



# Software Requirements Specification

***D-XXX***

EOX Team

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# DESIDE - Software Requirements Specification

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## AMENDMENT HISTORY

This document shall be amended by releasing a new edition of the document in its entirety. The Amendment Record Sheet below records the history and issue status of this document.

*Table 1. Amendment Record Sheet*

ISSUE	DATE	REASON
0.1	11/12/2023	Initial in-progress draft
1.0		First released version

# Chapter 1. Introduction

## 1.1. Purpose and Scope

This document represents the Software Requirements Specification (SRS) for the DESIDE. This document describes the functional and non functional requirements applicable. This document forms the basis against which the detailed design, implementation, unit and integration testing, and the verification are performed and outlined in the Software Verification and Validation Plan (SVVP) and Software Verification and Validation Report (SVVR).

## 1.2. Structure of the Document

### Section 2 - Overview

This section provides an overview of the DESIDE DESIDE

### Section 3 - Software Requirements Specification

This section provides the software requirements for the DESIDE DESIDE

## 1.3. Reference Documents

The following is a list of Applicable and Reference Documents with a direct bearing on the content of this document.

Reference	Document Details	Version
[SOW]	Statement of Work Destination Earth DESP Use Cases selection - Round 1 Reference: CS301353.Docref.0002	1.0
[Proposal]	Proposal No. 8482: DestinE Sea Ice Decision Enhancement (DESIDE)	1.1 06/06/2023

## 1.4. Terminology

The following terms have been used in this document.

Term	Meaning
Admin	User with administrative capabilities on a platform.
Code	The codification of an algorithm performed with a given programming language - compiled to Software or directly executed (interpreted) within the platform.
Discovery	User finds products/services of interest to them based upon search criteria.
Interactive Web Application	An Interactive Application for analysis provided as a rich user interface through the user's web browser.

<b>Term</b>	<b>Meaning</b>
Key-Value Pair	A key-value pair (KVP) is an abstract data type that includes a group of key identifiers and a set of associated values. Key-value pairs are frequently used in lookup tables, hash tables and configuration files.
Object Store	A computer data storage architecture that manages data as objects. Each object typically includes the data itself, a variable amount of metadata, and a globally unique identifier.
Products	EO data (commercial and non-commercial) and Value-added products.
Software	The compilation of code into a binary program to be executed within the platform on-line computing environment.
User	An individual using the services.
Visualization	To obtain a visual representation of any data/products held within the platform - presented to the user within their web browser session.
Web Coverage Service (WCS)	OGC standard that provides an open specification for sharing raster datasets on the web.
Web Feature Service (WFS)	OGC standard that makes geographic feature data (vector geospatial datasets) available on the web.
Web Map Service (WMS)	OGC standard that provides a simple HTTP interface for requesting geo-registered map images from one or more distributed geospatial databases.
Web Map Tile Service (WMTS)	OGC standard that provides a simple HTTP interface for requesting map tiles of spatially referenced data using the images with predefined content, extent, and resolution.
Web Processing Services (WPS)	OGC standard that defines how a client can request the execution of a process, and how the output from the process is handled.

## 1.5. Glossary

The following acronyms and abbreviations have been used in this document.

<b>Term</b>	<b>Definition</b>
ADD	Architecture Design Document
AOI	Area of Interest
API	Application Programming Interface
COG	Cloud optimized GeoTiff
EO	Earth Observation
EOX	EOX IT Services GmbH
ESA	European Space Agency
FUSE	Filesystem in Userspace

<b>Term</b>	<b>Definition</b>
ICD	Interface Control Document
JSON	JavaScript Object Notation
KVP	Key-value Pair
M2M	Machine-to-machine
OGC	Open Geospatial Consortium
REST	Representational State Transfer
SDD	Software Design Document
SFTP	Secure File Transfer Protocol
SRF	Software Reuse File
SRN	Software Release Note
SRP	Software Release Plan
SRS	Software Requirements Specification
SSH	Secure Shell
STAC	Spatio-Temporal Asset Catalog
SUM	Software User Manual
SVVP	Software Verification and Validation Plan
SVVR	Software Verification and Validation Report
TOI	Time of Interest
UMA	User-Managed Access
US	User Story
WCS	Web Coverage Service
WFS	Web Feature Service
WMS	Web Map Service
WMTS	Web Map Tile Service
WPS	Web Processing Service
WPS-T	Transactional Web Processing Service

# Chapter 2. Overview

This section provides an overview of the DESIDE DESIDE. It highlights ...

# Chapter 3. Software Requirements Specification

This chapter lists the software requirements with a requirements matrix and references to documents.

<b>Doc</b>	<b>Reference</b>	<b>Section</b>	<b>Title</b>	<b>Short Description</b>	<b>Compliance</b>
SOW	TBD	TBD	TBD	TBD	C/N/P
SOW	TBD	TBD	TBD	TBD	C/N/P

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