**Project documentation**

**Emergency call system**

Date: **14/02-11**

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Revision: **A**

Document ID: **PRODDOC**

# Introduction

# Process

1. Analyse project proposal and create SRD
   1. Domain model
   2. System level requirements
      1. Use cases.
      2. Sequence diagrams where needed.
      3. Non-functional requirements.
2. Refine SRD to SRS
   1. State and activity diagrams to clarify use cases.
   2. Detailed requirements from system requirements – Should we do this?
   3. Requirement traceability from system to detailed requirements.
   4. Traceability for changed requirements.
3. Overall architectural design.
   1. Identify blocks and create overall structure
   2. Mapping of blocks to requirements, both in diagram and RVTM (V is not part of report)
   3. Create internal block diagram for important blocks.
   4. Create activity, state, sequence and other diagrams where needed.
   5. Modify requirements if needed.
4. SystemC TLM of overall architectural design
   1. Map functional blocks to SystemC module.
   2. Create communication channels (mostly standard FIFO).
   3. Modify architecture/requirements if needed.
5. Architecture mapping
   1. Identify alternative architectures.
   2. Create architectural design for each alternative.
6. Process mapping for each alternative architecture
   1. Identify processes.
   2. Identify communication.
   3. Map Processes to PE and Communication channels to CE
7. SystemC Timed TLM for each alternative architectures
   1. Update and refine SystemC to the alternative architecture
   2. Identify delayes in the proceses and communication channel based on rough estimation.
   3. Implement delays in SystemC.
   4. Simulate the system and compare the results.
8. Conclusion
   1. Evaluate the pros and cons of the alternative architectures.
   2. Evaluate the process.