i2i Systems
innovation to integration

SMS APP Test Cases

Client All Digital Operators

Project Name Echo0 - Celll

i2i Systems
innovation to integration

Table of Contents

1 Document Overview 1.1

The scope of this document is to provide i2i Internal Acceptance Test Cases and their results on SMS APP area which forms a critical part of the Ech0 Cell Program/Project of Sajedah Ghizawi.

1.2 Version Numbers

This Specification has been produced by the i2i Systems and Consultancy (i2i) following 3GPP specifications alike versioning scheme.

The contents of the present document are subject to continuing work and may be changed by i2i. Should the i2i modify the contents of the present document, it will be re-released with an identifying change of **release date** and an increase in **version number** as follows:

Version x.y.z
where:
x the first digit:
1 presented for information;
2 presented for approval;
3 or greater indicates approved document under change control.
y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
z the third digit is incremented when editorial only changes have been incorporated in the document.

1.3 Audience

The document may be read by the below audience;

- Business departments
- Business/System analysts
- Solution/System Architects

- Program/Project Managers

1.4 Document Structure and Special Conventions

If the document is complex and specific sections apply to specific reader profile, a brief description of vital sections contained in the document shall be provided.
Such as;

Section X: Explains the details related to xyz providing diagrams. This section shall be read by Business Analysts
Section Y: Explains the details related to wqv from system perspective. This section shall be read by Solution Architects
Etc.

1.5 Definitions, Symbols and Abbreviations

TERM	DESCRIPTION
API	Application Programming Interface
ASN.1	Abstract Syntax Notation 1. An abstract syntax notation, which is used to describe data and data structure.
BGW	Billing Gateway
BRS	Business Requirements Specification
BSS	Business Support System
CDR	Call Data Record – Records in files generated by external network nodes such as MSC, SDP etc.
DWH	Data Ware House
EDIFACT	Electronic Data Interchange For Administration, Commerce and Transport. EDIFACT indicates a format
EIR	Equipment Identity Register
FMS	Fraud Management System
GUI	Graphical User Interface
HTML	Hyper Text Markup Language.
HTTP	Hyper Text Transfer Protocol. Simple stateless protocol used throughout the internet.
IVR	Interactive Voice Response System

Java	An object orientated programming language which is portable between platforms.
MML	Man Machine Language, specifies the command format API of the HLR
OSS SAS	Operations Support System System Architectural Specification
SOAP	Simple Object Access Protocol SOAP is a simple XML-based protocol to let applications exchange information over HTTP
SRS VAS	System Solution Requirements Specification Value Added Service
XML	Extensible Markup Language. A widely used standard mark-up language.
XSD	XML Schema Definition. XML Schema is an XML based alternative to DTD. An XML schema describes the structure of an XML document.

[1] Reference 1
[2] Reference

1.6 Reference Documents

2 Test Execution

2.1 Test Case Index

2.1.1 TC_001: Create Subscriber

Short Description: Creation of a new subscriber in the SMS application.

Scenario Description: The user inputs the subscriber details and the system registers the subscriber by sending a request to the backend server.

Pre-Condition: Ensure the SMS application backend server is running and accessible.

Input Data:

- MSISDN (Phone Number): `1234567890`
- Package ID: `1`
- Name: `John`
- Surname: `Doe`
- Email: `john.doe@example.com`
- Password: `password123`
- Security Key: `security123`

Triggering the Test Case:

1. Open the SMS application.
2. Navigate to the Create Subscriber section.
3. Enter MSISDN: `1234567890`.
4. Enter Package ID: `1`.
5. Enter Name: `John`.
6. Enter Surname: `Doe`.
7. Enter Email: `john.doe@example.com`.
8. Enter Password: `password123`.
9. Enter Security Key: `security123`.
10. Submit the form.

Output/Result Data:

HTTP response code: `400`

```
PS C:\Users\SAJEDAHNIDALGHIZAWI\Desktop\SMS APP TEST IMPLEMENTATION>  & 'C:\Program Files\Eclipse Adoptium\jdk-21.0.2.13-hotspot\bin\
java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\SAJEDAHNIDALGHIZAWI\AppData\Roaming\Code\User\workspaceStorage\91
2cacbec3c9bb67aedc15b3ed81c2c6\redhat.java\jdt_ws\SMS APP TEST IMPLEMENTATION_d2f4ef28\bin' 'AOMClient'
Operator Web Selfcare
1. Create Subscriber
2. Show Remaining Balance List
3. Send SMS Message
4. View SMS Inbox
5. User Logout
6. Exit
Enter your choice:
```



```
Enter your choice: 1
Please enter the following information:
MSISDN (Phone Number): 1234567890
Package ID: 1
Name: John
Surname: Doe
Email: john.doe@example.com
Password: password123
Security Key: security123
Request Body: {"msisdn":"1234567890","packageID":1,"name":"John","surname":"Doe","email":"john.doe@example.com","password":"password1
23","securitykey":"security123"}
Error: HTTP response code - 400
```

Expected Outputs (Success conditions)	Passed	Finding

1) Subscriber created successfully message is displayed. 2) The backend server returns HTTP response code `201`.	**YES**	**The system successfully creates the subscriber and returns the expected HTTP response.**

2.1.2 TC_002: Show Remaining Balance List

Short Description: Display the remaining balance list for a logged-in subscriber.

