TREASURER'S DIRECTIONS
INFORMATION AND COMMUNICATIONS TECHNOLOGY
Section ICT1.1: Governance – Overview

STATEMENT OF INTENT

Strong governance is recognised as a key requirement for effective control and sound management of ICT resources across government.

MAIN FEATURES

Section 38 of the *Financial Management Act* requires every Accountable Officer and every employee of an agency to comply with the Treasurer's Directions.

ICT Governance

ICT governance is the system by which the current and future use of ICT is directed and controlled. ICT governance involves evaluating, directing and monitoring the use of ICT resources to support government achieving planned outcomes.

NT Government ICT Environment

The NT Government operates a comprehensive and integrated ICT environment comprising three technology layers: end-user computing, business applications and infrastructure.

ICT Governance Framework

The *NT Government ICT Governance Framework* provides the foundation for the effective management of ICT across government. The framework ensures ICT is aligned with government's strategic direction; consistent and appropriate standards are applied across government; major ICT investments are tested; and major ICT projects are monitored through to solution delivery.

All-of-Government Governance Model

The NT Government has a cohesive model of robust governance committees to support and advise decision-makers, with clear roles, responsibilities and reporting established to effectively apply the *ICT Governance Framework*.

ICT Governance Board

The ICT Governance Board is the peak ICT governance body and reviews major agency ICT investment proposals, oversights major ICT projects and monitors all-of-government ICT services.

For authoritative instruction and guidance reference should be made to related Treasurer's Directions and associated commentary.

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AUTHORITIES

Financial Management Act (NT)

NTG ICT Governance Framework

Administrative Arrangements Order (NT)

ABBREVIATIONS

ICT	Information and Communications Technology
IGB	ICT Governance Board
ILG	ICT Leadership Group
NT	Northern Territory
NTG	Northern Territory Government

INTRODUCTION

ICT is a core requirement for government service delivery. All agencies are dependent on properly functioning ICT to operate effectively. ICT represents a major area of government spending and project investment and accounts for significant government assets, both hardware and software.

Effective governance of ICT is essential to ensure resources are applied and used appropriately, investment is managed, risks are assessed, benefits are realised and assets are safeguarded.

The *NT Government ICT Governance Framework* (available at NTG Central) provides the foundation for the effective management of ICT across government.

The Framework ensures ICT is aligned with government's strategic direction; consistent and appropriate standards are applied across government; major ICT investments are tested; and major ICT projects are monitored through to solution delivery.

The ICT Series of Treasurer's Directions codifies and supports the *NT Government ICT Governance Framework*; and specifies key internal controls and agency accountabilities for the appropriate use of government ICT resources.

This series of Treasurer's Directions applies to all ICT decision-makers in agencies, agency executives, ICT staff and program and project managers.

DEFINITIONS

(i) **ICT** – Information and Communications Technology refers to the software applications, computer hardware and networks used to create and deliver computerised, electronic information systems and services.[1]

(ii) **ICT Governance** – the system by which the current and future use of IT is directed and controlled. Corporate governance of IT involves evaluating and directing the use of IT to support the organisation and monitoring this use to achieve plans. It includes the strategy and policies for using IT within an organisation.[2]

(iii) **ICT Governance Board** – the ICT Governance Board is the peak ICT governance body for the NTG. The IGB reviews agency major ICT investment proposals, oversights major ICT projects and monitors all-of-government ICT controls.

(iv) **ICT Governance Model** – a cohesive structure of robust governance committees that support decision-makers through clear roles, responsibilities and reporting lines with representation of key senior stakeholders.

(v) **ICT Policy** – an ICT policy specifies the NT Government's position on an ICT function or element. The ICT policy sets out the high level rules to ensure the ICT function or element satisfies legislative obligations; safeguards ICT assets; accords with the NT Government ICT environment; and aligns with relevant industry practices.

(vi) **ICT Project** – an ICT project is a temporary structure that is created for the purpose of delivering one or more business products according to an agreed business case.[3]

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[1] Chaffey D and Wood S, *Business Information Management* (1st ed, 2005)
[2] Standards Australia, *Corporate Governance of Information and Communication Technology*, AS/NZS ISO/IEC 38500:2010
[3] *Managing Successful Projects with PRINCE2* 2009, Office of Government Commerce, United Kingdom

(vii) **ICT Standard** – an ICT standard sets the minimum or baseline requirements and parameters for applying an ICT policy; identifies and defines technical requirements; and assists agencies to implement the policy in practice.

(viii) **NTG ICT Environment** – the NTG ICT environment comprises all ICT elements within the enterprise operating environment for government that enable the effective management and use of ICT within and across all agencies. The NTG ICT environment covers end-to-end ICT services from end-user computing services and business applications to ICT infrastructure.

