The prototype of the ELF Imagery Viewing Service

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Author: Saulius Urbanas, EuroGeographics; Emilio Lopez (IGN Spain)

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ELF Imagery view service
Questions prior starting the test

★ How and if national web viewing services (WMS, WMTS) from NMCAs could be joined to the central ELF webservice?

★ If yes, what are the requirements for the central service (software, IT requirements)?

★ What are the requirements from the side of data providers (data formats, tiling, edge-matching, actions by NMCAs, „how to connect“ instructions, etc.)

★ What are requirements for central management of the view web service?

★ What are the major issues/constrains for setting up the central ELF view service for orthophotos, aerial photos and satellite images
Tests and prototyping

★ Software
  ★ Degree
  ★ GeoServer
  ★ MapServer and MapCache

★ Chosen technology
  ★ Distribution CentOS (Red Hat Enterprise Linux RHEL), version 6.4 and 64-bit architecture.
  ★ Java Virtual machine: JDK 1.6
  ★ Apache HTTP Server version 2.2
  ★ MapServer version 6.2.1
  ★ MapCache
MapServer and MapCache

★ MapServer
★ Have the ability to connect to remote WMSs.
★ Support the following WMS versions when connects to them: 1.0.0, 1.0.7, 1.1.0, 1.1.1
★ Have the ability to mask out one or more layers so that only the features that intersect another set of features are rendered in the response to a GetMap request.

★ MapCache
★ has the ability to generate WMTS (according to OGC spec) from a remote WMS. Can also generate other services like WMS-C, TMS from connections to other WMS services
Process harvesting national services

1. Creation of WMS with MapServer.
   1. Connection to each of the NMCA’s WMS.
   2. Setting up each layer of each service.
   3. Setting up a group of layers from the aggregation of different layers of different services
   4. Publication via WMS of the layer group.

2. Creation of the WMTS with MapCache
   1. Connection to WMS layer group
   2. Setting up the cache.

3. Publication via WMTS
Requirements and recommendations

★ Requirements for remote (national) Imagery View services

★ Comply with OGC WMS version 1.1.0
★ Documented CRS for transition to EPSG:4258 (ETRS89 latitude, longitude).

★ Store images in a central cache
★ the provisional estimation for storing 1:1,000 scale imagery (orthophotos in JPG format) shows that the demand for cache space is about 29 TB
ELF Imagery service (prototype)
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What’s next?

⭐ Tests/evaluation of the ELF Imagery View Service in combination with other ELF products

⭐ Possibly hosting from the same premises

⭐ Harmonise tiles to ELF BaseMap tiles (scales)

⭐ Contact NMCAs for arranging access to the national view services

⭐ Licensing and pricing arrangements
Thank you for the attention!

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