

INFORMATION TECHNOLOGIES FOR SHIFT TO RAIL

D5.5 – Travel companion Additional Integration Report

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1	13/12/2016	Initialization based on C-rel integration report
2	18/01/2016	First version shared with WP5 partners (tests definition)
3	31/01/2017	<ul style="list-style-type: none">- Corrections in the test cases steps when necessary- SNCF proposal for testing following modules to be reviewed : Happenings, KPI, Navigation, e-passport (Leonardo, Hacon, Gemalto)- Results of preliminary testing 31/01/2017 (without screenshots), directly in chapter 3 to ease future review
4	28/02/2017	<p>Includes contributions from Indra (in 2.2.2, 2.2.3 and 3.1.11, test for wallet storage)</p> <p>Prerequisites clarified for the application installation</p> <p>Test results from 01/03/2017 (actual connection to the Cloud for ID management, and authorization check activated)</p>
5	09/03/2017	<p>Added tests for homepage and usage of a different device</p> <p>Includes test results</p>
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EXECUTIVE SUMMARY

This document is the integration report of the Travel Companion for the Additional Release. It describes the campaign strategy to understand the motives behind the test cases. Then, it details all the test cases for this campaign. Finally, it gives the results for the run of the test campaign.

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1. INTRODUCTION

The objective of the A-Rel test strategy is to thoroughly validate the functionalities developed for this release. In particular, the tests concern the functionalities of the client application and the calls that can be made to all relevant web services, either to Travel Companion Cloud or to other WPs. The goals of the tests are:

- To check that the components developed within WP5 can work together coherently. For instance, to check that we can search an offer after a login, or after creating an account. Hence, test scenarios are designed by chaining atomic operations together, such as searching for an offer, logging in, or setting a preference.
- To check the coherence between the specification of the web services and their implementation (if a web service is not compliant with its interface contract, using it in the client application can become impossible).
- To test the availability of web services for external clients

Our test campaign will also investigate, if possible, error conditions for web services (e.g., the creation of an account associated with an already existing email).

The tests presented in this document focus on the Travel companion, and should not be considered as integration tests for other WPs. In particular, we will not carry out any stress tests for these web services.

2. TEST MATERIALS DESCRIPTION

2.1 CONFIGURATION OF THE WP5 PERSONAL APPLICATION

In this section we detail the configuration of the client side, which is in this case a mobile device with the Personal Application, used to carry out the test scenarios in practice.

2.1.1 Infrastructure and Hardware

An Android mobile device, compatible with Android 6.0. This device must be able to access a 4G network.

2.1.2 Setup & configuration

The device does not need any special configuration, besides having the Travel Companion Personal Application installed. The only requirement is for the mobile device to be able to run a test version of the application). The following should be verified to enable installation of the application:

- The operation system must be configured in development mode. For this, “Unknown sources” checkbox should be enabled on the device in order to install non-Market applications. To enable or disable it on Samsung devices: “Settings” → “Security” → “Tap Unknown sources

checkbox”, The location of this checkbox can be different in other models, but it’s always in the Settings.

- Before installing a new version of the app, uninstall the current app from the device to avoid conflicts.
- Ensure that the downloaded apk location is not on the SD Card, if yes try to move it to the device memory, and install it from there.

The following configuration is used for the SNCF module, in the strings.xml file:

```
<resources>

<!-- mode demo for Identity APIs: Login & Create account -->
<string name="identity_demo">false</string>
<!-- mode demo for Mobility Request API -->
<string name="mobility_request_demo">true</string>
<!-- mode demo for Location Identifier API -->
<!-- <string name="location_identifier_demo">false</string>-->
<!-- mode demo for Start Tracking API -->
<string name="start_tracking_demo">false</string>
<!-- mode demo for Alert Manager API: setDeviceId, getMessage-->
<string name="alert_manager_demo">false</string>
<!-- mode demo for Booking API-->
<string name="booking_demo">true</string>
<!-- mode demo for Payment API-->
<string name="payment_demo">true</string>

<!-- local server url-->
<string name="base_identity_url">http://173.27.0.5:8080/idmanager/</string>
<!-- mobility request V1 C-rel-->
<string name="base_mobility_request_url">http://185.54.152.72:99/</string>
<!-- mobility request V2-->
<!--<string name="base_mobility_request_url">http://185.54.152.72:8096/</string>-->
<string
name="base_location_identification_url">http://192.168.150.139:8080/</string>
<string name="base_alert_tracking_url">http://85.93.98.205:8080/api/</string>
<!-- local server url-->
<!-- <string
name="base_alert_manager_url">http://10.0.2.2:8080/alertmanager/</string>-->
<string
name="base_alert_manager_url">https://173.27.0.5:8443/AccessManagerWP5/</string>

</resources>
```

Note about external interfaces: at the date of the last tests, several interfaces with other WPs are not final as they are not ready yet – they are either simulated internally (shopping, booking, payment) or the C-rel version is used (Start Tracking). The location identifier is called from WP5 (no demo mode has actually been created, as the current location can be used for testing in case the location resolver is not responding).

2.1.3 Tested system

Travel Companion Personal Application, version [ITR-WP5-PA_A21-23_2017-02-27.apk](#).

2.1.4 System data parameters

NA

2.1.5 Simulators

No Android simulators are used, as there may be some subtle differences as compared with the behaviour of a real phone.

2.1.6 Personnel

NA

2.2 CONFIGURATION OF THE WP5 CLOUD

In this section we detail the configuration of the Travel Companion Cloud, i.e., which constitutes the server side of the application, as it is deployed in the integration environment provided by Indra for this IT2RAIL POC.

2.2.1 Infrastructure and Hardware

The Cloud environment is made of connected servers based on Linux CentOS 6.7 (64 bits). The Cloud is based on a Wildfly v8.1 Application Server.

2.2.2 The data layer includes a PostgreSQL database to store user information. Setup & configuration

One requirement is related to remote access to the cloud, being essential to use a VPN client to connect to it in order to ensure environment security. VPN connection supports SSL connection and IPSec and it is possible to access VPN throughout java code using a Runtime call to execute Linux commands.

To get credentials contact INDRA Team. The configuration of the VPN on the mobile device is described in a document provided by Indra along with the credentials (WP5_VPN_Integration).

In addition, the IDManager module has configuration files to stub the WalletManager API, in particular to activate/deactivate the authorization checks, and to define the access rights profiles: see README file for details. Note: in A-rel, the userIDToken validity is a fixed value of 2 hours (including for Trip Tracking, which will have to last longer in the future).

The AlertManager has configuration files in particular to configure the GCM service, with a url, an API server key (for notification push via GCM) and a expiration delay of the messages.

2.2.3 Tested system

The following modules of the Travel Companion Cloud are tested:

- Access Manager, which manages all the interfaces between the travel companion cloud and WP5 modules (such as the Travel Companion smart device) as well as other WPs.
- Wallet manager, which deals with the data layer.
- ID Manager
- Alert Manager
- Preferences manager.
- Travel Manager (Entitlements and Tokens)

2.2.4 System data parameters

NA

2.2.5 Simulators

No simulators are needed for complete integration tests, since all modules interacting with the tested ones are operative and the interface contracts have been defined before the definition of the test cases. However, SOAP UI has been defined as the simulator for testing cloud response in case of interface failure or to simulate stimulations from other workpackages (e.g. an alert message sent by WP4).

2.2.6 Personnel

NA

3. TEST DESCRIPTION

This Version includes test results based on tests realized on 01/03, 07/03 and 08/03, with no internal stub in WP5 functionalities (see configuration chapter – in particular the authorizations are checked. The software version has demo mode activated for several functionalities outside WP5 (see configuration chapter), to be as independent from other WPs as it is necessary at this stage.

This is the final A-rel tests execution by Cécile Duême (SNCF). These tests have been executed on a Samsung Galaxy S7 device (SM-G930F) equipped with Android version 6.0.1.

3.1 FUNCTIONAL TESTS

These tests are those that are directly inspired by the specification.

3.1.1 User account creation, preferences setting, application shut down

WP5TestCase1-1	
Method Of Test	Demonstration and Inspection
Type of test	Manual
Objectives	Check that the user can create an account, and that he is connected after the account creation. Once the application is closed, the user needs to login before accessing any personal data. Set Preferences to check in the next test case that is has been registered.
Description	The user will create an account, set the associated preferences, and then closes the application, with no access to personal information anymore.
Status	
% passed	

Normal client and server configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device - VPN to Indra configured on the device				
1	Account Creation : Tester launches the application, then goes to the create account screen. Tester creates an account: he sets for example test@it2rail.fr in login field, testpwd in the password and password verification fields, and presses the register button.	Create account confirmation message in the application (demonstration) Tester sent to the Homepage			
2	Preference Setting : Tester goes to the preferences screen, and sets some preferences: he sets the following: <ul style="list-style-type: none"> Preferred means of transportation : train and bus Preferred carrier : Alitalia, SNCF and Amadeus - 1A Class : economy Payment card : American Express - AX and MasterCard - CA 	Preferences changed on screen (demonstration)			

Id	Step description	Expected result	Observed result	State	Associated defect
3	Close the application Tester closes the application (not only hides it)	Back to the mobile menu			
4	Opens the application	The application starts with the login page, with no access to personal information			

3.1.2 User login, Get Preferences and logout

WP5TestCase1-2	
Method Of Test	Demonstration and Inspection
Type of test	Manual
Objectives	Check that a user can use an account after its creation
Description	The tester will empty the cache, then login, and then set some preferences. Then he will empty the cache again, login again, and check the preferences he set are still here. Then logout, with no access to personal information anymore.
Status	
% passed	

Normal client and server configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device - VPN to Indra configured on the device - WP5TestCase1-1 passed- User is able to empty application cache				
1	Empty Application CacheTester empties the application cache in Android parameters Tester launches the application	The application launches on the device on the login page			

