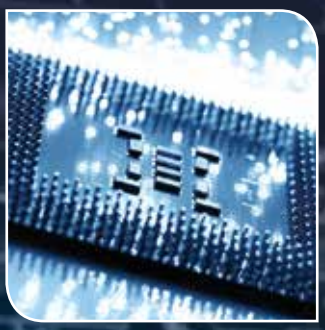
Australian Government
Department of Defence
Defence Science and
Technology Organisation

Information Management & Technology (IM&T)

Strategic Plan 2013-2016



DSTO | Science and Technology for Safeguarding Australia

Introduction

This document sets out a four-year strategy for information management and technology capabilities within DSTO. It takes into account a range of external factors and DSTO's strategic objectives.

The IM&T Strategic Plan has been developed to support the **DSTO Strategic Plan 2013-2018.** DSTO's **vision** is to be a world leader in defence science and technology – indispensable in supporting and transforming Australia's defence and national security. DSTO's **purpose** is as a national leader in safeguarding Australia by delivering valued scientific advice and innovative technology solutions for Defence and national security.

The IM&T Strategic Plan is the Information Management and Technology response to support the delivery of enterprise initiatives, in particular *strategic initiative 03 "Transformation of ICT to drive innovation and collaboration".*

The IM&T Strategic Plan also takes account of:

- The 2012 Senior Commonwealth Review of DSTO Networks and ICT Arrangements;
- Science requirements expressed by a range of senior executives through direct consultation;
- Engagement with research leaders and key scientific users of IM&T services;
- Defence Chief Information Officer (CIO) Group shared services and commercial arrangements explored through direct consultation with Defence executives; and
- Plans and recommendations from the IM&T management teams at both corporate and divisional levels.

The IM&T Strategic Plan will be supported by the IM&T Technology Plan, which will translate strategic directions into relevant technology roadmaps. A pre-requisite for the IM&T Technology Plan will be the appointment of a Chief Technology Officer (or equivalent) and development of an IM&T design capability.

The IM&T Strategic Plan is also supported by the IM&T Operational Plan that will be reviewed each year within the planning period to outline the particular focus for IM&T activity and investment over the subsequent four financial years.

Progress will be monitored progressively through ongoing IM&T performance management processes within DSTO's IM&T governance arrangements, detailed at the end of this Strategic Plan.

Mission and vision for our IM&T

Mission

DSTO IM&T supports scientific and organisational objectives through enterprise solutions.

The primary focus of the IM&T Strategic Plan is to support the scientific research and development conducted by DSTO.

Vision

DSTO IM&T will provide modern and innovative technologies that enable improved science productivity, collaboration, communications and knowledge sharing.

This vision reflects strategic initiative 03 – Transformation of ICT to drive innovation and collaboration, from the DSTO Strategic Plan 2013-2018.

Technology perspective

DSTO IM&T will support secure multi-level research networks that can rapidly provision heterogeneous research and development environments on-demand, with scalable storage and compute resources. Research data will be searchable and accessible to scientists through managed data repositories. Allied, industry and academic collaboration will be enabled through secure cloud-based services. Wherever practicable, administrative business solutions will be hosted on Defence networks and accessible from DSTO's research networks.

External factors impacting our IM&T capabilities

DSTO, like other research and development organisations, is becoming increasingly dependent on IM&T capabilities as science becomes more data intensive and requires higher capacity processing and analytical tools.

The IM&T capability environment continues to change at a rapid rate and DSTO needs to be in a position to take advantage of the available opportunities and actively manage the threats.

Information and technology trends

Changes in service provisioning using new technologies and processes:

- Virtualisation, creating opportunities for rapid, secure deployment of environments to multiple devices;
- Multi-level security systems enabling provisioning from low to very high levels of security;
- Multi-core processing that is increasing computational capacity
- Improved capabilities for management and orchestration of environments, data storage and compute services across enterprises;
- A data explosion increasing capacity demand and complexity of data management across all areas of science; and
- Commoditisation of services.

