



Domain

DEFINITION

<i>Name</i>	Interoperability Domain
<i>Description</i>	<p>Interoperability is defined as the ability to transfer and use information in a uniform and efficient manner across branches of government, agencies and disparate information technology systems. Interoperability is fundamental to the benefits gained by the State of Missouri enterprise, other government entities, and the wider economy through the sharing of data.</p> <p>The Interoperability Domain defines the recommendations, policies, standards, and technologies that allow software systems to freely interact within the enterprise. Interoperability Architecture defines the techniques that disparate business systems use to seamlessly communicate and transfer data.</p>
<i>Rationale</i>	<p>Interoperability is concerned with the "dialog" within or between Missouri agencies and external entities including other states, the Federal government, the private sector and public sector. When these entities communicate with each other, they must do so in a commonly understood language.</p>
<i>Benefits</i>	<ul style="list-style-type: none">• Improve communications and better enable information sharing between state of Missouri agencies and entities outside Missouri state government.• Improved efficiencies in the development of information sharing projects.• Saves time and resources by having established procedures readily available for data exchange (eliminates uncertainty in data formats and exchange mechanisms).• Provides enhanced communications of services and information to the public through better inter-agency communications.

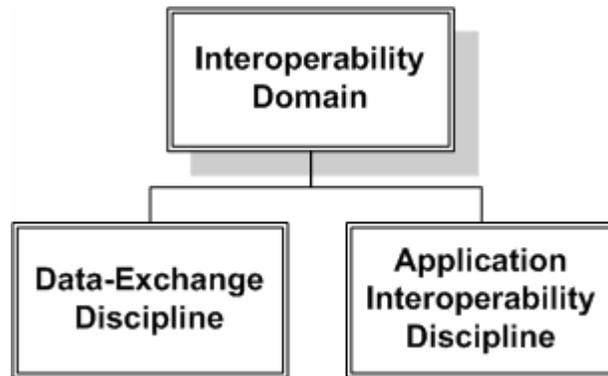
BOUNDARY

Defines those technologies, standards and products related to providing a common interface that allows inter-agency communications between disparate environments. Interoperability is not data consolidation or data warehousing.

Functional Integration is not considered part of this domain as it should be explored and defined through the development of the State of Missouri Enterprise Business Architecture.

The following diagram illustrates the Disciplines associated with the Interoperability and establishes the high-level boundary:

Boundary Limit Statement



ASSOCIATED DISCIPLINES

List Disciplines under this Domain.

Data Exchange Discipline;
Application Interoperability Discipline;

PRINCIPLES

Related Enterprise Principles

Principle	Conflict	Relationship
<i>GP1 – IT is an Enterprise-wide resource.</i>	<input type="checkbox"/>	
<i>GP2 – IT systems and Enterprise Architecture will support the State's long-term business, strategies, and plans.</i>	<input type="checkbox"/>	
<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"/>	
<i>GP5 – Enterprise Architecture is adaptive and must evolve to accommodate changes in business and technology.</i>	<input type="checkbox"/>	
<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"/>	
<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"/>	

<i>TP2 – State agencies will actively seek opportunities to share and re-use IT assets.</i>	<input type="checkbox"/>	
<i>TP3 – The State will use a standard set of proven technologies.</i>	<input type="checkbox"/>	
<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"/>	
<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"/>	
<i>DMP1 – Data is an enterprise-wide resource.</i>	<input type="checkbox"/>	
<i>DMP2 – The State will promote the use of electronic data capture and encourage the use of electronic service delivery.</i>	<input type="checkbox"/>	
<i>DMP3 – The State will make timely, accurate, and complete data available to our stakeholders.</i>	<input type="checkbox"/>	

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"/>	
<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"/>	
<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 – The State 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"/>	
<i>BP9 – Application systems should be event-driven.</i>	<input type="checkbox"/>	
<i>BP10 – Databases should have a high degree of physical partitioning.</i>	<input type="checkbox"/>	
<i>BP11 – On-line transaction processing (OLTP) should be separated from Data Warehouse and other end-user computing.</i>	<input type="checkbox"/>	

<i>BP12 -- A comprehensive "information architecture" that encompasses the entire "work architecture" (e.g., process models, "events", transaction data, state descriptions) should evolve.</i>	<input type="checkbox"/>	
<i>BP13 – Data redundancy will be documented and managed effectively.</i>	<input type="checkbox"/>	
<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"/>	
<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"/>	

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"/>	
<i>TT3 – Networking performance and capacity continue to increase rapidly.</i>	<input type="checkbox"/>	
<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"/>	
<i>TT8 – "Intelligence-oriented" technologies are becoming increasingly available from commercial vendors.</i>	<input type="checkbox"/>	
<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 a 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

Planned Contracts

Existing Contracts

CURRENT STATUS

Provide the Current Status

In Development *Under Review* *Approved* *Rejected*

AUDIT TRAIL

Creation Date

11/5/2003

Date Approved/Rejected

4/13/04

Reason for Rejection

Last Date Reviewed

Last Date Updated

Reason for Update