainable and greener ICT environment.
- Larger application market and support with regard to integration with future technology implementation for Screen Australia, e.g. Unified Communication (Voice Over IP - VoIP / PABX / Messaging), Desktop Video Conference.

The PWC report identified through interviews with Screen Australia staff, issues sharing Microsoft Office documents with other Commonwealth Departments and external parties. It also highlighted that Screen Australia would still maintain a mixed server environment if a decision was made to adopt a Mac OS X platform, as the corporate applications TRIM, Aurion and Technology One only run on Windows servers.. A Citrix / Windows server or desktop virtualisation solutions would still be required to provide client access to the Windows based corporate applications, adding another software layer and complexity to the whole ICT environment

The PWC report also identified risks associated with a Windows implementation related to the limited in-house IT skills to support the environment and increased resources needed to manage security vulnerabilities in Windows workstations. Although the report mentioned the relative strengths and weaknesses of either option it did not weight or rank them. The PWC report was assessed as not having a sufficient focus on the business requirements of the the Agency with an overemphasis on conversion costs relative to ongoing costs

After considering the overall PWC findings, the business requirements of the Agency, the relative ongoing cost position and the risks of each option, a decision was made to move Screen Australia to a Windows based platform. The identified gains through system integration, better work practice opportunities (e.g. full Electronic Document Management, better governance through integrated record management) was considered to outweigh the additional expense and risks identified for the Windows platform and provide Screen Australia with a strategic path for building, integrating and consolidating the agency systems and business processes moving forward. Moving to a Windows environment will also deliver Screen Australia staff a more efficient data

## **Screen Australia ICT Architecture Decision Rationale**

communication mechanism with the agency key Commonwealth stakeholders DEWHA, DOFD and ATO.

The Mac OS X environment presents the risk of maintaining an ICT computer platform with a relatively small corporate base, with a smaller pool of support resources in comparison with the Windows support available in the ICT market.

To help mitigate the risks associated with a Windows migration, the following actions will be taken with costs incorporated into the project cost estimation:

- a consultant will be engaged to assist with the design and implementation of the new Windows environment.
- In house ICT staff will be retrained during the project and mentored by the consultant for a period of time following the implementation, so as to provide Windows support at the same level they are able to currently do it in the Mac OS X environment.
- A PRINCE2 based project management methodology will be used to manage the new platform design and implementation project (and other ICT projects) to ensure appropriate governance and risk minimisation for project.

The decision to migrate to a Windows environment is the best strategic outcome, and provides the lowest risk moving forward and better potential to reduce future Agency's IT overall costs.

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Outcome:</b>	5	<b>Question No:</b>	152
<b>Program:</b>	5.1		
<b>Division/Agency:</b>	Screen Australia		
<b>Topic:</b>	<i>Two Fists One Heart</i> – Date of release		
<b>Hansard Page ECA:</b>	ECA 118 (19/10)		

**Senator BIRMINGHAM asked:**

**Mr Matthews**—It was about the middle of 2008. That does test my memory. Again, I would have to take that on notice and check it out.

**Senator BIRMINGHAM**—You said some time in late 2008.

**Dr Harley**—I said late 2008. Mr Matthews said the middle of 2008.

**Mr Matthews**—We would have to check for you.

**Answers:**

*Two Fists, One Heart* was released on 19 March 2009.

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

**Outcome:** 5 **Question No:** 153  
**Program:** 5.1  
**Division/Agency:** Screen Australia  
**Topic:** *Two Fists One Heart* – Investment vs Box Office  
**Hansard Page ECA:** ECA 119 (19/10)

**Senator BIRMINGHAM asked:**

**Senator BIRMINGHAM**—Indeed. I assume out of a gross box office of \$295,000 that Screen Australia probably does not get any return.