Significant business trends

Changes in the way technology is used in business and communications:

- The growth of cloud computing enabling the centralised and/or external hosting of commodity services;
- Social networking and the changing nature of collaboration;
- Increasing use of mobile and Bring Your Own (BYO) devices;
- Widespread availability of electronic library materials and Internet information sources;
- A need to manage the growing number and sophistication of cyber security threats; and
- Fiscal constraint reinforcing the need for sharing of resources and cooperation with like and allied organisations.

Guidance from DSTO's Strategic Plan 2013-2018

The principal driver for the IM&T Strategic Plan is the DSTO Strategic Plan 2013-2018. IM&T needs to support the strategic themes and initiatives in that plan and focus on enabling the delivery of science to meet Defence's needs.

Within the DSTO Strategic Plan 2013-218, the *Organisation* theme calls for a valued organisation with a more collaborative and innovative culture with a more focused but highly capable, streamlined organisation. We will improve leadership and accountability, nurture the talent and diversity of our people, implement modern and innovative ICT systems and reduce administrative overheads. Through implementing best practice in our business enterprise, we will ensure that we have an efficient, effective and high-performing organisation.

More specific to the IM&T Strategic Plan is *strategic initiative 03 – Transformation of ICT to drive innovation and collaboration*. We will transform our ICT systems and implement modern and innovative technologies that enable improved productivity and promote collaboration and knowledge sharing. Corporate functions will be transitioned to the Defence Restricted Network. Separate research networks will be developed and maintained. We will improve our knowledge management culture and develop tools that allow staff members to share their knowledge as an enabler for innovation.

Strategic initiative 03 – key actions:

ICT transformation

- Develop an ICT strategy and operational plan in early 2013-14 to exploit leading-edge information technologies for supporting science and technology. Outcomes to include:
  - improved governance, architecting and management of DSTO information environment by 2013-14;
  - improved videoconferencing across all sites in DSTO by end of 2013-14;
  - improved access (including wireless) to unclassified and classified networks by end of 2013-14;
  - improved and expanded support for multiple ICT platforms by end of 2014-15;
  - improved corporate and science and technology collaboration tools by end of 2014-15
  - in cooperation with the Chief Information Officer Group, transition of corporate functions to the Defence Restricted Network by end of 2015-16; and,
  - initial provision of enterprise solutions for computer and storage services by end of 2015-16.

Invest in knowledge management and sharing

- Develop a knowledge management strategy to enable innovation through shared information resources, to be endorsed by end of 2014-15, to include:
  - provision of an enterprise managed data repository for scientific data by end of 2015-16; and,
  - improved knowledge sharing tools to be implemented by end of 2015-16.

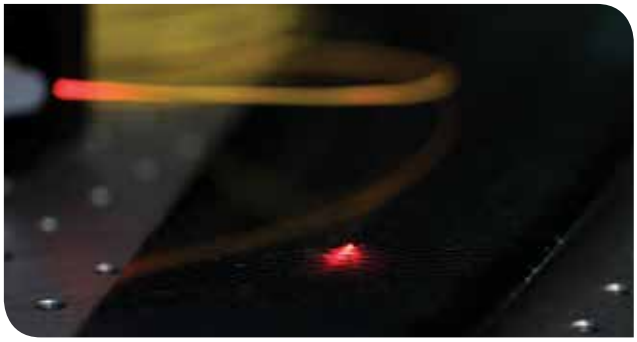
Strategic initiative 03 – success measures:

- Improved business efficiency and knowledge management;
- ICT and the knowledge management systems valued and appreciated by staff, as reflected through the results of the DSTO Insights Survey;
- Through benchmarking, DSTO recognized for having world-class ICT systems [and service delivery] that enable business efficiencies, science and technology advances and innovation acceptance; and,
- An up-to-date ICT infrastructure.

IM&T guiding principles

The following is a summary of key guiding principles for IM&T within DSTO. They provide guidance on the way IM&T needs to work and operate to achieve its objectives in a science focused and resource constrained environment.

