INCOSE describes a system life cycle for processes and activities. In the Emergency call button system, we have chosen to describe some of the activities in the life cycle model management process, which is a part of the organizational project enabling processes. The activities and scope for this project is illustrated below.

|  |
| --- |
|  |

System Life cycle Processes Overview 1

# Stakeholder Requirement Definition Process

The most important activity in this proess is to define the requirement for a system that can provide the service needed by users and stakeholders. The output of the stakeholder requirement definition (SRD) is the stakeholders requirement and a traceability table.

## Concept of Operation

This section will contain a storytelling from where many use cases stakeholdes can be derived.

### Storytelling

An old lady has fallen and knocked her-self in the bedroom. The old lady presses emergency call button and gets redirected to a service assistant at the help care center. At the help care center, they quickly realize that the old lady needs help, and immediately sends a car off to get her.  
  
An old man tried to reach the coffee on top shelf, but cannot reach it. He then presses the emergency call and gets redirected to a service assistant at the help care center. The service assistant quickly realizes that it is not seriously and urgent help is not needed.

**Context diagram here ?**

## Stakeholders

Kommunen

Help care center

The older

System administrators

…

# Stakeholders Requirements

All requirements here. Not shall must form

SR1

SR2

# Requirement Analysis Process

The activities in the requirement analysis process (RAP) is about transforming the stakeholders requirement driven view, of desired functionality into a technical view of the required product. The result of this process is a measurable system requirement, that meet the stakeholders demand.

The output of this process is the system requirement specification, that contains a updated Requirement verification tracability matrix (RVTM) together with performance needs and verification criteria.

## Initial Requirement Traceability Matrix

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID** | **Stakeholder Requirement** | **System Requirement** | **Requirement type** | **Component** | **Requirement ref.** | **UC Ref.** | **Test Case Ref.** | **Comment** |
| **1** | SR1 | It shall be possible to activate the emergency call button | Functional | Handheld device | Ref 1 | UC1 |  | N/A |
| **2** | SR2 | Is shall be possible to recharge the battery on the emergency call system | Functional |  |  | UC2 |  |  |
| **3** | SR3 | The system shall notify the user if the batty is below 20 % of max capacity |  |  |  | UC4 |  |  |
| **4** | SR4 | The system shall automatically adjust the RF transmission power according to the environment, to minimize power consumption |  |  |  | UC3 |  |  |
| **5** | SR5 | The system base shall notify a technician if is doesn’t receive signal for a period of 30 minutes |  |  |  | UC5 |  |  |
| **6** | SR6 | It shall be possible to install a new emergency call button |  |  |  | UC6 |  |  |
| **7** | SR7 | It shall be possible to update the firmware on the emergency call button |  |  |  | UC7 |  |  |

## Performance estimation

It has been desided that verification criteria is beyond the time schedule for this project.

# Risk Management

This process is about identy, analyze, treat and monitor the risk continuously. Since the emergency call system, has great prospective it’s important to analyze which factor that could risk the product value on the marked.

The risk of failure for the emergency call system can be devied into diffent types of risk:

1. Development (*Technical risk* )
2. Maintenance (*Technical risk* )
3. Operation of system ( *Technical risk* )
4. Price (*Cost risk*)
5. Time to market ( *Schedule risk* )

Risk is dealing with uncertainty that is present throughout the entire system life cycle. The goal is to archive a proper balance between risk and opportunity.

### Risk calculation

As for all risk, the risk possibility is the same. The risk calsulation is illustrated below.

Risk = Probability of failure (Pf) \* Consequence of failure (Cf)

RISK CALCULATION CHOOSING AN UNKNOWN PLATFORM COMPARED TO THE WELL KNOW.

## Technical risk

This risk is worth taking serious, because at technical failure could be devastating for emergency call system. The technical risk is the possibility that a technical requirement for emergency call system may not be archived in the system life cycle. Normally large technology companies have expirenced from priveous project, and know were the risk of failure is most likely, but for emergency call system which is a newly establish company, there are many technology barriers, which have to be confronted.

## Cost risk

## Schedule risk