
Online Charging System

System/Solution Requirements Specification (SRS)

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FROM:
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1. Document Overview

1.1. Scope & Purpose

The scope of this document is to provide system/solution requirements specification (SRS) tool for capturing of the System/Solution related to Account, CRM, OM and MW requirements in TURKUAZ project.

1.2. Version Numbers & Standards

This Specification has been produced by the i2i Systems (i2i) following 3GPP specifications alike versioning scheme and follows the recommendations of "IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications" standard.

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/System Analysts
- Solution/System Architects

1.4. Document Structure and Special Conventions

N/A

1.5. Definitions, Symbols and Abbreviations

TERM	DESCRIPTION
OCS	Online Charging Solution
API	Application Programming Interface
BSS	Business Support System
DB	Database
GUI	Graphical User Interface
SAS	System/Solution Architectural Specification
SRS	System/Solution requirements Specification
CDR	Call Data Record
WA	Workaround
SMS	Short Message Service
MMS	Multimedia Messaging Service
FTP	File Transfer Protocol
CCR	Credit Control Request
CCA	Credit Control Answer
3GPP	Third Generation Partnership Program
UDR	Usage Data Record
MSISDN	Mobile Station International Subscriber Directory Number
IMSI	International Mobile Subscriber Identity
WS	Web Service
SOI	Service Oriented Interface
CMS	Content Management System
CRM	Customer Relations Management
OM	Order Management

1.6. References

1. Scope of Work
2. RFP Requirements

2. Assumptions, Restrictions and Exclusions

ID	Description
AS-01	<Varsayımlar>
AS-02	
AS-03	
AS-04	
AS-05	
AS-06	
AS-07	
AS-08	
AS-09	
AS-10	
AS-11 (CR)	
AS-12 (CR)	

3. Overall Requirements Description

This section aims to provide a summary section binding all the subsequent more detailed sub sections of the document.

3.1. High Level Required Behavior and Functionality

Use Case ID	Short Description
UC-VOC-001	Successful Login
UC-VOC-002	Unsuccessful Login
UC-VOC-003	Forget Password
UC-VOC-004	Sign Up
UC-VOC-005	Inquire Balance
UC-VOC-006	Remember Me Button
UC-VOC-007	User Info

3.2. Business Requirements (FROM RFP)

None

3.3. Postpone of Requirements

ID	Short Description
11089	<Ertelenen İstekler>

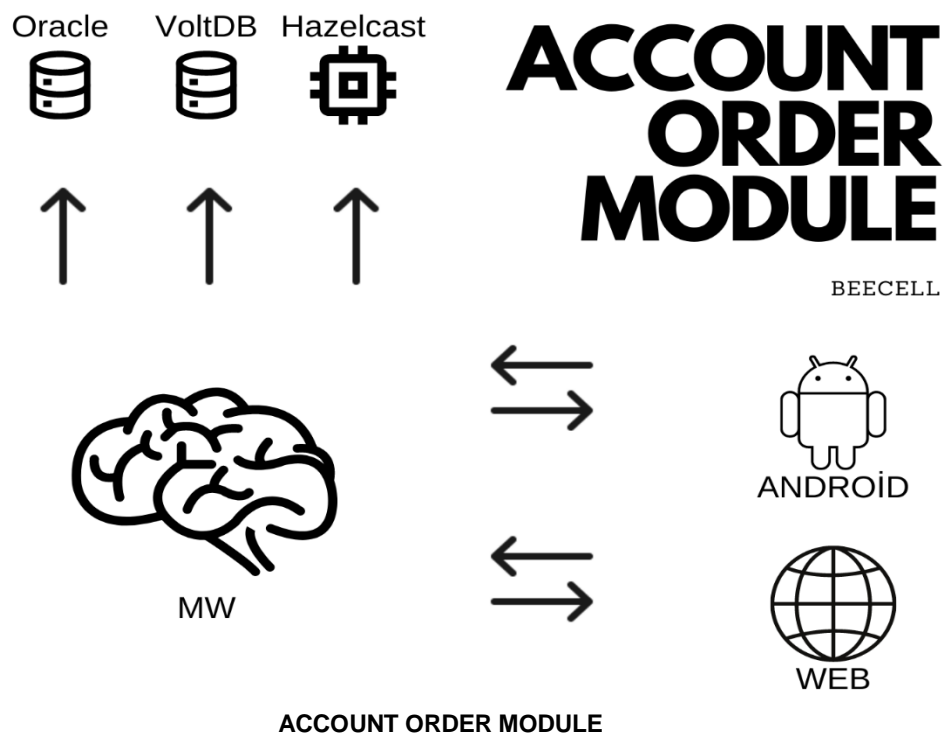
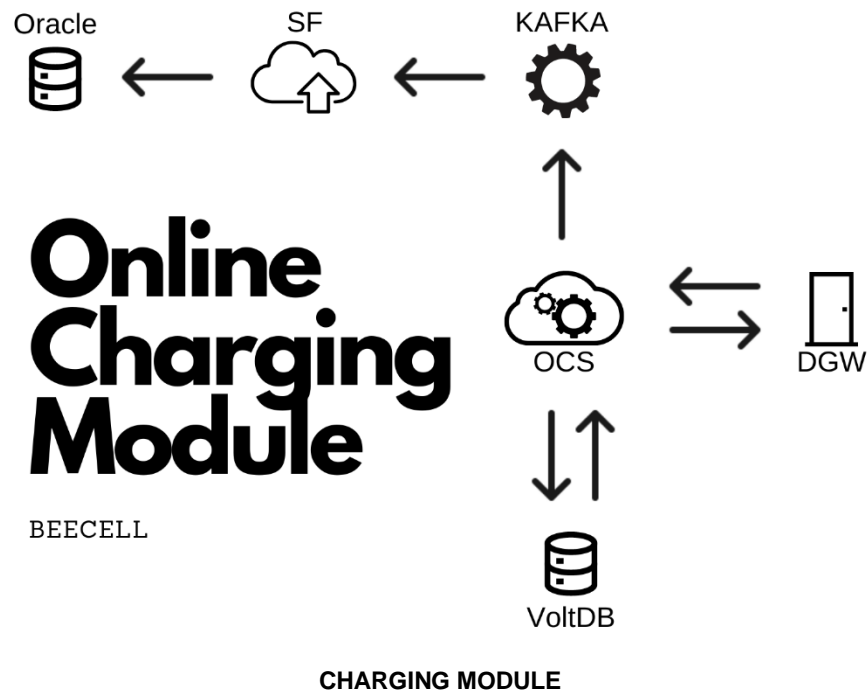
4. Functional Requirements

