Commission Regulation (EU) No 1088/2010 of 23 November 2010 amending Regulation (EC) No 976/2009 as regards download services and transformation services

COMMISSION REGULATION (EU) No 1088/2010

of 23 November 2010

amending Regulation (EC) No 976/2009 as regards download services and transformation services

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)[1], and in particular Article 16 thereof,

Whereas:

(1)   Commission Regulation (EC) No 976/2009 of 19 October 2009 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards the Network Services[2] sets out common technical specifications and minimum performance criteria for two types of network services — view and discovery services.

(2)   Network services also include download services and transformation services. Download services are services which give users access to the information contained in the spatial data sets related to the spatial data themes defined in Directive 2007/2/EC. Spatial data sets made available through download services should be in conformity with Commission Regulation (EU) No 1089/2010[3]. Transformation services are services which may be used to put spatial data sets in conformity with that Regulation.

(3)   In order to ensure the interoperability of the infrastructures for spatial information established by the Member States, it is appropriate to lay down common technical specifications and minimum performance criteria for download services and transformation services.

(4)   Regulation (EC) No 976/2009 should therefore be amended accordingly.

(5)   The measures provided for in this Regulation are in accordance with the opinion of the Committee established by Article 22 of Directive 2007/2/EC,

HAS ADOPTED THIS REGULATION:

Article 1

Regulation (EC) No 976/2009 is amended as follows:

1.   in the second subparagraph of Article 2, the following point (12) is added:

12.   "Direct Access Download" means a Download Service which provides access to the Spatial Objects in Spatial Data Sets based upon a query.;

2.   in Article 3, the following points (c) and (d) are added:

(c)   as concerns the Download Services, the applicable specific requirements and characteristics set out in Annexes I and IV;

(d)   as concerns the Transformation Services, the applicable specific requirements and characteristics set out in Annexes I and V.;

3.   in Article 4, the following paragraphs 3 to 6 are added:

3.   Not later than 28 June 2012, Member States shall provide the Download Services with initial operating capability.

4   Not later than 28 December 2012, Member States shall provide the Download Services in conformity with this Regulation.

5   Not later than 28 June 2012, Member States shall provide the Transformation Services with initial operating capability.

6   Not later than 28 December 2012, Member States shall provide the Transformation Services in conformity with this Regulation.;

4.   Annex I is replaced by the text set out in Annex I to this Regulation;

5.   Annex IV, set out in Annex II to this Regulation, is added;

6.   Annex V, set out in Annex III to this Regulation, is added.

Article 2

Entry into force

This Regulation shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 23 November 2010.

For the Commission

The President

José Manuel BARROSO

ANNEX I

ANNEX I

QUALITY OF SERVICE

Third party network services linked pursuant to Article 12 of Directive 2007/2/EC shall not be taken into account in the quality of service appraisal to avoid any deterioration which may result from cascading effects.

The following Quality of Service criteria relating to performance, capacity and availability shall apply.

1.   PERFORMANCE

The normal situation represents periods out of peak load. It is set at 90 % of the time.

The response time for sending the initial response to a discovery service request shall be maximum 3 seconds in normal situation.

For a 470 Kilobytes image (e.g. 800 × 600 pixels with a colour depth of 8 bits), the response time for sending the initial response to a Get Map Request to a view service shall be maximum 5 seconds in normal situation.

For the Get Download Service Metadata operation, the response time for sending the initial response shall be maximum 10 seconds in normal situation.

For the Get Spatial Data Set operation and for the Get Spatial Object operation, and for a query consisting exclusively of a bounding box, the response time for sending the initial response shall be maximum 30 seconds in normal situation then, and still in normal situation, the download service shall maintain a sustained response greater than 0,5 Megabytes per second or greater than 500 Spatial Objects per second.

For the Describe Spatial Data Set operation and for the Describe Spatial Object Type operation, the response time for sending the initial response shall be maximum 10 seconds in normal situation then, and still in normal situation, the download service shall maintain a sustained response greater than 0,5 Megabytes per second or greater than 500 descriptions of Spatial Objects per second.

2.   CAPACITY

The minimum number of simultaneous requests to a discovery service to be served in accordance with the quality of service performance criteria shall be 30 per second.

