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Open Geospatial Consortium

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OGC GeoDCAT SWG Charter

To: OGC members & interested parties

A new OGC Standards Working Group is being formed. The OGC members listed below have proposed the OGC GeoDCAT SWG. The SWG proposal provided in this document meets the requirements of the OGC Technical Committee (TC) Policies and Procedures.

The SWG name, statement of purpose, scope, list of deliverables, audience, and language specified in the proposal will constitute the SWG's official charter. Technical discussions may occur no sooner than the SWG's first meeting.

This SWG will operate under the OGC IPR Policy. The eligibility requirements for becoming a participant in the SWG at the first meeting (see details below) are that:

- You must be an employee of an OGC member organization or an individual member of OGC;
- The OGC member must have signed the OGC Membership agreement;
- You must notify the SWG chair of your intent to participate to the first meeting. Members may do so by logging onto the OGC Portal and navigating to the Observer page and clicking on the link for the SWG they wish to join and;
- You must attend meetings of the SWG. The first meeting of this SWG is at the time and date fixed below. Attendance may be by teleconference.

Of course, participants also may join the SWG at any time. The OGC and the SWG welcomes all interested parties.

Non-OGC members who wish to participate may contact us about joining the OGC. In addition, the public may access some of the resources maintained for each SWG: the SWG public description, the SWG Charter, Change Requests, and public comments, which will be linked from the SWG's page.

Please feel free to forward this announcement to any other appropriate lists. The OGC is an open standards organization; we encourage your feedback.

Chapter 1. Purpose of the Standards Working Group

The purpose of this SWG is to revise, publish and maintain GeoDCAT, a spatio-temporal profile of the W3C DCAT Recommendation [DCAT] , and provide guidance about its use and further specialisation.

The GeoDCAT profile of DCAT will be implemented as both human and machine-actionable resources.

Chapter 2. Business Value Proposition

DCAT is a widely used metadata standard for datasets and data access services, tpyically within a spatio-temporal context. Some basic temporal and geographic properties have been adopted within the DCAT v2 and planned v3, however these do not address the full range of requirements identified in the GeoDCAT-AP Discussion paper.

2.1. Value to the OGC

To maintain its place as the provider of standards for description and access to spatio-temporal data the OGC should provide guidance on representation of spatio-temporal concepts in data catalogues. GeoDCAT is already referenced in the Spatial Data on the Web Best Practice [SDWBP]. The SWG will support publishing this as a normative resource, supporting the rationale for following SDWBP in general. In addition, the management of a family od sub-profiles of GeoDCAT may be defined to standardise the description of OGC API usage in such catalogues.

2.2. Value to the OGC Membership

Normative publication of GeoDCAT and API-centric implementation profiles provides a simplified pathway to assimilation of OGC standards into deployed systems. In addition, formalised publication and identification supports the publicatioon and access via FAIR principles of supporting human and mcahine-readable resources to facilitate and validate implementations.

2.3. Value to the geospatial community

The larger geospatial community will benefit from the standardisation of description of geospatial data and access services in DCAT based datacatalogs.

2.4. Value to the wider IT community

The publication of a formal profile of DCAT will present a best practice for the domain specialisation of general data model standards, and a pattern for further specialisation as required.

Chapter 3. Scope of Work

The initial activities will be to update the GeoDCAT-AP discussion paper 18-001r1 to: * separate DCAT-AP concerns from DCAT profiles * update to meet the DCAT v3 candidate and final recommendation status * update as required to use current GeoSPARQL specification version * update GeoDCAT-AP and formally model dependency on currenty DCAT-AP versions * formalise machine readable versions of GeoDCAT and GeoDCAT-AP profiles * prepare and validate illustrative examples using the machine-readable description * define a mechanism for describing specialised profiles of GeoDCAT * publish using current OGC specification document methodology

Future activities will include definition of additional specialised profiles as required and requested by specific applications domains (via OGC Domain Working Group inputs).

3.1. Statement of relationship of planned work to the current OGC standards baseline

This scope is primarily aimed to progress the concept of GeoDCAT from an informative discussion paper into a normative and supported resource.

Further specialisations will provide transparent, interoperable and validatable patterns for the inclusion of OGC standards conformant resources into DCAT based catalogue implementations.

