

## **Overcoming Non-Technical Challenges To The National Map Project**

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This comment addresses the National Map goals of (7 day) currentness, completeness, and positional accuracy. The USGS vision is to create a data repository (or perhaps a "data portal") to which map changes are uploaded in nearly real time. For many data themes (transportation, boundaries, structures, and geographic names), the most current, complete, and accurate data are created and maintained by local (city and county) governments.

Obtaining the cooperation and participation of local governments for uploading their geographic information into the National Map presents institutional and financial challenges as well as technical hurdles. Moreover, these challenges are heightened by the expectation that local governments will incorporate timely updating of the National Map into their normal, internal workflow. Some of the non-technical issues of concern include:

Interest – Local governments use high-accuracy, high-detail data that comes primarily from their own data collection and maintenance efforts. Few use Federal or even State data (at 1:24,000 scale) if they can afford alternatives. The National Map project faces the challenge of winning local government's interest: showing them how a complete, consistent, integrated National Map will benefit their locally-focused operations.

Security – Since 9-11, many local governments have become aware of the unpredictable consequences of making data available to anyone, anywhere, with no accountability from the user. Some agencies have already taken their data off-line. Many data themes could aid terrorism if that is the user's objective. One mitigating approach is to develop mechanisms and procedures that positively identify the users of publicly-available data before delivery.

Privacy – Citizens are becoming more aware of the threat to individual privacy that grows from the ability to cross-correlate and geographically-overlay diverse data themes collected by independent governmental departments at the local, state, and national levels. Cross-correlation with the vast amounts of data being collected privately magnifies the problem's potential threat. Several states are already limiting public accessibility to names and addresses of certain classes of information. The National Map project faces the challenge of anticipating severe privacy encroachments by preventing certain types of data from being distributed.

Liability, and Prevention of Misuse – Local governments are aware of the potential hazards that may be caused by misinterpreting, and therefore misusing, publicly-available mapped information. Digital maps can easily be "blown up" to a large scale, thereby

mis-representing the original accuracy. This capability can present opportunities for problems affecting the health, safety, welfare of the public as well as to private financial interests. The National Map project faces the challenge of stimulating an increase in the maintenance of standard metadata by local data producers. Users of the National Map must be well and easily informed about the accuracy, currentness, source, and classification of the data they obtain. Local providers of data into the National Map's public domain must be assured of consequent liability protection.

Financial Support of Local GIS Data Maintenance – Many local governments face increasing service mandates in an environment of decreasing funding from Federal and State coffers. Moreover, states like California and Massachusetts have made the process for increasing local taxation nearly insurmountable. As a result, many localities have tried to put GIS maintenance on a fee-for-service basis. The most obvious (although not most effective) tactic is to sell their digital geographic information. In addition to the financial imperative, some local governments also exhibit a strong psychological imperative: the strongly-held feeling that "their" data is proprietary. The National Map project faces the challenge of helping local governments to secure alternative sources of financial support for maintaining their GIS update operations in return for placing their data in the national public domain. Options may include:

- Maintenance Fee payment from the USGS
- Royalty Rebate from a National Map distribution fee
- Special purpose grants, from funds for Homeland Security, Transportation, National Defense, Public Health or Environmental Protection

A process for resolving these issues has been proposed, and is currently under development, for formulating a model Data Distribution Agreement through the collaborative effort of local governments, private sector data resellers, and representatives of Federal projects such as the National Map. The process, called the Open Data Consortium (ODC) project, is beginning to organize a series of consensus-building workshops comprised of governmental and private participants, to address and resolve the issues listed above. The model Data Distribution Agreement will be available to guide local governments that make digital geographic information accessible to the public. A consistent and standardized Data Distribution Agreement, adhered to by most public data producers, benefits the geographic information community (data producers, distributors and users) for these reasons:

- Users of local government geographic information will gain better access to needed data.
- Local governments will find more, and diversified, users for their data.
- State and Federal agencies engaged with Homeland Security and Emergency Response will be able to compile accurate, up-to-date geographic data before a disaster happens.
- The USGS *National Map* and the *Geospatial One-Stop* projects will be able to acquire the accurate, locally-produced geospatial data needed to build a nationwide databank, and to maintain it in a timely manner.
- Data distributors and value-added resellers will have easier, more efficient access to the data that is the "raw material" of their geospatial services to the public.

- NSDI metadata catalogs will be more thoroughly and regularly populated with locally-based information.
- Data maintenance, update, and metadata documentation will become accepted as part of the normal data distribution business process.

URISA, an interdisciplinary professional association with interests in the effective application of information technologies and the integration of urban and regional data for decision-making, has adopted the ODC as one of its educational initiatives.

In addition, the GeoData Alliance (GDA), a non-profit, membership organization of geographic information professionals from all levels of government, along with private businesses, academics, and public interest groups, is sponsoring the ODC project as an "emergent initiative."

You may download more information on the ODC project from:  
FTP://joffes.com the file name is *ODCDescriptive\_Article.pdf*

Please contact Bruce Joffe, project organizer, for a copy of the ODC project Proposal and Workplan. 510-238-9771, GIS.Consultants@joffes.com or Bruce@OpenDataConsortium.org.

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