1. **Supports S&T.** IM&T investment and service delivery are to support S&T collaboration, innovation and DSTO's strategic priorities.
2. **Enterprise.** IM&T services are to be delivered as enterprise-level services, unless specifically exempted for S&T requirements.
3. **Secure.** IM&T services are to balance security and flexibility while meeting S&T and minimum security requirements.
4. **Modern.** IM&T services are to be high quality and modern, with adoption of commercial version "n-1" or better wherever possible.
5. **Leading.** IM&T services will leverage leading commercial and Defence services, such as cloud and high performance computing, mobile platforms and wireless networks.
6. **Best-practice.** IM&T services will utilise commercial best-practice or Defence standards wherever possible.
7. **Aligned.** IM&T service delivery is to be aligned to enterprise directions, including shared services, unless specifically exempted for S&T requirements.
8. **Shared.** Data, information and knowledge are to be managed and leveraged for sharing and reuse.
9. **Reused.** Software/hardware reuse is preferred to software/hardware purchase, which is preferred to in-house development.
10. **Transparent.** IM&T funding, assets, services and staffing levels are to be transparent.
11. **Professional.** IM&T staff will be highly talented professionals supported with appropriate training and development as managers of IM&T for S&T.



First IM&T strategic theme – S&T client focus

Enable innovative and world class science, technology and research through close engagement with and support to our scientists.

Initiatives

1.1 Establish the Science Requirements Working Group to enable better coordination of scientific requirements

1.2 Review WebDIS functionality and solution, reinvesting to improve science tasking and management

1.3 Improve Business As Usual (BAU) IM&T performance reporting to be science focussed and to support agreed service levels

1.4 Develop cooperative arrangements and tools to provide transparency of IM&T funding, assets, services and staffing

1.5 Coordinate IM&T investment through the Portfolio Management Working Group to enable science prioritisation, oversight and integration into the budget cycle

Outcomes

- IM&T capabilities meet the science needs of the DSTO S&T community
- The DSTO S&T community understands IM&T utilisation and demand
- DSTO IM&T Steering Committee has full visibility of DSTO IM&T funding, assets, services and staffing
- IM&T investment decisions are optimized for the DSTO enterprise

Measurement

- DSTO satisfaction about IM&T capabilities in DSTO Insight Surveys
- Number of DSTO S&T programs delivered on schedule as a percentage of S&T programs
- DSTO IM&T Steering Committee visibility of IM&T funding, assets, services and staffing
- Net cost per unit of storage and compute services versus government and industry benchmarks

Second IM&T strategic theme – ICT transformation

Transform our ICT systems and implement modern and innovative technologies that enable improved research productivity and promote collaboration and knowledge sharing.

Initiatives

2.1 Improved videoconferencing across all sites in DSTO [and to Defence and allies] by end 2013-14*

2.2 Improved access (including wireless) to unclassified and classified networks by end of 2013-14*

2.3 Improved and expanded support for multiple ICT platforms by end of 2013-14*

2.4 Improved corporate and S&T collaboration tools by end of 2015-16*

2.5 Consolidate networks and data centres for initial provision of enterprise solutions for compute and storage services by end of 2015-16*

2.6 Initial provision of enterprise solutions for scientific software development environments by end of 2015-16

Outcomes

- DSTO S&T community has ubiquitous video connectivity to each other, to Defence customers and to allied partners
- DSTO S&T community has improved access to the Internet, to the required secure research networks wherever they work and secure data transfer mechanisms
- DSTO has a standardised set of ICT operating platforms at version n-1 or better, with appropriate patching and upgrade services
- Compute, storage and software development environments are provided through enterprise solutions provisioned to DSTO's S&T community on-demand

Measurement

- Percentage of DSTO S&T community with the video connectivity they require for collaboration with each other, Defence and allied partners
- Percentage of the DSTO S&T community with appropriate access to the Internet and relevant secure research networks
- The number of versions of operating systems within DSTO
- Satisfaction rates for provision of compute, storage and software development environments
- Through benchmarking, DSTO recognized for having world-class ICT systems that enable business efficiencies, science and technology advances and innovation

* This initiative is a key action under DSTO strategic initiative 03

Third IM&T strategic theme – knowledge management

Develop a knowledge management strategy and deliver relevant information and data management capabilities that enable innovation through sharing and reuse.

