

## ECP 2005 GEO 038026 EGN

### EGN

# Management plan for components and interfaces

<b>Deliverable</b>	<i>D6.3</i>
<b>Dissemination level</b>	<i>Public</i>
<b>Delivery date</b>	<i>15 September 2008</i>
<b>Status</b>	<i>Final</i>
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***eContentplus***

This project is funded under the *eContentplus* programme<sup>1</sup>,  
a multiannual Community programme to make digital content in Europe more accessible, usable and exploitable.

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<sup>1</sup> OJ L 79, 24.3.2005, p. 1.



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# 1 Introduction

## 1.1 Purpose

The 'management plan for interfaces and components' is mentioned in the Description of Work in the description of task 6.2:

*“Create a Management Plan for interfaces and components to be used also for connecting further EU countries after the funding period.”*

This document does not contain a management plan as could be expected from this description. A description of how the software components and interfaces that are developed in work package 6 can be used after the funding period will be part of the final documentation of these components and interfaces. This final documentation will be submitted as deliverable D6.5.

As an alternative this document gives an overview of the components and interfaces and provides a development path for the rest of the project duration.

## 1.2 Executive summary

This document gives an overview of components and interfaces used in the EGN infrastructure. Chapter 2 describes these components and interfaces, chapter 3 is a schedule for further development until the project ends.

## 1.3 Glossary

The terms that the reader might be unfamiliar with are explained here:

**EGN:** EuroGeoNames.

**ETL:** Extract, Transform, Load. The process(es) by which data from one data model and data source are copied to another data model and data container.

**EVN-DB:** The EGN database containing exonyms and variants.

**NMCA:** National Mapping and Cadastral Agency.

**OGC:** Open Geospatial Consortium, an organization that provides standards for geographic information.

**WFS:** The Web Feature Service as defined by the OGC.

## 2 Overview of components and interfaces

This chapter contains an summary of the components and interfaces that will enable the EGN infrastructure.

### 2.1 Components

The EGN services architecture will consist of the following components:

Component	Responsible for realization	Description	Status
EGN Local Service	WP 6 and/or NMCA	National gazetteer (WFS)	At least 12 NMCA's are in the process of setting these up. Progress varies from NMCA to NMCA
EGN Central Service	WP 6	Combined European gazetteer (WFS)	Prototype is being tested at Geodan
EVN-DB	WP 5	Central database with variant names and exonyms.	Ready and active at BKG
EGN Local Database	WP 6	National geonames database	Database installation scripts are ready
EGN Index Database	WP 6	European geonames database	Database installation scripts are ready
ETL Module	WP 6	Imports NMCA source data to the EGN Local Database	Obsolete
Data Monitor	WP 6	Links EGN Local Services to the EGN Index Database	Prototype is running at Geodan
Link Resolver	WP 6	Performs pagination and optionally resolves XLinks	Pagination was succesfully achieved. It is unclear whether resolving XLinks is necessary.
Name Updater	WP 6	Links EVN-DB to the EGN Index Database	In development.
EGN Compliance Tester	WP 6	Verifies WFS interface compliance	Obsolete
EGN ArcGIS extension	WP 8	Commercial client for the EGN Central Service	In development
EGN Reference Application	WP 7	Reference client for the EGN Central Service	In development
con terra SecurityManager	WP 10	Provides security for the EGN Central Service	Installed at BKG
Test suite	WP 6	A set of automated tests that will test the functioning (performance, security,..) of the EGN Central Service	Development has not started yet

*Table 1: EGN infrastructure components*

### 2.1.1 Obsolete components

Two of the components in table 1 have become obsolete: The ETL Module and the EGN compliance tester.

The concept of the ETL module was to have one general component that could perform ETL, based on a different data model mapping for each NMCA. But we have found several reasons to abandon this approach. One reason is that we have learned that at the moment there is no appropriate free software available for this task. We could have considered using the Feature Manipulation Engine (FME) from Safe Software or the equivalent ArcGIS Data Interoperability Extension, but not all NMCA have licenses for this expensive software. Another reason is that there is a lot of diversity in the complexity and usability of the NMCA source data. In some cases using an ETL tool like FME could be considered overkill, in other cases the ETL task would be daunting even with the aid of such a commercial tool. A third reason is that the amount of effort that the NMCA's are willing to put into the ETL task varies a lot from case to case. All these things considered lead to the decision to handle ETL separately in each case, and to provide utility functions in the target database (i.e. The EGN Local Database) where possible.