The minimum number of simultaneous service requests to a view service to be served in accordance with the quality of service performance criteria shall be 20 per second.

The minimum number of simultaneous requests to a download service to be served in accordance with the quality of service performance criteria shall be 10 requests per second. The number of requests processed in parallel may be limited to 50.

The minimum number of simultaneous requests to a transformation service to be served in accordance with the quality of service performance criteria shall be 5 requests per second.

3.   AVAILABILITY

The probability of a network service to be available shall be 99 % of the time.

ANNEX II

ANNEX IV

DOWNLOAD SERVICES

PART A

Download Operations

1.   LIST OF OPERATIONS

In order to be in conformity with Article 11(1)(c) of Directive 2007/2/EC, the Download Service shall at least provide the operations listed in Table 1 of this Annex.

TABLE 1

Operation	Role
Get Download Service Metadata	Provides all necessary information about the service, the available Spatial Data Sets, and describes the service capabilities.
Get Spatial Data Set	The Get Spatial Data Set operation allows the retrieval of a Spatial Data Set.
Describe Spatial Data Set	This operation returns the description of all the types of Spatial Objects contained in the Spatial Data Set.
Link Download Service	Allows the declaration, by a Public Authority or a Third Party, of the availability of a Download Service for downloading Spatial Data Sets or, where practicable, Spatial Objects, through the Member State's Download Service while maintaining the downloading capability at the Public Authority or the Third Party location.

The request and response parameters of each operation complete the description of each operation and form an integral part of the Download Service's technical specifications.

2.   GET DOWNLOAD SERVICE METADATA OPERATION

2.1.   **Get Download Service Metadata request**

2.1.1.   *Get Download Service Metadata request parameter*

The Get Download Service Metadata request parameter shall indicate the natural language to be used for the content of the Get Download Service Metadata response.

2.2.   **Get Download Service Metadata response**

The Get Download Service Metadata response shall contain the following sets of parameters:

—   Download Service Metadata,

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— Operations Metadata,

— Languages,

— Spatial Data Sets Metadata.

2.2.1. *Download Service Metadata parameter*

The Download Service Metadata parameters shall at least contain the INSPIRE metadata elements of the Download Service.

2.2.2. *Operations Metadata parameter*

The Operations metadata parameter provides metadata about the operations implemented by the Download Service. It shall at least provide a description of each operation, including as a minimum a description of the data exchanged and the network address.

2.2.3. *Languages parameter*

Two language parameters shall be provided:

— the response Language parameter indicating the natural language used in the Get Download Service Metadata response parameters,

— the Supported languages parameter containing the list of the natural languages supported by the Download Service.

2.2.4. *Spatial Data Sets Metadata parameters*

The INSPIRE metadata elements of the available Spatial Data Sets shall be provided. In addition, for each Spatial Data Set, the list of those Coordinate Reference Systems referred to in Regulation (EU) No 1089/2010 which are available shall also be provided.

3. GET SPATIAL DATA SET OPERATION

3.1. **Get Spatial Data Set request**

The Get Spatial Data Set request contains the following parameters:

— Language,

— Spatial Data Set Identifier,

— Coordinate Reference System.

3.1.1. *Language parameter*

The Language parameter shall indicate the natural language requested for the Spatial Data Set.

3.1.2. *Spatial Data Set Identifier parameter*

The Spatial Data Set Identifier parameter shall contain the Unique Resource Identifier of the Spatial Data Set.

3.1.3. *Coordinate Reference System parameter*

The Coordinate Reference System parameter shall contain one of the Coordinate Reference Systems included in the list of available Coordinate Reference Systems referred to in point 2.2.4.

3.2. **Get Spatial Data Set response**

3.2.1. *Get Spatial Data Set response parameter*

The Get Spatial Data Set response parameter shall be the requested Spatial Data Set in the requested language and in the requested Coordinate Reference System.

4.   DESCRIBE SPATIAL DATA SET OPERATION

4.1.   **Describe Spatial Data Set request**

The Describe Spatial Data Set request shall contain the following parameters:

—   Language,

—   Spatial Data Set Identifier.