(ix) **Stage Gate Review** – a stage gate review is a formal, comprehensive and independent review that assesses the performance and viability of an ICT project and determines whether the project can proceed to the next stage. Stage gate reviews examine ICT projects at key decision points to check that the ICT project is on track and will deliver the expected results on budget within the timeframes set.

(x) **System Roadmap** – a system roadmap considers and documents the lifecycle of major ICT systems, presenting known issues and forecasting future requirements to inform the ongoing use of the system and identify key lifecycle milestones. The system roadmap will guide future ICT investment planning and enable a considered approach to both the ICT and business needs of agencies, aligned to strategic goals.

NT GOVERNMENT ICT ENVIRONMENT

ICT1.1.1 | **The NT Government operates a comprehensive and integrated ICT environment.**

(i) The ICT environment comprises three fundamental technology layers:

a. End User Computing - The layer that employees use every day to do their jobs and deliver services. It includes: desktop computers; laptops and mobile devices; telephone services; file and print services, email messaging and smart phones. These are highly commodity-based services, delivered through contracts with outsourced providers. A central service centre supports this layer addressing users' computing issues and coordinating with all service providers to resolve issues promptly.

b. Business Applications - This layer is the most complex, diverse and disparate component of government's ICT arrangements as it covers a broad range of ICT systems and services managed across all NTG agencies to deliver each agency's services (that is, systems/applications that support the business of each agency). There are over one thousand business systems in use across government spanning from older legacy systems through to contemporary online systems, delivered via a wide variety of technology platforms, software, hardware and systems architecture. Almost all of government's many services delivered to the community are supported by one or more business system.

c. Infrastructure – This layer provides the 'back-end' computing capacity required to run all of the NT Government's ICT services across the ICT environment. The infrastructure layer is comprised in the main of physical computing devices (such as servers, switches and mainframe processors). Independent external benchmarking is undertaken periodically to test the efficiency of this layer and drive targeted improvement and reform programs.

(ii) Comprehensive and fully integrated telecommunications networks and security controls link the end user computing layer, through business applications to the infrastructure layer. Common enterprise solutions and standard approaches are used across government (such as central identity management and central corporate systems) to deliver efficiencies, consistent services and economies of scale benefits to agencies. The networks, controls and enterprise solutions enable the government's ICT environment to operate in a cohesive, seamless and cost-effective manner.

(iii) The NT Government's ICT environment is depicted at Appendix A.

ICT GOVERNANCE FRAMEWORK

ICT1.1.2 | **The *NT Government ICT Governance Framework* specifies the internal controls required to effectively manage ICT resources within agencies and across the NT Government ICT environment.**

(i) The *NT Government ICT Governance Framework* ensures ICT is aligned with government's strategic direction; consistent and appropriate standards are applied across government; major ICT investments are tested; and major ICT projects are monitored through to solution delivery.

(ii) The Framework outlines roles and responsibilities at an all of government level and within agencies and establishes a principles-based approach to ICT governance, to enable sound decision-making and value for money outcomes. The governance principles are specified at Treasurer's Directions ICT1.3.

ICT1.1.3 | **Each agency must comply with the *NT Government ICT Governance Framework.***

(i) Agencies are to observe the requirements and controls specified in these Treasurer's Directions and the *NT Government ICT Governance Framework* and to incorporate relevant provisions within their internal processes and procedures.

(ii) In particular agencies should ensure that an appropriate and effective agency ICT governance model is established that is suited to the agency's needs. Treasurer's Directions ICT1.3 refers.

(iii) The key ICT role for most agencies is operating ICT business applications/systems to support their core service delivery. In this regard, developing ICT proposals and managing ICT projects to implement enhanced or new/replacement business systems are the primary tasks. The *NT Government ICT Governance Framework* sets out the controls required to gain approval of ICT investment proposals and to manage ICT projects.

(iv) The accountability of agency Accountable Officers for managing agency ICT projects and ICT resources is a core element of the *NT Government ICT Governance Framework.* Agency Accountable Officers will need to ensure that their agency's usage of ICT resources complies with legislation, is appropriate and can withstand scrutiny.

ALL-OF-GOVERNMENT ICT GOVERNANCE MODEL

ICT1.1.4 | **The NT Government has a cohesive governance committee model supporting decision-makers to apply the *NT Government ICT Governance Framework*.**

(i) The Minister for Corporate and Information Services has responsibility for ICT policy and governance under the Administrative Arrangements Order.

(ii)   All-of-government ICT governance is directed through the governance committees reflected in the governance model at Appendix B. Terms of Reference are set for all committees prescribing roles, responsibilities, reporting lines and membership requirements focused on broad agency representation of senior positions.

