Health Check of DIMA IT Platform
Final Report

EXPERIENCE. RESULTS.

Australian Government

Department of Immigration and Multicultural Affairs

Australian Government
Department of Immigration and Multicultural Affairs

Contents of This Document

Australian Government
Department of Immigration and Multicultural Affairs

Objectives of health check reviews

Business Context

- As a result of the Palmer Enquiry, The Department of the Prime Minister and Cabinet, and DIMA desire a step change in IT performance
  - Improved alignment between the business and IT functions delivering higher quality outcomes and qualitative performance measures;
  - Improvements in the level of systems integration to facilitate a more streamlined and accurate management of the caseload, including a single view of the client;
  - Increases in the perceived and actual value delivered by BSG through the introduction and increased utilisation of agile development techniques, positioning BSG to respond more effectively to changes in organisational trajectory

Project Objectives

- CSC undertook health checks in regards to:
  - IT Governance: Overall governance, portfolio management, program and project management, and delivery mechanisms, including technical, business and external service provider rules
  - IT Platforms: The overall appropriateness of the mix and deployment of DIMA's technical platform to support current and future business needs
    - Current needs are covered in this document
    - Future needs in support of the Systems for People transformation program are described to the extent possible given the timing of this report

Approach To Conducting Health Check Reviews

Overall Approach

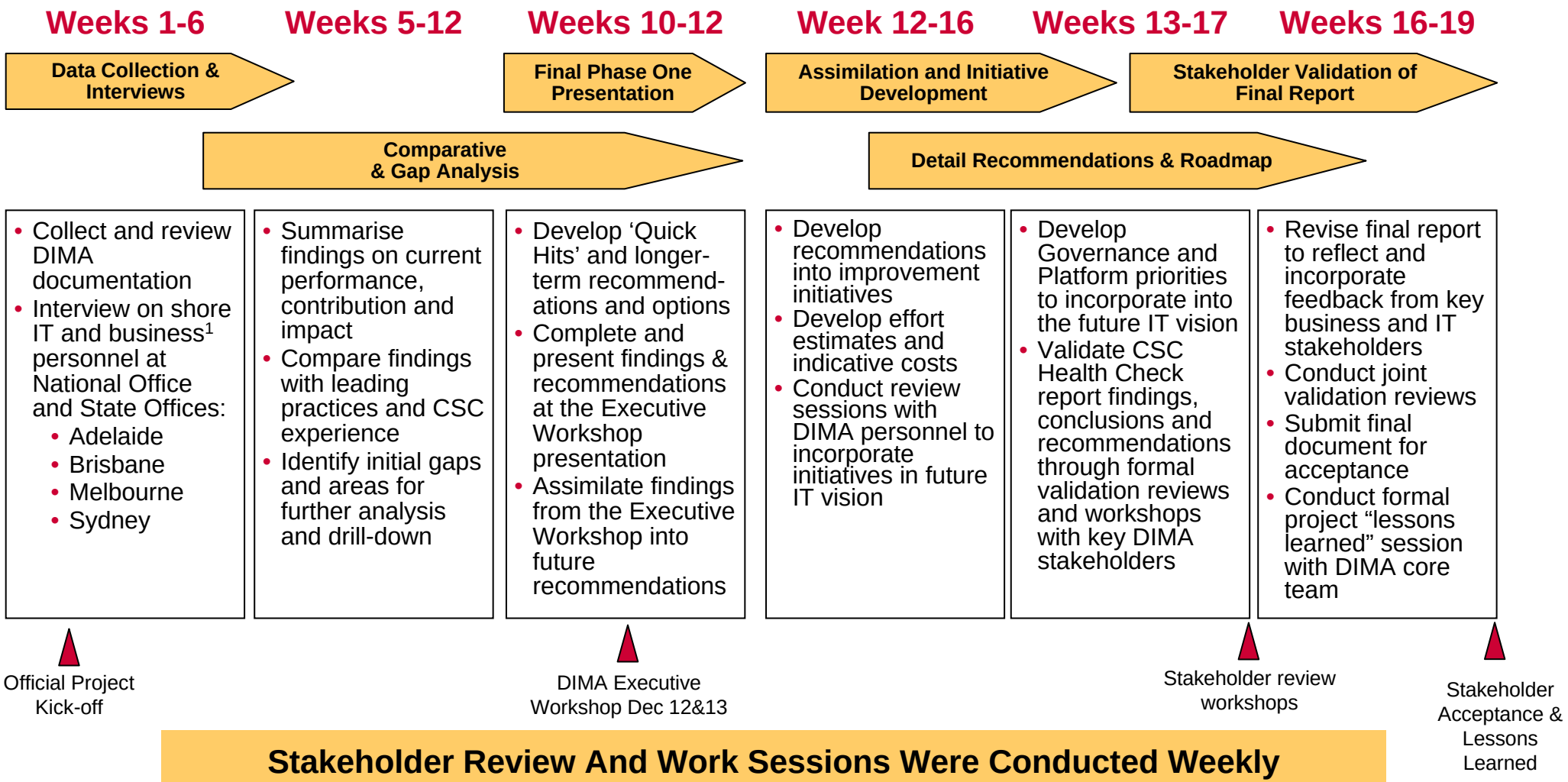
- Phase One - Health Check
  - IT Governance, Management of Projects and Rapid Delivery Cycles Health Check: This project assessed the effectiveness of mechanisms for setting project priorities, linking IT with business priorities, strategies and requirements, delivery approaches and IT project office functions and services
  - IT Platform Health Check: This project assessed the quality of DIMA's technical infrastructure in terms of suitability for supporting current business users and its adaptability/scalability for supporting future needs
- Phase Two – Transformation Recommendations and High Level Roadmap
  - Business Information Needs assimilation: This project will assimilate requirements changes, as defined by the Business Information Needs review, for the technology platform and Governance and Project/Program Management functions
  - Roadmap preparation: This project will summarise findings and formalise recommendations into a roadmap of projects to meet business needs