3.2. What is Out of Scope?

Revisions to DCAT itself is out of scope. Definition of new vocabularies or ontologies to extend DCAT should be strictly limited to defining concepts needed to describe aspects of OGC standards and would be progressed in conjunction with the relevant OGC SWG.

3.3. Specific Existing Work Used as Starting Point

- GeoDCAT-AP Discussion Paper [GeoDCAT-AP]
- DCAT v2 [DCAT]
- DCAT v3 draft [DCAT3]
- W3C Profiles Vocabulary [PROF]

3.4. Is This a Persistent SWG

[x] YES

[ ] NO

3.5. When can the SWG be Inactivated

The SWG can be inactivated once a registration mechanism (policies, technical standards and infrastructure support) for further application domain specialised profiles of DCAT allows use of

the GeoDCAT profile without the need for additional modification.

Chapter 4. Description of deliverables

This SWG aims to revise and extend the GeoSPARQL standard.

Initial goals of the working group are to incorporate several major and minor extension proposals to the GeoSPARQL standard which have been summarized in a published OGC white paper and were collected on the OGC Standards Tracker.

Some of the proposed extensions include support for additional geospatial literal types, and support for coverage data, spatiotemporal representations and different semantic representations of CRS.

To organize the working group we propose the following preliminary schedule.

- 1st meeting: Review and prioritization of issues submitted to the OGC Standards Tracker
- Next months: Work towards a candidate standard for public review
- Release of the candidate standard for public review
- Iterative approach to improve the candidate standard by considering comments and further upcoming issues
- Final revision of the standard
- Recommendation of the final standard to the OGC

4.1. Initial Deliverables

The initial deliverables are based on the initial selection and prioritization of issues from the OGC Standards tracker. This selection will be determined in the first meetings of the working group and subsequently updated in this working group charter.

After deciding on the initial issues to be worked on, this SWG will publish a roadmap to be used to manage scope and timeframes for delivery of a modular revision of the GeoSPARQL standard.

4.2. Additional SWG Tasks

Additional SWG tasks will be added iteratively when new change requests and issues become apparent or gain priority. The SWG is planned as a long term working group so that new change requests may arise during the development of the initial deliverables. These will be prioritized and periodically classified as additional SWG tasks.

Chapter 5. IPR Policy for this SWG

[x] RAND-Royalty Free

[ ] RAND for fee

Chapter 6. Anticipated Audience / Participants

The anticipated audience is:

- implementors of Semantic Web systems that support, or plan to support, spatial data;
- integrators of spatial data on the web; and
- developers and data modelers using graph database systems for spatial data.

We hope that this enhanced version of GeoSPARQL will be widely applicable as a spatial concepts and data representation model. It is expected to be of great interest to those implementing specialized or partly spatial Internet systems that need to share information with others due to its native web-based and inherently extensible form (as per all Semantic Web applications).

Chapter 7. Domain Working Group Endorsement

The Chairs of the Geosemantics Domain Working Group (DWG), Joseph Abhayaratna and Linda van den Brink, do formally endorse the formation of the GeoSPARQL Standards Working Group (SWG).

Chapter 8. Other informative information about the work of this SWG

8.1. Collaboration

The GeoSPARQL SWG will use

- Project Related Documentation;
- Creation and management of outstanding work items, using Standards Tracker as the authoritative register;
- Prioritisation of work items into iterations of work; and
- The Standard Document itself.

It is proposed that the work of this SWG be conducted openly on GitHub, as the work of the motivating GeoSemantics DWG is.

8.2. Similar or Applicable Standards Work (OGC and Elsewhere)

The following standards and projects may be relevant to the SWG's planned work, although none currently provide the functionality anticipated by this working group's deliverables. The SWG intends to seek and if possible maintain liaison with each of the organizations that manage these activities.