4.1.1.   *Language parameter*

The Language parameter shall indicate the natural language requested for the description of the Spatial Objects type.

4.1.2.   *Spatial Data Set Identifier parameter*

The Spatial Data Set Identifier parameter shall contain the Unique Resource Identifier of the Spatial Data Set.

4.2.   **Describe Spatial Data Set response**

4.2.1.   *Describe Spatial Data Set response parameter*

The Describe Spatial Data Set response parameter shall be the description of the Spatial Objects in the requested Spatial Data Set and in the requested language.

5.   LINK DOWNLOAD SERVICE OPERATION

The Link Download Service operation allows the declaration of the availability of a Download Service compliant with this Regulation, for the download of resources through the Member State's Download Service while maintaining the resources at the owner location.

5.1.   **Link Download Service request**

5.1.1.   *Link Download Service request parameter*

The Link Download Service request parameter shall provide all information about the Public Authority's or Third Party's Download Service compliant with this Regulation, enabling the Member State Download Service to provide access to Spatial Data Sets and, where practicable, to Spatial Objects from the Public Authority's or Third Party's Download Service.

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PART B

Direct Access Download Operations

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6.   LIST OF OPERATIONS

Where the Download Service gives direct access to spatial data sets, it shall provide, in addition to the operations listed in Table 1, the operations listed in Table 2 of this Annex.

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TABLE 2

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Operation	Role
Get Spatial Object	This operation allows the retrieval of Spatial Objects based upon a query.

Describe Spatial Object Type	This operation returns the description of the specified Spatial Objects types.

The request and response parameters of each operation complete the description of each operation and form an integral part of the Download Service's technical specifications.

7.   GET SPATIAL OBJECT OPERATION

7.1.   **Get Spatial Object request**

The Get Spatial Object request shall support the following parameters:
—   Language,
—   Spatial Data Set Identifier,
—   Coordinate Reference System,
—   Query.

7.1.1.   *Language parameter*

The Language parameter shall indicate the natural language requested for the Spatial Objects.

7.1.2.   *Spatial Data Set Identifier parameter*

The Spatial Data Set Identifier parameter shall contain the Unique Resource Identifier of the required Spatial Data Set. Where the parameter is not provided, it shall be assumed that all available Spatial Data Sets have been selected.

7.1.3.   *Coordinate Reference System parameter*

The Coordinate Reference System parameter shall contain one of the Coordinate Reference Systems included in the list of Coordinate Reference Systems set out in Regulation (EU) No 1089/2010.

7.1.4.   *Query parameter*

The query parameter shall be composed of the search criteria listed in part C.

7.2.   **Get Spatial Object response**

The Get Spatial Object response shall contain the following parameters:
—   Spatial Objects Set,
—   Spatial Objects Set Metadata.

7.2.1.   *Spatial Objects Set parameter*

The Spatial Objects Set parameter shall be the set of Spatial Objects which complies with Regulation (EU) No 1089/2010 and fulfils the search criteria in the query, in the requested language and in the Coordinate Reference System.

7.2.2.   *Spatial Objects Set Metadata parameter*

The Spatial Objects Set Metadata parameter shall contain at least the INSPIRE metadata elements of the set of Spatial Objects.

8.   DESCRIBE SPATIAL OBJECT TYPE OPERATION

8.1.   **Describe Spatial Object Type request**

The Describe Spatial Object Type request shall contain the following parameters:

—   Language,
—   Spatial Object Type.

8.1.1.   *Language parameter*

The Language parameter shall indicate the natural language requested for the description of the Spatial Object type.

8.1.2.   *Spatial Object Type parameter*

The Spatial Object Type parameter shall contain the language-neutral name of the Spatial Object Type as specified in Regulation (EU) No 1089/2010. Where the parameter is not provided, it shall be assumed that all types of Spatial Objects have been selected.

8.2.   **Describe Spatial Object Type response**

8.2.1.   *Describe Spatial Object Type response parameter*

The Describe Spatial Object type response parameter shall be the description of the spatial object type, in conformity with Regulation (EU) No 1089/2010.