Key Project Milestones

- The CSC engagement delivered initial Health Check findings at the December 12 and 13 Executive Workshop
- The Business Information Needs review delivered a vision for the DIMA IS environment of the future at the December 12 & 13 Executive Workshop
- CSC delivered the final recommendations and roadmap on 31 January 2006

Australian Government
Department of Immigration and Multicultural Affairs

Health Check Review Phases and Activities



Stakeholder Review And Work Sessions Were Conducted Weekly

1 - In conjunction with Business Information Needs Review

Platform Health Check Approach

Platform Approach

- Focused on delivering a Management Report
- Conducted interviews and workshops with individual IT staff and groups
- Sat in on Information Needs Review interviews at FAS level
- Visited State Offices in Sydney, Melbourne, and Adelaide and interviewed staff
- Reviewed relevant documentation at an overview level
- Worked through DIMA liaison staff, to fill in information gaps wherever possible
- Analysed the collected Platform information using the combined experience of the consultant team together with a semi-formal approach based on past engagements, and the developing needs of DIMA
- Reviewed progress periodically with DIMA IT management
- Circulated late draft versions for comment and validation by DIMA IT
- Conducted a review and comment session based on a late draft to invited DIMA IT and Business Managers

Australian Government
Department of Immigration and Multicultural Affairs

Contents of This Document

Overview

- This section provides an overview of the findings of the Platform Health Check. It provides an overview of:
  - The primary questions the Health Check was asked to address
  - The framework and evaluation criteria that was used to analyse the health of the current IT Platform
  - The findings, in summary form, arranged by:
    - Each Platform layer
    - Each Evaluation Criteria scope dimension across the whole Platform
  - The recommendations, in summary form, arranged by Platform layer

- Further detail on findings and recommendations is provided in following sections

Platform Health Primary Questions and Findings

First Question

- What is the overall appropriateness of the mix and deployment of DIMA's technical platform to support current and future business needs?

Primary Findings

- DIMA's IT infrastructure platforms are adequate to meet current business needs, with a spread of strengths and weaknesses fairly typical of similar organisations
- Of the 13 Platform layers, 7 are rated as effective while 6 are rated somewhat effective
- Of the 10 Evaluation Criteria, rolled up across all the Platform layers, 4 are rated effective while 6 are rated somewhat effective
- These platforms are unlikely to support the proposed Systems for People transformation program which will involve intensive integration and data sharing among applications

Platform Health Primary Questions and Findings

Second Question

- Does the technical platform support our work, is it cost-effective, and does it provide a reliable, flexible, scalable platform to see DIMA into the future?

Primary Findings

- The current platforms generally support the current broad DIMA business needs though there are numerous specific pain points
- Cost-effectiveness is difficult to determine as the business value of information, and therefore IT infrastructure components which handle information, is not known
- Potential for simple cost savings exist, however, through standardisation and consolidation
- Some aspects of the current platforms are reliable, flexible, scalable for continued use into the future, while others will require attention.
- While point in time plans exist in many areas for platform improvements, and are being actioned, they are driven by presently known needs rather than an underlying strategy for the area concerned that could direct future activities in changing circumstances.