Functional Requirement ID	Functional Requirement Description	Dependent Requirement ID
FR-VOC-001	On the Android login screen, the user must log in with their phone number and password., There should be a remember me button on this screen. in order for a new user to register, there must be a register button. For users who forget their password, there should be a forgot password button and users who press this button should be able to go to the help screen.	
FR-VOC-002	On the Android for users who forget their password, there should be a forgot password button and users who press this button should be able to go to the help screen.	
FR-VOC-003	New users on Android should be able to register using their name, surname, phone number and e-mail on the create user screen after clicking the sign up button.	
FR-VOC-004	The user who forgot users password on the Android help screen must enter his phone number and if user approves the sms sent to users phone, the account should be able to recover.	
FR-VOC-005	A user logging in to android should reach the main screen and be able to see billing information and phone tariff on that screen.	
FR-VOC-006	The user, who is on the main screen on Android, should be able to see the internet, sms and call rights offered by his phone's tariff.	
FR-VOC-007	On the Android home screen, there should be a gift button that users can click to win.	
FR-VOC-008	The user must select a tariff when registering.	

Functional Requirement ID	Functional Requirement Description	Dependent Requirement ID
FR-VOC-009	<p>Packet prices and allowances are;</p> <p>ECONOMIC -> 5GB, 1000 Minutes, 1000 SMS, 60TL</p> <p>MAXI -> 10GB, 1500 Minutes, 1500 SMS, 90TL</p> <p>FAV -> 15GB, 2000 Minutes, 2000 SMS, 120TL</p> <p>ECONOMIC+ -> 20GB, 2000 Minutes, 2000 SMS 150TL</p> <p>SPECIAL -> 30GB, 3000 Minutes, 3000 SMS, 200TL</p> <p>UNIQUE -> 50GB, 3000 Minutes, 3000 SMS, 250TL</p>	
FR-VOC-010	Web login screen, the user must log in with their phone number and password., There should be a remember me button on this screen. in order for a new user to register, there must be a register button. For users who forget their password, there should be a forgot password button and users who press this button should be able to go to the help screen.	
FR-VOC-011	On the Web for users who forget their password, there should be a forgot password button and users who press this button should be able to go to the help screen.	
FR-VOC-012	New users on Web should be able to register using their name, surname, phone number and e-mail on the create user screen after clicking the sign up button	
FR-VOC-013	The user who forgot users password on the Web help screen must enter his phone number and if user approves the sms sent to users phone, the account should be able to recover.	
FR-VOC-014	A user logging in to Web should reach the main screen and be able to see billing information and phone tariff on that screen.	
FR-VOC-015	The user, who is on the main screen on Web, should be able to see the internet, sms and call rights offered by his phone's tariff.	
FR-VOC-016	On the Web home screen, there should be a gift button that users can click to win.	