Id	Step description	Expected result	Observed result	State	Associated defect
2	<p>Login :</p> <p>Tester enters the credentials (login and password) that he created in WP5TestCase1-1 – or if the test is done without connection to the Cloud, use login “arya@got.org” and password “stark”</p> <p>Then user touches the Log in button.</p>	<p>Login message confirmation (Demonstration)</p> <p>Tester sent to the Homepage</p> <p>Menu displays the login on top</p>			
3	<p>Preferences checking:</p> <p>Tester goes to the preference screen, and checks that the Preferences are the ones he entered in WP5TestCase1-1</p>	<p>Preferences are as set in testcase1-1 (inspection)</p>	<p>The Preferences are different from the ones set in the WP5TestCase1-1:</p> <ul style="list-style-type: none"> • Preferred means of transportation : train and bus • Preferred carrier : Alitalia and SNCF only • Class : economy • Payment card : none 		

Id	Step description	Expected result	Observed result	State	Associated defect
4	Logout Logout using the corresponding menu entry	Back to the login page			

3.1.3 Search and pay offer

WP5TestCase1-3	
Method Of Test	Demonstration and Inspection
Type of test	Manual
Objectives	Check that the user can search for an offer after a login, done in test 1-2
Description	The user will search for an offer, and then book and pay it
Status	
% passed	

Normal client and server configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
Preconditions: User logged in, after WP5TestCase1-2					
1	Search an offer from the homepage Tester enters in the origin field: <ul style="list-style-type: none"> “Piazza Na” 	Tester is getting auto completion proposals based on what he entered			
2	Choose origin Piazza Navona (Rome, Italy) in the proposals list	Tester is sent to the search page with Origin field filled with value “Piazza Navona”			
3	Enter “Van Gogh” in the Destination field, and choose destination Van Gogh Museum (Amsterdam, Netherlands) Keep the departure date as is. Display search options and choose “Direct travel preferred” Press the Search button	Show offers corresponding to the search			

Id	Step description	Expected result	Observed result	State	Associated defect
4	Sort offers by Departure time	Results are sorted by departure time (based on the date/time - the most recent first)			
5	Press an offer to see offer details	Travel details are displayed, including several travel episodes and the details of these travel episodes : <ul style="list-style-type: none"> - Departure and arrival - Departure and arrival date/time - Price - Provider 			
6	Check offers	All Offers are coherent with tester's request (Demonstration)			
7	Book the most expensive offer Press the "Book this trip button in the offer details	Pay screen opens			

Id	Step description	Expected result	Observed result	State	Associated defect
8	Pay the offer Accept Terms and conditions and press the “Pay this trip” button	User get a payment confirmation screen (Demonstration)			

3.1.4 Start tracking trip

This test will check the ability of the application to contact the trip tracker module and ask it to track a trip that has just been bought.

WP5TestCase1-4	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Test the availability of the trip tracker Start Tracking interface
Description	User will ask to start tracking his trip, by pressing the dedicated button at the end of a successful payment for a trip. The success is confirmed in a popup.
Status	
% passed	

Standard configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device - VPN to Indra configured on the device- WP5TestCase1-3 done				
1	Ask to Start Tracking At the end of WP5TestCase1-3, press the Start Tracking button	Popup that shows a success Start tracking button deactivated			

3.1.5 Receive and display a message from the Trip Tracker (WP4)

WP5TestCase1-5	
Method Of Test	Simulation and Demonstration
Type of test	Manual

WP5TestCase1-5	
Objectives	Check that the user receives a notification and is able to display information sent by the WP4 Trip Tracker.
Description	The call from WP4 to send a message is simulated. The user clicks on the notification at reception to see the details in the application (which requires to log in if not already logged in).
Status	
% passed	

Standard configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	<p>Preconditions:</p> <ul style="list-style-type: none">- Application installed on mobile device, linked with Android studio with logs activated (to allow retrieval of the userIDToken)- VPN to Indra configured on the device- API Simulator (Postman) available and connected through the VPN of Indra- WP5TestCase1-3 done on the device- Tester not logged in				

ID	Step description	Expected result	Observed result	State	Associated defect
1	<p>Send message :</p> <p>The simulator is used to simulate WP4 sending a message to the user : the userIDToken put in the message is retrieved from the app in debug mode (it appears in the login response log, and has a 2 hours validity in A-rel – the one provided here is given only as an example) :</p> <pre>POST https://173.27.0.5:8443/AccessManagerWP5/tc/cwallet/AccessManager/messages/userId?user=test@it2rail.fr { "messageTitle": "Disruption in your trip." , "messageType": 1, "messageText": "Service disruption: your trip between Rome and Amsterdam has been delayed", "userIdToken": "eyJhbGciOiJIUzI1NiJ9.eyJzdWUiOiIxNzE3ZmVudGVyYXNpdjpbImdlldHB5ZWZlcmVuY2Vzliwic2VuZG1lc3NhZ2VzIl0sInBlcmItZXRIcil6LnRyYWNRaW5nliwiZXhwIjoxNDg4ODE5Mzg1fQ.EH6RGryWyFglZ6Wj2DxjNVbc-dEKcZRTaV6N4PlIRZY" "</pre>	A notification is received on the user device with the defined title and content			

Id	Step description	Expected result	Observed result	State	Associated defect
2	Click on the notification : Tester clicks on the notification (and if his phone is locked, enters his PIN code)	Tester is sent to the login page			
3	Message details in the application : Tester enters the login and password he used in WP5TestCase1-3 .	Tester is sent to the Message details in the application, and can see the details that were in the simulated Trip Tracker message			

3.1.6 Trip search from the homepage

WP5TestCase1-6	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Check that the homepage gives access to the search page, with location proposals based on search history
Description	The user will search for an offer from the homepage
Status	

WP5TestCase1-6	
% passed	

Normal client and server configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: <ul style="list-style-type: none"> - Application installed on mobile device - VPN to Indra configured on the device - User logged in, after WP5TestCase1-2 				
1	Open the menu and select entry “Home”	The least research appears on the homepage (origin and destination)			

Id	Step description	Expected result	Observed result	State	Associated defect
2	Click on the last research	The search screen is displayed with origin and destination pre-filled with the last values			
3	Click on the field “From”	All previously entered locations are proposed as alternative choices for this field. The last researches are also proposed to replace both origin and destination.			

3.1.7 Store a trip in the e-passport

WP5TestCase1-7	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Save a trip on the e-passport
Description	Save a trip on the e-passport from the Personal Application

WP5TestCase1-7	
Status	
% passed	

Standard configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device - e-passport available (or corresponding test card) but <i>not registered</i> - WP5TestCase1-3 done on the device				
1	Go to the My Passport menu entry	Tester is sent to the Passport registration page			

Id	Step description	Expected result	Observed result	State	Associated defect
2	Enter the Passport PIN code and present the test passport	Passport is registered and tester is sent to My Passport main page that allows to read/update/change Passport			
3	Press the Update passport button	The tester is asked to present his passport, and trip information is displayed			
4	Choose a trip and present the test passport	The success is confirmed			
5	Go back to the main Passport page and press the Read Passport button	The tester is asked to present his passport			
6	Present the test passport	The trip details are displayed, along with the passport number			
7	Click on the first travel episode	The trip details are displayed, along with the passport number and the QR-code			

3.1.8 Happenings viewer

WP5TestCase1-8	
Method Of Test	Demonstration

WP5TestCase1-8	
Type of test	Manual
Objectives	
Description	
Status	
% passed	

Standard configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device				
1	Login and press the Happening viewer menu item	The tester is sent to the main Happening viewer page			

Id	Step description	Expected result	Observed result	State	Associated defect
2	Choose the current date for start date, and one month later for the end date, city "Rome", an category "all"	Some events in the chosen timeslot are displayed			
3	Click on Map icon on the first happening in the list				

3.1.9 KPI viewer

WP5TestCase1-9	
Method Of Test	Demonstration
Type of test	Manual
Objectives	
Description	
Status	
% passed	

Standard configuration	
Regression	

Standard configuration	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device				
1	Login and press the KPI viewer menu item	The tester is sent to the main KPI viewer page			

3.1.10 Navigation

WP5TestCase1-10	
Method Of Test	Demonstration
Type of test	Manual
Objectives	
Description	
Status	

WP5TestCase1-10	
% passed	

Standard configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device - Positioning is not activated on the phone				
1	- Login - Click on the button to put application on background and deactivate Indra VPN connection on the device. Return to the application and press the Localization menu item	A world map is displayed			

Id	Step description	Expected result	Observed result	State	Associated defect
2	Press the “localization” button on the bottom right	The tester is given a way to activate the positioning on the phone			
3	Activate manually the positioning on the phone, go back to the world map and press the “localization” button on the bottom right	The tester is positioned on the map			
4	Press the “camera” button on the bottom right	Camera view is displayed			

3.1.11 Travel Wallet Cloud

WP5TestCase1-11	
Method Of Test	Demonstration
Type of test	Manual (SoapUI)
Objectives	Save and Get Entitlements and Tokens from the Cloud
Description	
Status	

WP5TestCase1-11	
% passed	

Standard configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: Install SoapUI. Check WP5_Access&WalletManager API v8.2				
1	Save Entitlement in the Cloud Check API doc section 4.3.1	201: Entitlement Saved			
2	Get Entitlement from the Cloud Check API doc section 4.3.2	200: Entitlement recovered			

Id	Step description	Expected result	Observed result	State	Associated defect
3	Save Token in the Cloud Check API doc section 4.4.1 PS: To use the SendToken Service , userIdToken linked to “ Validate ” authorization functionality should be passed, instead of “issuing”.	201: Token Saved			
4	Get Token from the Cloud Check API doc section 4.4.2	200: Token recovered			

3.1.12 Use a different device

WP5TestCase1-12	
Method Of Test	Simulation and Demonstration
Type of test	Manual
Objectives	Check that a user can find his personal environment on a different device
Description	Login on a different device, check the Preferences, and receive a message coming from the WP4 Trip Tracking
Status	



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WP5TestCase1-12	
% passed	

Standard configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - WP5TestCase1-1 and WP5TestCase1-3 passed on another device - Application installed on the new mobile device, linked with Android studio with logs activated (to allow retrieval of the userIDToken) - - VPN to Indra configured on the new device - API Simulator (Postman) available and connected through the VPN of Indra - Tester not logged in				
1	On the new device, login with the credentials from WP5TestCase1-1	The tester is logged in. The homepage contains no search history (it is stored locally only)			

Id	Step description	Expected result	Observed result	State	Associated defect
2	Check Preferences Go to the menu, choose the Preferences menu item, and check the value of the Preferences	The Preferences are in the same state as in WP5TestCase1-2			
3	Send message : The simulator is used to simulate WP4 sending a message to the user (see WP5TestCase1-5 for details)	A notification is received on the user device with the defined title and content			
4	Click on the notification : Tester clicks on the notification (and if his phone is locked, enters his PIN code)	Tester is sent to the Message details in the application, and can see the details that were in the simulated Trip Tracker message			

3.2 TECHNICAL TESTS

These tests are intended to check problems that can arise with the implementation of any mobile application (i.e., they are not specific to the travel companion).