**Dr Harley**—That is almost certainly right.

**Senator BIRMINGHAM**—The proportion of gross box office to investment.

**Dr Harley**—We can do that for all titles for two years. What would you like?

**Senator BIRMINGHAM**—The last couple of years would be fine, just for examples and to be able to see the comparative basis as to what the result of this was.

**Answers:**

Feature titles released since 1 July 2007

Title	SA direct investment	Gross Box Office (GBO)	GBO as % of investment	Release date
	\$	\$		
SEPTEMBER	1,112,028	70,687	6%	29 November 07
BLACK BALLOON, THE	3,054,000	2,255,994	74%	6 March 08
GLOBAL HAYWIRE	648,781	20,962	3%	10 April 08
UNFINISHED SKY	1,957,500	963,612	49%	19 June 08
CHILDREN OF THE SILK ROAD	4,872,329	1,158,928	24%	3 July 08
SALUTE	1,110,000	219,311	20%	17 July 08
SQUARE, THE	2,745,000	310,727	11%	31 July 08
NOT QUITE HOLLYWOOD	936,500	182,946	20%	28 August 08
TENDER HOOK, THE	4,090,000	66,948	2%	18 September 08
DYING BREED	1,018,400	525,405	52%	6 November 08
NEWCASTLE	1,322,839	225,281	17%	6 November 08
TWO FISTS ONE HEART	4,000,000	292,810	7%	19 March 09
MARY AND MAX	4,980,000	1,413,947	28%	9 April 09
CLOSED FOR WINTER	1,157,000	45,339	4%	23 April 09

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

Title	SA direct investment	Gross Box Office (GBO)	GBO as % of investment	Release date
SAMSON & DELILAH	1,268,000	3,179,113	251%	7 May 09
MY YEAR WITHOUT SEX	2,497,370	1,122,621	45%	28 May 09
DISGRACE	4,974,966	1,157,646	23%	18 June 09
LAST RIDE	1,411,828	368,325	26%	2 July 09
BEAUTIFUL KATE	1,975,562	1,561,946	79%	6 August 09
BALIBO	3,060,000	1,286,809	42%	13 August 09
SUBDIVISION	788,700	140,097	18%	20 August 09
BLESSED	1,889,783	446,965	24%	10 September 09
STONE BROS	2,220,000	83,069	4%	24 September 09
MAO'S LAST DANCER	4,000,000	13,171,386	329%	1 October 09
COFFIN ROCK	852,399	21,788	3%	22 October 09
PRIME MOVER	1,472,102	13,285	1%	29 October 09
<b>Total</b>	<b>59,415,087</b>	<b>30,305,947</b>	<b>51%</b>	

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Outcome:</b>	5	<b>Question No:</b>	154
<b>Program:</b>	5.1		
<b>Division/Agency:</b>	Screen Australia		
<b>Topic:</b>	<i>Two Fists One Heart</i> – Investment returns		
<b>Hansard Page ECA:</b>	119 (19/10)		

**Senator BIRMINGHAM asked:**

She is confirming that it is one of the largest investments?

**Dr Harley**—Larger, but not one of the largest.

**Senator BIRMINGHAM**—And one of the more disappointing results?

**Dr Harley**—Yes.

**Senator BIRMINGHAM**—In terms of the difference between the two?

**Dr Harley**—She says that it is fairly average. Would you mind if I came back to you with the answer to that question specifically? Off the top of my head I do not know if that is the biggest difference.

**Senator BIRMINGHAM**—To be clear, the detail is the proportion of return to investment.

**Answers:**

Please refer to the response to question 153.

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Outcome:</b>	5	<b>Question No:</b>	155
<b>Program:</b>	5.1		
<b>Division/Agency:</b>	Screen Australia		
<b>Topic:</b>	<i>Samson and Delilah</i> – gross sales		
<b>Hansard Page ECA:</b>	121 (19/10)		

**Senator BIRMINGHAM asked:**

**Senator BIRMINGHAM**—With regard to *Samson and Delilah*, which we discussed at the last estimates, how close to finishing up in terms of takings is that and what about the components of the deal that Screen Australia would have had with the producers of *Samson and Delilah*?

