



Australian Government

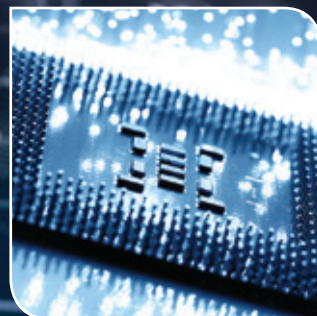
Department of Defence

Science and Technology

Information Management & Technology (IM&T)

Strategic Plan 2013-2018

2016 Update



DST
GROUP

Science and Technology for Safeguarding Australia

Introduction

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

The IM&T Strategic Plan has been developed to support the **DST Group Strategic Plan 2013-2018**. DST Group's **vision** is to be a world leader in defence science and technology – indispensable in supporting and transforming Australia's defence and national security. DST Group'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 O3 "Transformation of research 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;
- Plans and recommendations from the IM&T management teams at both corporate and divisional levels; and
- The 2016 Defence White Paper and Integrated Investment Plan

The IM&T Strategic Plan will be supported by the Future State Research Architecture and relevant technology roadmaps.

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 over the next four financial years.

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



|| Mission and vision for our IM&T

Mission

DST Group 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 DST Group.

Vision

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

This vision reflects strategic initiative O3 – Transformation of ICT to drive innovation and collaboration from the DST Group Strategic Plan 2013-2018.

Technology perspective

DST Group 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 DST Group's research networks.



External factors impacting our IM&T capabilities

DST Group, 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 DST Group 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 DST Group 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 DST Group Strategic Plan 2013-2018, 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 research ICT to drive innovation and collaboration*. We will transform our research ICT systems and implement modern and innovative technologies that enable improved productivity and promote collaboration and knowledge sharing. Non-research functions will be transitioned for delivery under Defence ICT shared services arrangements. 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 DST Group information environment by 2013-14;
 - improved videoconferencing across all sites in DST Group by end of 2013-14;
 - improved agility and access (including wireless) to unclassified and classified networks by end of 2013-14;
 - improved and expanded support for multiple ICT platforms by end of 2016-17;
 - improved corporate and science and technology collaboration tools, including social networking and connectivity with external partners, by end of 2016-17
 - in cooperation with the Chief Information Officer Group, development of a transition plan for non-research functions by the end of 2015-16; and,
 - initial provision of enterprise solutions for compute and storage services by end of 2016-17.

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 2016-17; and,
 - improved knowledge sharing tools to be implemented by end of 2015-16.

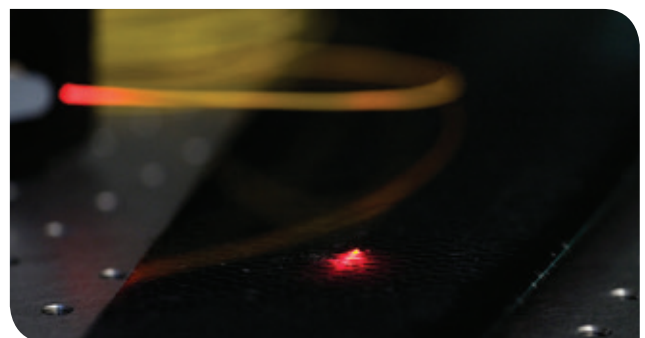
Strategic initiative 03 – success measures:

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

IM&T guiding principles

The following is a summary of key guiding principles for IM&T within DST Group. 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 DST Group'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 User Group (SRUG) 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
- 1.6 Actively manage and work to resolve the top ten ICT issues prioritised through closer engagement with researchers, the SRUG and the DLT

Outcomes

- IM&T capabilities meets the science needs of the DST Group S&T community
- The DST Group S&T community understand their IM&T utilisation and demand
- DST Group IM&T Steering Committee has full visibility of DST Group IM&T funding, assets, services and staffing
- IM&T investment decisions are optimized for the DST Group enterprise