PART C

Search Criteria for the Get Spatial Object Operation

For the purposes of the Get Spatial Object Operation of the Download Service, the following search criteria shall be implemented:
—   Unique Resource Identifier of Spatial Data Set,
—   all relevant key attributes and the relationship between Spatial Objects as set out in Regulation (EU) No 1089/2010; in particular the Unique Identifier of Spatial Object and the temporal dimension characteristics, including the date of update,
—   bounding box, expressed in any of the Coordinate Reference Systems listed in Regulation (EU) No 1089/2010,
—   Spatial Data Theme.

To allow for discovering spatial objects through a combination of search criteria, logical and comparison operators shall be supported.

ANNEX III

ANNEX V	TRANSFORMATION SERVICESTransformation Operations1.LIST OF OPERATIONS

In order to be in conformity with Article 11(1)(d) of Directive 2007/2/EC, the Transformation Service shall provide the operations listed in Table 1 of this Annex.

TABLE 1

Operation	Role
Get Transformation Service Metadata	Provides all necessary information about the service and describes the service capabilities, including the supported

	transformation category, supported transformations, accepted input data types, supported model definition and mapping languages.
Transform	Carries out the actual transformation process.
Link Transformation Service	Allows the declaration of availability of a Transformation Service for Transforming Spatial Data Sets through the Member State's Transformation Services while maintaining the Transformation capability at the Public Authority or the Third party location.

The request and response parameters of each operation complete the description of each operation and form an integral part of the Transformation Service's technical specifications.

2.GET TRANSFORMATION SERVICE METADATA OPERATION2.1.Get Transformation Service Metadata request2.1.1.Get Transformation Service Metadata request parameter

The Get Transformation Service Metadata request parameter shall indicate the natural language for the content of the Get Transformation Service Metadata response.

2.2.Get Transformation Service Metadata response

The Get Transformation Service Metadata response shall contain the following sets of parameters:

— Transformation Service Metadata,

— Operations Metadata,

— Languages.

2.2.1.Transformation Service Metadata parameter

The Transformation Service Metadata parameter shall at least contain the INSPIRE metadata elements of the Transformation Service.

2.2.2.Operations Metadata parameter

The Operations Metadata parameter provides metadata about the operations implemented by the Transformation Service.

It shall describe each operation, including as a minimum a description of the data exchanged and the network address, and shall list the following:

— the transformation categories accepted by the Transform operation,

— the encoding for the input Spatial Data Set accepted by the Transform operation,

— the Data Model languages accepted by the Transform operation,

— the Model Mapping languages accepted by the Transform operation.

2.2.3.Languages parameter

Two parameters shall be provided:

— the response language parameter indicating the natural language used in the Get Transformation Service Metadata response,

— the supported languages parameter containing the list of the natural languages supported by the Transformation Service.

3.TRANSFORM OPERATION3.1.Transform request

The Transform request shall contain the following parameters:

— Input Spatial Data Set,

— Source Model,

— Target Model,

— Model Mapping.

3.1.1.Input Spatial Data Set parameter

The Input Spatial Data Set parameter shall indicate the Spatial Data Set to be transformed.

3.1.2.Source Model parameter

The Source Model parameter shall specify the model of the Input Spatial Data Set.

3.1.3.Target Model parameter

The Target Model parameter shall specify the model to which the input Spatial Data Set shall be transformed.

3.1.4.Model Mapping parameter

The Model Mapping parameter shall specify the mapping from the Source Model to the Target Model.

3.2.Transform response3.2.1.Transform response parameter

The Transform response parameter shall contain the Spatial Data Set transformed in conformity with Regulation (EU) No 1089/2010.

4.LINK TRANSFORMATION SERVICE OPERATION4.1.Link Transformation Service request4.1.1.Link Transformation Service request parameter

The Link Transformation Service request parameter shall provide all information about the Public Authority's or Third Party's Transformation Service in conformity with this Regulation, enabling the use of the Public Authority's or Third Party's Transformation Service by the Member State's Transformation Service.

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(1) OJ L 108, 25.4.2007, p. 1.

(2) OJ L 274, 20.10.2009, p. 9.

(3) See page 11 of this Official Journal.

Changes to legislation:
There are currently no known outstanding effects for the Commission Regulation (EU) No 1088/2010.