**Dr Harley**—As of this morning, *Samson and Delilah* was just over \$3.1 million in takings from the Australian market, and I do not know what the gross sales figure is. Do either of you?

**Mr Matthews**—It is very early days.

**Dr Harley**—We know the budget is \$1.6 million. I do not know the gross sales. I could get back to you and tell you that. I do not know that.

**Answers:**

**Samson & Delilah:**

Total Australian Box Office as at 11 November 2009: \$3,179,113.

Gross Sales (international) as at 9 November 2009: \$209,000.

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Outcome:</b>	5	<b>Question No:</b>	156
<b>Program:</b>	5.1		
<b>Division/Agency:</b>	Screen Australia		
<b>Topic:</b>	Major Studios – scope of works		
<b>Hansard Page ECA:</b>	124 (19/10)		

**Senator BIRMINGHAM asked:**

**Senator BIRMINGHAM**—In terms of major studios in Australia and their operation, is it fair to say Fox Studios is one of the larger capabilities?

**Dr Harley**—Warner would be pretty large.

....

**Senator BIRMINGHAM**—Do you know what scope of work has been undertaken at those two major studios at present?

**Dr Harley**—No, I do not. I could find out for you, but I do not know that.

**Answers:**

Fox Studios Australia has a total sound stage area of 14,400m<sup>2</sup>.

Warner Roadshow Studios has a total sound stage area of 10,844m<sup>2</sup>, plus an outdoor water tank of 1,200m<sup>2</sup>.

Fox Studios Australia has the following projects booked for 2009-10:

*Tomorrow, When the War Began*

*Australian Idol* (Fremantle Media)

*Australian Apprentice* (Fremantle Media)

Various TVCs – Short-term bookings, usually up to two weeks in one of the eight stages

Warner Roadshow Studios has the following projects booked for 2009-10:

*The Chronicles of Narnia: Voyage of the Dawn Treader*

*Sea Patrol Series 4*

*Elephant Princess Series 2*

*Sanctum*



**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

**Outcome:** 5 **Question No:** 157  
**Program:** 5.1  
**Division/Agency:** Screen Australia  
**Topic:** Screen Australia – remuneration of senior positions  
**Hansard Page ECA:** 125 (19/10)

**Senator LUDLAM asked:**

**Senator LUDLAM**—I am wondering whether you could tell us what happened to the remuneration of the senior positions that exist now relative to what would have existed in the three organisations that existed previously?

**Dr Harley**—I cannot tell you that because I do not know what existed in the previous three organisations. I will have to take that on notice.

**Ms Kruk**—We can also take that on notice and work on that jointly. To clarify: you are after the management structures that were in place for the three organisations. Is that right?

**Senator LUDLAM**—That is correct. I am after the management structure and also the remuneration packages that applied. I am looking for a comparative before-and-after picture of the three organisations and the one that exists now.

**Answer/s:**

	<b>Position</b>	<b>Total Salary Package 2007/08</b>	<b>Remuneration 2008/09</b>	<b>Remuneration 2009/10</b>
<b>Film Australia Limited</b>				
	CEO	\$244,576		
	Executive 1	\$159,902		
	Executive 2	\$172,161		
	Executive 3	\$135,745		
	Executive 4	\$159,214		
	<b>Total FAL</b>	<b>\$871,598</b>		

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Film Finance Corporation Australia</b>				
	CEO	\$365,270		
	Executive 1	\$295,200		
	Executive 2	\$166,737		
	Executive 3	\$221,960		
	Executive 4	\$219,806		
<b>Total FFC</b>		<b>\$1,268,973</b>		