The purpose of a separate EGN Compliance Tester was to test whether EGN Local Services comply with the WFS specifications for EGN. This component has become obsolete for two reasons. One reason is that there have been a lot of changes to the data model and the WFS interface specifications. These would have led to changes in the Compliance Tester each time. Rather than spending time on making these changes it seemed wiser to focus on finishing the EGN Data Monitor because a fully functional EGN Data Monitor would also perform compliance checks. An advantage of using the EGN Data Monitor for this purpose is that it is centrally maintained and has the ability to send out notifications by e-mail if there is anything wrong with a EGN Local Service.

## 2.2 Interfaces

As for interfaces, there will be only one public interface: the EGN WFS interface. This interface was described in EGN deliverable D6.2 but has undergone a few changes since D6.2 was published. Still, both the EGN Central Service and all EGN Local Services will use the same WFS interface.

## 2.3 Graphical overview

Diagrams 1, 2 and 3 present a graphical overview of the relationships between the EGN system components. Diagram 1 shows where the WFS interface is used.

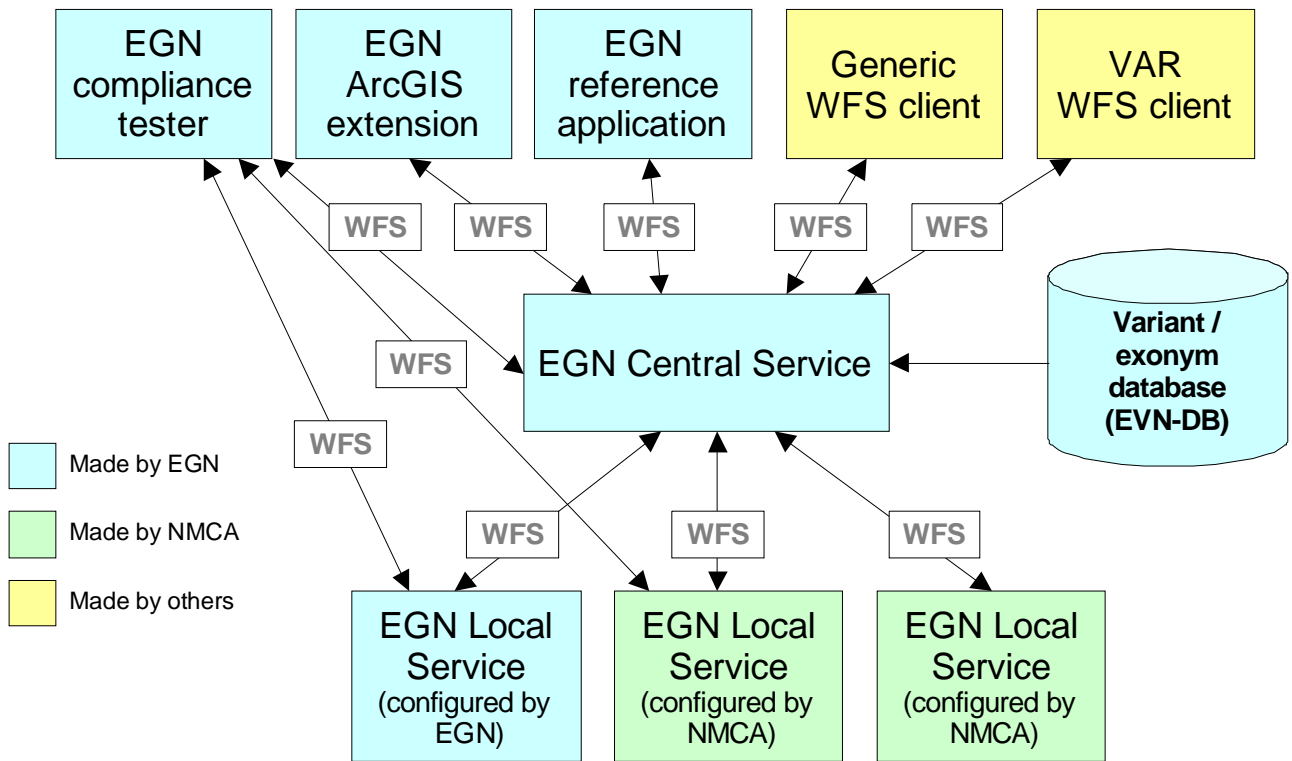


Diagram 1: Top level overview of the EGN infrastructure.