Initiatives

3.1 Develop a knowledge management strategy to enable innovation through shared information resources, to be endorsed by end 2014-15*

3.2 Transfer information holdings into the Defence *Objective* repository to improve information discovery and access

3.3 Digitise hard copy information holdings by end 2015

3.4 Provide an enterprise managed data repository for scientific (experimental/raw) data by end 2015-16*

3.5 Improved knowledge sharing tools to be implemented by end 2015-16*

Outcomes

- DSTO has a comprehensive and actionable knowledge management strategy
- Internal information holdings are in electronic form and easily searchable by and accessible to DSTO S&T community
- Scientific (experimental/raw)data is easily searchable by and accessible to the DSTO S&T community
- Knowledge sharing tools support the knowledge management strategy

Measurement

- DSTO IM&T Steering Committee agreement to and resourcing of the Knowledge Management Strategy
- Percentage of DSTO information holdings in digital form
- Percentage of scientific data holdings in the enterprise managed data repository
- Usage levels of knowledge management tools

* This initiative is a key action under DSTO strategic initiative 03

Fourth IM&T strategic theme – IM&T delivery

Build an IM&T organisation with governance, people and commercial capabilities that enable effective and efficient delivery of IM&T services for S&T.

Initiatives

4.1 Improved governance, architecting and management of the DSTO information environment by 2013-14*

4.2 Develop an enterprise architectural capability to support planning and delivery of scientific and research IM&T

4.3 Conduct a review and benchmarking of IM&T organisations and change where necessary to optimise IM&T delivery

4.4 Conduct an assessment of IM&T skills and develop an IM&T workforce plan to ensure access to the right skills over time

4.5 In cooperation with CIOG, transition corporate functions to the DRN by end of 2015-16*

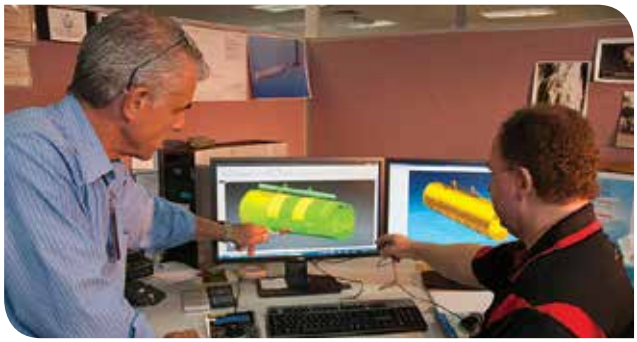
Outcomes

- IM&T has effective governance arrangements that ensure IM&T supports S&T research and development activities
- DSTO maintains relevant IM&T architectural views that can support design, planning and delivery of scientific and research IM&T
- DSTO IM&T capability enables efficient and effective delivery of IM&T services for S&T
- Corporate functions are hosted on the DRN and accessible to scientists on research networks

Measurement

- Extent to which governance bodies are satisfying their Terms of Reference
- Percentage of systems that are delivered under enterprise architectural designs
- Level of services delivered (under the Service Charter) versus staffing levels
- Percentage of corporate functions hosted on the DRN

* This initiative is a key action under DSTO strategic initiative 03



DSTO IM&T governance

DSTO IM&T Advisory Board → **DSTO IM&T Steering Committee**

Evaluate proposals
Direct plans
Monitor performance
Manage risks

DSTO IM&T Science Requirements User Group	DSTO IM&T Portfolio Management Working Group	DSTO IM&T Service Management Working Group	DSTO IM&T Knowledge and Information Management User Group
Client liaison	Programs	Enterprise design	KM strategy
Future needs	Projects	Technical design	Information mngt
Common reqts	Priorities	Standards & policies	Data mngt
Performance & reporting	Funding	Security policy	Info publishing
Innovation & improvement	Report progress	Incident & prob mngt	Web presence
		Config mngt	Research libraries
		Change mngt	Science comms
		Asset register	

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