

*Client Logo*

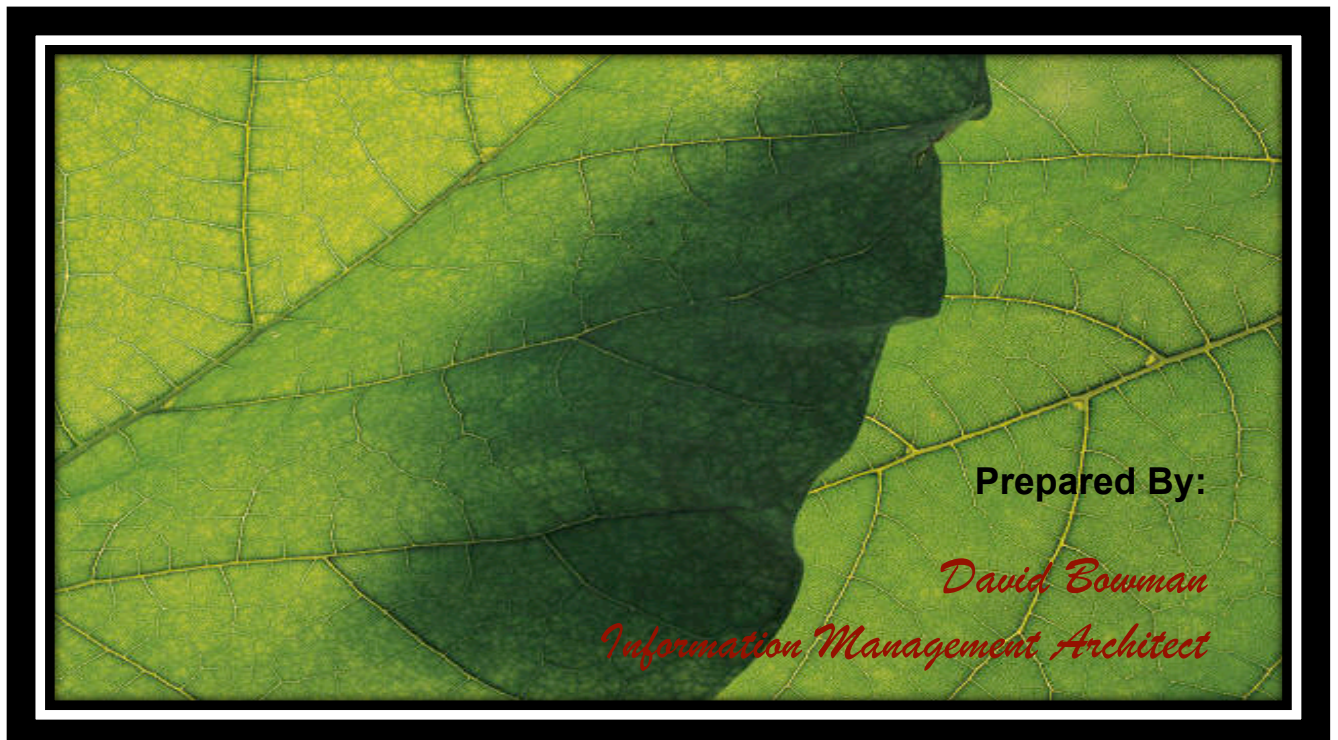
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<Client Name>  
Database Management  
Standard

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Version 0.1

<Date>



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## Revision History

Version	Date	Description	Author

## Objective

This database management standard establishes the requirements necessary for appropriate and consistent administration and management of production and non-production databases to preserve the integrity, availability and recoverability of data as the data is used, updated and modified.

## Application

This policy is applicable to all production and non-production databases

## Definitions

Term	Definition
Database Administration	Implementing, monitoring and coordinating the standards necessary to administer, store and access data.
Database Management System (DBMS)	Program enabling the creation and maintenance of a database.
Management Information System (MIS)	A process that provides the information necessary to manage an organization effectively. The MIS and the information it generates are generally considered essential components of prudent and reasonable business decisions.
Metadata	<p>Data describing or specifying other data or defining and organizing characteristics that need to be known about data, including (but not limited to) information about physical data representations, technical and business processes, rules and constraints, and data structures.</p> <p>Metadata is an asset of the organization. Explicit metadata is stored in software and other media. Implicit metadata is known by personnel, but is undocumented and shall be captured and documented.</p> <p>Metadata is also known as “data-about-data.”</p>

Term	Definition
Non-Production Database	A database that supports business and IT activities including, but not limited to, databases utilized in the supporting processes to test new development and enhancements (Test), to perform quality assurance validation (Quality Assurance) and to develop new solutions or enhancements to existing solutions (Development).
Production Database	Production databases directly support execution of business and IT activities and reside in appropriately secured and controlled production environments.
Referential Integrity	A database concept that ensures that relationships between table rows remain valid. For example, the customer numbers in ORDER table rows must all refer to valid customer numbers in the CUSTOMER table's row.

