



Domain

DEFINITION

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| <i>Name</i> | Information |
| <i>Description</i> | The Information Domain defines the roles, technologies, standards, and policies necessary to acquire, manage, design, classify, analyze, present and integrate the state's information assets to support business processes and decision making. The Information Domain focuses on data and knowledge management, the dynamic and geospatial components of data, and its inherent information content. |
| <i>Rationale</i> | Organize, integrate, manage and leverage the information assets of the state of Missouri |
| <i>Benefits</i> | <ul style="list-style-type: none"> ❖ Promotes standardization, integration, interoperability, and integrity of information ❖ Facilitates increased efficiency and effectiveness ❖ Improves accessibility to and promotes discoverability of data ❖ Enhances analysis for decision support |

BOUNDARY

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| <i>Boundary Limit Statement</i> | <p>The Information Domain is concerned with the dissemination of information to allow individuals/agencies to make informed decisions about specific events. As such, the domain encompasses the tools, processes, and standards that facilitate this decision making process. The scope of the Information Domain includes all activities ranging from start-up (or concept definition that typically includes a needs assessment) through delivery of "information" needed by a product or service. The Information Domain covers technologies and standards pertaining to the following:</p> <ul style="list-style-type: none"> ❖ Metadata ❖ Data Management ❖ Data Access, Mining, Extraction and Delivery ❖ Data Design, Storage and Indexing ❖ Database Management Systems ❖ Data Integration into Business Systems ❖ Data Acquisition ❖ Data Interoperability ❖ Imaging and Document Management ❖ Imagery (Remote Sensing) ❖ Mapping (Includes Geographic Information Systems (GIS), Computer Assisted Design (CAD), Global Positioning Systems (GPS), Internet Mapping Services (IMS), Surveying, & Cartography) ❖ National Spatial Data Infrastructure (NSDI) Development ❖ Data Administration <p>For example, the domain includes the development of standards for data archival criteria (e.g., retention periods, recovery Service Level Agreements) but does not include the media or software required to facilitate the actual archival process. The remainder of the scope for this domain will be further defined when the remaining disciplines are fleshed out.</p> |
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ASSOCIATED DISCIPLINES

List Disciplines under this Domain.

- ❖ Knowledge Management
- ❖ Data Management
- ❖ Geographic Information Technology (GIT)