3.2.1 Reinstall application

WP5TestCase2-1	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Check that the application will still work after being updated, and cached data are still available
Description	User will login, set preference, uninstall application, and then install the application with a greater version number
Status	
% passed	

Standard configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: 2 version of the application, the older and the newer				

Id	Step description	Expected result	Observed result	State	Associated defect
1	Install older version Tester launches the application He logs in with a login already created during test WP5TestCase1-1 He goes to the preference screen. He checks the following preferred transport mode: bus, tram, subway.	User logged in, and preferences set			
2	Uninstall the application The tester uninstalls the application	Application no more present in the device			
3	Install newer version of the application Tester will install the other, more recent version of the application.	Application present again in the device			

Id	Step description	Expected result	Observed result	State	Associated defect
4	<p>Login, and check</p> <p>Tester launches the application.</p> <p>Tester log into the application, with the credentials of step1.</p> <p>Tester goes to the preference screen.</p> <p>Tester checks that the preferred transport mode bus, tram and subway are checked.</p>	<p>Tester is able to launch the application and preferences are still here.</p>			

3.3 ERROR TESTS

These tests are intended to check what happens in case of misuses of the application by the user.

3.3.1 Existing email

WP5TestCase3-1	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Check that the user cannot create an account with an already existing email

WP5TestCase3-1	
Description	The tester will try to create an account with test credentials, to trigger the error in the ID Manager Stub
Status	
% passed	

Standard configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: Application installed on the device WP5TestCase1-1 passed				

Id	Step description	Expected result	Observed result	State	Associated defect
1	<p>Account Creation :</p> <p>Tester launches the application, then goes to the create account screen.</p> <p><u>If in demo mode for the IDManager</u>, tester creates an account with these credentials:</p> <p> Login: cersei@got.org</p> <p> Password: testpwd</p> <p> Password confirmation: testpwd</p> <p><u>If not in demo mode for the IDManager</u>, tester creates an account with a login already created during test WP5TestCase1-1</p> <p>Tester touches the “Create an account” button.</p>	Error message			

3.3.2 Wrong credentials

WP5TestCase3-2	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Check that valid credentials are necessary to connect
Description	Tester will try to login with invalid credentials
Status	
% passed	

Standard configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: Application installed in the device, and cache emptied				

Id	Step description	Expected result	Observed result	State	Associated defect
1	<p>Tester will log in with a wrong credential: Tester launches the application. He goes to the login screen. <u>If in demo mode for the IDManager</u>, he uses these credentials: Login: arya@got.org Password : WrongPassword <u>If not in demo mode for the IDManager</u>, he uses the credentials: Login: the one created in WP5TestCase1-1 Password : WrongPassword</p>	Error Message			

3.3.3 Not Corresponding password

WP5TestCase3-2	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Check that a correct password confirmation is necessary to create an account

WP5TestCase3-2	
Description	Tester will try to create an account with a password confirmation that does not match the password
Status	
% passed	

Standard configuration	
Regression	
Test Case Tester	

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: Application installed in the device, and cache emptied				

Id	Step description	Expected result	Observed result	State	Associated defect
1	<p>Account Creation :</p> <p>Tester launches the application, then goes to the create account screen.</p> <p>Tester creates an account: he set testArel@sncf20160830.fr in login field, testpwd in the password and testpawdtestpwd in password verification field, and touches the “Create an account” button.</p>	Error Message			

4. TEST EXECUTION

4.1 FUNCTIONAL TESTS

4.1.1 User account creation, preferences setting, application shut down

WP5TestCase1-1	
Method Of Test	Demonstration and Inspection

WP5TestCase1-1	
Type of test	Manual
Objectives	Check that the user can create an account, and that he is connected after the account creation. Once the application is closed, the user needs to login before accessing any personal data. Set Preferences to check in the next test case that is has been registered.
Description	The user will create an account, set the associated preferences, and then closes the application, with no access to personal information anymore..
Status	OK with remarks/defects
% passed	100%

Normal client and server configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device - VPN to Indra configured on the device				

Id	Step description	Expected result	Observed result	State	Associated defect
1	<p>Account Creation :</p> <p>Tester launches the application, then goes to the create account screen.</p> <p>Tester creates an account: he sets for example test@it2rail.fr in login field, testpwd in the password and password verification fields, and press the register button.</p>	<p>Create account confirmation message in the application (demonstration)</p> <p>Tester sent to the Homepage</p>	<p>Test user created :</p> <p>First name : test</p> <p>Last name : it2rail</p> <p>Email : test@it2rail.fr</p> <p>Password : testpwd</p>	Passed	<p>Note to HaCon: the management of the back button of the phone could be improved to be compliant with the Android recommendations</p> <p>Note to SNCF : Confirmation message after creation could be more explicit</p>

Id	Step description	Expected result	Observed result	State	Associated defect
2	<p>Preference Setting :</p> <p>Tester goes to the preferences screen, and sets some preferences: he sets the following:</p> <ul style="list-style-type: none"> • Preferred means of transportation : train and bus • Preferred carrier : Alitalia, SNCF and Amadeus - 1A • Class : economy • Payment card : American Express - AX and MasterCard - CA 	Preferences changed on screen (demonstration)		Passed with defect	Some lists are truncated (Preferred means of transportation for example), some are very long and the user has no input help (Preferred carrier).
3	<p>Close the application</p> <p>Tester closes the application (not only hides it)</p>	Back to the mobile menu		Passed	
4	Opens the application	The application starts with the login page, with no access to personal information		Passed	

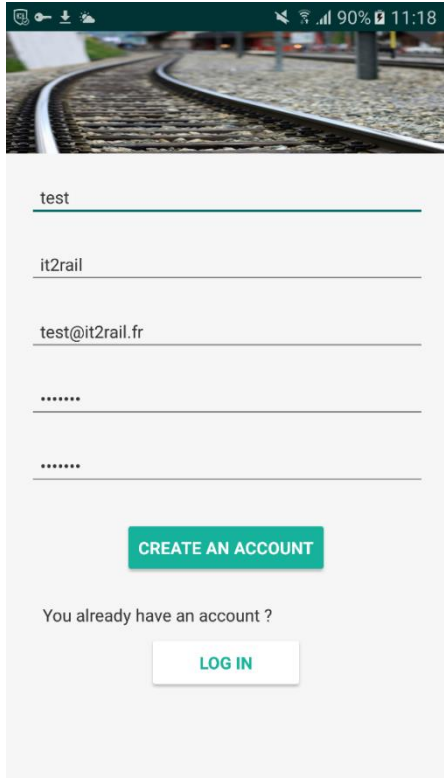
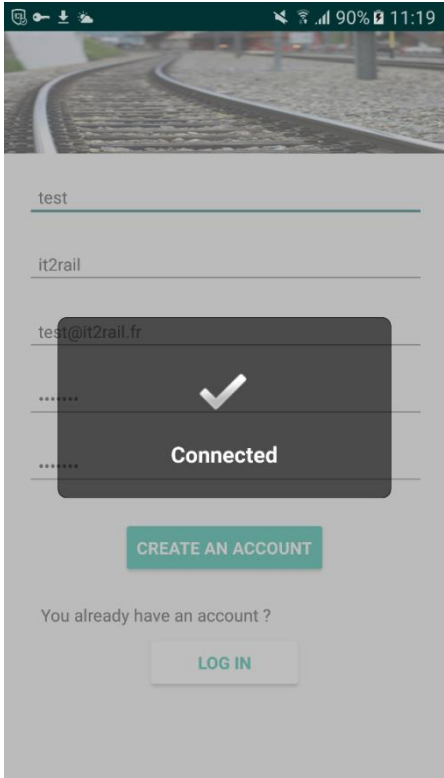
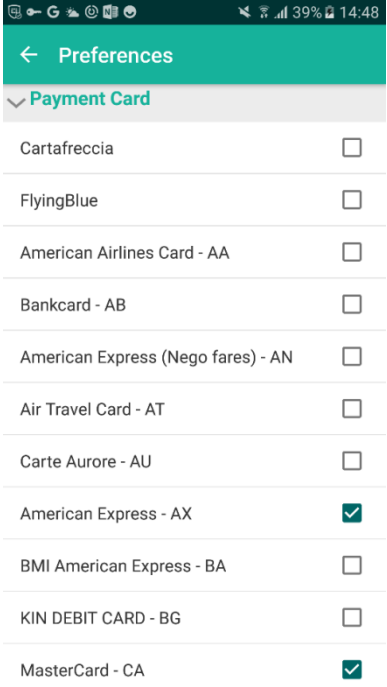
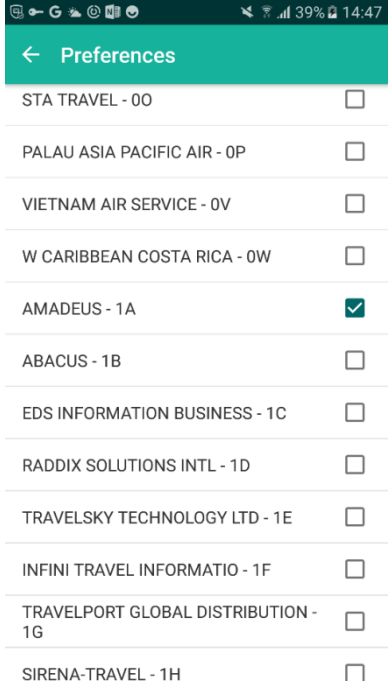
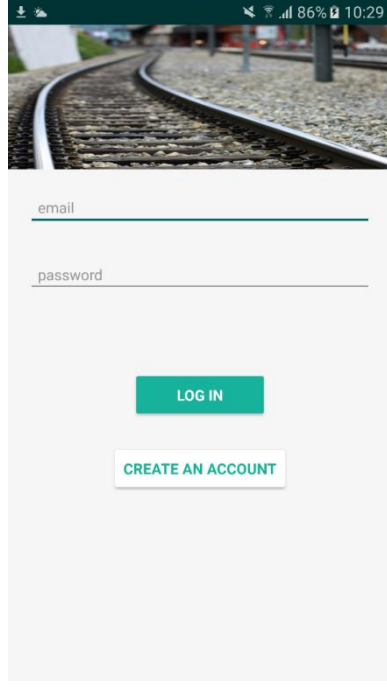
Fig 1 Register screen	Fig 2 Register screen answer
	