5. Solution Overview

5.1. High Level Design Details



6. End to End Use Cases

6.1. Use Cases

6.1.1. UC-VOC-001: <Use Case 1>

Summary	Successful Login
Impacted System Components	OCS, DGW, MW, HAZELCAST, VOLTDB, KAFKA
Pre-conditions	In order for the subscriber to log into the system successfully, users must enter her/his information correctly.
Post-conditions	The user continues to log in to the system with the new password.
Main Success Scenario	<p>1-User enters his/her phone number and password information on the Login Screen and clicks Login button.</p> <p>2-A check is made to match the user data in the database with the entered information. If the information is correct, the user logs into the system.</p>

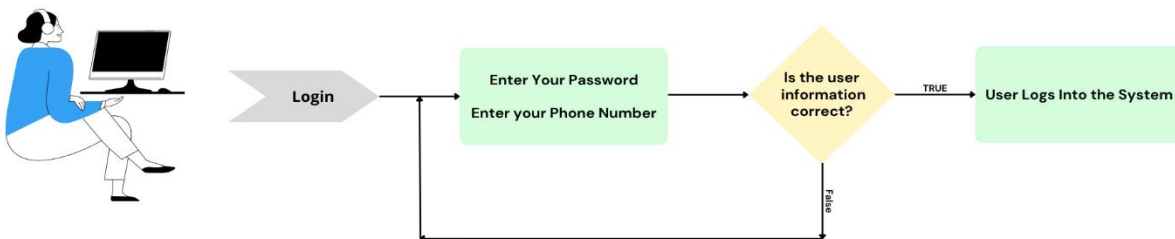
Alternate Flows	Unsuccessful Login
Exceptions/Errors	If the user enters the wrong phone number and/or password, they cannot log into the system.
Open Items	
Functional Requirements	FR-VOC-001

6.1.2. UC-VOC-002: <Use Case 2>

Summary	Unsuccessful Login
Impacted System Components	OCS, DGW, MW, HAZELCAST, VOLTDB, KAFKA
Pre-conditions	In order for the subscriber to log into the system successfully, users must enter her/his information correctly.
Post-conditions	The subscriber cannot log in to the system and receives a warning message.
Main Success Scenario	<p>1-User enters his/her phone number and password information on the Login Screen and clicks Login button.</p> <p>2-A check is made to match the user data in the database with the entered information. If the information is incorrect, the user cannot log in to the system and receives a warning message.</p>

Alternate Flows	Successful Login
Exceptions/Errors	If the information is correct, the user logs into the system.
Open Items	
Functional Requirements	FR-VOC-002

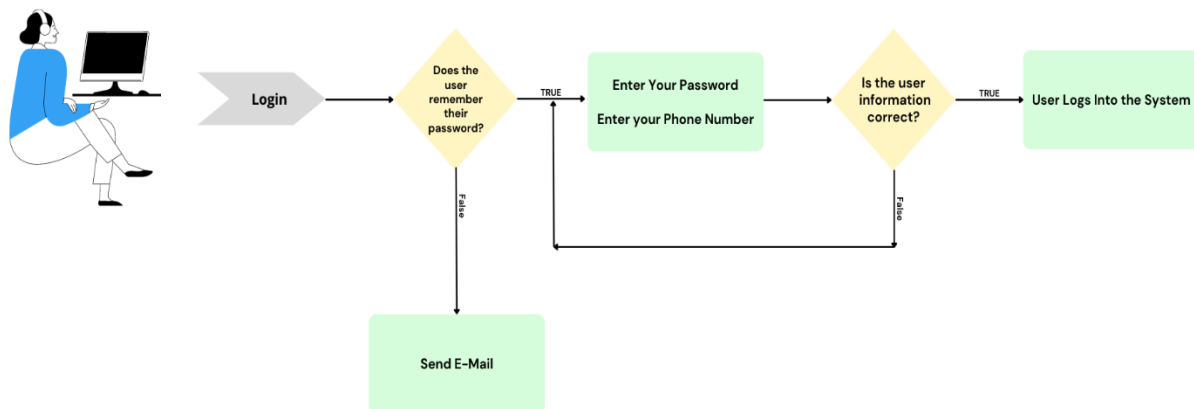
LOGIN DIAGRAM



UC-VOC-003: <Use Case 3>

Summary	Forget Password
Impacted System Components	OCS, DGW, MW, HAZELCAST, VOLTDB, KAFKA
Pre-conditions	The user must be registered in the system.
Post-conditions	The user logs into the system with the new password.
Main Success Scenario	<p>1-The user clicks the "Forgot Password" button on the Login Screen.</p> <p>2-The user enters his e-mail address.</p> <p>3-The new password will be sent to the registered e-mail addresses of the users.</p>