PRINCIPLES

Related Enterprise Principles

| Principle | Conflict | Relationship |
|---|--------------------------|---|
| <i>GP1 – IT is an Enterprise-wide resource.</i> | <input type="checkbox"/> | Information, integration & integrity |
| <i>GP2 – IT systems and Enterprise Architecture will support the State's long-term business, strategies, and plans.</i> | <input type="checkbox"/> | Information standardization catalyzes and supports the E-government initiatives. |
| <i>GP3 – Enterprise Architecture represents a target IT environment.</i> | <input type="checkbox"/> | |
| <i>GP4 – All State Info Systems will comply with the Enterprise Architecture.</i> | <input type="checkbox"/> | Increase consistency, sharing and access to data |
| <i>GP5 – Enterprise Architecture is adaptive and must evolve to accommodate changes in business and technology.</i> | <input type="checkbox"/> | Capture and utilize growing knowledge environment; leverage expanding geospatial technologies |
| <i>GP6 – The CIO and ITAB will provide leadership to the State on the use of technologies to encourage business innovations.</i> | <input type="checkbox"/> | |
| <i>MP1 – Accountability will be established for all IT assets.</i> | <input type="checkbox"/> | Information stewardship responsibilities |
| <i>MP2 – State agencies will implement an organizational structure that supports architecture.</i> | <input type="checkbox"/> | |
| <i>TP1 – Agencies will develop and implement technology solutions based upon industry standards in compliance with the Enterprise Architecture.</i> | <input type="checkbox"/> | Standards development and adoption |
| <i>TP2 – State agencies will actively seek opportunities to share and re-use IT assets.</i> | <input type="checkbox"/> | Discoverability and availability |
| <i>TP3 – The State will use a standard set of proven technologies.</i> | <input type="checkbox"/> | Interoperability |
| <i>ADP1 – A business process analysis and review must always accompany automation efforts.</i> | <input type="checkbox"/> | |
| <i>ADP2 – The order of preference for a solution should be based on reusable components.</i> | <input type="checkbox"/> | |
| <i>ADP3 – Applications programs will be architected with separation of presentation logic, business logic, and data access.</i> | <input type="checkbox"/> | |
| <i>ADP4 – New applications will use defined and documented standards-based programming interfaces.</i> | <input type="checkbox"/> | |
| <i>UI1 – User interfaces will be consistent, intuitive and support multiple access delivery channels.</i> | <input type="checkbox"/> | Web mapping and cartography |
| <i>SP1 – The integrity, confidentiality and security of state systems and data will be protected.</i> | <input type="checkbox"/> | |
| <i>SMP1 – Technology selection will consider the ability to support centralized systems management of all Technology Components.</i> | <input type="checkbox"/> | Information classification and data access |
| <i>DMP1 – Data is an enterprise-wide resource.</i> | <input type="checkbox"/> | Warehousing and data marts |
| <i>DMP2 – The State will promote the use of electronic data capture and encourage the use of electronic service delivery.</i> | <input type="checkbox"/> | Information capture, delivery and access; standardization |
| <i>DMP3- The State will make timely, accurate and complete data available to our stakeholders.</i> | <input type="checkbox"/> | Discoverability and availability |

BEST PRACTICES

Related Best Practices

| Best Practice | Conflict | Relationship |
|---|--------------------------|---|
| <i>BP1 - Enterprise architecture must be an in-sourced effort..</i> | <input type="checkbox"/> | |
| <i>BP2 - The developer's roles must be partitioned to facilitate layered application development..</i> | <input type="checkbox"/> | Application development depends on data management and structure. |
| <i>BP3 – IT resources should be focused on the agency's mission.</i> | <input type="checkbox"/> | |
| <i>BP4 – Application systems must be "significantly layered" and "loosely coupled".</i> | <input type="checkbox"/> | |
| <i>BP5 – Applications systems should be designed using an n-tier model.</i> | <input type="checkbox"/> | |
| <i>BP6 – Data Warehouse technologies should be leveraged to accelerate decision-making and reduce the development burden.</i> | <input type="checkbox"/> | Data warehousing and design facilitates these procedures. |
| <i>BP7 – As end users become more knowledgeable about how to analyze and access information, the interfaces across separate logical boundaries must be message-based and extend to all stakeholders to include citizens, employees and vendors.</i> | <input type="checkbox"/> | |
| <i>BP8 – We must implement an enterprise wide backbone network that provides a "single network image" as if it were a virtual, enterprise wide LAN.</i> | <input type="checkbox"/> | All data will be accessible via the backbone. |
| <i>BP9 - Application systems should be event-driven.</i> | <input type="checkbox"/> | Events impact the data and data structures. |
| <i>BP10 - Databases should have a high degree of physical partitioning.</i> | <input type="checkbox"/> | Database management and design will address issues of physical data architecture. |
| <i>BP11 – On-line transaction processing (OLTP) should be separated from Data Warehouse and other end-user computing.</i> | <input type="checkbox"/> | Data management policies will provide practical solutions. |
| <i>BP12- A comprehensive "information architecture" that encompasses the entire "work architecture" – process models, "events", transaction data, state descriptions and so fourth – should evolve.</i> | <input type="checkbox"/> | Database design will address these issues. |
| <i>BP13 – Data redundancy will be documented and managed effectively.</i> | <input type="checkbox"/> | Data administration will ensure compliance. |
| <i>BP14 – Metadata should be documented in such a way as to allow an authorized user to make use of the data in end-user query and decision-support tools.</i> | <input type="checkbox"/> | Data access, availability and usage will ensure compliance. |
| <i>BP15 – The state will use a standard set of proven technologies; the proliferation of technologies will be avoided.</i> | <input type="checkbox"/> | |
| <i>BP16 – Technology selection will consider, in addition to functionality, the ability to support systems management disciplines that are oriented toward centralized management of all Technology Components.</i> | <input type="checkbox"/> | |
| <i>BP17 – New applications will be modular and independent (autonomous) in nature. They will access common data, use common services and have only inherently essential dependence on other applications (e.g. for provision of up-to-date data).</i> | <input type="checkbox"/> | |
| <i>BP18 – Logical boundaries must be established between the partitions, applications or database and the logical boundaries must not be violated..</i> | <input type="checkbox"/> | Data and information to support the business processes |