<b>Australian Film Commission</b>				
	CEO	\$262,470		
	Executive 1	\$239,087		
	Executive 2	\$249,238		
	Executive 3	\$231,716		
	Executive 4	\$173,009		
	Executive 5	\$175,278		
<b>Total AFC</b>		<b>\$1,330,798</b>		
<b>Grand total predecessor organisations</b>		<b>\$3,471,369</b>		

<b>Screen Australia</b>				
	CEO		\$300,000	\$309,000
	Executive 1		\$280,000	\$280,000
	Executive 2		\$250,000	\$250,000
	Executive 3		\$276,921	\$276,921
	Executive 4		\$245,000	\$245,000
	Executive 5		\$200,000	\$200,000
	Executive 6		\$225,508	<i>(contract concluded)</i>
	Executive 7			\$210,650
	Executive 8		\$191,000	\$191,000
<b>Total Screen Australia</b>			<b>\$1,968,429</b>	<b>\$1,962,571</b>

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

**Outcome:** 5 **Question No:** 158  
**Program:** 5.1  
**Division/Agency:** Screen Australia  
**Topic:** Screen Australia - staffing through amalgamation  
**Hansard Page ECA:** ECA 125 (19/10)

**Senator LUDLAM asked:**

**Senator LUDLAM**—What number of resignations occurred through that process?

**Dr Harley**—We do not have that in front of us, Senator. We would have to get back to you with that.

**Senator LUDLAM**—All right, I would appreciate that. We will move on from there, but if you can provide us with the breakdown of what occurred and any of the financial savings that have accrued as a result, that would be very helpful.

**Answers:**

<b>Staff Resignations 1 July 2008 to 30 June 2009</b>	
	Number
Resignations	31

Salary cost savings from 1 July 2008 to 1 July 2009: \$3.11 million.

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

**Outcome:** 5 **Question No:** 159  
**Program:** 5.1  
**Division/Agency:** Screen Australia  
**Topic:** Screen Australia – profit and loss  
**Hansard Page ECA:** Written Question on Notice

**Senator BIRMINGHAM asked:**

Can Screen Australia provide a list of the profitability or loss of each of its screen investments over the past three years?

**Answer/s:**

The following table shows investment and recoupment to date for all titles delivered (by category) over the last three years

**Documentaries**

Title	SA Investment	Recouped by SA	Delivery date
	\$	\$	
TWO MUMS AND A DAD	137,425	18,446	12 February 07
GOING BUSH 2	182,992	6,829	3 May 07
VOTE YES FOR ABORIGINES	181,750	59,859	17 May 07
GREAT AUSTRALIAN ALBUMS	350,000	16,600	1 June 07
DESPERATELY KEEPING SHEILA	73,036	0	22 June 07
FRANK AND DAZ SHOW, THE	151,000	5,489	30 July 07
SOUNDS OF A(US), THE	193,800	54,677	22 August 07
TEMPLE OF DREAMS	165,000	0	22 August 07
OVER MY DEAD BODY	201,750	12,326	24 August 07
GLAMOUR GAME, THE	284,500	19,222	12 September 07
SURVIVAL SCHOOL	192,000	0	17 September 07
TWO MEN AND TWO BABIES	101,926	0	17 September 07
RACE FOR THE BEACH	247,783	3,397	28 September 07
WHEN COLIN MET JOYCE	100,000	0	4 October 07
RAMPANT - HOW A CITY STOPPED A PLAGUE	200,000	27,498	18 October 07
GURU GREG	200,000	0	19 November 07
CARS THAT ATE CHINA, THE	151,750	0	26 November 07
PNG: THE RULES OF THE GAME	127,025	0	4 December 07
MAVERICK MOTHER	190,146	0	7 December 07
TEN POUND POMS	297,500	15,720	11 December 07