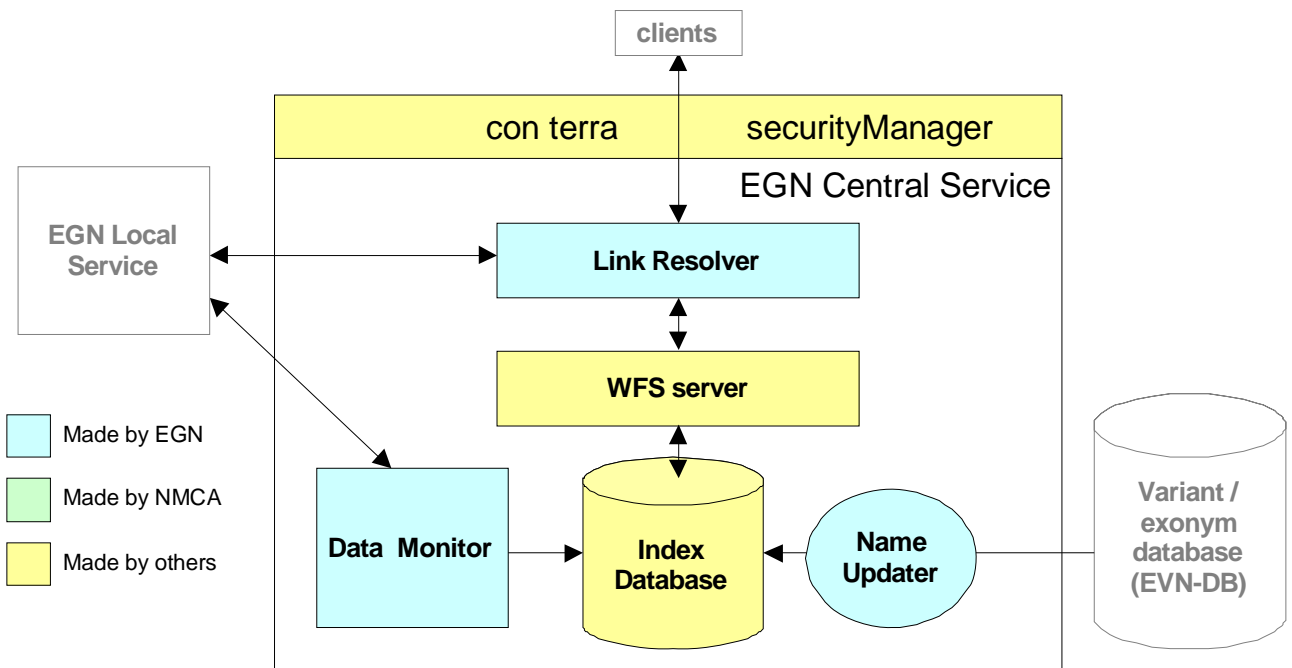
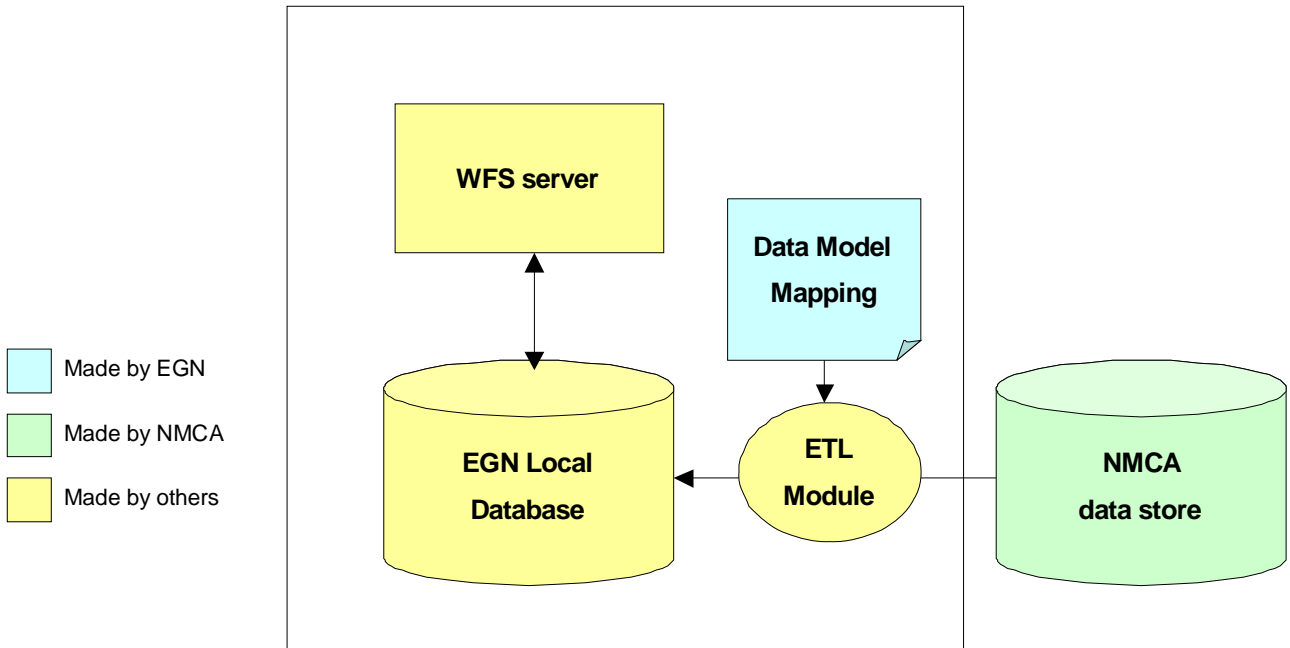