Fig 3 Preference screen: Payment card	Fig 4 Preference screen: Preferred carrier	Fig 5 Login screen (after restarting application)
 <p>← Preferences</p> <p>Payment Card</p> <ul style="list-style-type: none"> Cartafreccia <input type="checkbox"/> FlyingBlue <input type="checkbox"/> American Airlines Card - AA <input type="checkbox"/> Bankcard - AB <input type="checkbox"/> American Express (Nego fares) - AN <input type="checkbox"/> Air Travel Card - AT <input type="checkbox"/> Carte Aurore - AU <input type="checkbox"/> American Express - AX <input checked="" type="checkbox"/> BMI American Express - BA <input type="checkbox"/> KIN DEBIT CARD - BG <input type="checkbox"/> MasterCard - CA <input checked="" type="checkbox"/> 	 <p>← Preferences</p> <ul style="list-style-type: none"> STA TRAVEL - 00 <input type="checkbox"/> PALAU ASIA PACIFIC AIR - 0P <input type="checkbox"/> VIETNAM AIR SERVICE - 0V <input type="checkbox"/> W CARIBBEAN COSTA RICA - 0W <input type="checkbox"/> AMADEUS - 1A <input checked="" type="checkbox"/> ABACUS - 1B <input type="checkbox"/> EDS INFORMATION BUSINESS - 1C <input type="checkbox"/> RADDIX SOLUTIONS INTL - 1D <input type="checkbox"/> TRAVELSKY TECHNOLOGY LTD - 1E <input type="checkbox"/> INFINI TRAVEL INFORMATIO - 1F <input type="checkbox"/> TRAVELPORT GLOBAL DISTRIBUTION - 1G <input type="checkbox"/> SIRENA-TRAVEL - 1H <input type="checkbox"/> 	 <p>email</p> <p>password</p> <p>LOG IN</p> <p>CREATE AN ACCOUNT</p>

4.1.2 User login, Get Preferences and logout

WP5TestCase1-2	
Method Of Test	Demonstration and Inspection
Type of test	Manual
Objectives	Check that a user can use an account after its creation
Description	The tester will empty the cache, then login, and then set some preferences. Then he will empty the cache again, login again, and check the preferences he set are still here. Then logout, with no access to personal information anymore.
Status	OK, except KO for the Preferences (OK for login / logout)
% passed	75%

Normal client and server configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device - VPN to Indra configured on the device - WP5TestCase1-1 passed- User is able to empty application cache				
1	Empty Application CacheTester empties the application cache in Android parameters Tester launches the application	The application launches on the device on the login page		Passed	

Id	Step description	Expected result	Observed result	State	Associated defect
2	<p>Login :</p> <p>Tester enters the credentials (login and password) that he created in WP5TestCase1-1 – or if the test is done without connection to the Cloud, use login “arya@got.org” and password “stark”</p> <p>Then user touches the Log in button.</p>	<p>Login message confirmation (Demonstration)</p> <p>Tester sent to the Homepage</p> <p>Menu displays the login on top</p>		Passed	

Id	Step description	Expected result	Observed result	State	Associated defect
3	<p>Preferences checking:</p> <p>Tester goes to the preference screen, and checks that the Preferences are the ones he entered in WP5TestCase1-1</p>	<p>Preferences are as set in testcase1-1 (inspection)</p>	<p>The Preferences are different from the ones set in the WP5TestCase1-1:</p> <ul style="list-style-type: none"> • Preferred means of transportation : train and bus • Preferred carrier : Alitalia and SNCF only • Class : economy • Payment card : none 	KO	<p>Mantis 62371 : It seems that values with special characters (like “-“) are not registered in the Cloud. No message is alerting the user of this failure.</p> <p>Mantis 62373 : In addition, after clicking on the Preferred Carrier drop-down list, several defaults have been highlighted</p> <ul style="list-style-type: none"> - in some cases, the click brings back to the homepage - in some cases, it crashes the application - in other cases, it usually takes about 4 seconds to display the Preferred Carrier Preference values.
4	<p>Logout</p> <p>Logout using the corresponding menu entry</p>	<p>Back to the login page</p>		Passed	

