OneGeology Technical Working Group Meeting 3
IGC33, Oslo
6th August 2008 9.00a.m.-12 noon.

Attendees:

Joel Bandibas (Geological Survey of Japan (AIST))
Tim Duffy (British Geological Survey, Chairman of OneGeology Technical Working Group)
Peter Lyttle (United Sates Geological Survey)
Marivic Pulvera Uzarraga (Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP))
Oliver Raymond (GeoScience Australia – acted as secretary taking short notes, with thanks)
Alistair Ritchie (Geoscience Victoria)
Jeans-Jacques Serrano (BRGM)
Bruce Simons (Geoscience Victoria)
Dave Soller (United States Geological Survey)

Apologies:

Mary Carter (Geological Survey of Ireland (GSI))
Shinji Takarada (Geological Survey of Japan (AIST))
Boyan Brodaric (Geological Survey of Canada)
Harvey Thorleifson (Minnesota Geological Survey and OneGeology Operational Management Group) – attended at start then had to leave, raised several relevant issues relevant to this meeting by email during IGC33 and these are included here as the appropriate place to record them.

1). Introduction

This meeting is considered interim taking advantage of many interested and widely geographically spread attendees at IGC33 – a fuller meeting will occur later.

ACTION LIST FROM MINUTES OF PREVIOUS MEETING (29th February 2008, Orleans) NOT ON AGENDA HERE:

AP1: ACTION BRGM: to save the context to the BRGM server.
Done

AP2: ACTION: BRGM to deal with multiple data owners
Done

AP3: ACTION: BRGM to change the name of 'Catalogue of Registered Services'
Done

AP4: ACTION: BRGM to add KML output capability to Portal client and document use in GoogleEarth and NASA World Wind/Dapple
Done, at least in a preliminary form. JJ Serrano demonstrated. Currently using KML 2.0. Portal intends to move to KML 2.2. Some ESRI-based 1G services will not work in KML. Investigating why this is so. (ArcIMS requires a mandatory bbox which the portal is not using when it outputs the whole datasets to kml)
Some ESRI services appear in the wrong location in KML. Some ESRI services don't appear at all in KML. Working with ESRI to work out why there are KML problems. The Irish ESRI service seems to work best – what have they done that is different?
USA (Mapserver) service doesn't appear in KML.
Geosoft (Dapple) working to accept KML. Beta version was released by Geosoft today for trial at IGC33.

New ACTION Point 1 (AP1): *BRGM will continue to work to get the KML writer to use KML 2.2 ("OGC Standard") and get ESRI services to work within it and/or provide advice to the ESRI based services how to make their services compatible with current KML/Googleearth practices.*

AP5: ACTION: BRGM to look into adding the contents of the getcapabilities 'access constraints' response to the basic view of the Catalogue of Registered Services.
Done

AP6: ACTION: ALL to implement in their WMS services the OneGeology WMS service Registry naming conventions documented.
 On-going and achieved by 30+ organisations to date.

AP7: ACTION: ALL to follow the process documented in section 3.11 to "Register your OneGeology WMS Services A step-by-step guide to the process" once the WMS services have been set up
Done

AP8: ACTION: BGS to publish Version 1.1 of WMS cookbook with changes agreed at the meeting
Done

AP9 ACTION: Fernando Perez Cerdan has offered to translate the next version of the cookbook if there is sufficient demand from the Spanish speaking community to make this effort worthwhile.
Does not seem to be a demand for translation of cookbooks as yet. (eg, South American services have been established with communication in English despite offer from IGME to translate cookbooks into Spanish if requested)

AP10: Dave Soller to liaise as specified with MapServer director.
Dave Percy spoken to Steve Lime (Mapserver) regarding keep old versions. 1G currently need MS4W v2.5.5.

ACTION POINT 2: *Tim Duffy to ask Steve Lime of MapServer directlly to maintain the urls to the older versions of the MS4W kits. Want to move to v5.1.0 eventually, but nobody has compiled it yet for an MS4W kit.*

AP11: ACTION: Tim Duffy to enact recommendation to setup a 1G technical working group wiki via NERC confluence server.
Tim Duffy has established a commercial strength Wiki offered by NERC as a service to its component institute BGS for international collaboration work such as OneGeology. Confluence software used – supports a hierarchy tree ☺. Tim is administrator. This Wiki will be first used for discussion related to compilation of the next cookbooks.