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Title</b>	<b>SA Investment</b>	<b>Recouped by SA</b>	<b>Delivery date</b>
INSPIRING TEACHERS	226,173	0	14 December 07
FAT CHANCE	126,750	5,121	18 December 07
PASSIONATE APPRENTICE	118,125	0	2 January 08
INDONESIA, A REPORTER'S JOURNEY	414,001	5,200	8 January 08
SPIRIT STONES	201,950	0	12 February 08
STUFF	270,000	3,555	3 March 08
NEVER SAY DIE MATILDAS	169,108	0	6 March 08
END OF THE RAINBOW	277,495	0	7 March 08
GALLIPOLI'S SUBMARINE	357,625	5,024	4 April 08
ETERNITY MAN, THE	552,100	0	11 April 08
ALIVE AND KICKING	157,500	0	14 April 08
FAMILY FOOTSTEPS 2	440,000	0	23 April 08
NORTHERN TOWN, A	169,730	0	12 May 08
FAIRWEATHER MAN	178,000	0	16 May 08
SCORCHED EARTH	151,712	0	27 May 08
MY BIGGEST FAN	90,000	0	29 May 08
RIVER OF NO RETURN	101,950	0	26 June 08
MUSEUM OF THE WORLD	510,820	333	27 June 08
ABOUT WOMEN	390,291	0	30 June 08
BURNING SEASON, THE	301,066	0	30 June 08
GOODBYE REVOLUTION	77,403	0	30 June 08
RISKING THE KIDS	139,011	0	2 July 08
SEED HUNTER	224,901	0	2 July 08
CRACKING THE COLOUR CODE	699,900	0	30 July 08
A WELL FOUNDED FEAR	184,000	0	6 August 08
LIONEL ROSE	184,200	0	8 August 08
PAPER DOLLS - PINUP GIRLS OF WORLD WAR 2	139,573	1,499	8 August 08
ROADTRIP NATION	373,500	0	15 August 08
CASSOWARIES	180,000	0	26 August 08
NAVY DIVERS	253,000	0	26 August 08
EMBEDDED WITH THE MURRI MOB	158,557	0	24 September 08
HOBBIT ENIGMA, THE	286,500	3,733	26 September 08
LAST CONFESSION OF ALEXANDER PEARCE, THE	481,800	0	26 September 08
RODNEY'S ROBOT REVOLUTION	256,046	0	16 October 08
EMBEDDED WITH SHEIK HILALY / EMBEDDED WITH NATIONALISM	302,376	0	5 November 08
GREAT AUSTRALIAN ALBUMS SERIES 2	373,500	0	19 November 08
WINNING WORLD WAR 1: ANZACS, WESTERN FRONT DIARIES	56,750	0	1 December 08
TIBET: MURDER IN THE SNOW	209,202	0	10 December 08

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Title</b>	<b>SA Investment</b>	<b>Recouped by SA</b>	<b>Delivery date</b>
WEDDING MAKERS, THE	180,000	0	15 December 08
DESPERATELY SEEKING DOCTORS	197,126	2,095	16 December 08
BEST UNDRRESSED	92,000	0	18 December 08
BABY BOOM OR BUST	506,648	0	23 December 08
FUTURE MAKERS, THE	122,000	0	8 January 09
NOT FORGOTTEN	159,465	0	9 January 09
INTERVENTION, THE	155,000	0	20 January 09
DEATH OF THE MEGABEAST	334,012	0	28 January 09
DARWIN'S LOST PARADISE	258,505	0	4 February 09
DEAD TIRED!	249,965	0	4 February 09
TWO IN THE TOP END	462,495	0	13 February 09
I, PSYCHOPATH	247,000	0	17 February 09
FOR VALOUR	111,239	0	2 March 09
SALT	117,061	0	10 March 09
ONCE BITTEN	195,059	0	25 May 09
BUSH SLAM	290,606	0	28 May 09
WHATEVER HAPPENED TO BRENDA HEAN?	125,000	0	3 June 09
KO HO NAS	151,349	0	19 June 09
CONTACT	157,997	0	26 June 09
JOURNOS	339,735	0	26 June 09
STOLEN	643,081	0	7 July 09
SKIPPY: AUSTRALIA'S FIRST SUPERSTAR	251,529	0	9 July 09
BLANK CANVAS	75,000	0	13 July 09
MY ASIAN HEART	151,254	0	13 July 09
SNOWMAN, THE	256,094	0	17 July 09
WHATEVER! THE SCIENCE OF TEENAGERS	385,749	0	24 July 09
INDONESIA CALLING: JORIS IVENS IN AUSTRALIA	243,156	0	3 August 09
OCEAN SUPER MUM: A SEA LION ODYSSEY	262,692	0	6 August 09
WHO DO YOU THINK YOU ARE? - SERIES 2	665,912	0	25 August 09
CHINA'S AVANT-GARDE: THE NEW CULTURAL REVOLUTION	34,458	0	8 September 09
YOU ONLY LIVE TWICE	138,500	0	16 September 09
DRUGS, DEATH & BETRAYAL	138,182	0	21 September 09
SHINTARO - THE SAMURAI SENSATION THAT SWEEPED A NATION	136,592	0	21 September 09
ANGELS IN NEW YORK	304,012	0	30 September 09
PRISON SINGS	302,044	0	8 October 09

