



Database Management Systems

Confidentiality: Public
Prepared By:
Version:
Date: 10 July 2007

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Date Approved:

Document Control

Document Location

Q:\General Share Drive\Web updates\post to new site\Technology\revised\CTO_S6.5.1_Database_Management_Systems.doc

Electronic Records Management Information

File Folder Number: OCIO08/0xxx – Document Number: 08OCIOxxxxx

Author(s)

Function / Role

Author

Role

Revision by

Version

Date

Initial draft and consultation

Distributed to

Version

Date

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CTO/S6.5.1 TECHNOLOGY - DATABASE MANAGEMENT SYSTEMS (DBMS) - GENERAL PURPOSE

Government Standard on Information & Communication Technology

CTO/S6.5.1 Technology - Database Management Systems (DBMS) - General Purpose

Security Classification: Public Version: V2.4 Status: Approved

Audience:	SA Government Agencies	Compliance:	Mandatory
Mandate/Authority:	Cabinet	Creator:	Government ICT Services
Authorisation Date:	24 February 2003	Primary Contact:	Strategy & Operations
Last updated:	10 July 2007		Government ICT Services Division
Expiry Date:	December 2008		Department for Transport, Energy and Infrastructure
Publication Date:	26 July 2007		Tel: 8226 3558

Coverage:

The South Australian public authorities required to adhere to this Standard are defined in CTO/P1.1 Government Policy on Information & Communication Technology – Governance – Compliant Authorities.

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This page was last modified 10 July 2007

1. BACKGROUND

1.1 History

This document replaces v2.3.1 of this standard published June 2003.

1.2 Intent/Purpose

The intent of this document is to provide definition of the current and emerging Database Management System standards that are appropriate for use within the SA Government.

1.3 Rationale & Background

1. Standardisation of database management systems across government has been adopted to facilitate economies of scale, support the transfer and exchange of data across government enterprises, reduce selection costs, and permit leverage of industry development.
2. Standardisation on the ORACLE product suite was agreed through the IT Standards Committee (a joint South Australian government/EDS committee) in December 1996.
3. Changes to the market for general-purpose database management system products prompted a policy review in 2002. Independent IT analysts identified Oracle, IBM's DB2 and Microsoft's SQL Server as market leaders across all market sectors.
4. The adoption of Oracle, IBM's DB2 and Microsoft's SQL Server as the standard database management systems for use within Government was approved by Cabinet on 24 February 2003.

2. SCOPE

This standard contains software technologies which provide database and database management functionality for non-personal databases (i.e. those used by more than one person).

2.1 Scope Exclusions

Personal databases (i.e. those used by one person), for example contact lists, are excluded from this standard.

2.2 Architectural Association

"Database Management Systems" are a *Technology Area* in the *Sub-Domain* "Data Technology" of the *Technology Domain* in the SA Government architecture model.

3. DEFINITIONS

Each technology area in Appendix A has been classified according to one of the following categories. Technologies listed in the EMERGING and CORE classifications represent the STANDARD.

- **Emerging:** Technologies and products that have the potential to become core sometime in the future. They should be used only in pilot or test environments, under very controlled restrictions.
- **Core:** Current technologies and products that meet the requirements of the architecture. These are the technologies and products that should be used in new development projects.
- **Heritage:** Existing non-current technologies and products that will continue to serve a substantial role in the architecture for a given timeframe. Systems utilising these technologies and products could be termed legacy systems. While not meeting new and future development directions, they remain essential to the existing business systems.
- **Sunset:** Technologies and products that are currently in use, but no longer have vendor support or are unviable within the Architecture. Their use should be actively phased out.

4. STANDARD DETAILS

Refer Appendix A

5. IMPLEMENTATION

1. Chief Information Officers are responsible for ensuring the compliance of their organisations with this policy [1].
2. Procurement of non-standard DBMS products are subject to the exception-notice process defined in the ICT Policy Framework [2].
3. Compliant authorities are referred to the list of contracted suppliers at <http://in.cto.sa.gov.au/ContractManagement/currentcontracts/> when considering DBMS procurement [3].
4. This standard does not enforce the conversion of existing systems. However where conversion is aligned with business objectives, it is encouraged.
5. Development tools, reporting tools, database monitoring tools and gateway products are not part of the standard although some may be recommended related products.

6. REFERENCES & LINKS

1. CTO/P1.1 Government Policy on Information and Communication Technology - Governance – Compliant Authorities
2. CTO/P1.2 Government Policy on Information and Communication Technology - Governance - Exemptions
3. CTO/P2.1 Government Policy on Information and Communication Technology – Sourcing – Information Technology Infrastructure Services

7. APPENDIX A – STANDARD DEFINITION

Data Technology	Contains technologies for managing information and data such as warehouses, database environments, storage, query and transport protocols. Deals with the transactional nature, decision-making requirements and geographic component inherent in all information.
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Database Management Systems	Description	
	Software for storing and accessing data independent of any applications that create or use that data.	
	Classification	Technology Component
	Emerging	
	Core	Oracle, Microsoft SQL Server, IBM DB2
Heritage	CA Datacom/IDMS, Object Star, Zope - DB, VSAM, MySQL, ADABAS, Datacom DBMS, IDMS-DB, Sybase, Ingres, PostgreSQL	
Sunset	Microsoft Access, Borland Interbase, IBM Imformix, Basis, PICK	