ACTION POINT 3: Members need to email Tim for username/password when Tim announces it is being used.

2). What have we learnt about implementing 1g level 1 WMS?

Review of progress
- approx 31 national services available on the portal

Linux cookbook – Joel Bandibas of GSJ offered to write a cookbook chapter on how to server Mapserver using a Linux/Apache platform. Will deliver to Tim Duffy.

ACTION POINT 4: *Joel to write Linux cookbook contribution and send to onegeologyhelp@bgs.ac.uk.*

Request fom CCOP (who have helped several East and South East Asia countries to get their services up) for even more explicitly *step-by-step* instructions for establishing WMS services in future cookbooks, particularly for non-English-speaking countries.

It has become clear from CCOP region AND elsewhere recent experience that some OneGeology active participants (WMS providers) are unclear as to precisely whether or not it is only 'legally constituted' regional (e.g. CCOP), national (country) or sub-national (e.g. USA and Australian state surveys, Canadian provincial surveys) geological surveys that can register (and be accepted) to be part of OneGeology. It is also unclear whether or not that registered survey is only supposed to serve data covering 'its territory' or whether no recommendation or control is imposed on OneGeology participants as accepted surveys as to the areas of the planet they serve as WMS/WFS (which they may feel they have scientific and/or territorial competence to serve – noting that OneGeology aims to encourage surveys to serve seabed etc – overlapping extent services from different suppliers add to scientific discussion and advancement and often offer different geological 'views' of an area).
Up until now the OneGeology Technical Working Group had believed that new 'signed up' participants to OneGeology – reported to them by the OneGeology secretariat – were actually signing some form of MOU that made these issues clear. It appears that they have not been made to sign such an MOU and they have probably been steered only since by the MOU signed and widely publicised (for specific other purposes) at the Brighton meeting. That MOU contains the sentence "...Geological Surveys and organisations will move to develop and dynamically "serve" the data for their territories..." and so it is understandable if there is some different interpretation on this point. Discussion with Harvey Thorleifson has clarified that it does need to be made clear that OneGeology is for 'legally constituted' geological surveys (only, if spread to academics the catalogue would be overwhelmed and loose focus) at whatever level of coverage and that once accepted OneGeology does not impose any limitations on the areal extent of the planet that each survey decided to publish as its contributions to Onegeology on the www. *The Technical Working Group on behalf of several countires formally asks for formal confirmation and clarification on this point from OneGeology management as soon as possible* and requests that this statement is published very visibly on the www.onegeology.org web pages and on all communications to new participants and prospective new partitipants in the OneGeology initiative.

GetLegendGraphic – not mandatory in the WMS spec. but an important part of the OneGeology aims for each WMS layer served and therefore the OneGeology 'profile' of the WMS specification. Current WMS cookbook describes how to deliver a pre-defined complex legend static image if needed, as well as an on-the-fly one produced by MapServer (could be extended from 255 classes to 600+ via use of new MapServer compilations available).

3). Suggestions for improvements to portal Catalogue and Portal web client

Feedback to BRGM
- stopped the capability for users to edit their own services in the catalogue. Link has been removed from portal website. The meeting agreed that this was the best way to proceed for the medium term.
- need to notify BRGM registry e.g. onegeologyportal@brgm.fr if a server of WMS want to change abstract, add new layers etc
- perhaps make the Catalogue of Registered Services more visible and 'in-your-face' on the portal as the logical first 'port of call' for new visitors to this geological 'first portal of call' on the www
- **ACTION POINT 5 :** *BRGM need to add any published (via getcapabilities responses) Access Constraints information to the Layer Details choice (OR add a new choice called 'Access Constraints'?) displayed in the 'Active layers properties' once a layer has been added for display in the web client. The recommended contents for the Layer details choice (and Metadata URL and Data URL needs to be more clearly documented in the Help file for the web client AND (new) in the WMS cookbook.*

Client polls services GetCapabilities every 15 minutes to see if services are up and displays this in red or green on the World layer 'OneGeology Map Servers status'. Client waits only 30 seconds to access layers before putting up a warning triangle beside the added layer – nonetheless if seconds later the service becomes available it will be displayed – with the warning triangle remaining. Need to look at the behaviour of this red-and-yellow triangle icon for layers. May be interpreted that the service if broken, rather than implying only that the service is taking longer that 30 seconds to respond.

