

PSI Software License File

PSI-SLF



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1 Document Meta Information

1.1 Document Signature Table

	Name	Function	Company
Author	Wolfgang Robben	Project Manager	CGI
Approval	Victoria McCarthy	Project Manager	SES
Checked	Pepijn Witte	Quality Assurance Manager	CGI

Table 1.1: Signature Table.

1.1.1 Document Change Record

1.1.1.1 Changes

Date	Version	author	message
2022-09-30	MS2	Wolfgang Robben	Initial version
2022-12-31	MS3	Wolfgang Robben	Minor updates due to MS2 action items
2023-04-19	MS4	Wolfgang Robben	Formatting updates
2023-07-27	MS5	Wolfgang Robben	Formatting updates
2023-10-06	MS6	Wolfgang Robben	Formatting updates
2024-01-25	MS7	Wolfgang Robben	Only milestone updates
2024-09-11	MS8 [1.2.0]	Hendrik Oppenberg	Added GID, public release adjustments.
2024-12-09	MS9 [1.2.1]	Hendrik Oppenberg	No updates, just version bump.
2025-02-03	MS10 [1.2.2]	Wolfgang Robben	No update, just version bump.
2025-04-23	MS11 [1.3.0]	Wolfgang Robben	No update, just version bump.

Table 1.2: DCR Table.

1.1.1.2 Source Control

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Repo	Date	Author	Branch	Hash
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Table 1.3: GIT Changelog Table.



Figure 1.1: DCR QR-Code.

1.2 Documents

1.2.1 Reference Documents

Acronym	Reference	Title	Version
PSI-DL	PSI-DL	PSI CGI Document List	current MS (doc version)
PSI-MADR	PSI-MADR	PSI Markdown Administrative Decision Records	see before
PSI-TAD	PSI-TAD	PSI Terms, Abbreviations and Definitions	see before
PSI-TOD	PSI-TOD	PSI Tasks and Operations Dictionary	see before
PSI-GID	PSI-GID	PSI Graphical Interface Definitions	see before

Table 1.4: Reference Documents.

2 Introduction

The Pooling & Sharing Interfaces Definitions (PSID) project is an ESA co-funded effort to define a common standard for the interfaces of Pooling & Sharing Systems (PSS) for Satellite Communication (SatCom) services. A PSS is a digital platform for matchmaking (Gov)SatCom users' demands (both commercial and institutional) with (Gov)SatCom providers' offers. Bringing together multiple (Gov)SatCom providers in one platform makes the market transparent, thus allowing users to get an overview of the market and to compare different offers efficiently. Additionally, a PSS assists users with little knowledge about the (Gov)SatCom domain defining their requirements on the (Gov)SatCom services. Those two aspects combined allow for fast access to the services and an efficient usage of the available capacities. To accomplish this, a PSS steps in between the usual processes of finding a provider/supplier, requesting an offer, and ordering the desired products or services, either as a service broker or by pooling products and services from different providers and offering them as an intermediary or distributor. Subsequently, the PSS can be used to monitor the services and manage multiple missions in a single application.

Eventually, a PSS can also be used as (or manage) a community hub, i.e., a number of end users or customers with similar interest that *share* their common resources and utilize a commonly obtained *pool* of (Gov)SatCom capacities. This strategy increases the efficient usage of scarce resources further.

There are already different approaches on PSSs, that might lead to an unnecessary fragmentation of the market. Therefore, a common standard for the interfaces of a PSS is required to allow the interaction between those different PSSs and reduce the effort of (Gov)SatCom providers to offer their product and services via multiple PSSs to maximize their reach.

Such a standard needs to take care of the different interfaces involved in the aforementioned processes, i.e.,

The goal of this project is to mainly define aspect 1 and to develop a software mock-up as needed to validate the various interfaces being developed.

The PSI standard derives from the existing industry-standard "Open Digital Framework" of **TM Forum** alliance¹. The "Open Digital Framework" is a reference framework for delivering online Information, Communications and Entertainment services to the telecom world. It empowers market participants to compete and cooperate. One of PSI's goals is to make this existing standard fit for the world of satellite communication.

The consortium for this project consists of the service & technology providers SES Techcom and CGI, as well as of the (Gov)SatCom operators SES, Hellas Sat, Hispasat, Hisdesat, and LuxGovSat, and Inmarsat being both a service & technology provider and a (Gov)SatCom operator.

¹ See <https://www.tmforum.org/resources/reference/gb991-tm-forums-core-concepts-and-principles-v22-0-0/>

