

**Multi-State Demonstration Project for Preservation of State Government Digital Information**  
Project Proposal and Brief Work Plan, October 15, 2007

<b>TITLE:</b>	Multi-State Geospatial Content Transfer and Archival Demonstration and Learning Project					
<b>LEAD AGENCY:</b>	NC Center for Geographic Information & Analysis (State Government Entity) With NC State Division of Archives, and support from NCSU Libraries					
<b>KEY PARTNERS:</b>	Kentucky Department for Libraries and Archives Kentucky Division of Geographic Information Utah Division of Archives Utah Automated Geographic Reference Center					
<b>REQUEST AMOUNT:</b>	\$500,000	<b>PERFORMANCE PERIOD:</b> 1/1/2008 – 12/31/2009				
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**GENERAL PLAN**

On behalf of a multi-state partnership, the North Carolina Center for Geographic Information & Analysis and the North Carolina State Archives propose to co-lead a project to demonstrate, learn, and report on a) state-to-state transfer of geospatial content using spatial data infrastructure, b) replication of content, and c) strategies to enable long term access and preservation of geospatial content. The project will seek to identify core requirements and existing capacity of partners using a 'business continuity' theme as an enabling purpose for the demonstration. Replication and movement of content between states are of interest to the Library of Congress because a robust state-to-state content exchange network can serve as a point of access to non-federal content, and therefore help meet the nation's requirements for preservation of at-risk geospatial data. The project will further serve digital preservation interests through the assessment of digital archives and collaborators. The project is of interest to State geospatial coordination offices because the practice of moving content in an organized way across jurisdictional boundaries furthers state interests in national spatial data infrastructure, which supports many business processes requiring access to geospatial content. Project activity will include structured facilitation, collaboration among the geospatial and archival community, network building and outreach to other state partners and stakeholder associations. A core committee of partners and stakeholders will guide the work and provide valuable feedback on action plans. Project reporting will support the Library of Congress' mandate to report to Congress in 2010 on the status and needs for digital information preservation.

### **DESCRIPTION OF “BORN DIGITAL” CONTENT TO BE PRESERVED**

The proposed project will address replication and preservation of state and local agency digital geospatial data through a demonstration project involving States. “Digital geospatial data” consists of information that identifies the location and characteristics of natural or constructed features and boundaries on the earth. Examples include aerial imagery, transportation, property boundaries and ownership, rivers and streams, jurisdictional boundaries, land cover, elevation, building locations, voting districts, fire districts, hospitals, schools, emergency response assets, water/sewer lines, and telecommunications.

State and local agencies routinely create geospatial data to meet business requirements, such as tax assessment, transportation planning, hazard analysis, health planning, political redistricting, homeland security, and utilities management. These data resources generally are of greater detail, more accurate, and more current than data available from federal agencies. Since production points for these resources are so diffuse, they currently are not addressed in preservation efforts at the federal level.

Geospatial data is susceptible to either temporary or permanent loss as a result of the distributed nature of its production and maintenance. This content exchange demonstration will provide the basis for the exploration of digital archives for sustaining access to content and preservation purposes. Through the collaboration established in the project, archive and geospatial data specialists will work to establish best practices for the transfer of geospatial content and archival materials.

### **SCOPE OF WORK**

A detailed scope will result as an initial activity in the project. Suggested tasks to be explored and executed (resources permitting) follow:

- content development and aggregation of geospatial inventory among partners;
- inventory of existing geospatial inventory systems and clearinghouse tools;
- inventory of existing IT capacity among partners for purposes of demonstration;
- inventory of agency practices for archiving content within each State;
- development and/or use of content tracking, transfer, and ingest tools (clearinghouse);
- inventory of existing practices for distributed editing and integration options (that enhance a federated approach);
- participation in facilitated project planning sessions and outreach activities;
- demonstration of content transfer using spatial data infrastructure at State GIS offices and exploration of access points for archival in each State and at Library of Congress;
- discuss the potential implementation of distributed storage methodology for archival stewardship;
- formulation of a best practices for archiving of geospatial content guidelines and development of a program document for the stewardship of geospatial content.

