

# **Information Communications Technology (ICT) Innovations**

## *The Utah State Geographic Information Database*

### **Executive Summary**

In the late 1970's the state of Utah commissioned a study to develop recommendations for a centralized database management system. An interagency committee was formed to determine the statistical and geographic data needs for each state agency. The assessment emphasized the need for a geographic database for resource management, planning, and interagency coordination. The Automated Geographic Reference Center (AGRC) was created by statute, and was tasked with creation and maintenance of the State Geographic Information Database (SGID). The database is a clearinghouse for geospatial data within the State of Utah.

#### **A. Concise description of the business problem and solution, including length of time in operation.**

**Problem:** During the early 1980's each agency or government entity with a need for data would create their own. Some data layers were not produced due to the high costs involved. There were, and still are, many complex resource management and growth issues that require a spatial component to be adequately addressed. The data would usually reside with an agency and may or may not be shared with others. This quickly produced a situation where many silos of expertise and duplicate data existed. AGRC needed to promote a solution in which data could be freely accessed and shared across many organizations.

**Solution:** The SGID was created to provide this centralized clearinghouse for data. The state of Utah also adopted Environmental Systems Research Institute (ESRI) suite of software products as the state standard for Geographic Information Systems (GIS). Now that common software was in place it provided a way for many users to access one central clearinghouse for Utah data. AGRC also needed a Memorandum of Understanding with federal agencies in order to gain access to the vast data store of geospatial data in the federal government. In 2004 AGRC signed a data sharing agreement with 14 federal agencies. Any data created at the federal level in Utah is available for use by any state agency or political subdivision.

#### **B. Significance to the improvement of the operation of government.**

With the advent of the SGID, AGRC is able to involve each state agency in the data creation or sharing activities, and to also involve the federal agencies

in Utah. Now the data and the delivery system for it are centralized it becomes easier to remove the silos of data that have built up over the years. Data can be inventoried and scheduled for regular updates. AGRC has realized an increase in users since the inception of the SGID. On average 60+ users connect each day through an ArcGIS client. Approximately 100GB per week are downloaded from the static File Transfer Protocol (FTP) site.

**C. C. Benefits realized by service recipients, taxpayers, agency or state.**

The service recipients now have a central database that they can access for their geospatial data needs. This data can also be utilized in applications to allow users to perform complex spatial queries. Users can also edit their agency's data, allowing the data to remain current and in a central location. There is no duplication of licenses, expertise, or personnel. The data is harvested by federal clearinghouses, making it available to a wide range of users.

**D. Realized return on investment, short-term/long-term payback (include summary calculations).**

The state of Utah invests approximately \$25,000 in hardware/software on this enterprise solution every 3-5 years. There is also a yearly maintenance cost of approximately \$2000. By centralizing the database and allowing each agency access to edit or view their data as well as shared data, the State of Utah is saving about \$35,000 in hardware/software costs per agency every 3 years. There is no need for each agency to implement a separate system to house redundant data.