The portal is offering the ability for service providers to see the level of traffic ("stress testing") on their service.

Request from BRGM for feedback on methods of sorting the Catalog of Registered Services. Eg, continent, then country order.

ACTION POINT 6: *BRGM to investigate adding hierarchical capabilities to registry so users can better display continental, Regional (e.g. CCOP), national, local services (e.g. USA state geological surveys, Canadian provincial geological surveys, Australian state geological surveys).*
One suggestion which will be looked into by BRGM was the result of iteration with Harvey Thorleifson which he liked:" The idea of World, Continent, Country and Province/State. So when you go to the "Add Layers" menu you would see:
World, Africa, Antarctica, Asia, Europe, North America, Oceania and South America (the first of several Wikipedia defined continent lists).
Clicking on North America you would see available maps (continental scale or just maps that extend beyond country boundaries) and available countries.
Clicking on Canada you would see available maps (country scale or just maps that extend beyond provincial boundaries) and available provinces.
In this scenario Andes would be at Continent level and the e,g, Manitoba Geological Survey Williston Basin maps would be at Country level as they cover much of Manitoba and Saskatchewan."

ACTION Point 7: *BRGM to look at different ways of displaying the service availability map ie, by geographic area , service provider (a point for each server?) etc. Currently this is limited to country only i.e. a Geographic area 'North*

America' cannot show whether a geological survey's server within that is working or not.

Request to add a "Add All Layers" (on/off) button.
ACTION POINT 8: *BRGM will investigate this, and look at which layer for each country will be displayed by implication of such an all layers request as the 'default" for that country, also the effect on the perceived 'client response' (in fact 30+ server responses) to display 100+ layers at once?*

ACTION POINT 9: *BRGM will be adding a "zoom to layer" button to the client. Need to **require** service providers to provide "LayerExtent" to getCapabilities documents for this to work – add to cookbook and minimal OneGeology service compliance specifications.*

ACTION POINT 10: BRGM to *Add a tool tip to the GeoSciML tab (results of the "i" tool) which includes 2 paragraphs on what the GeoSciML results mean and are used for. Dave Soller to agree some words to be used here with Tim Duffy.*

4). Level 2 WFS technologies and cookbook planning and discussion

ACTION POINT 11: Proposed next (third) technical cookbook - 'How to serve your OneGeology data as a WFS' – for publication by December 15th 2008 - BGS leading drafting:

1. Detailed description on how to add a Cocoon mediator layer on top of Mapserver that would output a basic GSML profile (equivalent to GSML Testbed Use Case 2A).
2. Detailed description on how to add a Cocoon mediator layer on top of Degree that would output GSML profile
3. Detailed description on how to use Geoserver that would output GSML profile – this may or may not happen depending on the readiness of Geoserver development.
4. Also provide an even more basic profile to serve a shapefile dataset to a GSML-compliant service which might serve one "layer" eg, age, lithology per WFS service (examples of both this 'one layer' and triple basic OneGeology minimum target specification 'age+lithology+Lithostratigraphy' WFS were demonstrated at IGC33. Not a rich, complex single WFS, but would still be GSML compliant.
5. Need to ensure full technical explanations which have implications for establishing WFS services. In parallel at the same time (estimated December 15th publication – BGS leading drafting) the second cookbook will be published "How to map your data to GSML".
6. Need to document as many IT architectural issues as possible. (e.g. how many instances of Degree or Geoserver are required if you do or do not use mediator layer)

5). Date of Next Meeting

Suggest next OneGeology Technical Working Group meeting to coincide with a future meeting of the OneGeology Europe Portal Work Package 6 – and it has been proposed since this meeting that possibly this could occur (as say a 3 hour meeting added onto the end, open to anybody involved with OneGeology-Global who can get there) at a WP6 Workshop to be held at GEUS, Copenhagen in January 2008. Details of this proposal will be confirmed by email later.

6). List of action points from this meeting:

ACTION Point 1 : *BRGM will continue to work to get the KML writer to use KML 2.2 ("OGC Standard") and get ESRI services to work within it and/or provide advice to the ESRI based services how to make their services compatible with current KML/Googleearth practices.*

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