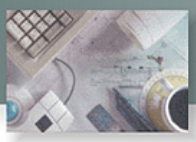

Discipline

DEFINITION	
Name	Knowledge Management
Description	Knowledge Management is about systematically extracting information and knowledge from an organization's data holdings and solving business problems. It is the combination of critical information and collective database design that enables an organization to make a decision, create a solution, share an asset, allocate a resource, or change direction. This function must be supported by a foundation of good data and database management. Knowledge Management is defined by the roles, standards, and decision-making criteria in place for the acquisition and deployment of the components that perform the systematic process of finding, selecting, organizing, sharing, and distilling information. The goal is to provide internal and external users easy access to information. Additionally, Knowledge Management defines the components that provide capabilities to store demographic metrics of the users; what they want, how they want it, and when they want it.
Rationale	Knowledge Management encompasses the technology that makes data, information, and knowledge visible and accessible to others. It determines processes and protocols for systematically making use of the information within and across agencies. The rationale for pursuing the development of this discipline includes: • Extracting and combining data from multiple agencies without changing the originating systems or developing new systems. • Reducing the burden on programmers to generate reports and data queries. • Reducing the demand on mission critical operational systems. • Creating user-friendly centralized locations for information. • Providing the public with integrated, direct access to government information. • Allowing for the retention or migration of data from retired systems. • Separating transaction-processing systems from huge ad hoc queries that are required by analytical, execute decision systems. • Defining and disseminating information on the owner of data to ensure accuracy, security and privacy. • Sharing of data will minimize the collection of redundant data that will need cleansing and storage. • Reducing the volume of data to a manageable level through aggregation. • Providing consistent data between systems and agencies. • Allowing access to cleansed data. • Simplifying operational processes of consolidating data from disparate systems. • Avoiding re-keying data from one system to another.
Benefits	The importance of Knowledge Management to the citizenry will grow as integrated project activities increase within the state. Potential benefits of developing the Knowledge Management discipline include: • Enhancing and accelerating business decision-making that requires information beyond the traditional borders of a system or agency. • Expanding knowledge of information existence so that its value can be

	recognized and utilized. • Providing a cross-system or cross-agency view of data. • Providing access to data not found in transaction systems such as summary data and historical data. • Facilitating enhanced citizen access and providing more timely answers to business questions by the public. • Defining and disseminating information to ensure accuracy, security and privacy. • Sharing of data will minimize the collection of redundant data. • Reducing the dependence on Information Technology for reporting.
BOUNDARY	
Boundary Limit Statement	The Knowledge Management Discipline covers all technologies, best practices, and standards pertaining to the development of the knowledge technical infrastructure, its data, information, processes, and metadata. In addition, functions of extraction, transformation, and loading are elements of this discipline. Data warehousing and data marts with the concurrent development of data mining as well as Information Life Cycle Management are included. Technologies for document management, data cleansing, and the collection of business intelligence are within the scope of this discipline. For all of these elements the associated products and their compliances are covered. Known overlap areas with other Domains include the protocols and processes for electronic messaging that will be addressed in concert with the Interoperability Domain. Another area is in the development of an information classification schema, process, and protocol for the data, information, and other knowledge assets to ensure the proper disbursement of Missouri's information within the state but also to the public. This will be pursued with the Security Domain. Knowledge Management as a topical area also includes aspects of the Business Architecture that will not be covered within this Technical Architecture.
ASSOCIATED ARCHITECTURE LEVEL	
List the Domain Name	Information
CRITICAL REFERENCES	
Related Domains/Disciplines	

☐ *Interface – Branding*	☒ *Interoperability – Data Exchange*	☒ *Systems Mgt – Business Continuity*
☒ *Interface – Access*	☒ *Interoperability – Application Interoperability*	☐ *Security – Managerial Controls*
☐ *Interface – Accessibility*	☒ *Application – Application Engineering*	☒ *Security – Technical Controls*
☒ *Information – Knowledge Mgt*	☐ *Application – Electronic Collaboration*	☐ *Security – Operational Controls*
☒ *Information – Data Mgt*	☐ *Systems Mgt – Asset Mgt*	☐ *Privacy – Profiling*
☒ *Information- GIT*	☒ *Systems Mgt – Change Mgt*	☐ *Privacy – Personification*
☐ *Infrastructure - Network*	☐ *Systems Mgt – Console/Event Mgt*	☒ *Privacy – Privacy*
☒ *Infrastructure - Platform*	☐ *Systems Mgt – Help Desk/Problem Mgt*	

