

CENTRE FOR DEFENCE AND STRATEGIC STUDIES

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**Information Management:
Critical for Strategic Reform**

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*Information is at the heart of everything we do in the 21st century.*¹

INTRODUCTION

1. The information needs for any organisation are normally addressed by implementing Information and Communications Technology. Unfortunately, this does not necessarily ensure that the real value of an organisation's information is delivered to the right place, at the right time, to enable effective decision making. The Australian Defence Organisation needs to be able to access information effectively and efficiently to meet the needs of the war fighter as well as its business needs. The 2009 Defence White Paper states that 'there is a need to draw together the various Defence communications and information domains into a single, properly governed information environment, delivering a capability fully aligned with the priorities set by the Chief of the Defence Force (CDF) and the Secretary.'² To achieve the outcomes of the Defence White Paper, the reforms proposed in the Strategic Reform Program seek to deliver 'a secure and robust ICT [Information and Communications Technology] capability that supports war fighting and business requirements'.³ These Information and Communications Technology initiatives are ambitious, but crucial for Defence in achieving other streams of the Strategic Reform Program. Indeed, Information and Communications Technology reform cuts across all streams of the Program, and therefore presents a key risk to it if the Information and Communications Technology improvements are unable to be made in the projected timeframes.

2. The proposed reforms appear to address shortcomings in existing Information and Communications Technology systems, however it is unclear if such reforms will adequately address aspects of information management. If new Information and Communications Technologies are implemented without understanding Defence's information requirements, there is a risk that the information will not be accessed by the right parts of the organisation, and the most effective and efficient decisions will not be achieved. Understanding the Information Management needs of Defence is considered to be critical to delivering real reform at all levels.

¹ University of Technology Sydney website, available at:

<http://www.communication.uts.edu.au/information_knowledge_management/about_information_knowledge_mgmt.html>, accessed 11 December 2009.

² Department of Defence, *Defending Australia in the Asia Pacific Century: Force 2030*, (Defence White Paper), Australian Government, 2009, p. 119.

³ Department of Defence, *Defending Australia in the Asia Pacific Century: Force 2030*, p. 119.

AIM

3. The aim of this paper is to assess the importance of Information Management as part of the Strategic Reform Program.

THE INFORMATION AND COMMUNICATIONS ENVIRONMENT IN DEFENCE

4. Provision of Information and Communications Technology for Defence rests with the Chief Information Officer who is accountable to the Secretary and the CDF for 'ensuring that Defence has a dependable, secure and integrated Defence Information Environment (DIE) to support Defence business and military operations.'⁴ The Chief Information Officer is also responsible for 'establishing effective governance and coordination arrangements for the development, operation and management of DIE capabilities.'⁵ The Chief Information Officer Group conducts capability management including 'strategy, planning, prioritisation, development, implementation and support' to develop the Defence Information Environment.⁶ While there is clear authority and planning delivered towards achieving an effective and robust Information and Communications Technology network for Defence, there is no articulated view on the need for managing information in Defence. Nor is there anyone within the Australian Defence Organisation who is given carriage of Information Management.

THE NEED FOR INFORMATION MANAGEMENT WITHIN DEFENCE

5. Far too frequently Information Management is confused with document and records management. However, Information Management is the:

discipline that analyzes information as an organisational resource. It covers the definitions, uses, value and distribution of all data and information within an organisation whether processed by a computer or not. It evaluates the kinds of data/information an organisation requires in order to function and progress effectively.⁷

⁴ The DIE encompasses the computing and communications infrastructure of Defence along with the management systems and people that deliver that infrastructure. It includes Defence's computing networks, business applications and the data that they generate and carry. It also includes the communication standards and spectrum required for Defence's deployed battlespace networks. Department of Defence 2009, Chief Information Officer Group (CIOG) website, available at: <http://www.defence.gov.au/cio/about_ciog/index.htm>, accessed 12 December 2009.

⁵ Department of Defence, CIOG website, available at: <http://www.defence.gov.au/cio/about_ciog/index.htm>, accessed 12 December 2009.

⁶ Department of Defence, CIOG website, available at: <http://www.defence.gov.au/cio/about_ciog/index.htm>, accessed 12 December 2009.

⁷ PC Mag.com Encyclopedia, available at: <<http://www.pcmag.com/encyclopedia>> accessed 15 December 2009.

