

Idaho Technology Authority (ITA)

ENTERPRISE STANDARDS – S4000 INFORMATION AND DATA

Category: S4250 – ENTERPRISE GEOGRAPHIC INFORMATION SYSTEM (GIS)
INTERAGENCY DATA SHARING STANDARDS

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I. DEFINITIONS

1. **GIS** – Geographic information systems which comprise the hardware, software, network, data, and human resources involved in creating, maintaining, managing, and distributing data, information, and knowledge about spatial objects and their relative positions.
2. **Spatial Data** – Digital information that identifies the geographic location of features and boundaries that are usually stored as coordinates and topology that can be mapped or used for comparative spatial analysis.

Comment [I1]: P1070 already defines GIS and spatial data and is different that these definitions. Is there a move to pull out definitions and keep them in a main site so they are all defined the same?

Comment [BF2]: We will look at updating the definitions in P1070

II. PRINCIPLES

The decision to release spatial data to any state agency which adheres to adequate security and privacy guidelines should be guided by three principles:

Comment [I3]: If data can be shared with agencies but not with the public, how do we ensure that other agencies won't make it public? Why is there no mention of metadata?

Comment [BF4]: If the data is not public and you share data with another agency or anybody else, you need to let them know that it can't be made public.

Comment [I5]: Metadata too!

Comment [BF6]: There is a metadata standard already in place so it is not repeated here.

Comment [I7]: And the public?

1. The State of Idaho owns the data that its employees **have created** or **aggregated** to the extent that a property interest in the data exists and rests with the State of Idaho.

2. Idaho adheres to a statewide policy of open government, and should release **data** and records **to other agencies** unless prohibited by statutory or appropriate regulatory authority, or disallowed by third-party data stewards when their data is combined with data created or aggregated by state employees. Additionally, even when there is a

Comment [BF8]: This was added so that data that is not public would not have to be released to the public, but encourages agencies to release the data that is public.

statutory or regulatory barrier preventing value added data sharing, the impacted agencies should propose solutions to addressing these barriers.

3. To ensure the use of the most reliable and up-to-date information, state agencies effort should ~~be made to~~ use datasets created and published by, or on behalf of, the data steward tasked with the creation and maintenance of a given dataset.

III. RATIONALE

The purpose of this standard is to encourage sharing and integration of compatible geospatial data between State agencies. All data shared among State agencies shall adhere to the set of basic data format standards outlined in this document. Note that this data standard does not preclude agencies from sharing their data in other formats, in addition to the data formats listed in Section IV (Approved Data Format Standard[s]). In order to ensure the compatibility and utility of shared data, it is required that all data be shared in prescribed formats. Much of this data may also be shared with the public as appropriate.

IV. APPROVED DATA FORMAT STANDARD(S)

The data format standards below are based on data formats that are commonly used with GIS software by state agencies to view, create, analyze and share geospatial data. Preference should be given to online mapping services.

Esri Map and Image Services are the preferred vector and raster data sharing formats because they can be easily kept up-to-date by the data stewards while also being readily accessible to state agencies and the public at all times.

A. Acceptable Vector Data Formats

1. Esri Map Service
2. Enterprise or File geodatabase
3. Shapefile

B. Acceptable Raster Data Formats

1. Esri Image Service (preferred)
2. TIFF or GeoTIFF
3. Esri Raster
4. JPEG or PNG

C. Light Detection and Ranging (LiDAR) Data Formats

Comment [I9]: How does this fit with G420?

Comment [BF10]: Guidelines can be followed or not a policy is a requirement to follow.

Comment [I11]: We should share with not only state agencies but with the public as well. This is covered in g340. I think the purpose of this doc is covered in other standards and documents and does not need to be addressed here.

Comment [BF12]: This document is only define what formats need to be available to other agencies.

Comment [I13]: This sentence contradicts the previous sentence, unless the previous sentence is talking about 'in addition'

Comment [BF14]: Interagency data need to be at a minimum available in the formats in this Policy. Beyond that agencies can share in any format they want.

Comment [I15]: All data should be shared with the public unless restricted – in which case it would be restricted to other agencies as well...

Comment [BF16]: If data is not available to be shared then it is not require that it be shared to another agency or the public.

Comment [I17]: Should define. Are we talking WMS, OGC, image services, raster services, feature services?

Comment [BF18]: No, the formats to have available are listed in the policy. Agencies can share in any format beyond these that they want.

