

Checklist to prepare for OneGeology web service registration

*Based on August 2013 OneGeology published specification requirements and GeoScimML-Portrayal version 2*

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*version 1.2*

*A product of Arizona Geological Survey*

This document provides a checklist for use prior to registering web services with OneGeology. It assumes that data has been transformed into the GeoSciML-Portayal information exchange formats, with appropriate CGI vocabularies and symbologies, and are available online as web services. The following represents the minimum requirements in the current OneGeology cookbook for setting up 2, 3, or 4-star services, though any such rating needs to be applied for through OneGeology. Older services (i.e. those that followed older versions of the cookbook) will receive a 1-star rating; this is the level of accreditation that is currently automatically awarded.

For detailed information how to transform data and prepare maps for OneGeology WMS and WFS, see the OneGeology technical details page [Cookbook for preparing map services for OneGeology registration](http://onegeology.com/wmsCookbook/home.html). Sections 1-6 concern WMS-only and section 7 covers WFS, while Appendices K and L describe serving WMS/WFS with GeoServer and ArcGIS, respectively. A PDF version of a similar cookbook is also provided by USGIN at the [USGIN Tutorials GitHub repository.](https://github.com/usgin/Tutorials/blob/master/GeoSciML-PortrayalCookbook_USA.docx?raw=true)

Once the data is conformant to the [schema](http://schemas.usgin.org/files/geologic-units/2.0/GeoSciML.xsd), the web services are published, and the checklist below is completed, contact OneGeology to register your services. First, you will register your data for the OneGeology portal at: <http://onegeology.com/technical_progress/buddy_home.html>, choosing Data coordination for services you host for your own maps, and Buddy coordination if you are a hub hosting services for another entity’s map. You will be contacted by the OneGeology secretariat if further action is necessary.

If using ArcMap to publish web services, you will need to create Custom Capabilities documents to accommodate the layer-level metadata required by OneGeology. A detailed description of editing web service capabilities documents is provided in Appendix C6 of the [USGIN OneGeology/GeoSciML-Portrayal Tutorial](https://github.com/usgin/Tutorials/blob/master/GeoSciML-PortrayalCookbook_USA.docx?raw=true).

*Checklist to prepare for OneGeology registration:*

Service-level metadata (required for 2-star unless indicated 3-star)

|  |  |  |
| --- | --- | --- |
|  | WMS v1.1.1 | Capabilities document,  <Service>  <Name> element:  OGC:WMS |
|  | WMS v1.3.0 | Capabilities document,  <Service>  <Name> element:  WMS |
|  | Service title | **Capabilities document,**  <Service>  <Name>  <Title> element:  **Service Provider Organization code** then **Data Owner Organization code** (optional if data owner and service provider are the same) then **ISO 639 language code** (optional if service is in default language, or if one service is provided and that service is in English) then **Service Theme**  Example: KYGS MDGS Geology |
|  | Service name, WMS | **Name of web map service, which appears in the service URL. Same as service title except separated by underscores.**  **Example:** KYGS\_MDGS\_Geology |
|  | Service name, WFS | **Name of the web feature service, which appears in the URL. Same as the WMS service name, but affixed with “\_WFS”**  **Example:** KYGS\_MDGS\_Geology\_WFS |
|  | Keywords, WMS/WFS | <Keyword>MD\_DATE@2013-11-13</Keyword>  <Keyword>MD\_LANG@eng</Keyword> |
|  | Access Constraints | ***For 3-star, must provide a clear statement of license and charging details rather than simply using the word “None”*** |
|  | Online Resource | **Service (WMS/WFS) URL** |
|  | Contact Information | **Email, phone number, and/or full postal address** |
|  | Fees | ***For 3-star, must provide a clear statement of license and charging details rather than simply using the word “None”*** |