Additional tasks with emphasis on archival and preservation implementation include:

- inventory of retention policies among partners;
- identification of archivally valuable geospatial content;
- inventory of capacity among partners;
- identification of geospatial content to be targeted for the demonstration phase of the project;
- evaluation of existing metadata content and practices;
- evaluation of RAMONA tool for archival needs;
- identification of standards or best practices for long term storage of digital geospatial data;
- development of a business case for archiving geospatial content;
- proposed strategic framework for future full implementation.

Suggested phases for the project follow.

**PRIMARY PHASES OF WORK**

<b>Phase</b>	<b>Description</b>	<b>Deliverable</b>
<b>I</b>	Project Kick-off, disciplinary exchange, detailed scoping (Month 1-3)	Concrete action plan and identification of roles and responsibilities
<b>II</b>	Business case development for sustaining access to content and archival (Month 2-12)	Working document to assist states to seek permanent funding from State Legislatures
<b>III</b>	Inventory available content and capacity of state partners, inventory or identify existing best practices in partner and other States (Month 3-5)	Identification of current resources, and best practices, Report
<b>IV</b>	Assess requirements, recommend/adopt/develop demonstration tool, recommend desired “at-risk” content for transfer, archival, and access points, and determine actions for demo (Month 4-10)	Identification and procurement of needed resources, Report
<b>V</b>	Demonstration of content transfer and point of access for archival scenarios, including Library of Congress point of access. Work in phase I-IV will determine the approach and location points for content replication and access. A distributed approach is envisioned (Month 10-18)	Transfer content, demonstrate access, repeat, and assess outcomes, Report
<b>VI</b>	Observation and documentation of best practices (Month 10-18)	Develop template of best practices
<b>VII</b>	Outreach and engagement will include passive and active engagement of specific organizations and broader network of states (Month 1-24)	Expanded geo-archival collaboration network
<b>VIII</b>	Project Management and Contract Administration (Month 1-24)	Effective execution of project budget, schedule, and delivery of services

**SUBAWARDS**

North Carolina Center for Geographic Information & Analysis (NCCGIA), as primary awardee responsible for contract administration and project management, will further distribute available funds to partner organizations: North Carolina State Archives; North Carolina State University Libraries; Kentucky Department for Libraries and Archives; Kentucky Division of Geographic Information; Utah Division of Archives; and Utah Automated Geographic Reference Center. NCCGIA will use an appropriate contract instrument (ex: service contract, grant contract) to support participation by the aforementioned organizations. If for some reason, one of the organizations is unable to participate under contract terms or otherwise, NCCGIA will seek an alternate organization(s) for the project. Subaward amounts are estimated on average to be \$75,000 – 80,000 per State, to be commensurate with the agreed scope of services. NCSU Libraries will receive a subaward amount estimated at \$30,000, which includes indirect fees assessed by the University at the public sector rate.

**STATE OUTREACH AND NETWORK BUILDING ACTIVITIES**

The following States will be invited to observe and participate in the documentation of business case scenarios and in development of a template for business planning, among other potential activities: Ohio, Tennessee, Florida, West Virginia, Virginia, Pennsylvania, Maine, and potentially others.

**ASSOCIATION OUTREACH AND NETWORK BUILDING ACTIVITIES**

National associations will be invited to participate in various phases of the project, especially in outreach activities. Key representatives from following associations have indicated an interest in the project.

- National States Geographic Information Council, [www.nsgic.org](http://www.nsgic.org);
- National Association of State Chief Information Officers [www.nascio.org](http://www.nascio.org);
- National Association of Government Archives and Records Administrators, [www.nagara.org](http://www.nagara.org)

## **INSTITUTIONAL CAPACITIES OF LEAD AND PARTNER INSTITUTIONS**

**State GIS Agencies** lead the development of spatial data infrastructure (SDI), including coordination, creation, maintenance, and distribution of statewide databases of geographic information.

**The North Carolina Center for Geographic Information & Analysis (CGIA)** is the state government agency in North Carolina responsible for (1) providing geographic information and services statewide, (2) implementing NC OneMap, a plan to sustain content and seamless access to geospatial data produced by the statewide community, and (3) serving as lead agency for statewide coordination. CGIA has completed over 500 projects with government and non-government organizations and is experienced in management of projects large and small. CGIA will fulfill the following roles in the project: project management, contract administration; facilitation of partners and core committee; capacity and requirement study; planning; tool development; testing; reporting; and outreach. CGIA is a participant of the National Digital Information Infrastructure Preservation Partnership, since 2004.