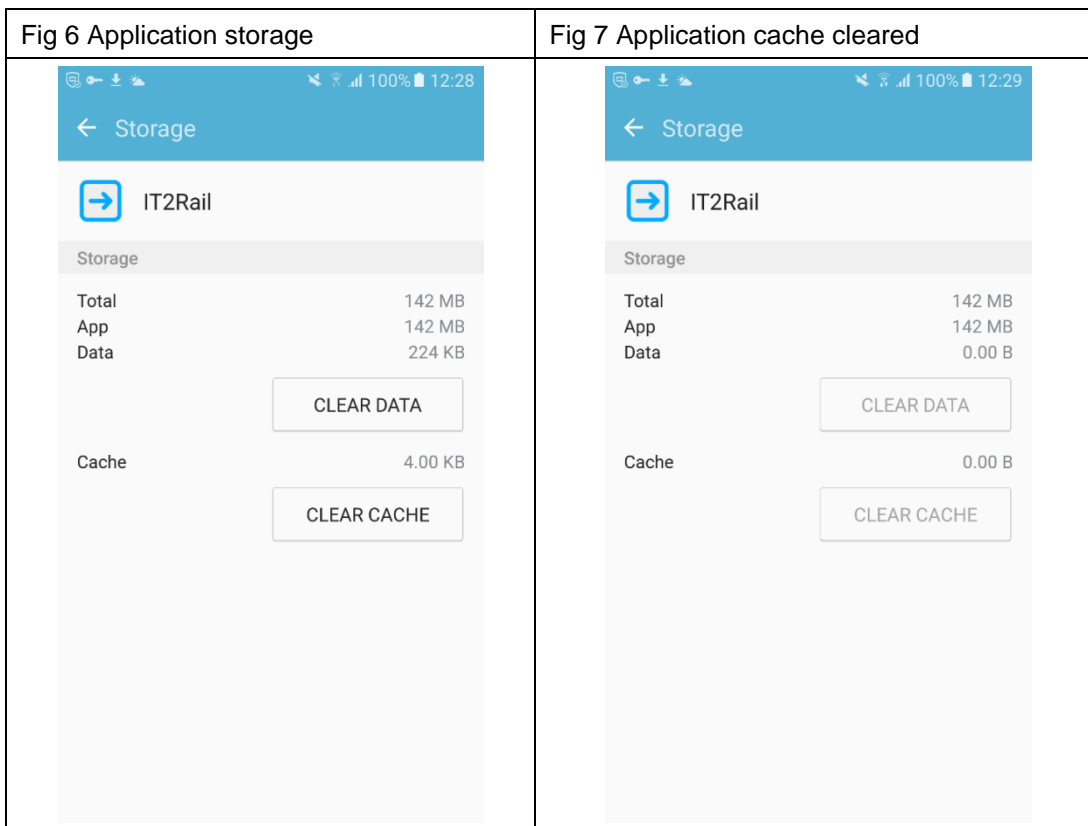


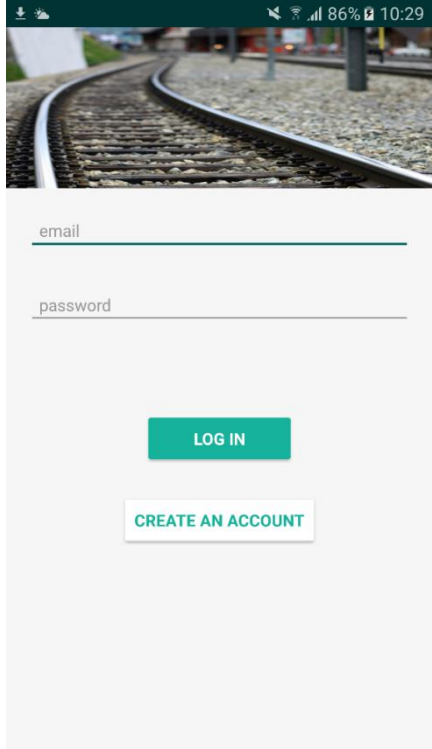
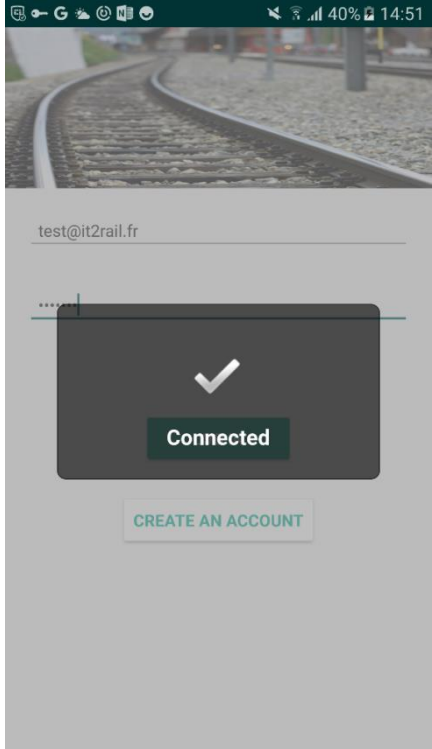
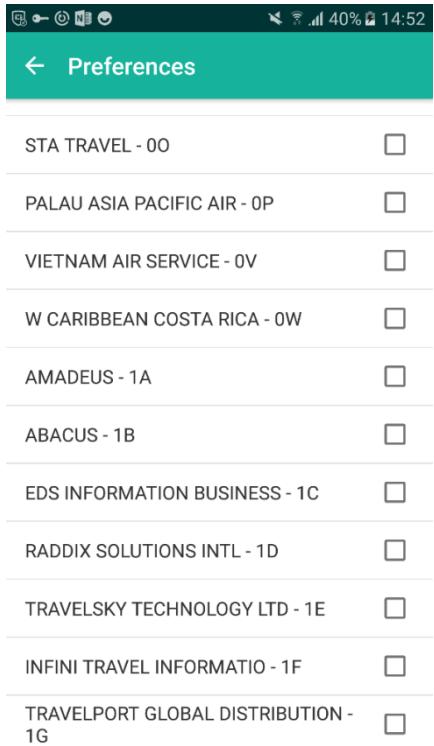
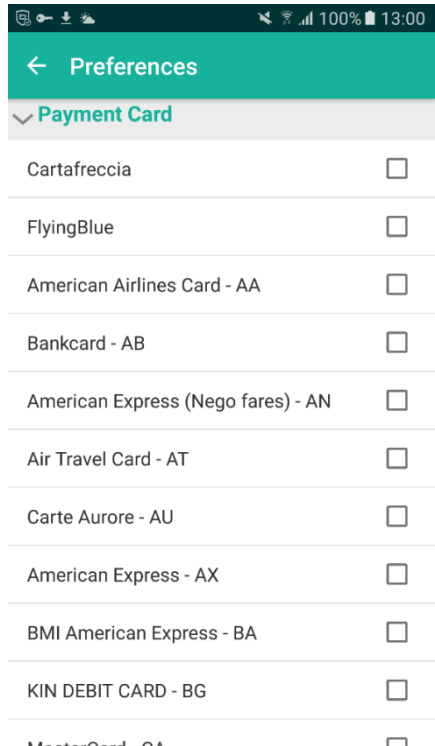
Fig 8 Login screen	Fig 9 Login screen answer
	

Fig10 Preference screen (preferred carrier)	Fig11 Preference screen (payment card)
 <p>STA TRAVEL - 00 <input type="checkbox"/></p> <p>PALAU ASIA PACIFIC AIR - 0P <input type="checkbox"/></p> <p>VIETNAM AIR SERVICE - 0V <input type="checkbox"/></p> <p>W CARIBBEAN COSTA RICA - 0W <input type="checkbox"/></p> <p>AMADEUS - 1A <input type="checkbox"/></p> <p>ABACUS - 1B <input type="checkbox"/></p> <p>EDS INFORMATION BUSINESS - 1C <input type="checkbox"/></p> <p>RADDIX SOLUTIONS INTL - 1D <input type="checkbox"/></p> <p>TRAVELSKY TECHNOLOGY LTD - 1E <input type="checkbox"/></p> <p>INFINI TRAVEL INFORMATIO - 1F <input type="checkbox"/></p> <p>TRAVELPORT GLOBAL DISTRIBUTION - 1G <input type="checkbox"/></p>	 <p>Payment Card</p> <p>Cartafreccia <input type="checkbox"/></p> <p>FlyingBlue <input type="checkbox"/></p> <p>American Airlines Card - AA <input type="checkbox"/></p> <p>Bankcard - AB <input type="checkbox"/></p> <p>American Express (Nego fares) - AN <input type="checkbox"/></p> <p>Air Travel Card - AT <input type="checkbox"/></p> <p>Carte Aurore - AU <input type="checkbox"/></p> <p>American Express - AX <input type="checkbox"/></p> <p>BMI American Express - BA <input type="checkbox"/></p> <p>KIN DEBIT CARD - BG <input type="checkbox"/></p> <p>MasterCard - CA <input type="checkbox"/></p>

4.1.3 Search and pay offer

WP5TestCase1-3	
Method Of Test	Demonstration and Inspection
Type of test	Manual
Objectives	Check that the user can search for an offer after a login, done in test 1-2
Description	The user will search for an offer, and then book and pay it
Status	Passed in demo mode for shopping/booking/issuing
% passed	100%

Normal client and server configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: User logged in, after WP5TestCase1-2				

Id	Step description	Expected result	Observed result	State	Associated defect
1	Search an offer from the homepage Tester enters in the origin field: <ul style="list-style-type: none"> “Piazza Na” 	Tester is getting auto completion proposals based on what he entered		Passed	Mantis 61958 assigned to WP1
2	Choose origin Piazza Navona (Rome, Italy) in the proposals list	Tester is sent to the search page with Origin field filled with value “Piazza Navona”		Passed	Note to HaCon : the behaviour of the action button (left side of the action bar) is not as planned in the Attoma design (arrow versus “burger”)
3	Enter “Van Gogh” in the Destination field, and choose destination Van Gogh Museum (Amsterdam, Netherlands) Keep the departure date as is. Display search options and choose “Direct travel preferred” Press the Search button	Show offers corresponding to the search	In demo mode for shopping (see configuration), the application will show 4 offers in the offers list	Passed in demo mode	

Id	Step description	Expected result	Observed result	State	Associated defect
4	Sort offers by Departure time	Results are sorted by departure time (based on the date/time - the most recent first)		Passed	
5	Press an offer to see offer details	Travel details are displayed, including several travel episodes and the details of these travel episodes : <ul style="list-style-type: none"> - Departure and arrival - Departure and arrival date/time - Price - Provider 		Passed	
6	Check offers	All Offers are coherent with tester's request (Demonstration)		Not checked	In demo mode : static values, so nothing to check
7	Book the most expensive offer Press the "Book this trip button in the offer details	Pay screen opens		Passed	

Id	Step description	Expected result	Observed result	State	Associated defect
8	Pay the offer Accept Terms and conditions and press the “Pay this trip” button	User get a payment confirmation screen (Demonstration)		Passed	

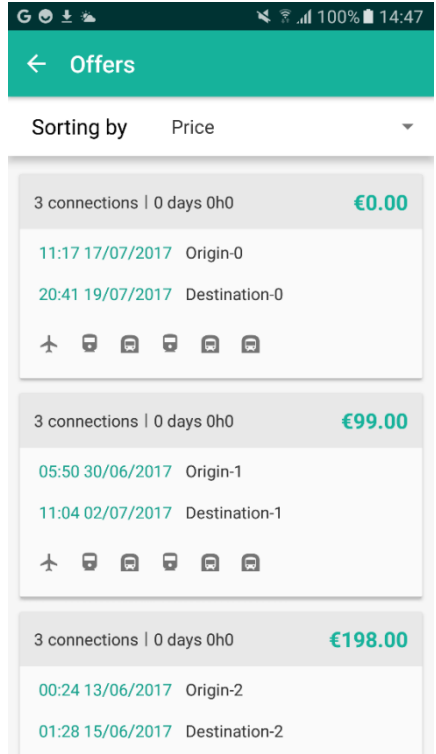
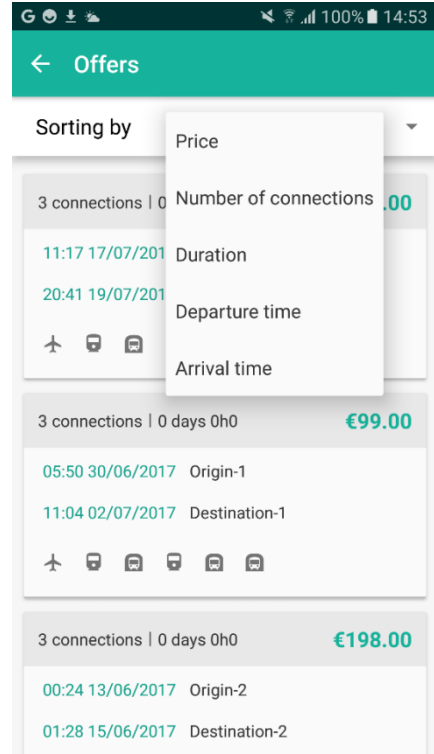
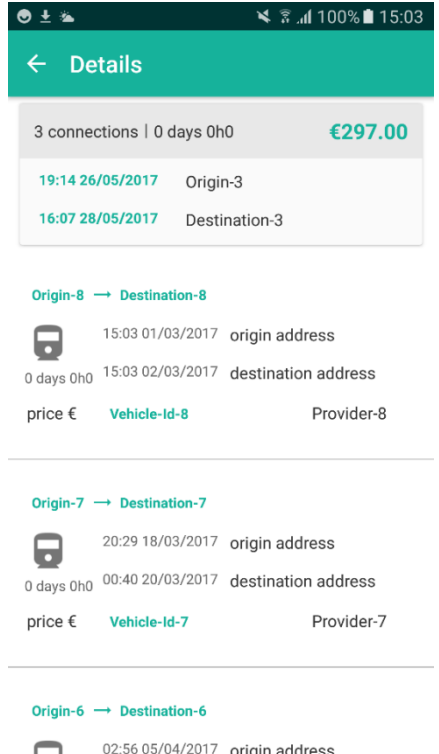
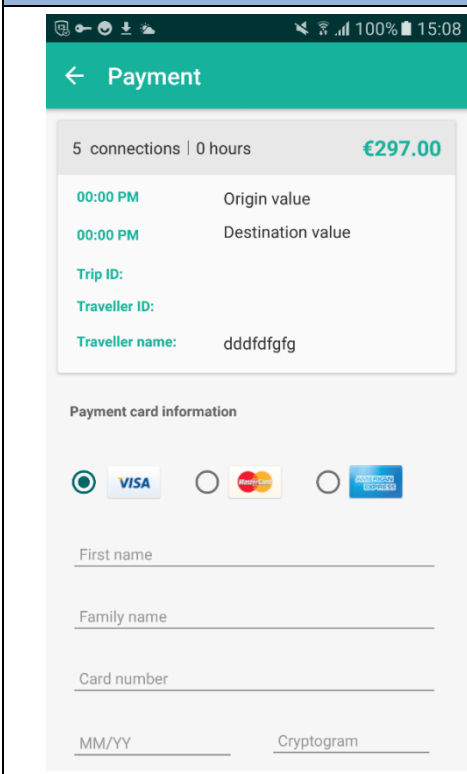
Fig 15 Offers list screen (demo)	Fig 16 Offers list sorted by dep	Fig 17 Offer details screen
		