Information Management also addresses techniques to collect information, communicate it within and outside the organisation, and process it to enable managers to make quicker and better decisions.⁸ It 'comprises the people, business processes, systems and procedures that facilitate the development, production, storage, and dissemination of information.'⁹ Essentially it is the framework that identifies the information requirements of an organisation and designs processes, procedures and systems that allow the right information to be passed to the right place, at the right time, to achieve effective and, where possible, optimised decision-making leading to optimised outcomes for the organisation. Failure to identify the information requirements for an organisation early in a reform process can lead to nugatory planning and poor processes and procedures being established. Equally, understanding Information Management and the information requirements of an organisation allows more effective and efficient prioritisation of scarce resources and presents opportunities to manage and optimise outcomes.

6. The concept of managing information is not new to Defence, although it has not been embraced within the organisation. There is no doubt that understanding the information requirements for Defence is challenging, and therefore achieving robust Information Management is problematic. Information is passed across Information and Communications Technology systems with differing bandwidth capacities, and across multiple security domains. Defence uses and passes information from agencies and organisations outside the Defence domain, including information from other countries, as well as from commercial and public sector organisations. The nature of information addresses command and control, war-fighting and business aspects of the Australian Defence Organisation. Much of the information must be delivered to meet time imperatives, and requires a level of information integrity as well as assurance that ensures authenticity and accuracy of the information and data. While the technical components of a system can achieve delivery of information to meet most of these challenges, it is important to understand all of the information requirements of Defence stakeholders to ensure that the business rules and policies that allow effective passage throughout, and external to, the organisation, are developed appropriately. This is a complex space that requires a robust understanding of Information Management.

⁸ The Business Dictionary.com, available at: <
<http://www.businessdictionary.com/definition/atuid-49607b0b1e9121df>>, accessed 15
December 2009.

⁹ Department of Defence, *Doctrine and Training Series ADFP 7.0.3 Exercise Planning and Conduct*, Australian Government, 2006, p. 9-1.

INFORMATION MANAGEMENT AND THE STRATEGIC REFORM PROGRAM

7. A key element of Information Management is to identify the key stakeholders, and then involve them in all aspects of Information Management planning so that administrative, technical or procedural issues can be addressed as they arise.¹⁰ Information for an organisation is owned, or at least controlled, by the manager of the organisation. The CDF and Secretary of Defence essentially determine the information requirements for the Australian Defence Organisation. However, determining information requirements for Defence is a time consuming and challenging job, therefore aspects of Information Management can be delegated to each Group Head.¹¹ Ideally, each Head of a Strategic Reform Program stream should ensure that the information requirements within their stream are addressed and properly understood before making decisions on how to reform within each stream. An understanding of information requirements and a constructive approach to Information Management would provide benefits to Savings and Non-savings streams within the Strategic Reform Program. However, common and competing information requirements need to be coordinated and championed to ensure that the most important information needs are met. At present there is no-one identified as the Information Manager for Defence so this coordination function is not occurring.

8. The Strategic Reform Program would benefit from considering information requirements and particularly Information Management as a key component of strategic reform. Such consideration would ensure that all Program streams identify opportunities to improve consistency of data management, improve alignment and prioritise resources, reduce or remove duplication of processes and functions as well as allowing for improved governance. This would then facilitate better management decisions because of both high quality, consistent data capture and improved governance models. It would provide opportunities to use automated and improved services, thereby optimising the outcomes of the Information and Communications Technology reform stream. It can be argued that this is the intent of each reform stream within the Strategic Reform Program, but there does not appear to be a consistent methodology to achieve these outcomes and there is no consistent review of information requirements within each reform stream. Because the first stage of the Information and Communications Technology reform is to conduct a diagnostic review and

¹⁰ Department of Defence, *Doctrine and Training Series ADFP 7.0.3 Exercise Planning and Conduct*, Australian Government, 2006, p. 9-5.

¹¹ Group Heads includes Service Chiefs, Vice Chief of the Defence Force (VCDF) and Chief of Joint Operations (CJOPS).

then transform the Information and Communications Technology services,¹² failure to apply a consistent methodology actually presents risk to optimising strategic reform outcomes. If the Information and Communications Technology review is conducted without understanding Defence's critical information requirements then it is likely that improvements in Information and Communications Technology will not enhance the best-practice processes and procedures necessary to achieve strategic reform.