FORGET PASSWORD DIAGRAM

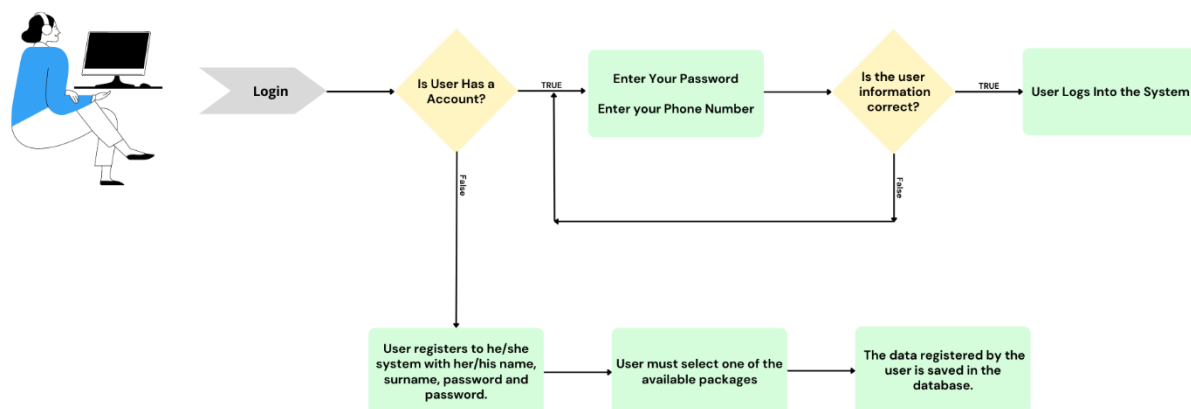


UC-VOC-004: <Use Case 4>

Summary	Sign Up
Impacted System Components	OCS, DGW, MW, HAZELCAST, VOLTDB, KAFKA
Pre-conditions	The user must have an account.
Post-conditions	User successfully registers in the system
Main Success Scenario	<p>1-User registers to he/she system with her/his name, surname, password and password.</p> <p>2-User must select one of the available packages.</p> <p>3- The data registered by the user is saved in the database.</p>

Alternate Flows	Unsuccessful Create Costumer
Exceptions/Errors	<p>1-In case of missing or incorrect data, the subscriber will not be able to register.</p> <p>2-user must select an available package. The user cannot register without selecting an existing package.</p>
Open Items	
Functional Requirements	FR-VOC-004

SING UP DIAGRAM

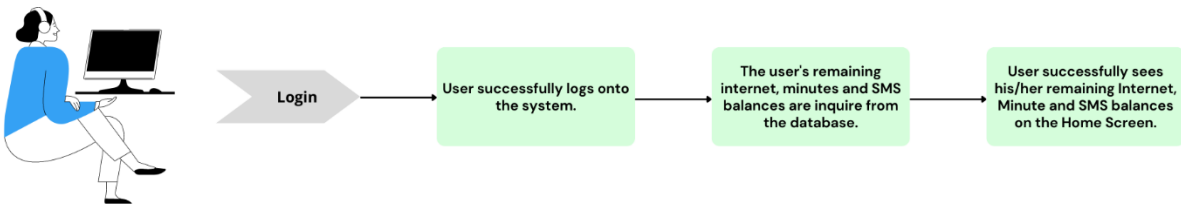


UC-VOC-005: <Use Case 5>

Summary	Inquire Balance
Impacted System Components	OCS, DGW, MW, HAZELCAST, VOLTDB, KAFKA
Pre-conditions	The user must have successfully logged into the system.
Post-conditions	User successfully sees the remaining Internet, Minutes and SMS balances.
Main Success Scenario	<p>1-User successfully logs onto the system.</p> <p>2-The user's remaining internet, minutes and SMS balances are inquire from the database.</p> <p>3-User successfully sees his/her remaining Internet, Minute and SMS balances.</p>

Alternate Flows	Unsuccessful Inquire Balance
Exceptions/Errors	<p>1-User is not able to see his/her remaining Internet, Minute and SMS balances.</p> <p>2- User receives warning message</p>
Open Items	
Functional Requirements	FR-VOC-005