Fig 19 Payment screen



Payment screen showing trip details and payment options.

5 connections | 0 hours €297.00

00:00 PM Origin value
00:00 PM Destination value

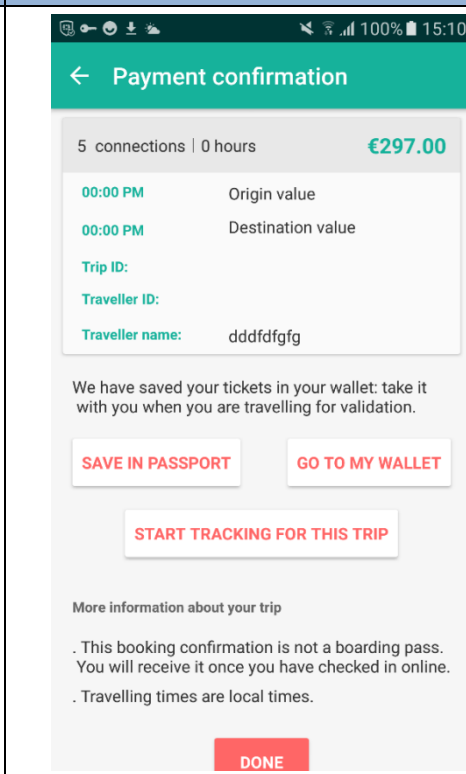
Trip ID:
Traveller ID:
Traveller name: dddfdgfg

Payment card information

☒ VISA ☐ Mastercard ☐ American Express

First name
Family name
Card number
MM/YY Cryptogram

Fig 20 Payment screen confirmation



Payment confirmation screen showing trip details and confirmation options.

5 connections | 0 hours €297.00

00:00 PM Origin value
00:00 PM Destination value

Trip ID:
Traveller ID:
Traveller name: dddfdgfg

We have saved your tickets in your wallet: take it with you when you are travelling for validation.

SAVE IN PASSPORT GO TO MY WALLET

START TRACKING FOR THIS TRIP

More information about your trip

. This booking confirmation is not a boarding pass. You will receive it once you have checked in online.
. Travelling times are local times.

DONE

4.1.4 Start tracking trip

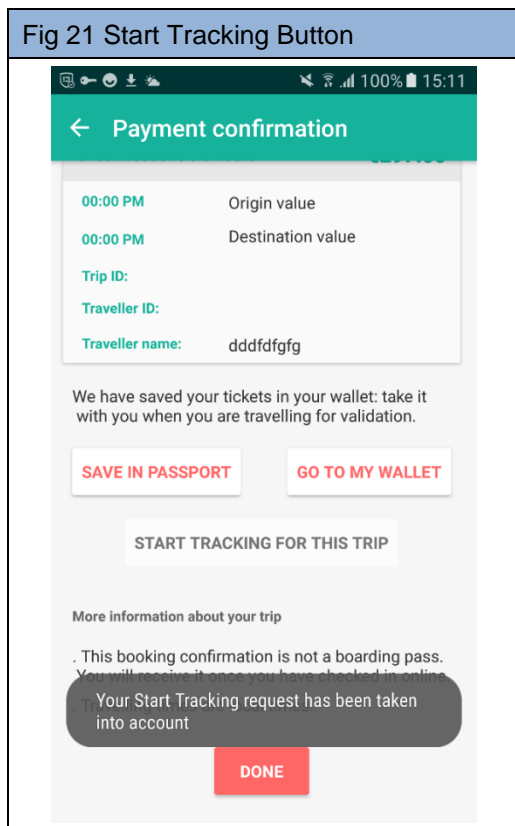
This test will check the ability of the application to contact the trip tracker module and ask it to track a trip that has just been bought.

WP5TestCase1-4	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Test the availability of the trip tracker Start Tracking interface
Description	User will ask to start tracking his trip, by pressing the dedicated button at the end of a successful payment for a trip. The success is confirmed in a popup.
Status	Passed
% passed	100%

Standard configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device - VPN to Indra configured on the device- WP5TestCase1-3 done				
1	Ask to Start Tracking At the end of WP5TestCase1-3, press the Start Tracking button	Popup that shows a success Start tracking button deactivated		Passed	

Fig 21 Start Tracking Button



4.1.5 Receive and display a message from the Trip Tracker (WP4)

WP5TestCase1-5	
Method Of Test	Simulation and Demonstration
Type of test	Manual
Objectives	Check that the user receives a notification and is able to display information sent by the WP4 Trip Tracker.
Description	The call from WP4 to send a message is simulated. The user clicks on the notification at reception to see the details in the application (which requires to log in if not already logged in).
Status	OK, except KO for the display of the alert details in the app
% passed	60%

Standard configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	<p>Preconditions:</p> <ul style="list-style-type: none">- Application installed on mobile device, linked with Android studio with logs activated (to allow retrieval of the userIDToken)- VPN to Indra configured on the device- API Simulator (Postman) available and connected through the VPN of Indra- WP5TestCase1-3 done on the device- Tester not logged in				



Id	Step description	Expected result	Observed result	State	Associated defect
2	Click on the notification : Tester clicks on the notification (and if his phone is locked, enters his PIN code)	Tester is sent to the login page		Passed	
3	Message details in the application : Tester enters the login and password he used in WP5TestCase1-3 .	Tester is sent to the Message details in the application, and can see the details that were in the simulated Trip Tracker message	The AlertInformation page displays an error message: "Server technical Error"	Not passed	Mantis 62378: GetMessage API called from the application needs to be updated (the followed accessManager doc needs to be updated).

