

GIS Software Standardization Rationale Summary

IRMD is proceeding with the development of an Enterprise Architecture Framework that can be described as a methodology for developing the State's IT support functions. Ideally, when agencies establish their infrastructures using common enterprise architecture, making systems work together will be simpler because each agency would have addressed the items that are crucial to interoperability of systems developed for specific business needs.

Enterprise architecture is critical because it provides the blueprint for the integration of information and services at the design level across agency boundaries. Enterprise architecture is the blueprint for allowing data to flow from agency to agency, just as water flows through the pipes and electricity flows through the wiring of a well planned home.

Reasons for Establishing a Single GIS Software Standard for the Enterprise

- (1) Purchasing power
- (2) Architectural simplicity/interoperability
- (3) Enterprise coordination efforts (GIS as part of shared services model)

Implications for the Enterprise Without a Single GIS Software Standard

- (1) Higher costs
 - a. Software acquisition and maintenance costs higher
 - b. Sharing professional expertise within/between governmental agencies difficult
 - c. Training costs higher for both formal and informal training
 - i. Leveraging State purchasing power for formal training less effective
 - ii. Leveraging professional expertise for informal training less effective
 - d. Metrics for portfolio management more difficult and costly
- (2) Greater complexity
 - a. Pooled software licensing unavailable
 - b. Network connectivity messy
 - i. Regular data translations (data currency/consistency issues)
 - ii. Drive mapping becomes very important (data storage/archiving issues)
 - c. Desktop GIS support focused on individual workstations, as opposed to groups (Efficient use of limited IT staff)
- (3) Enterprise difficulties increase
 - a. Cybersecurity (similar standardization environment and issues; vulnerability management; inappropriate disclosure of confidential information)
 - b. Vertical coordination efforts
 - i. Regional (multi-county groups and multi-State groups)
 - ii. Local
 - iii. Federal
 - c. Horizontal coordination efforts
 - i. Natural resource agencies
 - ii. Social service agencies
 - iii. Economic development agencies
 - iv. Public safety agencies