8.2.1. W3C Linked Building Data Community Group

Scope of Activity

This group brings together experts in the area of building information modeling (BIM) and Web of Data technologies to define existing and future use cases and requirements for linked data based applications across the life cycle of buildings. A list of recommended use cases will be produced by this community group. The envisioned target beneficiaries of this group are both industrial and governmental organizations who use data from building information modeling applications and other data related to the building life cycle (sensor data, GIS data, material data, geographical data, and so forth) to achieve their business processes and whom will benefit from greater integration of data and interoperability between their data sets and the wider linked data communities. [10]

Web Site(s)

- https://www.w3.org/community/lbd/

Source Repositories

- https://github.com/w3c-lbd-cg/lbd

Liaisons

- Mathias Bonduel
- Kris McGlinn
- Anna Wagner

8.2.2. ISO/IEC JTC 1/SC 32/WG 3

Scope of Activity

ISO/IEC JTC1 SC32 WG 3 Database Languages' mission is to identify marketplace trends and requirements in data management and develop standard languages for, features of, and APIs to access data management engines that provide the capabilities to address those trends and requirements.

Web Site(s)

- https://isotc.iso.org/livelink/livelink?func=ll&objId=8917590&objAction=browse

Source Repositories

- TBD

Liaisons

- Joseph Abhayaratna
- Nicholas Car

8.2.3. W3C/OGC Spatial Data on the Web Interest Group

(And/or its successor, the Spatial Data on the Web Working Group)

Scope of Activity

This group operates within the W3C as well as the OGC in order to develop and maintain vocabularies and best practices that encourage better sharing of spatial data on the Web; and identify areas where standards should be developed jointly by both W3C and the Open Geospatial Consortium (OGC). It allows members of both organizations to collaborate in the creation of standards an best practices related to both Web and spatial data.

The group is expected to be transformed into a working group over the course of the year 2020.

Web Site(s)

- https://www.w3.org/2017/sdwig/

Source Repositories

- https://github.com/w3c/sdw

Liaisons

- Linda van den Brink
- Joseph Abhayaratna

8.3. Other Related Work

This proposed SWG is to enhance an existing OGC standard - an ontology - however the Best Practices for ontology publication have changed since the original GeoSPARQL publication. The ontology publication methods of other standards bodies, particularly the W3C who continuously generates new standard ontologies, will be considered to determine appropriate, Best Practice, ontology publication.

This may include the use of tools to automatically generate human-readable ontology versions from the technical ontology artifact, such as those used by inputs to this work, for example the GeoSPARQL Extensions Ontology.

It may also include the description of a next version of GeoSPARQL as a **profile** (of GeoSPARQL 1.0 and perhaps other ontologies) as well as an ontology, in line with recent work by OGC members and others to establish standard ways of indicating the dependencies between standards, as per The Profiles Vocabulary.

8.4. Details of first meeting

The first meeting of the SWG will be held by telephone conference call at 6AM EDT on the first Thursday immediately following the week of Technical Committee approval of this Charter. Call-in information will be provided to the SWG's e-mail list and on the portal calendar in advance of the meeting.

8.5. Projected on-going meeting schedule

The work of the SWG will be carried out primarily by email and conference calls, possibly every two weeks, with face-to-face meetings perhaps at each of the OGC TC meetings.

8.6. Supporters of this Charter

The following people support this proposal and are committed to the Charter and projected meeting schedule. These members are known as SWG Founding or Charter members. The charter members agree to the SoW and IPR terms as defined in this charter. The charter members have voting rights beginning the day the SWG is officially formed. Charter Members are shown on the public SWG page.

J. Abhayaratna	PSMA Australia
N.J. Car	SURROUND Australia Pty Ltd
S. Cox	CSIRO
T. Homburg	Mainz University Of Applied Sciences

F. Knibbe	
M. Perry	Oracle
L.E. van den Brink	Geonovum
B. de Lathouwer	Gemeente Rotterdam

8.7. Conveners

Name	Organization
J. Abhayaratna	PSMA Australia
L.E. van den Brink	Geonovum

Chapter 9. References

[1] Web: W3C: Data Catalog Vocabulary (DCAT) - Version 2, https://www.w3.org/TR/vocab-dcat-2/ (2020)

[2] Web: W3C: Data Catalog Vocabulary (DCAT) - Version 3, https://www.w3.org/TR/vocab-dcat-3/

[3] Web: OGC & W3C: Spatial Data on the Web Best Practices, https://www.w3.org/TR/sdw-bp/

[4] Web: OGC : GeoDCAT-AP Discussion Paper, http://www.opengis.net/doc/dp/GeoDCAT-AP

[5] Web: W3C: Profiles Vocabulary (DCAT), https://www.w3.org/TR/dx-prof/