Diagram 2: Details of the EGN Central Service



*Diagram 3: Details of the EGN Local Service*

### 3 Development path

This chapter lists the remaining tasks for WP 6 for each remaining month. The funding of EuroGeoNames project by the EC will end on February 28, 2009. For the ease of the identification the names of system components are printed in bold characters.

#### 3.1 *September 2008*

1. We hope that at least two **Local Services** will be ready this month. This allows final testing of the **Data Monitor** at Geodan. If the **Data Monitor** passes these tests it will be installed at BKG, together with the **Index Database** and **Central Service**.
2. A first version of the **Name Updater** will be made and tested at Geodan, together with the **EVN-DB**.
3. At the end of the month we hope the **Local Services** of Germany, Latvia and Slovenia are ready.
4. NMCA's will be assisted in setting up **Local Services**.

#### 3.2 *October 2008*

1. The **Name Updater** will be installed at BKG.
2. Further testing of the **Central Service** with the **Reference Client** and/or the **ArcGIS extension** may reveal new issues that need to be resolved.
3. At the end of the month we hope the **Local Services** of Austria and The Netherlands are ready.
4. NMCA's will be assisted in setting up **Local Services**.

#### 3.3 *November 2008*

1. The **test suite** will be set up and documented.
2. Different ways of performing 'sounds like' searches will be tested and the best method(s) will be selected.
3. Testing may result in additional changes in system components.
4. NMCA's will be assisted in setting up **Local Services**.

#### 3.4 *December 2008*

1. Documentation of the **Central Service**, the **Data Monitor** and the **Name Updater** will be finalized and will be submitted as part of deliverable D6.5.
2. At the end of the month we hope the **Local Services** of Lithuania and the Czech Republic are ready.
3. NMCA's will be assisted in setting up **Local Services**.

### **3.5 January 2009**

1. NMCA's will be assisted in setting up **Local Services**.

### **3.6 February 2009**

1. Deliverable D6.6 (“EGN Web Services implementation reports”) will be submitted.
2. Instructions on how to develop a client for the EGN infrastructure will be put on-line.
3. NMCA's will be assisted in setting up **Local Services**.
4. At the end of the month we hope the **Local Service** of Finland is ready.

### **3.7 After February 2009**

BKG will continue to host the EGN Central Service and the EGN Data monitor. Additional NMCA's may be connected to the EGN infrastructure by the EGN administrator. Additional clients to the EGN Central Service may be developed by third parties.