Measurement

- DST Group satisfaction about IM&T capabilities in DST Group Insight Surveys
- DST Group IM&T Steering Committee visibility of IM&T funding, assets, services and staffing
- Benchmarking against similar national and TTCP research organisations



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 DST Group [and to Defence and allies] by end 2013-14*
- 2.2 Improved agility and 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 2016-17*
- 2.4 Improved corporate and S&T collaboration tools, including social networking and connectivity with external partners, by end of 2016-17*
- 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
- 2.7 Develop an implementation plan for secure supercomputing capabilities by end of 2016-17 for delivery of initial capability in 2017-18 **

Outcomes

- DST Group S&T community has ubiquitous video connectivity to each other, to Defence customers and to allied partners
- DST Group S&T community has improved access to the Internet, to the required secure research networks wherever they work and secure data transfer mechanisms
- DST Group will have 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 DST Group's S&T community on-demand

Measurement

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

* This initiative is a key action under DST Group strategic initiative O3, **See Para 2.38 of the 2016 Integrated Investment Plan



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 of 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 of 2016
- 3.4 Provide an enterprise managed data repository for scientific (experimental/raw) data by end 2016-17*
- 3.5 Improved knowledge sharing tools to be implemented by end 2015-16*
- 3.6 Transition the research library into a digitally enabled Research Information Service by end of 2016

Outcomes

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

Measurement

- DST Group IM&T Steering Committee agreement to and resourcing of the Knowledge Management Strategy
- Percentage of DST Group 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 DST Group strategic initiative O3



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 DST Group 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, develop a transition plan for non-research functions by the end of 2015-16*
- 4.6 Consolidate research divisions ICT systems and services
- 4.7 Rationalise stand-alone research networks
- 4.8 Introduce IT Asset Management across all ICT networks and assets

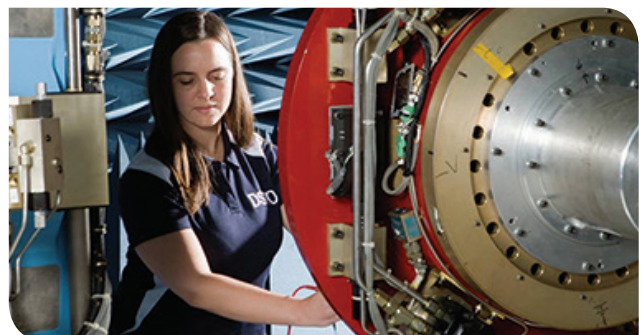
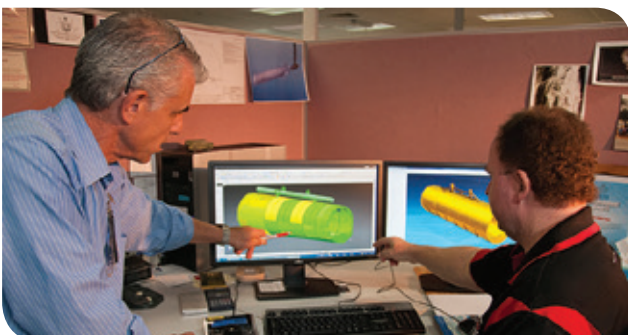
Outcomes

