

# SMS GATEWAY INTERFACE

## Test Strategy



# Introduction

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## Integration Service

- Documentation and Training
- Business Model and Command matrix
- **Remote access tests**
- Site acceptance test (SAT)

## Contact

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# Introduction

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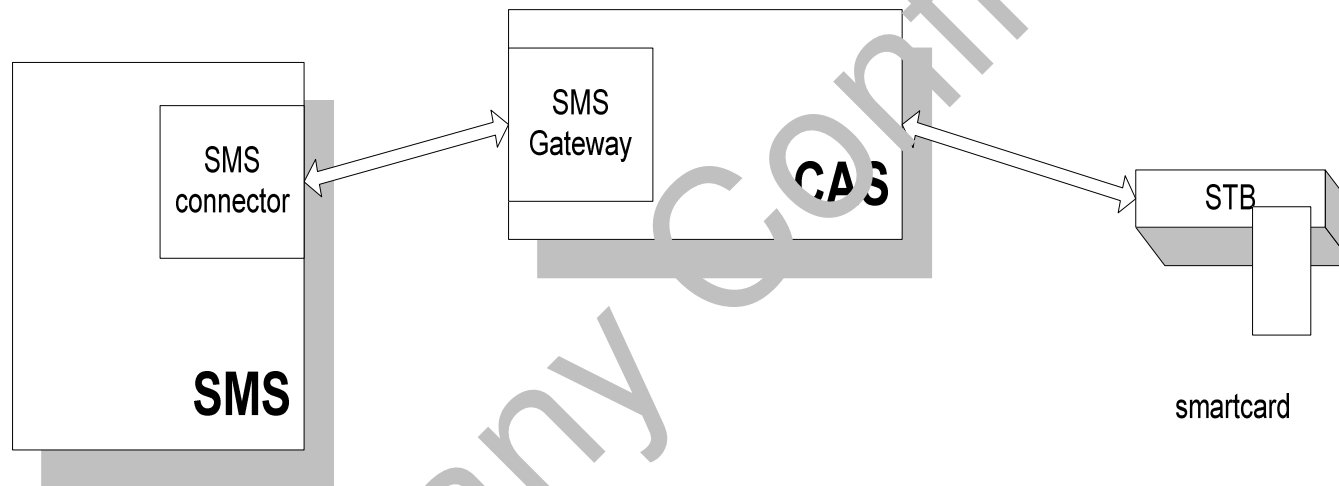
## Terminology

- **SMS**
- **SMS connector**
- **SMS gateway**
- **CAS**
- **Terminal – STB – IRD - Decoder**
- **Smartcard**



# Introduction

## End-to-end system view



# Test Phases

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## Phase 1 – Unitary test

- **Low-level mechanism (i.e. device-IO)**
- **Cmd data structure**
- **Transaction Number**

## Phase 2 – Matrix compliance test

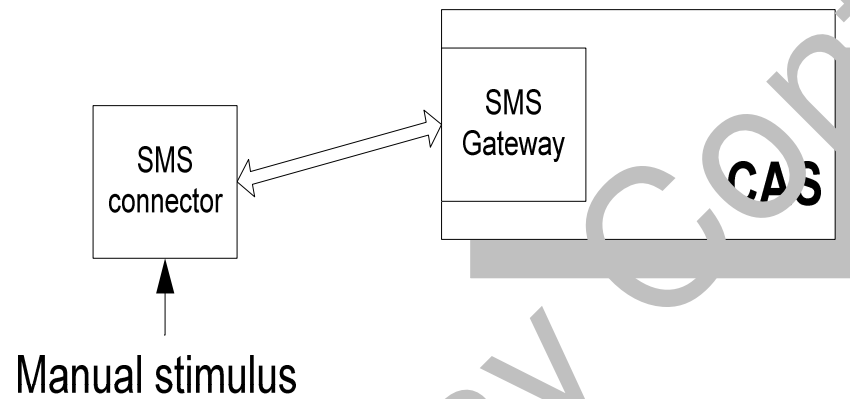
- **Functions of command matrix**
- **Stimulus come from real SMS agent console**
- **Multiplex of 3 end-users**