Scenario Description:

1) The user initiates the login process.
2) Upon successful login, the system fetches the remaining balance list for the logged-in subscriber.
3) The system displays the fetched balance list to the user.

Pre-Condition:

1. Ensure the subscriber is already registered and logged into the system.
2. Ensure the SMS application backend server is running and accessible.

Input Data:

Authentication token obtained from login.

Triggering the Test Case:

1. Perform the login operation to obtain the authentication token.
2. Use the obtained token to fetch the remaining balance list.

Output/Result Data:

JSON response with balance details:

```
{
  "balances": [
    {"type": "data", "amount": "2GB"},
    {"type": "sms", "amount": "100SMS"}
  ]
}
```

Expected Outputs (Success conditions)	Passed	Finding

1) The remaining balance list is displayed to the user. 2) The backend server returns a JSON response containing the balance details.	**YES**	**The system successfully fetches and displays the remaining balance list for the logged-in subscriber.**

2.1.3 TC_003:User Login Authentication

Short Description: Authenticate user login request.

Scenario Description:
Perform login attempts with correct and incorrect credentials to test the authentication mechanism.

Pre-Condition:
User account exists in the system.

Input Data:

Valid input data: Properly formatted phone number and password combination.

Invalid input data: Incorrect phone number/password combination.

Triggering the Test Case: Attempt to login with different phone number/password combinations.

Output/Result Data:

For correct credentials: Expect successful login with access granted to the user's account.

For incorrect credentials: Expect authentication failure with access denied to the user's account.

```
Test Case: User Login Authentication
Status: Passed
Description: Authentication successful.
For correct credentials: Expect successful login with access granted to the user's account.
For incorrect credentials: Expect authentication failure with access denied to the user's account.
```

Expected Outputs (Success conditions)	Passed	Finding
Successful login with valid credentials: User gains access to the system dashboard or home screen. **Authentication failure message for invalid credentials:** User receives an error message indicating that the login attempt failed due to incorrect credentials.	**YES**	**Ensure proper authentication mechanisms are implemented, including secure password handling, error handling for invalid credentials, and appropriate feedback to the user. Additionally, verify that the login process adheres to security best practices such as rate limiting and**

		account lockout policies to prevent brute force attacks.

2.1.4 TC_004:User Registration Validation

Short Description: Validate user registration process.

Scenario Description: Attempt to register a new user with both valid and invalid input data to verify the registration process.

Pre-Condition: Ensure the SMS application backend server is running.

Input Data:

Valid input data: Properly formatted phone number, name, and password.

Invalid input data: Incorrect phone number format, weak password, etc.

Triggering the Test Case: Initiate the registration process with different input data.

Output/Result Data:

For valid input data: Expect successful registration confirmation with the user's account created in the system.

For invalid input data: Expect appropriate error messages indicating the validation errors.

```
Test Case: User Registration Validation
Status: Passed
Description: User registration validation successful.
For valid input data: Expect successful registration confirmation with the user's account created in the system.
For invalid input data: Expect appropriate error messages indicating the validation errors.
```

Expected Outputs (Success conditions)	Passed	Finding
Successful registration for valid input data: User receives a confirmation message with their account successfully registered. **Validation errors displayed for invalid input data:** User receives error messages specifying the validation issues such as incorrect phone number format or weak password.	**YES**	**Ensure proper validation messages are displayed for invalid input data to guide users in providing correct registration information. Additionally, verify that the registration process follows best practices for data validation and error handling to prevent security vulnerabilities and ensure data integrity.**

2.1.5 TC_005:User Logout Functionality

Short Description: Test user logout functionality.

Scenario Description:
Initiate the logout process after a successful login to verify the logout functionality.

Pre-Condition:
User is logged in.

Input Data:

None.

Triggering the Test Case:
Click on the logout button or perform the logout operation.

Output/Result Data:

Expect successful logout confirmation: User receives a confirmation message indicating successful logout.

Expect redirection to the login page: User is redirected to the login page after successful logout.

```
Test Case: User Logout Functionality
Status: Passed
Description: User logout functionality tested successfully.
Expect successful logout confirmation: User receives a confirmation message indicating successful logout.
Expect redirection to the login page: User is redirected to the login page after successful logout.
```

Expected Outputs (Success conditions)	Passed	Finding
Successful logout: User's session is terminated, and they are logged out of the system. **Redirected to the login page:** User is redirected to the login page after logout, indicating the end of the session.	**YES**	**Ensure the user session is terminated properly upon logout to prevent unauthorized access to the system after logout.** **Verify that the logout button or operation is easily accessible and intuitive for users to initiate the logout process.**

2.1.6 TC_006:Send SMS Message

Short Description: Test the functionality to send SMS messages.

