



Project no. 018340

Project acronym: EDIT

**Project title: Toward the European Distributed Institute of
Taxonomy**

Instrument: Network of Excellence

Thematic Priority: Sub-Priority 1.1.6.3: "Global Change and Ecosystems"

C5.153 E-conference with developers and contributors for Geoplatform development and function follow-up

Due date of Component: Month 49

Actual submission date: Month 49

Start date of project: 01/03/2006

Duration: 5 years

Organization name of lead contractor for this component: MIZPAN

Revision: Final

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)		
Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

This report is based on Skype and Chatzy talks that took place on the 26th of March 2010 as well as e-mail correspondence on the EDIT Geo developers mailing list. It was compiled by Marcin Gašior (MIZPAN) with a generous input from Patricia Mergen (RMCA), James Davy (RMCA), Franck Theeten (RMCA), Alexander Kroupa (MFN) and the colleagues from the EDIT developer mailing list.

Raised issues:

- Current state of development of the GeoPlatform tools
- Situation of mirroring and replication of GeoPlatform server
- Overview of outstanding work

GeoPlatform Server:

- The MNCN server in Madrid containing both the GeoPlatform visualization tool and all the cartographic files has suffered a serious hacker attack and is out of order.
- It was partially mirrored to the server at the Royal Museum for Central Africa (RMCA) at Tervuren, but:
 - the performance of this server is very limited;
 - installed software is outdated (Ubuntu 6.06, Geoserver 1.6) and there are compatibility issues within the low level libraries used in the Geoserver, preventing it from showing consistent behavior.
- Setting up the new server at the Belgian National Botanical Garden (BNBG) at Meise:
 - the server is much more powerful but required installation from the scratch;
 - fresh installation allowed to use up-to-date software;
 - the whole server is put on a virtual machine, which allows for significantly faster replication;
 - the complete image of the virtual machine (approx 30Gb) should be available for interested institutions who want to mirror the geo services. The setup of a mirror requires VMware ESXi 4 hypervisor to host the image and the adjustment of the PHP configuration script.
- Security should be enhanced to protect for unauthorized server file access on all levels.
- The new server should undergo thorough stability and security testing.
- In order to balance the load between servers there will be a server setup in Tervuren that will manage traffic to all available mirrors. This should significantly reduce downtime as the server will monitor the status of all mirrors. If one mirror goes down, the Tervuren server will redirect requests for service to the other mirrors.

GeoServices

- It was agreed that the REST services have to be re-established as soon as possible:
 - a slow version can be launched quickly on the partially mirrored server at the RMCA;
 - the target version will be run on the server at the BNBG.
 - the REST services are now working correctly and efficiently on the new server at the BNBG:
http://edit.br.fgov.be/edit_wp5/v1/points.php
http://edit.br.fgov.be/edit_wp5/v1/areas.php

- Queries redirection from the RMCA server to the Meise server are enabled to let older application access the services. To date access from both http://edit.africamuseum.be/edit_wp5 and http://edit.br.fgov.be/edit_wp5 call the same services.
- The issue of producing different results in one session while refreshing in the points.php was raised. The script has been fixed by adding PG/PLSQL function to delete points previously defined by users using points.php service.
- The problem of occasional errors occurring when points.php and areas.php scripts call the same randomly generated file was discussed.
- The ImageMagick problem with displaying merged layers has now been resolved.
- The subject of the hard-coded URLs, file paths and connection strings in PHP scripts was raised because of portability and security issues. They now have been replaced by PHP constants defined in a central file.
- Due to performance issues, a method of server side caching for all commonly accessed static components of the services will be implemented.
- The need for better documentation was emphasized. Lack of precise syntax definition and documentation (now only example URLs are given) hampers usage.
- It was highlighted that the further GeoServices development has to be compatible with OGC standards and the EU INSPIRE directive.

MapView

- The EDIT map Viewer should also work on the new server at the NBGB http://edit.br.fgov.be/edit_wp5/geo/mapviewer/edit.html
- For security reasons, file uploading will be disabled until uploading can effectively be limited to CSV files and protected against SQL injections.
- The virtual machine system will be used to mirror the services in other interested EDIT institutions.
- In the last year of EDIT the MapViewer with its current functionalities will be debugged, packaged and documented.
- Additional modules and functionalities will be done beyond EDIT and described in the final EDIT reports.