#### OGC® DOCUMENT: 18-046

External identifier of this OGC® document: http://www.opengis.net/doc/PER/eoep-Hack2018



# ENGINEERING REPORT FOR OGC (ADD TITLE TEXT)

**ENGINEERING REPORT** 

**PUBLISHED** 

Submission Date: 2018-12-20 Approval Date: 2018-07-10 Publication Date: 2018-06-12 Editor: John Doe, Jane Doe

**Notice:** This document is not an OGC Standard. This document is an OGC Public Engineering Report created as a deliverable in an OGC Interoperability Initiative and is *not an official position* of the OGC membership. It is distributed for review and comment. It is subject to change without notice and may not be referred to as an OGC Standard.

Further, any OGC Engineering Report should not be referenced as required or mandatory technology in procurements. However, the discussions in this document could very well lead to the definition of an OGC Standard.



#### License Agreement

Use of this document is subject to the license agreement at <a href="https://www.ogc.org/license">https://www.ogc.org/license</a>

#### Copyright notice

Copyright © 2024 Open Geospatial Consortium To obtain additional rights of use, visithttps://www.ogc.org/legal

#### Note

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The Open Geospatial Consortium shall not be held responsible for identifying any or all such patent rights.

Recipients of this document are requested to submit, with their comments, notification of any relevant patent claims or other intellectual property rights of which they may be aware that might be infringed by any implementation of the standard set forth in this document, and to provide supporting documentation.

## CONTENTS

	I.	EXECUTIVE SUMMARY	iv
	II.	KEYWORDS	.iv
	III.	CONTRIBUTORS	iv
	IV.	OVERVIEW	.iv
	V.	FUTURE OUTLOOK	V
	VI.	VALUE PROPOSITION	V
	1.	INTRODUCTION	2
	2.	TOPICS	4
	3.	OUTLOOK	7
	4.	SECURITY, PRIVACY AND ETHICAL CONSIDERATIONS	9
	BIB	LIOGRAPHY	11
	AN	NEX A (NORMATIVE) ABBREVIATIONS/ACRONYMS	13
	AN	NEX B (INFORMATIVE) TECHNICAL DETAIL	15
LIST	OF	TABLES	
	T. I.		1
		le 1 — Table Title le 2	
LIST	OF	FIGURES	
	۲.	4	_
	Figi	ure 1 — Figure title	5

### **EXECUTIVE SUMMARY**

**NOTE:** This Executive Summary, including the Overview, Future Outlook and Value proposition, is a mandatory section for all Engineering Reports. The Executive Summary is a high-level overview of the document and should be written in a way that is accessible to a non-technical audience. It should provide a brief overview of the document, including the problem being addressed, the solution, and the benefits of the solution. The Executive Summary should ideally be 1 page, and can be no more than 2 page in length.

#### **KEYWORDS**

The following are keywords to be used by search engines and document catalogues.

hackathon, application-to-the-cloud, testbed, docker, web service



#### **CONTRIBUTORS**

All questions regarding this submission should be directed to the editor or the submitters:

NAME	AFFILIATION	OGC MEMBER
Steve Liang	University of Calgary, Canada / SensorUp Inc.	Yes

NOTE: If you need to place any further sections in the preface area use the [.preface] attribute. However this is not recommended.



### **OVERVIEW**

<Insert Overview Text here>



### **FUTURE OUTLOOK**

<Insert Future Outlook Text here>



### **VALUE PROPOSITION**

<Insert Value Proposition Text here>

1

## INTRODUCTION

## 1 INTRODUCTION

Introduction content.

TOPICS

## 2

### **TOPICS**

<Insert the main contents of the report here. For your understanding, examples of styling for tables, figures, illustrations, small source code snipets, etc. will be included here.>

**NOTE:** This section (Topics), the previous section (Introduction), the Outlook, and the Security, Privacy and Ethical Considerations sections are required for the final submission of the document. Combined, these sections should not exceed 30 pages.