The **Kentucky** Division of Geographic Information (DGI) is the State's lead agency charged with coordinating all levels of geospatial data. DGI created the Kentucky Geography Network (KYGEONET) which serves as the data clearinghouse. It is available to the public, FGDC compliant, and pushes metadata to the Geospatial One-Stop. The data on the KYGEONET is updated and representative of current information. Kentucky has two primary internet map sites (IMS), *The Commonwealth Map* and the *Kentucky Event Mapping Analysis Portal (KEMAP)*. *The Commonwealth Map* contains 28 layers. KEMAP is an enhancement of the same information, is password protected, and contains 148 layers. **Utah's** Automated Geographic Reference Center (AGRC) has the statutory responsibility to create and manage the State Geographic Information Database (SGID) which is a shared enterprise solution for acquisition, integration, documentation, maintenance, and distribution of state and local digital geospatial data for the state. AGRC will participate through this project to identify and implement practices to enable archival and retrieval of this data.

The primary functions of **State Archives** include collecting, preserving and making available for public use historical and evidential materials relating to each state. Each proposed State Archives partner has experience in external collaboration in the area of digital preservation. **North Carolina** has served as one of the initial pilot participants in the Internet Archive's Archive-IT service. **Kentucky** was a participant in the NHPRC-funded Persistent Archives Test bed (PAT) project in collaboration with the US San Diego SuperComputer Center, testing the persistent archives' ability to perform archival functions from appraisal to access using data grid technology. The **Utah** State Archives and Records Service has responsibility to assist state governmental entities in the management of their records and is the official custodian of all noncurrent records of permanent or historic value regardless of physical format. The Utah State Archives is engaged in a partnership with Utah's Department of Technology Services to develop a state business plan to address the issue of the management of long-term electronic records and the preservation and access of permanent electronic records.

**NCSU Libraries** is currently the lead institution for one of the eight initial digital preservation partnerships associated with NDIIPP, with a project focusing on preservation of state and local geospatial data. NCSU Libraries will serve as project liaison to Library of Congress to support facilitation, capture, analyze, record, and report on process, findings, and recommendations relevant to digital preservation.

The **National States Geographic Information Council (NSGIC)** advocates for efficient and effective government through the prudent adoption and use of geospatial information and technologies. Its core membership is state GIS directors, coordinators, and Councils. NSGIC initiatives are numerous with focus on supporting statewide geospatial infrastructure as part of fifty states working within a national framework.

The **National Association of State Chief Information Officers** (NASCIO) represents state chief information officers, information technology executives, and managers from state governments across the United States. NASCIO's mission is to foster government excellence through quality business practices, information management, and technology policy.

The **National Association of Government Archives and Records Administrators** (NAGARA) addresses issues at the federal, state, and local level by nurturing inter-governmental records initiatives and annual surveys and reports on state government archival and records programs. NAGARA will participate under the Outreach and Industry Engagement focus.

### **BENEFIT OF POTENTIAL PROJECT TO NDIIPP NETWORK DEVELOPMENT**

The project will address important topical areas that further LC goals through collaboration and joint technology development. The project will engage state leaders from the geospatial and archival community who will work with LC partners to identify and address issues of sustainability and access to digital content over time while meeting emerging business requirements for states. Specifically, LC goals will be addressed because the project:

- Builds on early successes of the NDIIPP and extends ideas and collaboration to new partners in other states across the nation, and to key stakeholder associations (NASCIO, NSGIC). It will also further discussion and address preservation aspects of spatial data infrastructure (technical and collaborative) models being deployed as part of NSDI;
- Creates a 'real-case learning lab' through structured facilitation that simultaneously addresses business continuity issues with preservation and archival scenarios. Work includes development, testing, and evaluation of existing geospatial technology infrastructure and evaluation of institutional capacity for content exchange among states;
- Engages State Archives in the process of geospatial archival selection and processing of content;
- Engages GIS State offices in archival processes;
- Initiates dialogue with 'in-state' data stewards from other state, county and municipal governments through demonstration of state to state, and possibly local-to-state, content transfer network as part of the interstate exchange.

Adding new partners from state archives and state GIS offices will provide LC with important findings and new perspectives on geospatial content handling, as the Library of Congress prepares recommendations to Congress for a national approach to digital preservation.