Standards for Disaster Mitigation and Response
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Open Standards provide an environment for data and analysis sharing to prepare for and respond to disasters. No disaster occurs in a near vacuum, impacting only a single type of infrastructure or involving only a single political or logistical entity. Rather, the information necessary to respond to a disaster lies in many repositories managed by many organizations. For more than 20 years, the Open Geospatial Consortium (OGC) has been developing Standards for data interoperability and testing those Standards in realistic Testbeds.

This presentation focuses on three main topics:
1. The data interoperability challenges from the perspective of both the responders and the holders of the data.
2. An inventory of OGC Standards which facilitate data sharing in a rapidly evolving environment.
3. Examples of Testbed activities which have proven the design and integration of OGC Standards for disaster planning and response.

Interoperability is achieved by more than just access to data. The data must be available in common and well-described formats and/or services and be accompanied by parseable metadata. Further, security considerations abound when working with content provided by government agencies at multiple levels ranging from local to national.

OGC Standards provide for common encoding and services that facilitate data discoverability and fusion. Alliances with other Standards Development Organizations ensure that inclusive consideration is made for Standards applicable to specific domains as well as those most broadly-implemented Standards by the Emergency Management community.

The OGC Testbed program has now demonstrated interoperability between data sources and services for on 11 occasions. Many of these Testbeds had included threads or themes related to disaster planning and response. A summary of the results of the Testbeds, including weaknesses discovered in existing Standards frameworks, will illustrate the value of repeated and structured testing of multiple Standards in an integrated environment.