Platform Health Primary Questions and Findings

Third Question

- Do staff have the tools they need at their desktops?

Primary Findings

- Current desktop tools are capable Tier 1 products, but are not optimally configured and users are not adequately trained in their use
- There are no apparent requirements that could be applied to determining effectiveness of tools at a usability level. There is no simple way of determining whether reported usability issues are inherent in existing tools, or a result of the overall way in which the they are configured, deployed and used
- Desktop tools are generally not currently integrated with business systems

Australian Government
Department of Immigration and Multicultural Affairs

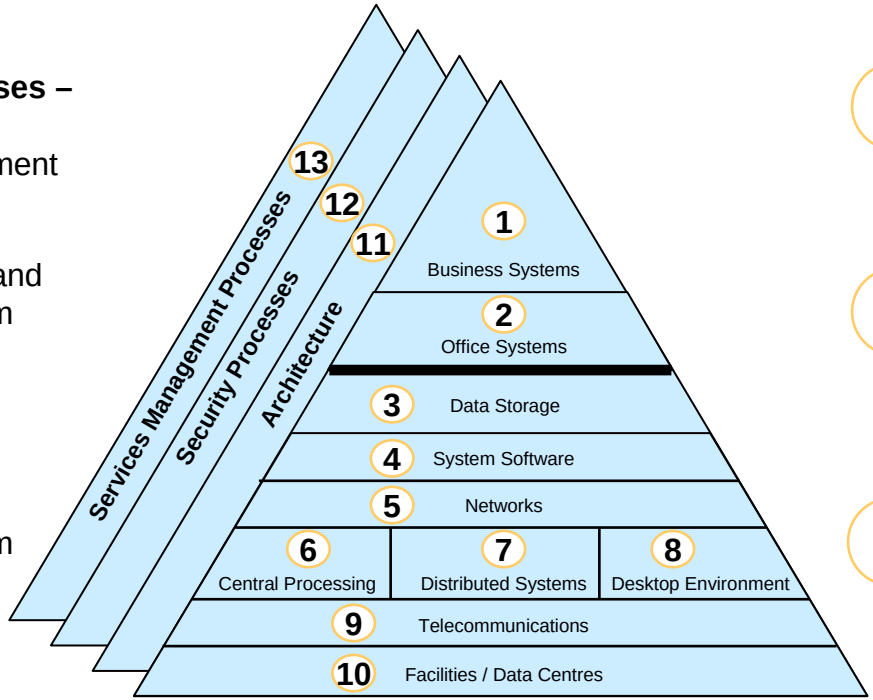
Analysis Framework for IT Platform

1 **Business Systems –** All major DIMA application system platforms. Applications functionality and usability were not evaluated

2 **Office Systems –** Communication and collaboration tools, productivity tools, records management, reporting tools

3 **Data Storage –** Storage software infrastructure for data

13 **Services Management Processes –** Help Desk, performance management, capacity management



4 **System Software –** Operating systems, integration software

12 **Security Processes -** Process and governance surrounding Platform Security

5 **Networks –** LAN, WAN, Network protocols, addressing functions, access and security measures, environments, standards

11 **Architecture -** Process and governance surrounding Platform technology

6 **Central Processing –** Mainframe and Mid-Range central environments

10 **Facilities / Data Centres –** The physical environments which house the infrastructure

9 **Telecommunications** Voice, fax, and video services

8 **Desktop Environment –** Desktop hardware and operating systems

7 **Distributed Systems –** Wintel / Mid-Range distributed environments including Active Directory

Platform Health Check Scope

Scope Boundaries

- The IT Platform Health Check was focused on the IT infrastructure components that support DIMA IT operations. These are defined by the items 1-13 on the analysis framework
- Some areas were specifically taken out of scope for this assessment. Specifically:

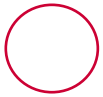
1. Business systems: The assessment of the Business Systems in the context of the IT Platform Health Check was focused on the effectiveness of the IT platform to support the operation of business systems. The effectiveness of the business systems and applications that operate on the IT Platform were out of scope .

3. Data storage: The Platform Health Check focused on the effectiveness of database storage tools and closely related areas. It did not consider how data storage is used, except where it impacts the management of the storage.