A BETTER WAY TO DO BUSINESS

9. To achieve more effective strategic reform outcomes it is proposed that there is a better way to do business that incorporates Information Management as part of Defence's Strategic Reform Program. Essentially, it is suggested that the business processes, including command and control and war fighting, should be examined within and across the Australian Defence Organisation. The information requirements should be established for each reform stream with stakeholders using the business processes as the basis for further assessment. Analysis of information flows between all the stakeholders involved in a particular business process will then allow a better understanding of the enabling systems, processes and agencies required to support the information flows. Once these key steps have been undertaken it is possible to redesign any flawed processes and procedures and then establish Information and Communications Technology to support the new processes.¹³

10. To achieve these changes it is expected that cultural change within Defence will be required to recognise that information and, more particularly Information Management, is a key enabler for the Australian Defence Organisation. Indeed, Information Management should be considered a key driver for the development of the 'single enterprise architecture' and development of a standardised Defence ICT environment'¹⁴ and therefore should be considered a critical component of the Information and Communications Technology reform. The Chief Information Officer Group should therefore consider Information Management in all aspects of the Information and Communications Technology reform stream. Additionally, Heads of each of the Strategic Reform Program streams should understand the information requirements within their stream and make sure that these requirements are appropriately articulated to a Defence Information

¹² Department of Defence, *The Strategic Reform Program 2009 - Delivering Force 2030*, Australian Government, 2009, p. 29.

¹³ Department of Defence, *Doctrine and Training Series ADFP 7.0.3 Exercise Planning and Conduct*, Australian Government, 2006, p. 9-3.

¹⁴ Department of Defence, *The Strategic Reform Program 2009 Delivering Force 2030*, Australian Government, 2009, p. 6.

Manager, to ensure that these requirements help inform the development of an appropriate 'single enterprise architecture'. However, these steps alone will not achieve successful outcomes, so it is important that Group Heads actively understand their responsibilities to incorporate Information Management within their Group and reform streams in order to work towards a Defence-wide Information Management strategy. The appointment of a Defence Information Manager, chartered with the requisite authority to understand, to coordinate a whole of Defence view on Information Management, and to develop the Defence Information Management Strategy, would serve to raise the profile of Information Management and allow attribution of resources across Defence to achieve appropriate outcomes. It is suggested that the Vice Chief of Defence Force (VCDF) would have the requisite authority and oversight to act as the Defence Information Manager, although it is recognised that VCDF is already stretched and would need to be adequately resourced to fill this additional responsibility. The Chief Information Officer would then support VCDF in the achievement of delivering Information and Communications Technology that meets the information needs of Defence. To ensure that all these initiatives can be implemented effectively, it is necessary to train people in Information Management across the Australian Defence Organisation. All personnel should understand the importance of information to the organisation, and the utility of effective Information Management to enhancing Defence's war fighting and business practices.

CONCLUSION

11. Information Management is important to any organisation to ensure access to accurate, timely information to the right parts of the organisation in order to allow effective, efficient and important decisions to be made in an informed and well-structured environment. Information Management is currently not a central component of the Strategic Reform Program, and this increases the risk to the effectiveness of strategic reform, as simply implementing new and improved Information and Communications Technology services will be insufficient to support reforms across Strategic Reform Program streams. Information Management should be included as a key enabler for Defence and the Strategic Reform Program, and it should be resourced accordingly.

12. Information Management within Defence has not been well executed in the past, and needs a champion to ensure that it gains the necessary momentum and level of importance within the organisation. All Group Heads need to recognise the importance of information within their parts of the Australian Defence Organisation and ensure that Information Management initiatives can be implemented effectively. The importance of

information and Information Management within Defence is poorly understood, therefore it is considered important to educate, inform and train at all levels in Defence in order to maximise opportunities and to ensure a cultural shift in the way Defence considers information and Information Management.

RECOMMENDATIONS

13. The following recommendations are made to support the inclusion of Information Management as part of the Strategic Reform Program:

- a. Information Management should be considered a key enabler for the Defence Organisation;
- b. Appoint VCDF as Defence Information Manager and adequately resource this position to fill this additional responsibility. The Chief Information Officer is to support VCDF in provision of Information and Communications Technology to meet information requirements;
- c. Develop a Defence Information Management strategy;
- d. Group Heads actively understand their responsibility to incorporate Information Management within their Groups as part of the Defence Information Management strategy;
- e. Heads of the Strategic Reform Program streams incorporate Information Management within their stream and articulate their information requirements to the Defence Information Manager to ensure that these requirements help inform the development of an appropriate 'single enterprise architecture';
- f. Information Management be considered a key driver for the development of the single enterprise architecture and development of a standardised Defence Information and Communications Technology environment;
- g. Information Management should be considered a critical component of the Information and Communications Technology reform. The Chief Information Officer Group should consider Information Management in all aspects of the Information and Communications Technology reform stream; and
- h. Train people in Information Management across Defence.

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