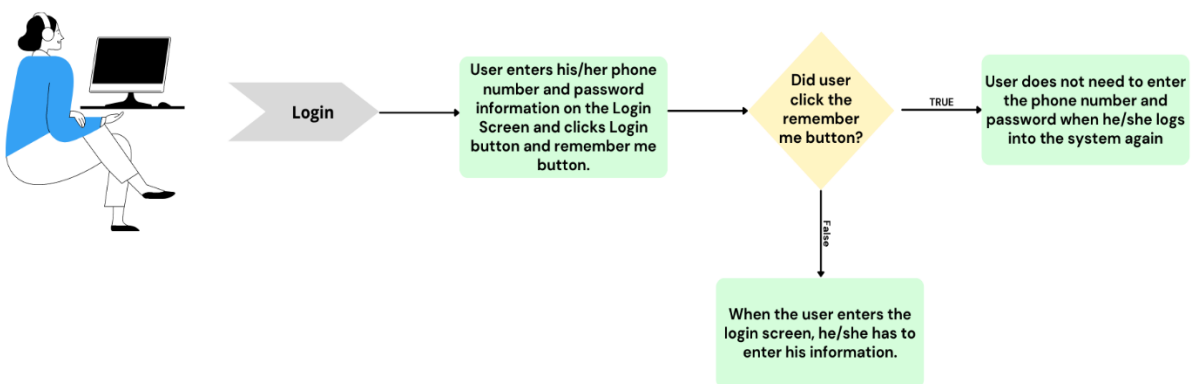
INQUIRE BALANCE DIAGRAM



UC-VOC-006: <Use Case 6>

Summary	Remember Me
Impacted System Components	OCS, DGW, MW, HAZELCAST, VOLTDB, KAFKA
Pre-conditions	User must log in to the system by clicking the remember me button.
Post-conditions	User should be able to successfully log into the system.
Main Success Scenario	<p>1-User enters his/her phone number and password information on the Login Screen and clicks Login button and remember me button.</p> <p>2-A check is made to match the user data in the database with the entered information.</p> <p>3-If the information is correct, the user logs into the system.</p> <p>4- User does not need to enter the phone number and password when he/she logs into the system again</p>

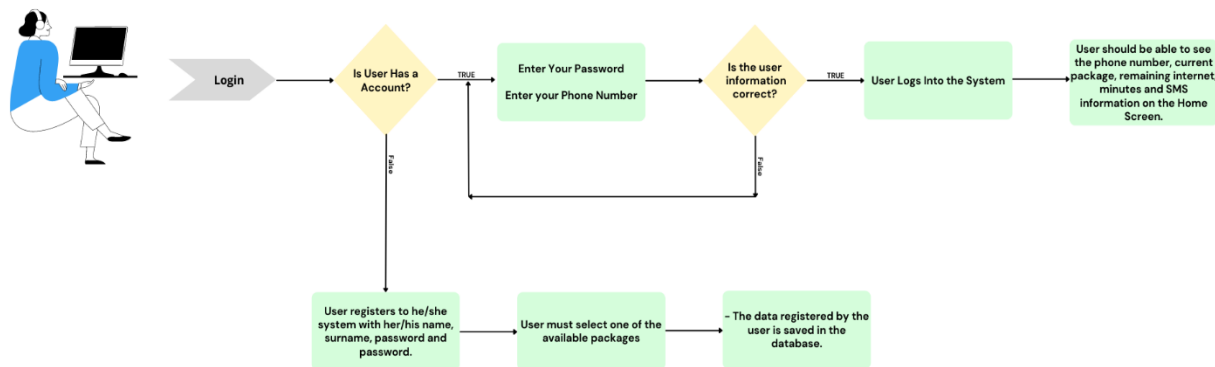
REMEMBER ME DIAGRAM



6.1.3. UC-VOC-007: <Use Case 7>

Summary	User Info
Impacted System Components	OCS, DGW, MW, HAZELCAST, VOLTDB, KAFKA
Pre-conditions	User must have successfully logged into the system
Post-conditions	User must have an existing package.
Main Success Scenario	<p>1- User enters his/her phone number and password information on the Login Screen and clicks Login button.</p> <p>2- User should be able to see the phone number, current package, remaining internet, minutes and SMS information on the Home Screen.</p>

USER INFO DIAGRAM



Appendix

Document Control

Superseded Documents

N/A

Change Control & Distribution

Owner	Hacı Ahmet Güden
Reviewer	
Approved By	
Distribution	
File Name	

Version History

Version	Change Descriptions	Author	Date
1.0.0	Initial Version	Hacı Ahmet Güden	
1.1.0			

1.2.0			
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Approvals

This document requires the following approvals:

Name	Title	Date	Signature	Version