TECHNOLOGY TRENDS

Related Technology Trends

| Technology Trends | Conflict | Relationship |
|---|--------------------------|--|
| <i>TT1 – A severe shortage of qualified IT professionals is resulting in stiff market competition.</i> | <input type="checkbox"/> | |
| <i>TT2 – The performance of computer hardware will continue to grow exponentially, while costs continue to decline dramatically (Moore's Law.)</i> | <input type="checkbox"/> | Continued performance improvements will trigger the vitality process. |
| <i>TT3 – Networking performance and capacity continue to increase rapidly.</i> | <input type="checkbox"/> | Increased network performance is required to accommodate database goals. |
| <i>TT4 – The increasing failure of traditional software development methods is producing fundamentally new techniques for the execution of IT projects.</i> | <input type="checkbox"/> | |
| <i>TT5 – The Internet will drive the technical standards for network computing.</i> | <input type="checkbox"/> | |
| <i>TT6 – Microsoft and Intel will continue to strongly influence business computing.</i> | <input type="checkbox"/> | |
| <i>TT7 – Organizations are moving towards the total digitization of all forms of corporate data and the creation of enterprise-wide data warehouses.</i> | <input type="checkbox"/> | Creation and availability of data and information assets |
| <i>TT8 – "Intelligence"- oriented technologies are becoming increasingly available from commercial vendors.</i> | <input type="checkbox"/> | Leverage and integrate as appropriate |
| <i>TT9 – Enterprises are using new technologies to reduce administration costs and establish a unified system management approach for corporate computing.</i> | <input type="checkbox"/> | |
| <i>TT10 – Unified management and governed evolution of the Enterprise Architecture will become dominant best practice even where asset ownership is federated. Federated architectures will focus on supporting common business infrastructure initiatives across semi-autonomous business units.</i> | <input type="checkbox"/> | |

STATE CONTRACTS

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| <i>Planned Contracts</i> | |
| <i>Existing Contracts</i> | <ul style="list-style-type: none"> ESRI: GIS Mainframe / Midrange Software & Maintenance C202051001 Oracle Corp: Oracle Unix and NT Database Software and Maintenance C700313001 Word-Tech Business Systems: Imaging Software and Maintenance C900553001 Trimble Navigation: Survey C900771001 Trimble Navigation: Mapping C900771002 |

CURRENT STATUS

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|-----------------------------------|--|
| <i>Provide the Current Status</i> | <input type="checkbox"/> <i>In Development</i> <input type="checkbox"/> <i>Under Review</i> <input checked="" type="checkbox"/> <i>Approved</i> <input type="checkbox"/> <i>Rejected</i> |
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AUDIT TRAIL

| | | | |
|-----------------------------|------------|-------------------------------|------------|
| <i>Creation Date</i> | 05/21/2003 | <i>Date Approved/Rejected</i> | 07/18/2003 |
| <i>Reason for Rejection</i> | | | |
| <i>Last Date Reviewed</i> | | <i>Last Date Updated</i> | |

Reason for Update

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