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Title</b>	<b>SA Investment</b>	<b>Recouped by SA</b>	<b>Delivery date</b>
GREAT ESCAPE, THE - THE RECKONING	359,447	0	15 October 09
MISSION, THE	170,000	0	22 October 09
WORLD CHAMPION SANTA	25,000	0	22 October 09
HEARTBREAK SCIENCE	264,339	0	27 October 09
ADDICTED TO MONEY	320,782	0	2 November 09
MATILDA CANDIDATE, THE	160,000	0	2 November 09

**Features**

UNFINISHED SKY	1,957,500	0	30 July 07
SEPTEMBER	1,112,028	0	17 September 07
BLACK BALLOON, THE	3,054,000	0	8 October 07
GLOBAL HAYWIRE	648,781	0	19 October 07
NEWCASTLE	1,322,839	0	6 February 08
ACOLYTES	2,717,477	0	7 March 08
DISGRACE	4,974,966	0	23 April 08
DYING BREED	1,018,400	0	28 April 08
CHILDREN OF THE SILK ROAD	4,872,329	0	29 April 08
SALUTE	1,110,000	0	10 June 08
TENDER HOOK, THE	4,090,000	0	10 June 08
SQUARE, THE	2,745,000	0	29 July 08
NOT QUITE HOLLYWOOD	936,500	0	30 July 08
CLOSED FOR WINTER	1,157,000	0	24 September 08
TWO FISTS ONE HEART	4,000,000	0	14 October 08
PRIME MOVER	1,472,102	0	30 January 09
MY YEAR WITHOUT SEX	2,497,370	0	6 February 09
MARY AND MAX	4,980,000	0	13 February 09
BEAUTIFUL KATE	1,975,562	0	15 April 09
ACCIDENTS HAPPEN	2,114,374	0	6 May 09
SAMSON & DELILAH	1,368,000	116,374	7 May 09
LAST RIDE	1,411,828	0	26 May 09
CHARLIE & BOOTS	2,000,000	0	3 June 09
BRIGHT STAR	4,450,000	1,175,930	9 June 09
BLESSED	1,889,783	0	1 July 09
LONG WEEKEND	2,265,000	0	13 July 09
BALIBO	3,060,000	0	14 July 09
LOVED ONES, THE - FEATURE	1,040,432	0	6 August 09
SUBDIVISION	788,700	0	26 August 09
STONE BROS	2,220,000	0	24 September 09
MAO'S LAST DANCER	4,000,000	0	1 October 09