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

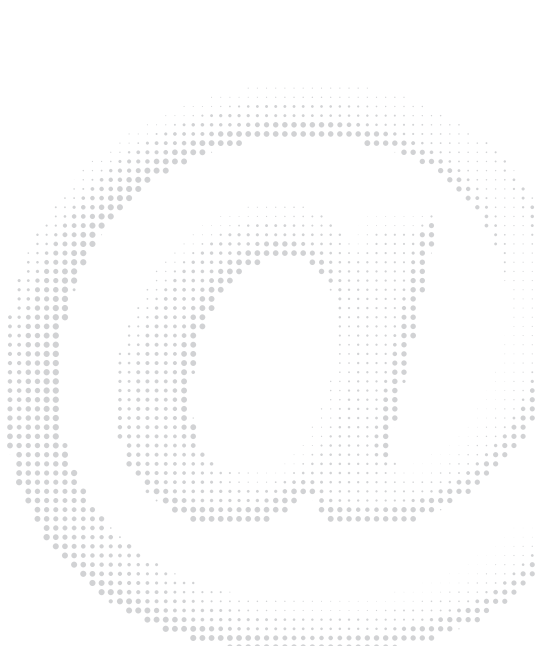
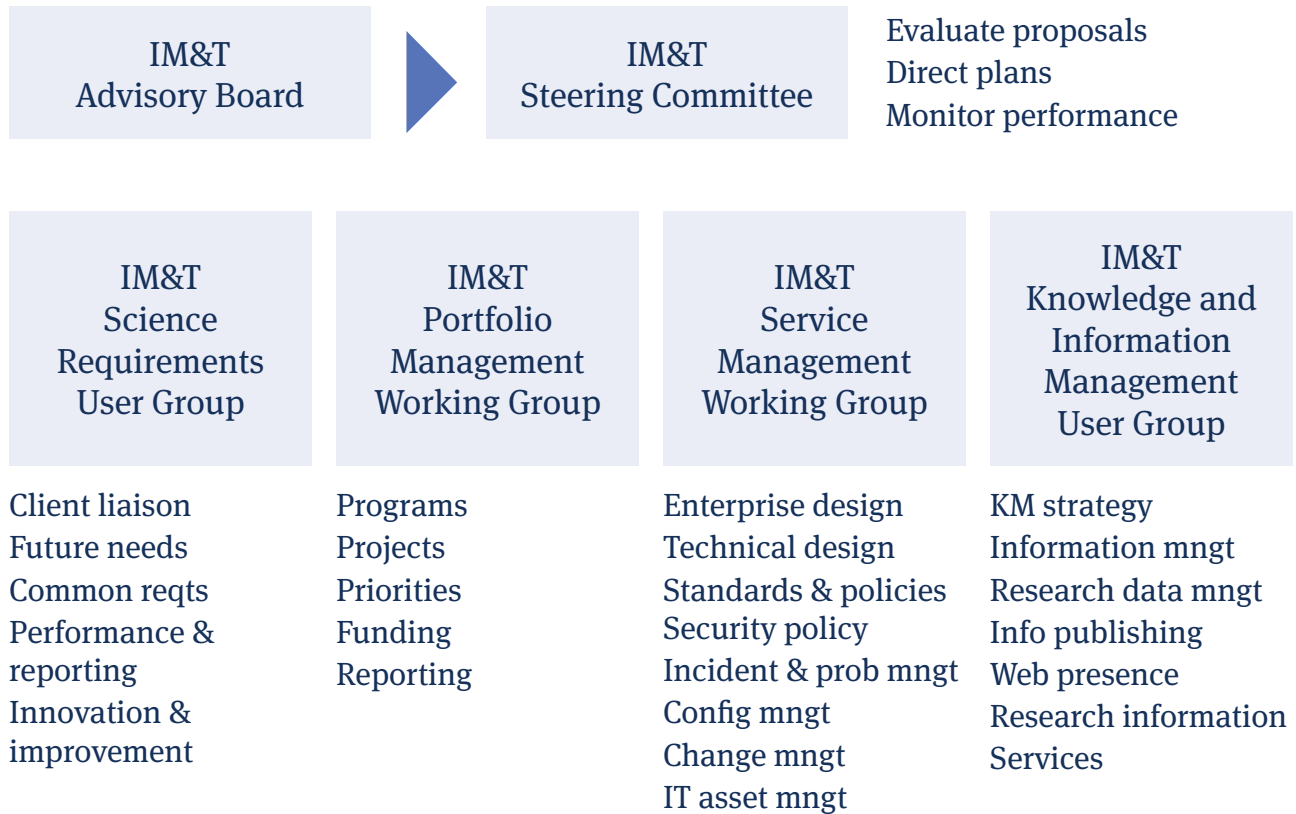
Measurement

- 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 non-research functions hosted on Defence networks

* This initiative is a key action under DST Group strategic initiative 03



DST Group IM&T governance



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