Evaluation Criteria Used in this Health Check

Dimension	Description
Scalability	Ability to readily adjusted the capacity of a platform component, up or down, with reasonable cost or effort
Capacity	Ability to do the work at the level needed
Agility	Ability to respond to business-initiated change
Manageability	Ability to monitor and control the characteristics
Service responsiveness	Ability to respond to service requests in a timely manner
Reliability	Ability to operate continuously without unscheduled outages
Performance	Ability to complete work within agreed timeframes
Cost effectiveness	Ability to meet affordable cost levels
Availability of resources to support	Availability of skilled staff, tools, and other resources to provide support
Security	Ability to control and monitor access to the platform component

Evaluation Rating Indicators Used in this Health Check - "Harvey Balls"

Rating	Meaning	Indicator
Very Effective	As good as you can realistically expect an organisation to get	
Effective	Can do most tasks effectively	
Somewhat Effective	Supports core business, but pain points are evident	
Not Effective	Does not meet core business needs, or not implemented	

Australian Government
Department of Immigration and Multicultural Affairs

Summary of Findings by Platform Layer

Scope Area	Rating	Observations
Applications		• Most application platforms are currently effective, but effectiveness is diminished for almost any future scenario • Platforms and technologies vary widely
Office Systems		• Desktop Office tools are effective, but there are functionality restrictions in the email and collaboration space • Desktop reporting, and records management are less effective
Data Platforms		• Data storage is scattered, and duplicated, across servers and database platforms • Data standards and classification schemes are needed
System Software		• Stable, mainstream operating systems, but some are ageing (IRIS being the notable case) • Integration architecture is in limited use, for specific purposes only
Networks		• Domestic local and wide area networks are effective • Newer technologies (wireless LAN and voice/data convergence) are not yet exploited
Central Processing		• Mainframe and midrange platforms are effective and disaster recovery plan is comprehensive • Lacking a forward looking plan for this technology set

Australian Government
Department of Immigration and Multicultural Affairs

Summary of Findings by Platform Layer (Continued)

Scope Area	Rating	Observations
Distributed Systems		• IRIS platform is out of system software support, needs definitive migration or retirement plan • Distributed storage is less effective, and disaster recovery is yet to be proven
Desktop Environment		▪ Desktop, laptop, and printer platforms are effective ▪ Multi-function devices, PDAs less effective, need standards
Telecommunications		• Traditional voice telephony and fax are effective • Voice over IP telephony strategy will be needed
Facilities / Data Centres		• Data centres are effective • Strategy will be needed to guide data centre minimum standards and future technology placements
Architecture		• Individual platform layers are reasonably managed • Lacking a enterprise platform view
Security Processes		• Operational security is effective • Security architecture and planning are less effective
Services Management Processes		• Performance monitored, but in silos rather than enterprise-wide • Selecting which of 20+ IT help desks to call confuses users

Australian Government
Department of Immigration and Multicultural Affairs

Summary of Findings by Evaluation Criteria Scope Dimension

Scope Dimension	Rating	Observations
Scalability		• Central processing, desktop environment can scale • Centralised applications, telecommunications, integration software, midrange storage less so
Capacity		• Most platforms have some capacity for expansion, with some exceptions (TRIM, distributed DBMSs, off-shore WAN, regional data centers)
Agility		• The desktop hardware and software and distributed applications increase agility • The central applications, lack of collaboration tools and diverse midrange platforms decrease agility
Manageability and ability to be monitored		• Manageability good inside silos (mainframes, midrange, networks) • Scattered monitoring responsibilities and lack of enterprise-wide monitoring
Service responsiveness		• Proliferation of help desks and lack of coordination between them
Reliability		• Platform reliability is good • Some platform components not covered by service levels
Performance		• Performance level of platform components is generally good • Desktop reporting, data warehouse, and distributed storage less so

Australian Government
Department of Immigration and Multicultural Affairs

Summary of Findings by Evaluation Criteria Scope Dimension (Continued)

Scope Dimension	Rating	Observations
Cost effectiveness		▪ IT Value information was not available to the review team, therefore there was no way to measure the effective cost ▪ Potential opportunities for simple cost reduction include consolidation of midrange platforms, site consolidation and migration to VoIP are evident in some layers
Availability of resources to support		• Concerns include availability of skills to support older and one-off technologies such as ADABAS, IRIS/RS6000
Security		• Security is strong in areas such as the secure gateway and enterprise platforms (mainframes and storage area networks)