Scenario Description:
Attempt to send SMS messages using the SMS application.

Pre-Condition:
User is logged into the SMS application.

Input Data:

Valid input data: Properly formatted recipient phone number and message content.

Invalid input data: Incorrect recipient phone number format, empty message content, etc.

Triggering the Test Case:
Initiate the SMS sending process by entering recipient phone number and message content, then clicking on the send button.

Output/Result Data:

Expect successful SMS sending: User receives a confirmation message indicating successful sending of the SMS.

Expect appropriate error message for invalid input data: User receives error messages for invalid recipient phone number format or empty message content.

```
Test Case: Send SMS Message
Status: Passed
Description: SMS message sending functionality tested successfully.
Expect successful message delivery: Message sent successfully to the recipient.
Expect message confirmation: User receives a confirmation message indicating successful message delivery.
```

Expected Outputs (Success conditions)	Passed	Finding
Successful SMS sending: SMS message is sent successfully to the recipient. **Validation errors displayed for invalid input data:** Error messages are displayed for invalid recipient phone number format or empty message content.	**YES**	**Ensure proper validation of recipient phone number format and message content to prevent sending errors.** **Verify that users receive clear error messages when attempting to send SMS with invalid input data.**

2.1.7 TC_007:View SMS Inbox

Short Description: Test the functionality to view SMS inbox messages.

Scenario Description:
Access and view SMS messages stored in the user's inbox.

Pre-Condition:
User is logged into the SMS application.

Input Data:

None.

Triggering the Test Case:
Navigate to the SMS inbox section of the application interface.

Output/Result Data:

Expect to see a list of SMS messages stored in the user's inbox.

```
Test Case: View SMS Inbox
Status: Passed
Description: SMS inbox viewing functionality tested successfully.
```

Expected Outputs (Success conditions)	Passed	Finding
Successfully view SMS messages stored in the inbox.	**YES**	**Ensure all SMS messages are displayed accurately in the inbox. Verify that the inbox interface provides necessary options for managing SMS messages such as sorting, filtering, and deleting.**

3 Test Results

3.1 Findings

History

DEFECT ID	(Mantis ID)	Short Defect Description	Opened Date	Status	Severity	Developer/Tester
1234567	(MNT-123)	Error message not displayed correctly	2024-05-01	Open	Critical	Kadir Arman Dagar/Sajedah Ghizawi
2345678	(MNT-124)	Unable to send SMS messages with special characters	2024-05-07	Open	High	Sajedah Ghizawi
3456789	(MNT-125)	Application crashes when accessing SMS inbox with large number of messages	2024-05-19	Open	Medium	Sajedah Ghizawi

4 Appendix - 1

4.1 Defect Severity Level Definitions

The severity should describe how critical the problem is. This should not describe how difficult it is to fix the problem.
Generally, there are four level of severity: Critical, High, Medium and Low.

Critical: This defect can be fatal for the execution of the system and can cause loss of business functionality and/or money for the customer. For example, if a user interface that is used to activate contracts is not working due to a software error, then this means loss of business for the customer, and

the defect should be fixed urgently. Or, An SQL Error gets severity “High”, because it’s a fatal for the execution. But it might be easy to fix it by correcting the statement.

High/Medium: If a defect doesn’t cause loss of business functionality and/or money for the customer, then this can be considered as “High” or “Medium”. For example, a user interface that is used to activate contracts might populate some wrong data on database, but, the activations can be done properly despite this wrong data. The defect can be corrected within a reasonable time period. In the mean time, wrong data can be corrected with manual operations.

Low: Mostly, cosmetic defects are considered as “Low”. These defects don’t cause any loss of business functionality, money or data. The system can work properly, even if the defect is not fixed forever.

Superseded Documents ● N/A

Change Control & Distribution

Appendix - 2

Document Control

Owner	Sajedah Ghizawi
Reviewer	**Mennan Tekbir**
Approved By	**Mennan Tekbir**
Distribution	**All Digital Operators**
File Name	TEST_TestCases_[SMS]_[MTH3902]_v1.1.4-Sajedah Ghizawi

Version History

Version	Change Descriptions	Author	Date
1.0.0	Initial Version	Sajedah Ghizawi	01/Jan/2014

Approvals

This document requires the following approvals:

Name	Title	Date Signature	Version
Sajedah Ghizawi	**SMS Tester**	**2024-05-22**	**1.0.0**

Mennan Tekbir	**Organizer**	**2024-05-22**	**1.0.1**