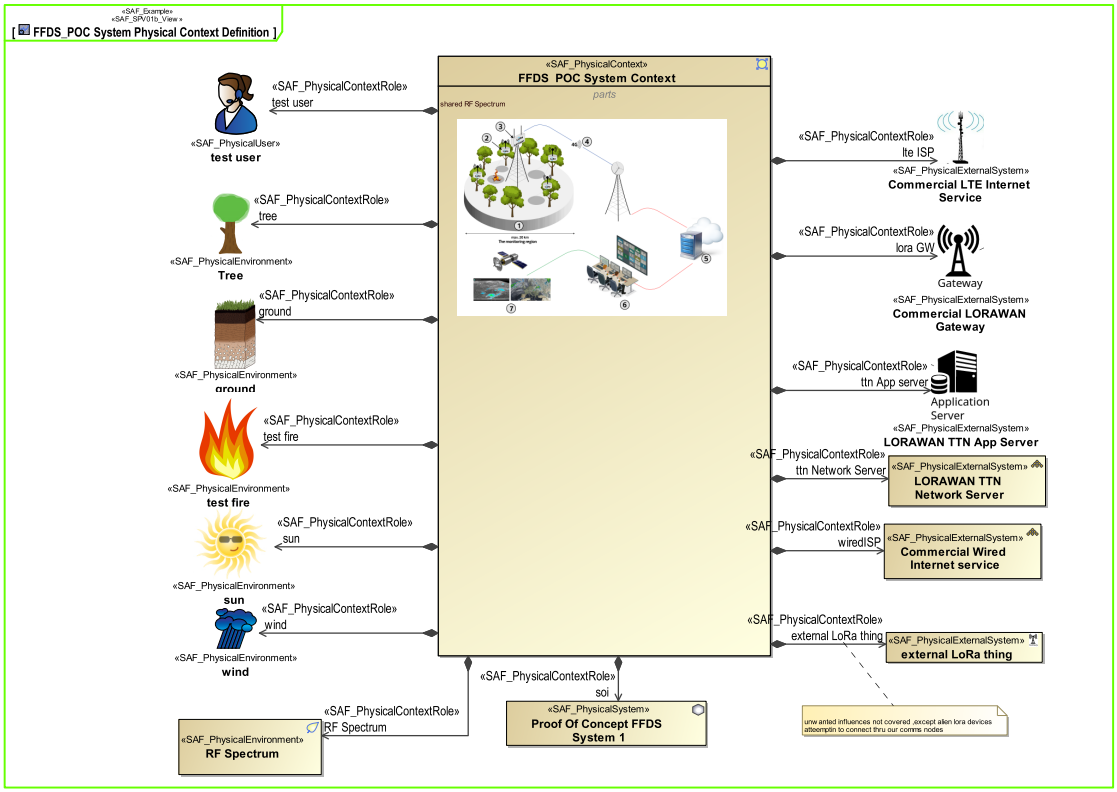
# SAF User Documentation : Physical Context Definition Viewpoint

| Domain | Aspect | Maturity |
|---|---|---|
| Physical | Context & Exchange | released |

## Example




## Purpose

The Physical Context Definition Viewpoint identifies the different context the system is used in, along with the associated external entities sharing a physical interface with the system. For each context the applicable environmental conditions may be defined. The physical context helps in discovering the Interface Requirements needed to integrate a system into its environment in a specific context. Note: For each candidate system architecture, the physical context Viewpoint is elaborated forming the baseline for the later assessment of the different system architecture solutions.

## Applicability

The Physical Context Definition Viewpoint supports the “System Architecture Definition Process” activities of the INCOSE SYSTEMS ENGINEERING HANDBOOK 2023 [§ 2.3.5.4]. and contributes to the artifacts "System Architecture Description" and "System Interface Definition".

The Viewpoint is used to define context, boundaries, and external interactions of the SOI in the physical domain.

## Presentation

The following artifacts support the modeling activities: The physical context definition diagram (BDD) defines the elements available in a specific context. At least one physical context definition diagram is used per identified context, featuring

- one block representing the Physical System i.e. the system of interest
- one block representing the specific Physical System Context
- several blocks representing Physical Context Elements such as Physical User, Physical External System, and Physical Environment present in the systems context
- composition relationships attaching the Physical Context Elements and the Physical System to the Physical System Context block

## Stakeholder

- Acquirer
- Customer
- IV&V Engineer
- Safety Expert
- Supplier
- System Architect

## Concern

- What are the different contexts the system is embedded and utilized in?
- What are the external physical entities the system interacts with in the respective context?
- Which interface partners does the system have?

## Profile Model Reference

The following Stereotypes / Model Elements are used in the Viewpoint:

- SAF_PhysicalContextRole
- SAF_PhysicalContext
- SAF_PhysicalEnvironment

- SAF_PhysicalExternalSystem
- SAF_PhysicalSystem
- SAF_PhysicalUser
- SAF_SPV01b_View

## Input from other Viewpoints

### Required Viewpoints

*none*

### Recommended Viewpoints

*none*