## Standard

Appropriate documentation shall be developed and maintained by the business areas for all processes and procedures that execute to this Standard.

Database owners are accountable for establishing, approving and maintaining documented processes and procedures in support of this standard. This documentation will be subject to the appropriate senior management review and approval.

Approved tools, in accordance with applicable standards and procedures, shall be used when designing, building, maintaining and storing data and are listed in the current version of the information management technology standards list.

All production databases shall be stored under the management of database management software as listed in the current version of the information management technology standards

## Database Selection

- As with all information technology tools, database management systems (DBMS) shall be selected from the information management technology standards. The selected RDBMS technology is a key systems architecture decision and shall be clearly documented in each system's Technical Architecture document
- Once the platform has been selected from the information management technology standards, all production and non-production databases must adhere to the technical requirements

## Data and Database Ownership

The appropriate business executive supported by the database shall assign a database owner and database guardian all databases. These assignments shall be documented, published and maintained.

- All data within a production database shall be assigned a data guardian and data steward as defined in the in the information management metadata standard;
- All databases used to support or execute business processes; production and non-production databases for the organization shall be registered to and assigned an application database administrator and a production support database administrator;
- Database administrators (DBA's) shall be responsible for creating, maintaining, upgrading and restoring all production and non-production databases;
- DBA's shall be responsible for creating, maintaining, upgrading and restoring their respective databases;
- Database owners shall maintain and approve the inventory of all of the databases for which they are accountable that support or execute business production processes. This inventory will be maintained within the configuration management database (CMDB) and shall include the assigned database administrators, database owners and database guardians.

## Database Objects

- Objects (tables, indexes, views, etc.) created in a production database shall be named in compliance with IM-STD-XXX Structure & Design Standard
- Names, definitions and other metadata for objects created in a production database shall be submitted to the appropriate metadata repository following approved procedures

## Database Security

- All production, QA and test databases shall be compliant with IM-POL-XXX—Data Access Policy;
- Developers shall have no access to production data;
- Access to production data shall comply with requirements defined in IM-POL-XXX—Data Access Policy

## Data Archiving, Purging and Retention

- Archiving and purging data within a production database shall comply with approved requirements;
- The data purge and/or archive processes shall be included as part of all production database implementations;
- Data purging shall be performed using approved and controlled batch processes; and
- Data retention processes shall comply with the procedures identified in approved requirements.

## Data Usage

- All data shall be used only for business purposes;
- Production data containing any personal information shall not be propagated to non-production databases;
- Data classified as confidential/proprietary shall be unavailable in non-production databases; however, data classified as such may reside in Quality Assurance and Operational Readiness Testing environments if compliance with IM-POL-XXX—Data Access Policy
- Data contained in non-production tables or databases shall not be used in the production environment or processes;
- User-owned data and data within user-owned tables shall not be used in the production processes unless implemented in processes which are compliant with Production Access Control Standards

## Data Exception Handling

- Production databases shall have automated mechanisms to ensure referential integrity;
- All data errors and data exceptions shall be documented, analyzed and evaluated for the purpose of detecting database or data quality issues;
- Data exception handling shall be capable of generating metrics that can be monitored by operators to provide insight into the current health and status of data within production databases;
- Data movement processes shall comply with the procedures identified in the STD--XXX Data Movement Standard.

## Accountabilities

Role	Accountability
Chief Information Officer (CIO)	Accountable to the CEO for establishing the appropriate strategies, plans, processes, tools, and organizational constructs that ensure overall compliance with this Policy.
Data Guardian	Accountable to the CIO for: <ul style="list-style-type: none"> <li>• Defining controls for access to data and appropriate classification of data</li> <li>• Implementing appropriate information protection controls and procedures to mitigate risks to the information assets</li> <li>• Monitoring security, access, and use of data</li> </ul>
Data Steward	Accountable to the Data Guardian for: <ul style="list-style-type: none"> <li>• Managing data within a business area and assuming responsibilities regarding data requirements</li> <li>• Communicating the business value, scope, standards and services of the organization's data within the context of their area</li> <li>• Monitoring data quality and forming the first-line response to data quality issues</li> </ul>
Database Owner	Accountable to the CIO for ensuring that proper controls and governance are established and implemented to preserve the integrity of the database
Data Base Administrator	Accountable to the Data Architect for: <ul style="list-style-type: none"> <li>• Implementation, monitoring and coordination of the procedures necessary to administer, store, index and access the database</li> <li>• Database application-tuning, production support, project-level database capacity planning and database security requirements</li> </ul>
Production Support DBA	Accountable to the Data Base Owner for: <ul style="list-style-type: none"> <li>• implementing, monitoring, and coordinating the procedures necessary to proactively monitor and support production databases;</li> <li>• Providing on-call support for production systems;</li> <li>• Execution of database backup and recovery and database disaster recovery; and</li> <li>• Capacity planning for routine database growth related to account growth.</li> </ul>

## Review Cycle

This policy shall be reviewed annually

## Effective Date

This policy is effective <Date>