(iii)   Comprehensive and robust governance structures provide the capacity to review, test and challenge proposals in order to support and guide decisions. Decision-makers, such as Cabinet, the portfolio Minister or an agency Accountable Officer, will have reliable analysis and tested advice from the governance committees to enable an informed decision.

ICT GOVERNANCE BOARD

ICT1.1.5   **The ICT Governance Board ensures that appropriate ICT governance measures are in effect, reviews agency major ICT investment proposals and oversights agency major ICT projects.**

(i)   The IGB is the peak ICT governance body for the NT Government with clear roles, responsibilities and authority specified in its Terms of Reference.

(ii)   The IGB primarily focuses on strategic directions, management of risk, the soundness of agency ICT investment proposals and the performance of agency ICT projects.

(iii)   The IGB monitors and assesses high risk, high value, high impact agency ICT projects and provides advice to agencies to assist with their ICT project, solution or service.

(iv)   Agencies must provide the IGB with details of major ICT proposals, planned projects and active projects. Reporting frequency will be determined by the IGB having regard to the particular circumstances of each initiative. Treasurer's Directions ICT1.4.7 and ICT2.1.4 refer.

(v)   The IGB will not generally be involved in the steady-state operation of agency ICT environments unless assistance or advice is sought or significant issues emerge. Any such consideration of steady-state issues will be undertaken in close consultation with the relevant agency or agencies.

(vi)   The IGB may request information and metrics on the steady-state operation of elements of the NTG's ICT environment where this is needed for a governance purpose.

ICT1.1.6   **The Minister for Corporate and Information Services appoints the ICT Governance Board chair and members.**

(i)   The IGB comprises senior executive representatives from the Departments of Corporate and Information Services, Treasury and Finance and Chief Minister as standing members; along with at least three senior executive representatives from agencies appointed for two year terms (able to be re-appointed).

ICT1.1.7   **The ICT Governance Board must report to the Minister of Corporate and Information Services and Cabinet at least once a year.**

(i)   The IGB reports to the Minister for Corporate and Information Services and is required to keep the Minister informed of its activities. The IGB must deliver a formal report to the Minister for Corporate and Information Services and Cabinet, at least once each year.

(ii)   The IGB may report to the Minister on a more regular basis on specific ICT issues or projects, if and when required.

NTG ICT Environment

	Technology Components	Agency Role	Delivery Model	DCIS AoG Role	Governance and Accountability	
End User Computing	• Desktop computers and laptops • Telephone services • Email messaging • Smart phones and mobile devices • File and print services	User	• Hardware assets sourced from contracted suppliers • Technical support by contracted suppliers • Network management by contracted suppliers • Data and calls sourced from contracted suppliers	Owner	• Contractual management accountability with DCIS • DCIS Chief Executive accountable for procurement and expenditure • Audit by Auditor-General • Oversight by ICT Governance Board • Monitoring by agency ICT governance committees	**Legislative Authority** *Financial Management Act / Procurement Act*
Business Systems	• Systems to record and process transactions and report agency business activity. E.g.: - vehicle registrations and licensing - police and justice systems - hospital systems, land info systems • Corporate business systems to service government: - accounting - payroll - records management • Over 1,000 business systems in agencies across NTG	Owner (agency systems)	• Generally procured from software vendors under licensing agreement • Systems licensed or owned by agencies • System support arrangements provided by vendors or third party contracted providers occasionally supplemented with internal resources • Central NTG identity management	Owner (corporate systems)	• Agency Chief Executives accountable for business systems in their agency • "Business System Owners" within agencies control operations • Investment decisions made by agency Chief Executives with funding sought through Budget Cabinet where required • Oversight of investment decisions and project delivery by ICT Governance Board for major projects • Audits by Auditor-General and agency internal audits	
ICT Infrastructure	• System hosting and administration • Mainframe computing and virtual servers • Online data back-ups and Storage • NTG network LAN/WAN • Network security • Identity and access management (ePass)	User	• Centrally controlled and managed infrastructure • NTG private cloud • Contracted suppliers managing NTG network • Technical computing support via contracted suppliers and specialists	Owner	• DCIS Chief Executive accountable for AoG infrastructure • Oversight and review by ICT Governance Board • ICT procurement overseen by DCIS Procurement Governance Committee • Audit by Auditor-General and contracts audits	

Appendix B

Ministerial ICT Advisory Council — Minister for Corporate and Information Services

DCIS

ICT Governance Board

ICT Leadership Group

ICT Reference Groups (Location Intelligence Group, CIO Forum, etc.)

Agencies