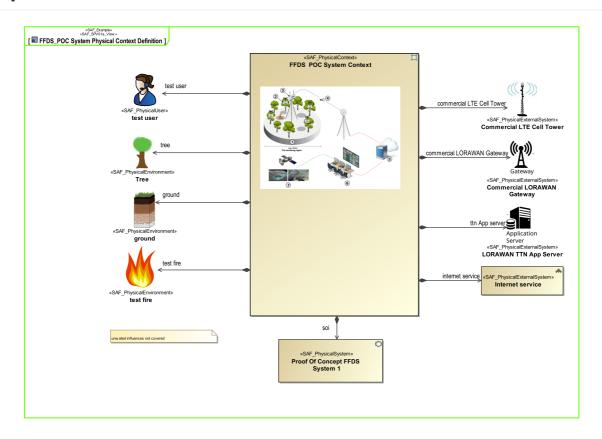
# SAF User Documentation : Physical Context Definition Viewpoint

Domain	Aspect	Maturity
Physical	Context & Exchange	under construction

### **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 "Architecture Definition Process" activities of the INCOSE SYSTEMS ENGINEERING HANDBOOK 2015 [§ 4.4]. The Viewpoint is used to define context, boundaries, and external interactions of the SOI in the physical domain. Note: Only those external entities are identified that share a physical interface. Other entities connected via a network are subject of the logical system context.

#### Stakeholder

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

#### Concern

- How does the system or a system element interact with the test environment?
- · What are necessary enabling systems?
- What are the external physical entities the system interacts with in the respective context?
- What is the system boundary definition?
- What kind of test equipment is necessary to test the system elements?

#### 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

#### **Profile Model Reference**

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

Association [UML\_Standard\_Profile]

- Association [UML\_Standard\_Profile]
- Property [UML\_Standard\_Profile]
- Property [UML\_Standard\_Profile]
- SAF\_PhysicalContext
- SAF\_PhysicalEnvironment
- SAF\_PhysicalExternalSystem
- SAF PhysicalSystem
- SAF\_PhysicalUser
- SAF\_SPV01a\_View

# **Input from other Viewpoints**

# **Required Viewpoints**

none

# **Recommended Viewpoints**

none