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Title</b>	<b>SA Investment</b>	<b>Recouped by SA</b>	<b>Delivery date</b>
<b>TV</b>			
EAST WEST 101	1,312,500	33,627	26 June 07
SEA PATROL	2,990,000	100,744	27 July 07
EMERALD FALLS	840,000	0	24 August 07
RAIN SHADOW	1,383,353	25,123	10 September 07
WORMWOOD	1,490,000	0	19 November 07
EAST OF EVERYTHING	1,345,465	21,543	7 December 07
GUMNUTZ	500,000	0	19 December 07
H2O JUST ADD WATER - SERIES 2	4,166,513	237,694	2 January 08
VALENTINE'S DAY	816,935	0	28 February 08
PIXEL PINKIE	1,354,416	50,180	8 April 08
INFORMANT, THE	810,000	0	14 April 08
UNDERBELLY	2,938,000	1,312,627	8 May 08
BED OF ROSES	1,427,802	21,396	26 May 08
BLUE WATER HIGH - SERIES 3	2,167,358	0	23 June 08
SEA PATROL (THE COUP) - SERIES 2	2,000,000	0	26 June 08
SCORCHED	1,146,356	0	25 August 08
CARLA CAMETTI PD	1,700,000	0	22 September 08
FALSE WITNESS	1,383,746	0	27 October 08
ADVENTURES OF CHARLOTTE & HENRY, THE	654,569	0	8 December 08
CUT, THE	1,280,000	0	15 December 08
DIRT GAME	1,449,075	0	23 January 09
ELEPHANT PRINCESS, THE	3,934,557	13,666	16 March 09
EAST OF EVERYTHING - SERIES 2	877,133	0	14 April 09
SNAKE TALES	1,480,000	0	20 April 09
EAST WEST 101 - SERIES 2	945,122	0	2 June 09
CIRCUIT, THE - SERIES 2	852,446	0	3 June 09
PIXEL PINKIE - SERIES 2	837,204	0	15 June 09
BED OF ROSES - SERIES 2	1,417,939	0	2 July 09
UNDERBELLY: A TALE OF TWO CITIES	1,800,099	0	3 July 09
K9	3,926,763	0	1 September 09
STORMWORLD	4,166,940	0	14 October 09
RESCUE	2,399,033	0	21 October 09
LOCKIE LEONARD - SERIES 2	2,643,685	0	26 October 09
KILLING OF CAROLINE BYRNE, THE	585,622	0	8 November 09



**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Outcome:</b>	5	<b>Question No:</b>	160
<b>Program:</b>	5.1		
<b>Division/Agency:</b>	Screen Australia		
<b>Topic:</b>	Screen Australia – report on <i>Two Fists One Heart</i>		
<b>Hansard Page ECA:</b>	Written Question on Notice		

**Senator BIRMINGHAM asked:**

1. Can Screen Australia table the report on Two Fists One Heart? If no report was written, why not?
2. Was the film's producer interviewed and, if so, when?

**Answers:**

1. No. No formal report was prepared regarding the film. However, all projects funded are reviewed internally throughout the production and distribution phases.
2. During the production, distribution and production release phases, Screen Australia's investment manager for the project and acting head of marketing were in contact with the film's producer.

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Outcome:</b>	5	<b>Question No:</b>	161
<b>Program:</b>	5.1		
<b>Division/Agency:</b>	Screen Australia		
<b>Topic:</b>	Screen Aust – Disney – <i>Two Fists One Heart</i>		
<b>Hansard Page ECA:</b>	Written Question on Notice		

**Senator BIRMINGHAM asked:**

1. Has Disney been interviewed as part of the *Two Fists One Heart* review?
2. Did Disney spend the amount they pledged on P&A (prints and advertising) as part of their distribution guarantee to promote these films?
3. How much did they spend?