Fig 22 Sending Message to user from the simulator

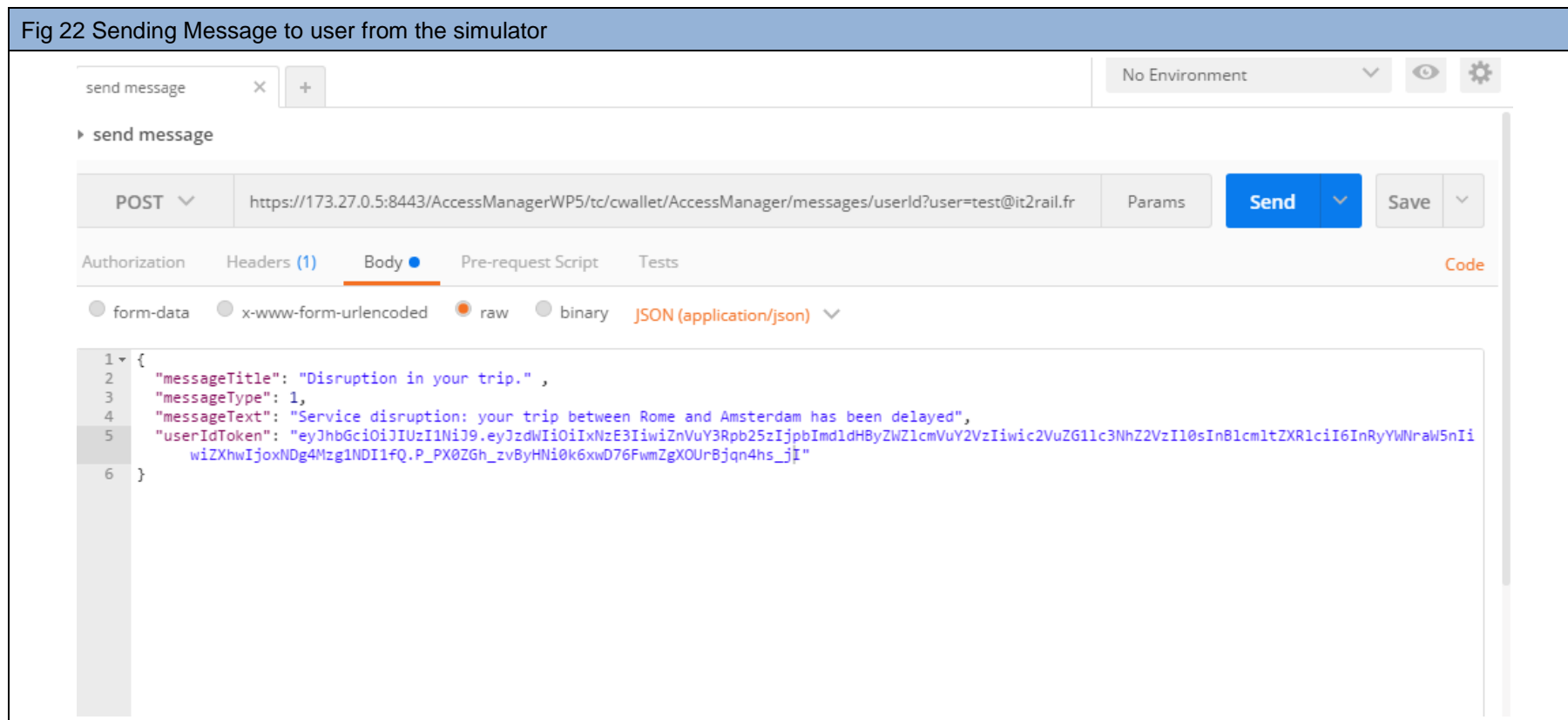


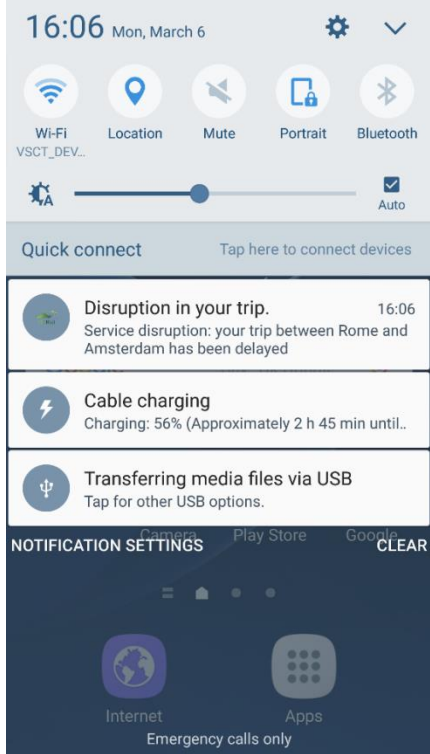
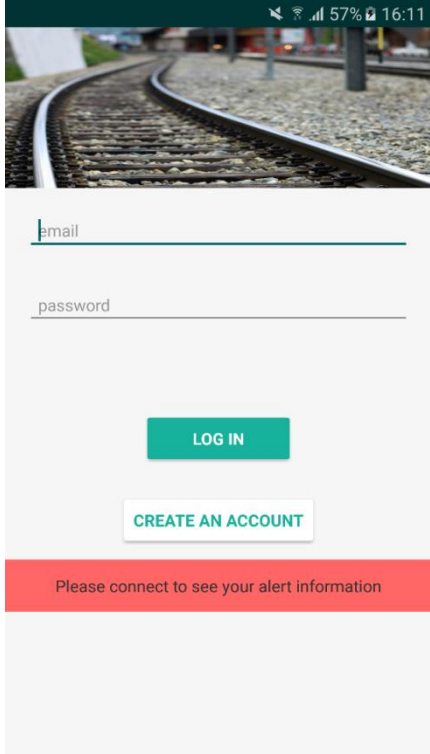
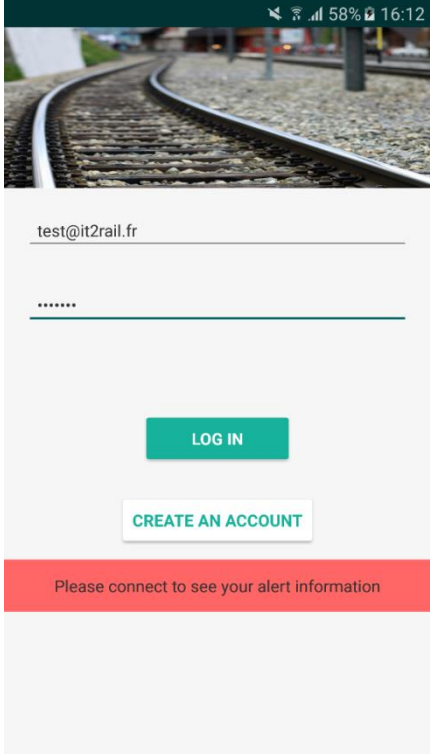
Fig 23 Notification received	Fig 24 Login screen after clicking on notification	Fig 25 user credentials
 <p>The screenshot shows an Android notification shade pulled down. At the top, the status bar shows the time 16:06 on Monday, March 6. Below the status bar are icons for Wi-Fi, Location, Mute, Portrait, and Bluetooth. A 'Quick connect' section is visible with a toggle for 'Auto'. The main notification area contains three notifications: 'Disruption in your trip' (Service disruption: your trip between Rome and Amsterdam has been delayed), 'Cable charging' (Charging: 56% (Approximately 2 h 45 min until..)), and 'Transferring media files via USB' (Tap for other USB options.). At the bottom, there are icons for 'Internet' and 'Apps', and a note 'Emergency calls only'.</p>	 <p>The screenshot shows the login screen of the IT2Rail app. At the top, the status bar shows the time 16:11 and battery level 57%. Below the status bar is a header image of train tracks. The login form has two input fields: 'email' and 'password'. Below the input fields are two buttons: 'LOG IN' (green) and 'CREATE AN ACCOUNT' (white with green text). At the bottom, there is a red banner with the text 'Please connect to see your alert information'.</p>	 <p>The screenshot shows the login screen of the IT2Rail app, similar to Fig 24. The status bar shows the time 16:12 and battery level 58%. The 'email' input field contains the text 'test@it2rail.fr'. The 'password' input field contains seven dots. The 'LOG IN' and 'CREATE AN ACCOUNT' buttons are present. At the bottom, there is a red banner with the text 'Please connect to see your alert information'.</p>

Fig 26 Retrieving message details

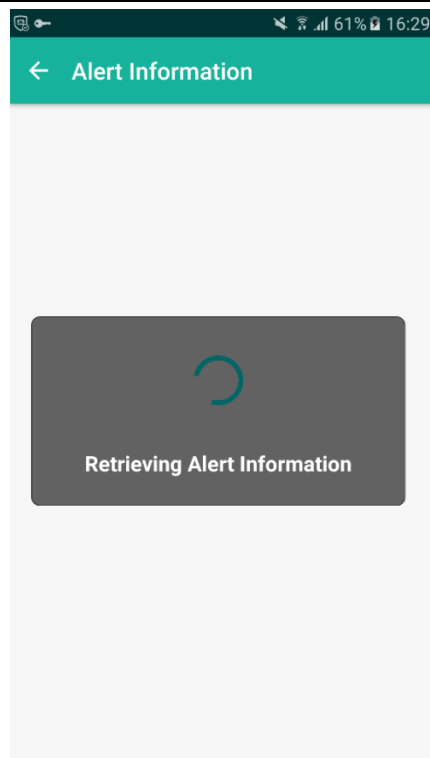
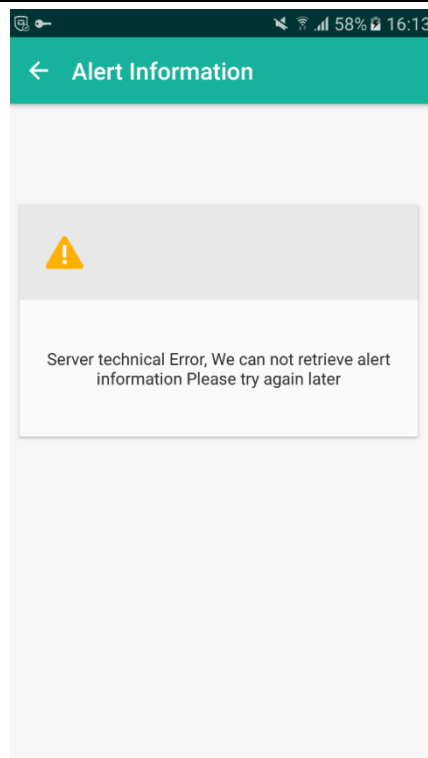


Fig 27 Message details screen: api response exception

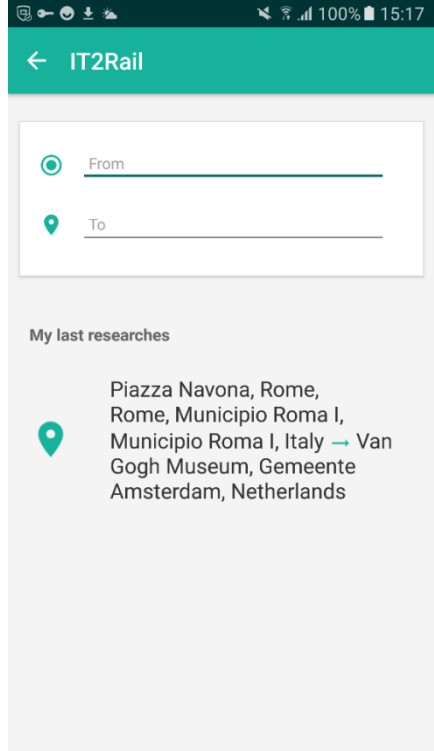
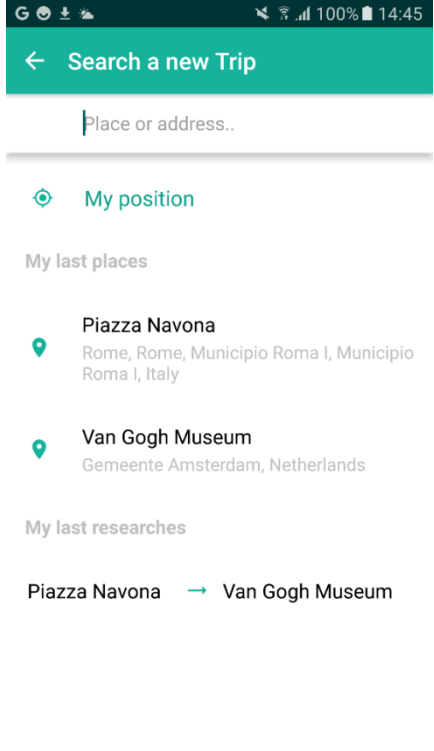