# Test Phases

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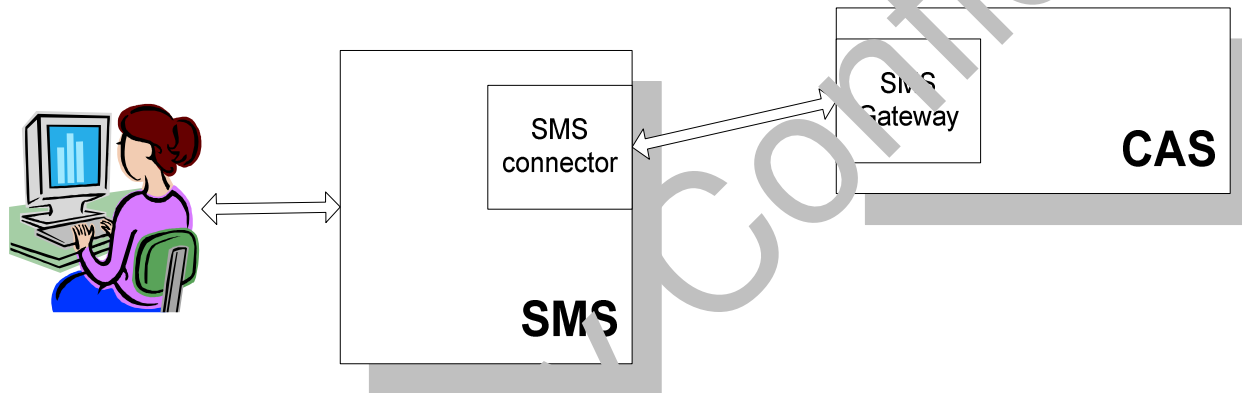
## Phase 1 - Unitary test



# Test Phases

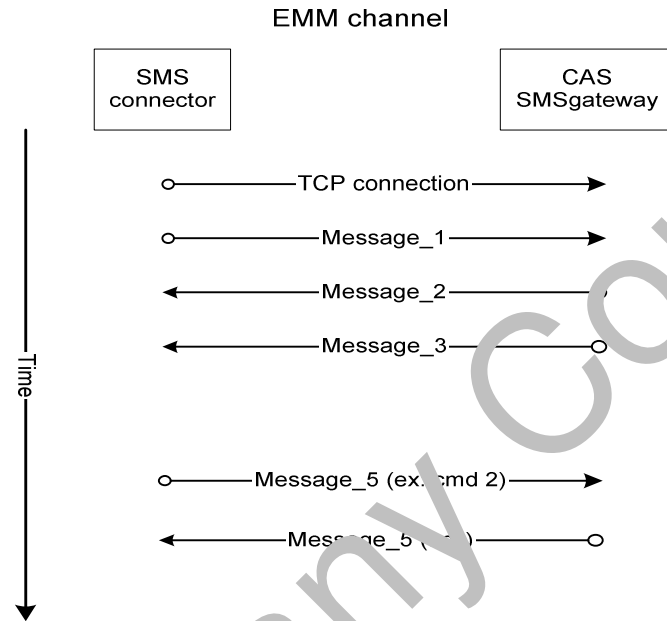
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## Phase 2 - Command matrix compliance test



# Test Plan

## Protocol





# Test Plan

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## Keep alive command (cmd-1002)

- **Is first command while interface is opened**
- **Is sent every "n" sec (n is typically 60 sec)**
- **Is SMS-source-id, MOP a flexible setting in SMS connector**

## Transaction numbers (T.N.)

- **Uniqueness of T.N.**
- **Persistency of T.N.**

## Channel activity

- **Asynchronous**
- **SMS should send cmd without waiting ACK/NACK**



# Test Plan

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## Command matrix

- **Run realistic scenarios with 3 subscribers (i.e. 3 UA)**
- **Multiplex "functions" of the command matrix**
  1. Init subscriber A (sub-A)
  2. Add Prod-1 and Prod-2 to sub-A
  3. Init sub-B
  4. Add Prod-2 to sub-B
  5. Cancel Prod-2 of sub-A
  6. Init sub-C
  7. Add Prod-1 and Prod-3 to sub-C
  8. Suspend sub-B
  9. Add Prod-3 to sub-A
  10. etc...



# Test Plan

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## Problem while SMS opens interface

- **If any problem occurs while SMS interface is opened, the SMS connector must close and reset the socket. Then the SMS connector retries following Device-IO protocol.**

## Errors

- **Error are reported as a 1001 cmd (NACK)**
- **If Error occurs, then SMS connector shall raise an alarm to the SMS monitoring tool.**
- **The interface can continue to operate even though error occurs.**
- **If error is due to NACK-POSTPONED, the SMS shall send again the same command but the T.N. must be a new one**



# Test Plan

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## Data-flow handling – Stress test

- Any out-going cmd → Counter decrements
- Any in cmd (ACK/NACK) → Counter increments
- Condition to send a cmd → Counter > 0



# Test Plan

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## Loading IMS-Product-id into SMS

- **Subscription**
- **PPV**



# Accessing Test Lab

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## What is the remote access

- **Dial in connection over phone line**
- **Test slot with booking**
- **Real time support during test slot**



# Accessing Test Lab