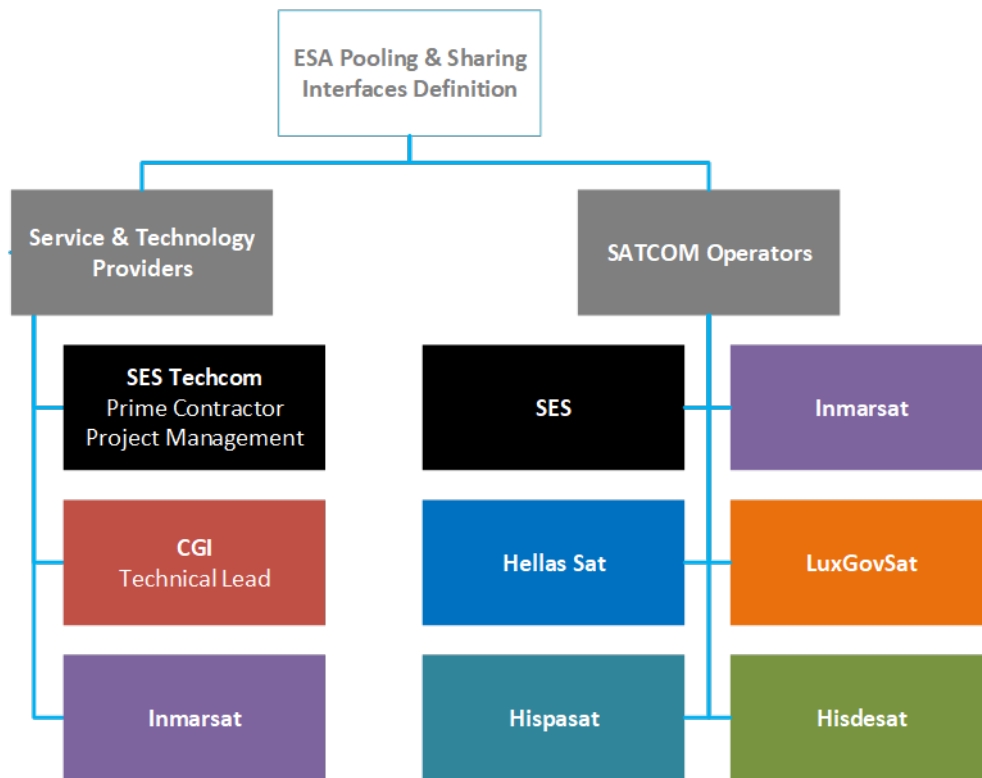


Figure 2.1: The PSI consortium.

2.1 Document Scope

This document contains information on the License(s) applicable to the PSI project. The license has to be shipped with each artefact of the project.

The following sections heavily refer to terms, abbreviations and definitions defined in the [PSI-TAD].

The 2.0 version of the Apache License, approved by the Apache Software Foundation (ASF) in 2004, was chosen by the PSI consortium as the license under which all portions of the PSI source code and documentation will be released. Find the justification below.

All artefacts produced by the PSI consortium are implicitly licensed under the Apache License, Version 2.0, unless otherwise explicitly stated.

2.1.1 Compiled Document

NOTE: THIS IS A COMPILED DOCUMENT ²

This document has been compiled/generated from external sources and is not being written as-is. Therefore, any changes made within this compiled version of the document will be lost upon recompilation!

To make (permanent) changes, edit the respective sources directly or contact the PSID team.

²Document compiled on 2025-04-23 12:38.

2.1.2 Signature

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2.1.3 Development State

Current document version is 1.3.0.

2.1.4 Release Notes

[[TOC]]

2.1.5 PSI Release Notes

2.1.5.1 Introduction

Welcome to the latest release of the Pooling and Sharing Interface (PSI) API!

This document outlines the new features, improvements, and important updates included in this version.

2.1.5.2 Key Highlights

The central focus of this release is the implementation of the **Mission Management ODA Blueprint**.

This component complements the mission-related APIs by providing a *reference implementation of graphical user interfaces* that help users specify their product and service requirements.

Designed with users in mind, this component uses templates to simplify mission creation and introduces a governance layer to facilitate and control the requirements collection process.

It's built as a standalone micro-frontend and can be easily integrated into existing OSS/BSS/PSS systems.

The interface includes multiple visualization modes:

Another major update in this release is the migration to **TM Forum APIs Version 5 (TMF5)**.

All APIs have been ported to the current TMF baseline.

However, TMF5 introduced some gaps in the Component Test Kit (CTK), resulting in partial test coverage for certain APIs. This limitation will be addressed once TM Forum updates the CTK.

Additionally, this release introduces **MEF-compatible APIs**, marking the beginning of convergence between MEF and TMF frameworks within PSI.

Our goal moving forward is to support both API standards in their respective areas.

2.1.5.3 What's New

2.1.5.3.1 Newly Added APIs

2.1.5.3.2 Updated APIs

2.1.5.3.3 Added Requirements

2.1.5.4 Known Limitations

2.1.5.5 Feedback and Contributions

We appreciate your input!

If you experience any issues or have suggestions, please don't hesitate to contact us.

We also encourage community contributions to help enhance PSI further.

3 TM Forum Heritage

Many aspects of the PSI project derive from the TM Forum projects. TM Forum applies the Apache License ³ to all its creations. That is, TM Forum artefacts, “code” and documentation is licensed under the Apache 2.0 license mode. This includes re-releasing the API. This project will work in close concert with the TM Forum API Project and will abide by its governance and use the output from that group in the forms for specifications, user stories, etc. as the input to the development process. Therefore, it’s necessary to apply the same license to PSI creations.

³<https://www.tmforum.org/collaboration/api-apache-2-0-project/>

4 License

Apache License Version 2.0, January 2004 <http://www.apache.org/licenses/>

4.1 Third Party Software Usage

The PSI project includes the utilization of third-party software components. Specifically, as part of our project development, we have utilized Draw.io for the creation of some visual representations.

Draw.io is a web-based diagramming tool based on Apache, which enables to create various types of diagrams. For additional information, please refer to the official Draw.io website <https://www.drawio.com>.

Penpot is a rapid prototyping tool for UIs by Kaleidos. Kaleidos' Products & Services open-source modules are licensed under open-source licenses (such as Mozilla Public License 2.0 (MPL 2.0) and other licenses endorsed by the Open-Source Initiative). It has been used to create wireframes of a possible UI of a PSS (see [PSI-GID]) and to get a better understanding of the processes the PSI will be involved in. For more information, please refer to the official penpot website <https://penpot.app/>.

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6.1 License File Template

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```
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