Tables can be added as necessary. Modify the following example as needed.

**Table 1** — Table Title

HEADER A	HEADER B	HEADER C
row 1	name 1	description 1
row 2	name 2	description 2
row 3	name 3	description 3

Dictionary tables for requirements can be added as necessary. Modify the following example as needed.

Table 2

NAMES	DEFINITION	DATA TYPES AND VALUES	MULTIPLICITY AND USE
name 1	definition of name 1	float	One or more (mandatory)
name 2	definition of name 2	character string type, not empty	Zero or one (optional)
name 3	definition of name 3	GML:: Point PropertyType	One (mandatory)



Figure 1 — Figure title

OUTLOOK

## 3 OUTLOOK

<Insert the outlook here>

**NOTE:** This section (Outlook), the previous sections (Introduction) and (Topics), and the Security, Privacy and Ethical Considerations sections are required for the final submission of the document. Combined, these sections should not exceed 30 pages.

4

## SECURITY, PRIVACY AND ETHICAL CONSIDERATIONS



## SECURITY, PRIVACY AND ETHICAL CONSIDERATIONS

<Insert the Security, Privacy and Ethical Considerations here>

**NOTE:** This section (Security, Privacy and Ethical Considerations), the previous sections (Introduction), (Topics), and (Outlook) are required for the final submission of the document. Combined, these sections should not exceed 30 pages.



## BIBLIOGRAPHY

- [1] Ben Domenico: OGC 10-092r3, NetCDF Binary Encoding Extension Standard: NetCDF Classic and 64-bit Offset Format. Open Geospatial Consortium (2011).
- [2] Akinori Asahara, Ryosuke Shibasaki, Nobuhiro Ishimaru, David Burggraf: OGC 14-084r2, OGC® Moving Features Encoding Extension: Simple Comma Separated Values (CSV). Open Geospatial Consortium (2015). <a href="http://www.opengis.net/doc/IS/movingfeatures/csv-extension/1.0.0">http://www.opengis.net/doc/IS/movingfeatures/csv-extension/1.0.0</a>.
- [3] Akinori Asahara, Ryosuke Shibasaki, Nobuhiro Ishimaru, David Burggraf: OGC 14-083r2, OGC® Moving Features Encoding Part I: XML Core. Open Geospatial Consortium (2015). http://www.opengis.net/doc/IS/movingfeatures/xmlcore/1.0.0.
- [4] OGC: OGC 11-165r2: CF-netCDF3 Data Model Extension standard, 2012
- [5] Standardized Big Data Processing in Hybrid Clouds. In: Proceedings of the 4th International Conference on Geographical Information Systems Theory, Applications and Management Volume 1: GISTAM, pp. 205–210. SciTePress (2018).
- [6] Lawrence Livermore National Laboratory: NetCDF CF Metadata Conventions <a href="http://cfconventions.org/">http://cfconventions.org/</a>
- [7] ESIP: Attribute Convention for Data Discovery (ACDD) <a href="http://wiki.esipfed.org/index.php/">http://wiki.esipfed.org/index.php/</a>



## ANNEX A (NORMATIVE) ABBREVIATIONS/ACRONYMS



## ANNEX A (NORMATIVE) ABBREVIATIONS/ACRONYMS

Abbreviation	Explanation
Abbreviation	Explanation
Abbreviation	Explanation

В

## ANNEX B (INFORMATIVE) TECHNICAL DETAIL

В

## ANNEX B (INFORMATIVE) TECHNICAL DETAIL

<Technical detail (material beyond 20/30 pages in the core content)section, which is not mandatory for the understanding of the document, can be placed in an annex.>

**NOTE:** Place annex material in sequential order and set obligation attribute as "normative" (default) or "informative" according to the case.

If additional annexes are needed, you can duplicate this section and change the id attribute (annex-technical-detail) to a unique value. You will also need to increment the filename.