

Endeavors to Serve Digital Geospatial Data as a Commonly Offered Cache of Topographic Information

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ABSTRACT:

The National Map is the United States' topographic map for the 21st century and it strives to serve many users, ranging from outdoor enthusiasts to applied geographers to responders of public emergencies. Complete, timely, and accurate topographic data coverage at regional or national scales requires a federated approach unifying the production of local geospatial datasets for national and international consumption. The USGS works to ensure interoperable web mapping services in all our products through non-proprietary interface specifications and distributed systems. In addition, the USGS intends to support access and dissemination services through a single Web site that gives users information and data-processing resources to satisfy the varying uses of *The National Map*.

The USGS employs distributed databases and computing for the dissemination of its commonly offered cache of topographic information. This information is circulated, adhering to the national cyberinfrastructure efforts, for varied users, including the wider scientific community. In

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addition to considering the current (2009) architecture, research efforts investigate newer technologies of distributed computing, as well as the social and geographic aspects of information sharing and standards construction as espoused by the U.S. National Science Foundation. This is accomplished by drawing on work in the discipline of computer supported cooperative work (CSCW). This paper presents preliminary results addressing measures used to serve geospatial data from component layers of *The National Map* databases.