**Answers:**

1. No formal review of *Two Fists, One Heart* took place. However, during the production of the film several meetings took place involving the producer, Disney and Screen Australia officers. The distribution plans were discussed in detail at these meetings.
2. As at 11 November 2009, no. The distribution contract between Disney and the producer noted a projected spend of \$870,000 on distribution costs in connection with the exercise of the domestic rights, which would include Prints and Advertising expenditure as well as some delivery items.
3. Disney has informed Screen Australia that the spend on distribution costs in connection with the exercise of the domestic rights, which would include Prints and Advertising expenditure and some delivery items, is to date approximately \$824,000.

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Outcome:</b>	5	<b>Question No:</b>	162
<b>Program:</b>	5.1		
<b>Division/Agency:</b>	Screen Australia		
<b>Topic:</b>	Screen Australia – Scott Meek		
<b>Hansard Page ECA:</b>	Written Question on Notice		

**Senator BIRMINGHAM asked:**

1. Is Scott Meek still employed by Screen Australia? Under what capacity?
2. Was Meek attached to *Griff the Invisible* prior to it being submitted to Screen Australia development process?
3. Did Meek become aware of this project via his role at Screen Australia?
4. What is Screen Australia's investment in the *Griff the Invisible*?
5. How was this conflict of interest managed?
6. How much contact and how well does Meek know other Screen Australia evaluation managers or people assessing the project? Were these people aware that Meek was attached to the project?
7. Was the board aware that Meek was attached to the project when it approved its funding?
8. What evidence does Screen Australia have that the benefits of using practising filmmakers to judge the efforts of their peers outweighs the conflict of interest and potential for bias when those same practising filmmakers are also submitting their own projects for evaluation?

**Answers:**

1. Yes, as a Feature Film Consultant three days a week.
2. No.
3. Yes, but not as a Feature Film Consultant. He was engaged by Screen Australia as a freelance contractor as one of four assessors of the final round of a low budget feature film program (Indivision) to which *Griff the Invisible* was an applicant.
4. \$1,074,818.
5. Mr Meek only agreed to act as a mentor / Executive Producer to the project *Griff the Invisible* after the project had been recommended for financing and after requesting Screen Australia's consent to act in this advisory capacity. On balance, Screen Australia agreed that Mr Meek's contribution to script development would outweigh any conflict of interest perception. At that time, Mr Meek was engaged by Screen Australia as a freelance contractor, working three days per month only, and was not involved in assessing any new projects.

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

6. Mr Meek has a professional relationship with his assessment colleagues. He is in contact with them for the purposes of assessment of projects.

For the project in question the creative merits were assessed in September/October 2008 by Mr Meek as part of a four-member panel. Mr Meek had no attachment to the project. At all times subsequent to this assessment and involvement with the project, Mr Meek declared his interest.

7. No. Mr Meek was not formally attached to the project when funding was approved in November 2008 by the Board. Mr Meek is yet to be formally contracted to the film and has not received any remuneration.
8. Screen Australia and its predecessor organisations have over many years of operation found that it is not possible to properly assess the creative merits of a film project without peer assessment. As a consequence, in the relatively small Australian industry there are occasions when potential conflicts of interest may arise. Screen Australia handles such situations by applying code of conduct and conflict of interest policies. These contain measures such as requiring staff and consultants to declare conflicts of interest and absent themselves from a meeting in the event of a conflict.

**Senate Standing Committee on Environment, Communications and the Arts  
Legislation Committee**

Answers to questions on notice

**Environment, Water, Heritage and the Arts portfolio**

Supplementary Budget Estimates, October 2009

<b>Outcome:</b>	5	<b>Question No:</b>	163
<b>Program:</b>	5.1		
<b>Division/Agency:</b>	Screen Australia		
<b>Topic:</b>	Screen Aust –investment		
<b>Hansard Page ECA:</b>	Written Question on Notice		

**Senator BIRMINGHAM asked:**

What is the name of the one screen project referred to by Dr Harley that Screen Australia invested in that also had a higher budget than *Mao's Last Dancer*?

**Answers:**

*Tomorrow When the War Began.*