Standards Organizations/Government Bodies	
List Standards Organizations	Standards exist for programming languages, operating systems, data formats, communications protocols, and user interfaces. Most official computing standards

	are set by one of the following organizations: • ANSI (American National Standards Institute) www.ansi.org • IEEE (Institute of Electrical and Electronic Engineers) www.ieee.org • ISO (International Standards Organization) www.iso.ch • W3C (World Wide Web Consortium) www.w3.org • OGC (Open GIS Consortium) www.opengis.org • NIST (National Institute of Standards & Technology) www.nist.gov
List Government Bodies	
Stakeholders/Roles	
List Stakeholders	
List Roles	
Discipline-specific Technology Trends	
List Discipline-specific Technology Trends	• Increased technology and vendor convergence on ETL and application integration suites. • Architectural principles, and the designs and technologies used to implement them form the foundation of business intelligence initiatives. • Development of virtual data federation technologies. • Data 'firewalls' are being employed to mitigate data quality issues in the data warehouse. • Increased importance of scalability of business intelligence tools and solutions. • Increased exploitation of web services. • Increased focus and effort on data integration issues. • Increased focus on issues of data security, ownership, and quality. • Development of real-time enterprise solutions will necessitate the development of business activity monitoring (BAM) to reduce the latency of the business intelligence delivery. • Information democracy, corporate performance management, and BAM are driving Business Intelligence adoption.
Technology Trend Source	Bill Inmon web site www.billinmon.com Gartner group web site www3.gartner.com DM Review www.dmreview.com Ralph Kimball web site www.ralphkimball.com Creative Data www.creativedata.com/research/dwsites.html
ASSOCIATED COMPLIANCE COMPONENTS	
List Discipline-level Compliance Components	
METHODOLOGIES	
List methodologies followed.	
DISCIPLINE DOCUMENTATION REQUIREMENTS	
Provide documentation requirements for this Discipline.	**Interface – Access** Decisions regarding the use and implementation of electronic transactions, business intelligence, and the delivery of information from data marts and warehouses as well as DBMS in general. **Infrastructure – Platform**

	Decisions regarding storage hardware, its operating software, and systems will affect the designs and implementation options for DBMS and data warehouses. **Interoperability – Data Exchange** Decisions involving the adoption or creation of exchange standards and protocols will affect the design and implementation of DBMS and the data marts and warehouses built to support the business applications. **Interoperability – Application Interoperability-Middleware** The DBMS, ETL, data mining, business intelligence, and other tools and utilities will be affected by the interfaces chosen to support interoperability goals. **Application – Application Engineering** The DBMS and the business intelligence systems must support the functionality required by the application engineering environment. **System Management – Change Management** The change management processes must include and support the arenas of change such as DBMS, warehouses, business intelligence, etc. to effectively manage these IT assets. **System Management – Business Continuity** The processes and procedures required by the business intelligence mission must be supported by the business continuity plans and protocols. **Security – Technical Controls** As security requirements evolve the knowledge management architecture deployed must support those requirements, policies and processes. **Privacy – Privacy** As privacy requirements change the knowledge management architecture must support those requirements, policies and processes.
ASSOCIATED TECHNOLOGY AREAS	
List the Technology Areas associated with this Discipline.	• Metadata • Extract, Transform and Load • Data Warehouse / Mart • Document Management • Data Mining • Information Classification (with Security) • Business Intelligence (demographics) • Electronic Messaging (with Interoperability) • Information Life Cycle Management • Data Cleansing

CURRENT STATUS				
Provide the Current Status	☐ *In Development*	☐ *Under Review*	☒ *Approved*	☐ *Rejected*

AUDIT TRAIL			
Creation Date	5-3-2004	*Date Approved/Rejected*	5-11-04
Reason for Rejection			
Last Date Reviewed		*Last Date Updated*	
Reason for Update			