

Towards a More Consistent Framework for Disseminated Spatial Computing for *The National Map*

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ABSTRACT:

The National Map is the United States' topographic map for the 21st century, leveraging current developments in web services and partnerships to enable interactive public access to high-quality geospatial data from multiple sources. This GIScience research project investigates methods and technologies for adding or adapting Open Geospatial Consortium (OGC) standard profiles to *The National Map* database layers for facilitating a systematic distributed spatial computing framework for various users. The USGS is motivated to ensure interoperable web mapping services in all our products through non-proprietary interface specifications and distributed systems. In addition, The USGS is striving to support these services through a web site that gives visitors orderly access to spatial data and processing resources for broad usage.

The USGS envisions this effort as a cost-effective advancement for us because many USGS geospatial products are already built on OGC standards that enhance users' ability to combine and circulate geospatial information from varied information sources. This paper presents preliminary results addressing a critical question for OGC standard profiles for mapping, namely, how should the USGS create OGC standard profiles to bring layers in *The National Map* databases into conformance with OGC standards.