Introduction to Recommendations for the Future

- Recommendations are made by Layer in the IT Platform Framework,
- Recommendations are grouped into Immediate or Longer term initiatives
- The Summary Recommendations are a roll-up of the full recommendations per layer, please refer to later detailed sections on each layer for the full recommendations
- The handling of Recommendations falls into one of three groups, with CSC assigned to detailing the 6 initiatives in group A

  A - Recommendations aggregated into 6 platform initiatives, developed to some further level of detail

  B - Recommendations passed to DIMA for incorporation into the Systems for People program

  C - Recommendations which while not forming part of current initiatives remain relevant for the DIMA IT Platform and may become part of the Systems for People program scope overtime
- Costing is outside the scope of this review

Summary of Recommendations by Platform Layer

Area	Recommendations – Immediate	Recommendations – Longer Term
Applications Platform	• Develop platform strategy for small applications • Determine IRIS re-hosting or replacement strategy	• Develop and implement an enterprise application architecture covering centralised and distributed applications
Office Systems	• Improve email performance • Finalise and ratify record keeping standards • Improve desktop reporting training and tool capabilities and performance	• Develop and implement a strategy for electronic communication and collaboration that covers email, collaborative tools, knowledge management, content management, records management, and workflow management
Data Platforms	• Develop a comprehensive DIMA data strategy and inventory that includes a strategy for managing the integrity of data for both short term and long term data retrieval needs	• Develop and implement a data management strategy that covers design, storage, data warehousing, and retrieval of enterprise data
Systems Software	• Continue development of integration architecture	• Standardise operating systems and integration software to reduce complexity of the environment and enable interoperability across applications and platforms

Summary of Recommendations by Platform Layer (Continued)

Area	Recommendations – Immediate	Recommendations – Longer Term
Networks	• No immediate actions needed	• Develop and implement a networking strategy that covers quality of service, network address planning, and use of new technologies such as WLAN, data/voice network convergence, and next generation VPN
Central Processing	• Refresh end of life Sun e-Series servers	• Develop and implement central processing infrastructure strategy that covers virtualisation/ consolidation of midrange processing and single SAN infrastructure
Distributed Systems	• Enhance Storage requirements for distributed systems • Review risks associated with IRIS Platform	• Develop and implement distributed processing infrastructure strategy that covers virtualisation/ consolidation of distributed processing and storage, and adopts a single data backup approach
Desktop Environment	• Inventory off-shore technology	• Standardise MFD, fax, scanning, and PDA technologies to increase cross-enterprise effectiveness

Summary of Recommendations by Platform Layer (Cont'd)

Area	Recommendations – Immediate	Recommendations – Longer Term
Telecommuni-cations	• Develop a voice and data convergence strategy	• Select and implement an advanced converged network solution to integrate voice, desktop, handheld, fax, and video technologies
Facilities / Data Centres	• Upgrade <SECURITY REMOVED> data centre facilities	• Develop and implement a data centre strategy that optimises use of space, saves money, and positions DIMA strategically for capacity, security, and disaster recovery
Architecture	• Provide senior executive level sponsorship	• Finalise and implement an enterprise architecture for DIMA
Security Processes	• Resource security subject matter expert within architecture group	• Develop and implement a DIMA security architecture that operates across platforms and locations
Service Management Processes	• Explore service desk consolidation steps that could improve service and possibly reduce costs	• Implement enterprise service management program that covers technology performance monitoring, service desk rationalisation, incident management, asset management, and enterprise data backup and restore

Australian Government
Department of Immigration and Multicultural Affairs

Allocation of Responsibility for Managing IT Platforms Today

BSG	States and Territory Offices	CSC	Other Service Providers
• Centralised business application platforms – e.g. ICSE, TRIM, IRIS • Centralised Web application platforms • Architecture strategy • Application help desks • ICT facilities in Australia with regional stewardship delegated to STO's	• Central and regional office facilities • Decentralised application platforms such as Jessica (Victoria) and GPS (Adelaide) • Small Systems	• Mainframe hardware and system software • Midrange hardware and system software • Mainframe and midrange disaster recovery • Lotus Notes • Secure gateway • <SECURITY REMOVED> facilities • Desktop and laptop hardware and software • Printers • Service desk for technology under their control	• Some applications (CPS, GSL) • Off-shore technology (DFAT, TRT) • Networks and telecommunications (Optus) • Network and telecommunications service desk • MFDs (Fujitsu)