Layer-level metadata (required for 2-star unless indicated 3-star)

|  |  |  |
| --- | --- | --- |
|  | Layer names, WMS | **Layer name, as well in the Capabilities document,**  <Layer>  <Name> element:  **Geographical extent** of the data in the layer, then **Data owner organization** (not service provider), then **Language code** (if non-default as per service naming conventions), then **Scale**, then **Theme**  **Scale:**  **“M” for Million, ex. 1:1M**  **“k” for thousand, ex. 1:625k**  **Example:** US-MD\_MDGS\_250k\_Geologic\_Age |
|  | Layer names, WFS | **GeologicUnitView**  **ContactView**  **ShearDisplacmentStructureView** |
|  | Abstract |  |
|  | Keywords, WMS | <Keyword>geographicarea@United States</Keyword>  <Keyword>continent@Northern America</Keyword>  <Keyword>subarea@Arizona</Keyword>  <Keyword>dataprovider@Arizona Geological Survey</Keyword>  <Keyword>serviceprovider@Arizona Geological Survey</Keyword>  <Keyword>OneGeology</Keyword>  <Keyword>MD\_DATE@2013-11-13</Keyword>  <Keyword>MD\_LANG@eng</Keyword>  <Keyword>Geosciml\_portrayal\_age\_or\_litho\_queryable</Keyword>  <Keyword>Geosciml\_portrayal\_v2\_CGI\_vocabulary</Keyword>  *MD (Metadata) keywords necessary for 3-star*  *“Geosciml\_portrayal\_v2\_CGI\_vocabulary” keyword for 4-star* |
|  | Keywords, WFS | <Keyword>geographicarea@United States</Keyword>  <Keyword>continent@Northern America</Keyword>  <Keyword>subarea@Arizona</Keyword>  <Keyword>dataprovider@Arizona Geological Survey</Keyword>  <Keyword>serviceprovider@Arizona Geological Survey</Keyword>  <Keyword>OneGeology</Keyword>  <Keyword>MD\_DATE@2013-11-13</Keyword>  <Keyword>MD\_LANG@eng</Keyword>  <Keyword>DS\_DATE@2012-01-25</Keyword> \*  <Keyword>DS\_TOPIC@geoscientificinformation</Keyword> \*  <Keyword>DS\_TOPIC@Arizona Geology</Keyword> \*  <Keyword>Geosciml\_portrayal\_age\_or\_litho\_queryable</Keyword>  <Keyword>Geosciml\_portrayal\_v2\_CGI\_vocabulary</Keyword>  *MD (Metadata) keywords necessary for 3-star*  *“Geosciml\_portrayal\_v2\_CGI\_vocabulary” keyword for 4-star* |

|  |  |  |
| --- | --- | --- |
|  | Metadata URL | **Standardized** (FGDC:1998 or ISO 19115:2003) metadata URL  ***Necessary for 4-star accretidation*** |
|  | Data URL, WMS | **URL for the WMS’ accompanying WFS (optional)**  ***Necessary for 4-star accretidation*** |
|  | Image Format | **Usually automatically populated during service publication** |
|  | SRS, BBOX | **Usually automatically populated during service publication** |
|  | Legend URL | Can use a GetLegendGraphic request URL |
|  | GetFeatureInfo | *3-star* |

Additional checks for GeoSciML-Portrayal WFS

|  |  |  |
| --- | --- | --- |
|  | Namespace | **Use: http://xmlns.geosciml.org/geosciml-portrayal/2.0** |
|  | Prefix | Use: **gsmlp** |
|  | ObjectID | Ensure this ArcMap-auto-created field has been turned off |
|  | Shape | Ensure this ArcMap-auto-created field is the last field of those fields required in the [schema](http://schemas.usgin.org/files/geologic-units/2.0/GeoSciML.xsd) for a given layer |
|  | Validate | Validate the WFS GetCapabilities request at <http://schemas.usgin.org/validate/wfs> |
|  | Vocabularies | CGI vocabularies must be used for correct symbology (i.e., representativeAge\_uri field) |

\* Please find a resticted list of codes that can be used in the “DS\_” fields here: <http://gcmd.nasa.gov/add/difguide/iso_topics.html>

For questions or issues, please consult the [OneGeology site](http://onegeology.com/wmsCookbook/6_1.html), the [GeoSciML GitHub](https://github.com/usgin-models/GeoSciML-Portrayal), or email [data@usgin.org](mailto:data@usgin.org) directly.