SAF User Documentation : Stakeholder Requirement Viewpoint

Domain	Aspect	Maturity
Operational	Requirement	released

Example

#	Id	Name	Text	Documentation	Requirement Refining	Requirement Imposed BY
1		CEO FFDS Vendor				
8		Fire Dept. Operations				
9		Capability				
10	CPBLTY-25	Propagation Estimation	Screen 100% of the terrain to have the ability to predict the fire spread.		Fire Propagation Modeling Fire Detection and Notification Search and Rescue	Fire Dept. Operations
11		Performance				
12	STK-REQ-QLT-26	Geolocation	Ensure the ability to locate fires with an accuracy of 100 meter.		Fire Sources early Detection Fire Detection and Notification	Fire Dept. Operations
13	STK-REQ-QLT-27	Notification Time	Ensure the ability to report a verified fire within 5 seconds.	Rational: Every second counts when fighting a forest fire.	Fire Sources early Detection Fire Detection and Notification Search and Rescue	Fire Dept. Operations
14		Forest Authority				
15		Capability				
16	CPBLTY-21	24/7 Availability	Ensure 24/7 detection and monitoring availability.	Rational: A forest fire could occur anytime.	Fire Sources early Detection Fire Event Management Fire Detection and Notification	Forest Authority
17		Performance				
18	STK-REQ-QLT-24	False Alarm	The probability of false alarms must be lower than 5 %.		Fire Sources early Detection Fire Detection and Notification	Forest Authority
19	STK-REQ-QLT-22	Forest Size	Ensure the detection and monitoring scalability for forest up to the size of 500 million hectare.		Fire Sources early Detection Fire Event Management Fire Detection and Notification	Forest Authority
20	STK-REQ-QLT-23	Size of Fire	Ensure the ability to detect fire areas of at least 50 square meter initiating reactive actions to cope the fire.		Fire Sources early Detection Fire Detection and Notification	Forest Authority
21		Nepalese Official				

Purpose

The Stakeholder Requirement Viewpoint specifies all properties that the intended solution shall possess or expose from the perspective of the Stakeholders. The Stakeholder Requirement Viewpoint determines capabilities, functions, non-functional properties, and constraints.

Applicability

The Stakeholder Requirement Viewpoint supports the "Stakeholder Needs and Requirements Definition Process" activities of the INCOSE SYSTEMS ENGINEERING HANDBOOK 2015 [§ 4.2] and contributes to the identification of solution constraints.

Presentation

A tabular format lisiting

- unique requirement ID, text, and attributes,

- traceability reference to justifying model artefacts. Note: Stakeholder Requirements are to be structured in a way that the Stakeholder behind the Requirement is identifiable. When appropriate, the relationships between identified Stakeholder Requirements are and the justifying model artefacts, Operational Story, Operational Capability, Operational Performer, Operational Process, and Operational Exchange are presented.
- "One Requirement Package for each Stakeholder" is a best-practice modeling rule. A package contains the Requirements specific for one Stakeholder.
- Even if different Stakeholders may have intersecting interests and / or concerns resulting in a similar set of Requirements, each Stakeholder shall have its own set managed in a dedicated Requirement Package. Requirements must not be shared due to their different life cycles. Resolving duplications and conflicts is subject of the requirement analysis resulting in an agreed and consolidated set of System Requirements.

Stakeholder

- Acquirer
- Customer
- System Architect

Concern

- What are the normal and extreme environmental conditions for normal operation, for not operational, for storage, and for transport?
- What are the requirements of environmental conditions imposed on the system?
- What are the requirements that a Stakeholder imposes on the system?
- What defines a valid solution towards the customer?
- What is the range of acceptable system performance, i.e. the critical, top-level performance requirements derived from the operational needs?

Profile Model Reference

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

- Package [UML_Standard_Profile]
- SAF_OperationalCapability
- SAF_SOV06a_View
- SAF_StakeholderRequirementImposition
- SAF_StakeholderRequirementRefinement
- SAF_StakeholderRequirement
- SAF_Stakeholder
- SAF_SystemOfInterestConcern

Input from other Viewpoints

Required Viewpoints

- Stakeholder Identification Viewpoint

Recommended Viewpoints

- Operational Story Viewpoint
- Operational Performer Viewpoint