Comment [I19]: This sentence should be in section iv

Comment [I20]: We usually work in ERDAS imagine format (IMG) – which can be used by ESRI software.. Maybe raster format supported by ESRI software, then 2.3.4 could be combined?

Comment [BF21]: Any format that works can be shared, as long as one of the formats in the policy is available to agencies.

Comment [I22]: There is a LiDAR standard – the imagery folks should have a weigh-in here...

Comment [BF23]: They added these, and other could be added in the future if needed.

1. Raw and classified point clouds should be delivered in a current version of LAS file format.
2. DEM tiles

It is recommended that publicly available Map and Image Services be registered with ArcGIS Online (AGOL, the State Enterprise Account: <http://idaho.maps.arcgis.com/home/index.html>) and made available via the Statewide INSIDE Idaho Geospatial Clearinghouse, in addition to the standard formats.

V. JUSTIFICATION

Map Services hosted by the data steward allows for an increased ease of data sharing while allowing the data steward to control their data and keep it up-to-date. This ensures that State agencies and the public have access to the most current data.

Map Services are preferred, but alternatively, the Geodatabase or Shapefiles make the data available in a format that is easy to consume by State agencies and the public.

This standard provides the direction to create a cooperative culture among state agencies that encourages responsible sharing of data through recommended data formats. Esri Map and Image Services are the preferred vector and raster data sharing formats because they can be easily kept up to date by the data stewards while also being readily accessible to state agencies and the public at all times.

VI. TECHNICAL AND IMPLEMENTATION CONSIDERATIONS

It is highly recommended that agencies create list serve notifications and have their data listed on INSIDE Idaho when new or updated spatial datasets become available.

Agencies should work together to notify one another as to what data is available. The GIS community, through the Idaho Geospatial Council, should work together to determine the best method to accomplish this, such as the open data portals, list serve notifications and other methods yet to be determined.

VII. EMERGING TRENDS AND ARCHITECTURAL DIRECTIONS

It is expected that Map Services available via cloud resources will continue to grow.

Agencies should assess the spatial data they hold and move towards making more spatial data available via map services.

VIII. PROCEDURE REFERENCES

ITA Policy [P1070](#) (Geographic Information Systems)

Comment [I24]: A dem is a product. A product that I like, but it is not the original data.

Comment [BF25]: This was added by the committee and could be discussed.

Comment [I26]: Doc talks about internal sharing

Comment [BF27]: The Policy only defines formats for interagency sharing, but it is suggested if appropriate to share with the public, but not required.

Comment [I28]: Define. Is this different than above?

Comment [BF29]: Map services are Esri Map services in this policy.

Comment [I30]: Are we talking state agencies and the public or just state agencies? If we have non public content, how is that addressed?

Comment [BF31]: Data that can't be shared is not required to be shared.

Comment [I32]: Above in rationale says required.

Comment [BF33]: One of the formats is required.

Comment [I34]: This sentence should be in section iv

Comment [BF35]: Moved.

Comment [I36]: Standards should have clear actions so this should be firmed up before a standard is set or struck.

Comment [BF37]: As we move forward and define the "best method" it will be added, but for now we need to work toward this.

Comment [I38]: Standard needs to be set without text 'methods yet to be determined'

Comment [BF39]: It tasks the IGC-EC to move forward with this.

Comment [I40]: Who? Source?

Comment [BF41]: Just to let people know what the future seems to hold at this time – we will adjust as we move forward.

Comment [I42]: Document should state how it relates to these companion documents.

Comment [BF43]: I would welcome text here if we want to expand this.

ITA Standard [S4210](#) (Single Zone Coordinate System for GIS Data)
ITA Standard [S4220](#) (Geospatial Metadata)
ITA Guideline [G320](#) (Geographic Metadata Guidelines)
[ITA Guideline G420 Roles of GIS Participants](#)
[ITA Guideline G340 Statewide Geospatial Clearinghouse](#)
[ITA Guideline G350 Methodology for recognizing a TIM framework dataset](#)
[Data Exchange Docs S4231, S4240, S4230](#)

IX. REVIEW CYCLE

Standard to be reviewed annually by the IGC-EC.

X. EXEMPTION PROCESS

Exemptions to this standard can be requested per ITA Policy [P1010](#) (Information Technology Policies, Standards and Guidelines Framework [*Section V. Exemption Process*]). Requests for exemption will be reviewed by the IGC-EC.

XI. CONTACT INFORMATION

For more information, contact the ITA Staff at (208) 332-1876.

REVISION HISTORY

Effective Date: xx/xx/xxxx