4.1.6 Trip search from the homepage

WP5TestCase1-6	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Check that the homepage gives access to the search page, with location proposals based on search history
Description	The user will search for an offer from the homepage
Status	Passed
% passed	100%

Normal client and server configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device - VPN to Indra configured on the device - User logged in, after WP5TestCase1-2				
1	Open the menu and select entry “Home”	The least research appears on the homepage (origin and destination)		Passed	
2	Click on the last research	The search screen is displayed with origin and destination pre-filled with the last values		Passed	
3	Click on the field “From”	All previously entered locations are proposed as alternative choices for this field. The last researches are also proposed to replace both origin and destination.		Passed	

Fig 28 Home screen: Last researches	Fig29 Search screen: last places/researches list
 <p>The screenshot shows the IT2Rail home screen. At the top is a green header with a back arrow and the text 'IT2Rail'. Below the header are two input fields: 'From' and 'To', each with a location pin icon. Underneath these fields is a section titled 'My last researches' which contains a single entry: 'Piazza Navona, Rome, Rome, Municipio Roma I, Italy → Van Gogh Museum, Gemeente Amsterdam, Netherlands'.</p>	 <p>The screenshot shows the search screen. At the top is a green header with a back arrow and the text 'Search a new Trip'. Below the header is a search bar with the placeholder text 'Place or address..'. Under the search bar is a section titled 'My last places' which contains two entries: 'Piazza Navona' (Rome, Rome, Municipio Roma I, Municipio Roma I, Italy) and 'Van Gogh Museum' (Gemeente Amsterdam, Netherlands). Below this is a section titled 'My last researches' which contains a single entry: 'Piazza Navona → Van Gogh Museum'.</p>

4.1.7 Store a trip in the e-passport

WP5TestCase1-7	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Save a trip on the e-passport
Description	Save a trip on the e-passport from the Personal Application
Status	Passed
% passed	100%

Standard configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device - e-passport available (or corresponding test card) but <i>not registered</i> - WP5TestCase1-3 done on the device				
1	Go to the My Passport menu entry	Tester is sent to the Passport registration page		Passed	Note to Gemalto : - The first 2 trials caused an error message saying that the passport PIN was wrong, whereas the 3 rd trial worked (if not mistaken when entering the password, but twice in a row seems quite unlikely... To be studied?) - The back button of the phone does not lead to the previous screen

Id	Step description	Expected result	Observed result	State	Associated defect
2	Enter the Passport PIN code and present the test passport	Passport is registered and tester is sent to My Passport main page that allows to read/update/change Passport		Passed	
3	Press the Update passport button	The tester is asked to present his passport, and trip information is displayed	Registered trips are displayed without asking to present passport when it is already in contact	Passed	
4	Choose a trip and present the test passport	The success is confirmed		Passed	
5	Go back to the main Passport page and press the Read Passport button	The tester is asked to present his passport		Passed	
6	Present the test passport	The trip details are displayed, along with the passport number		Passed	
7	Click on the first travel episode	The trip details are displayed, along with the passport number and the QR-code		Passed	

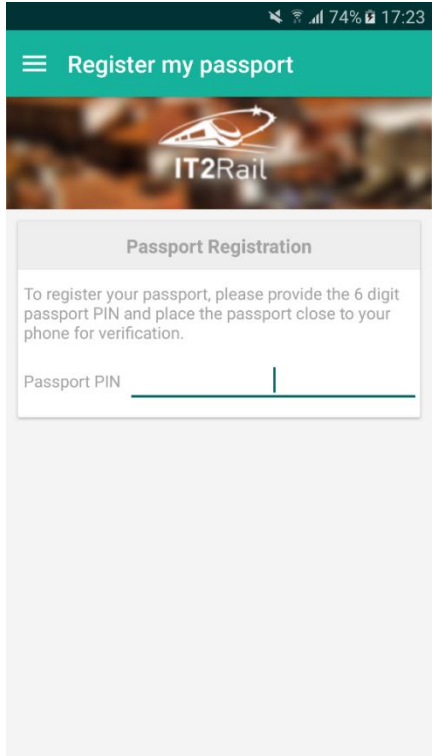
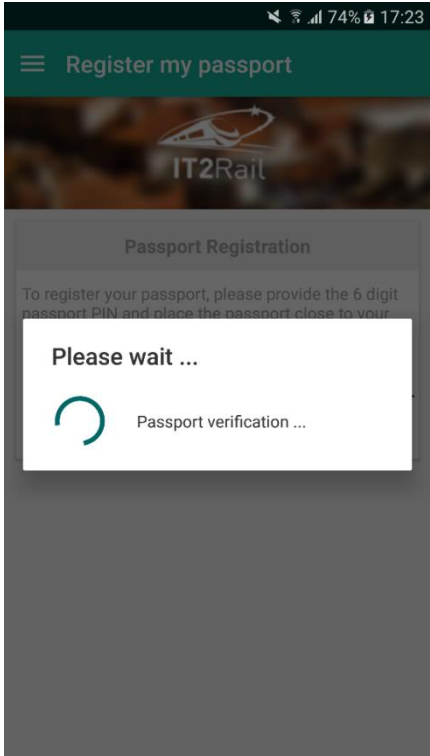
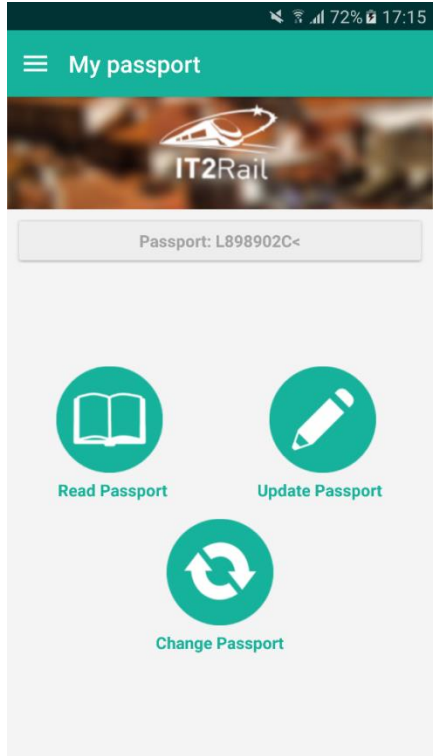
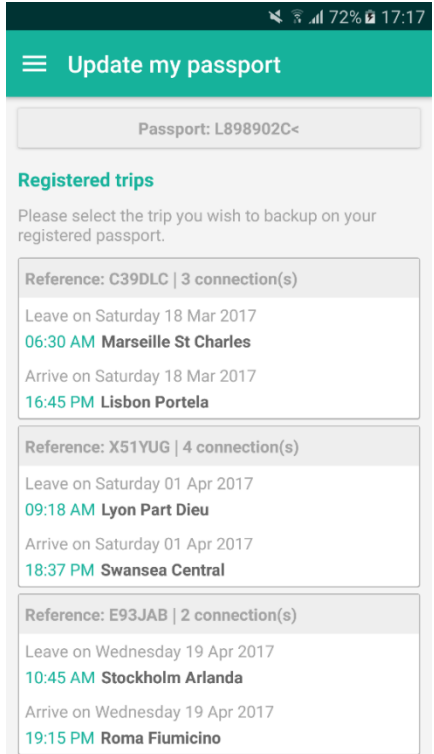
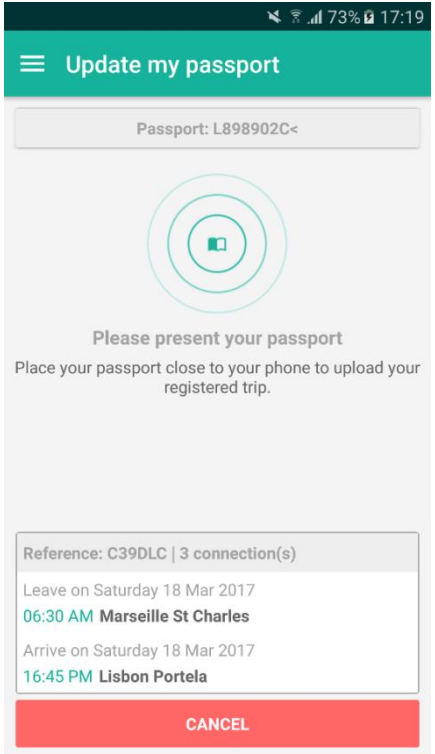
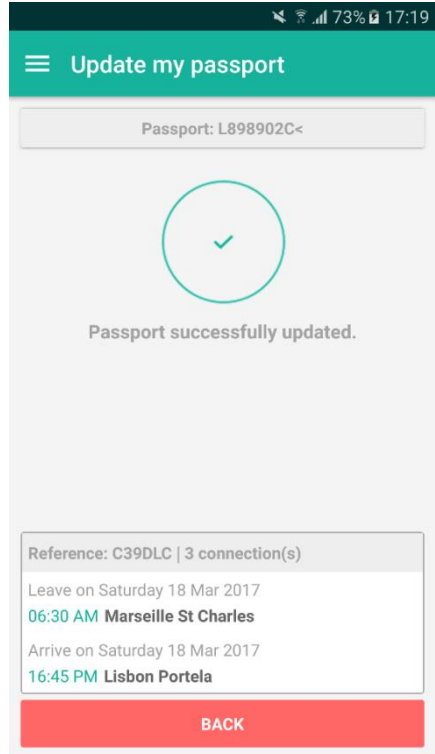
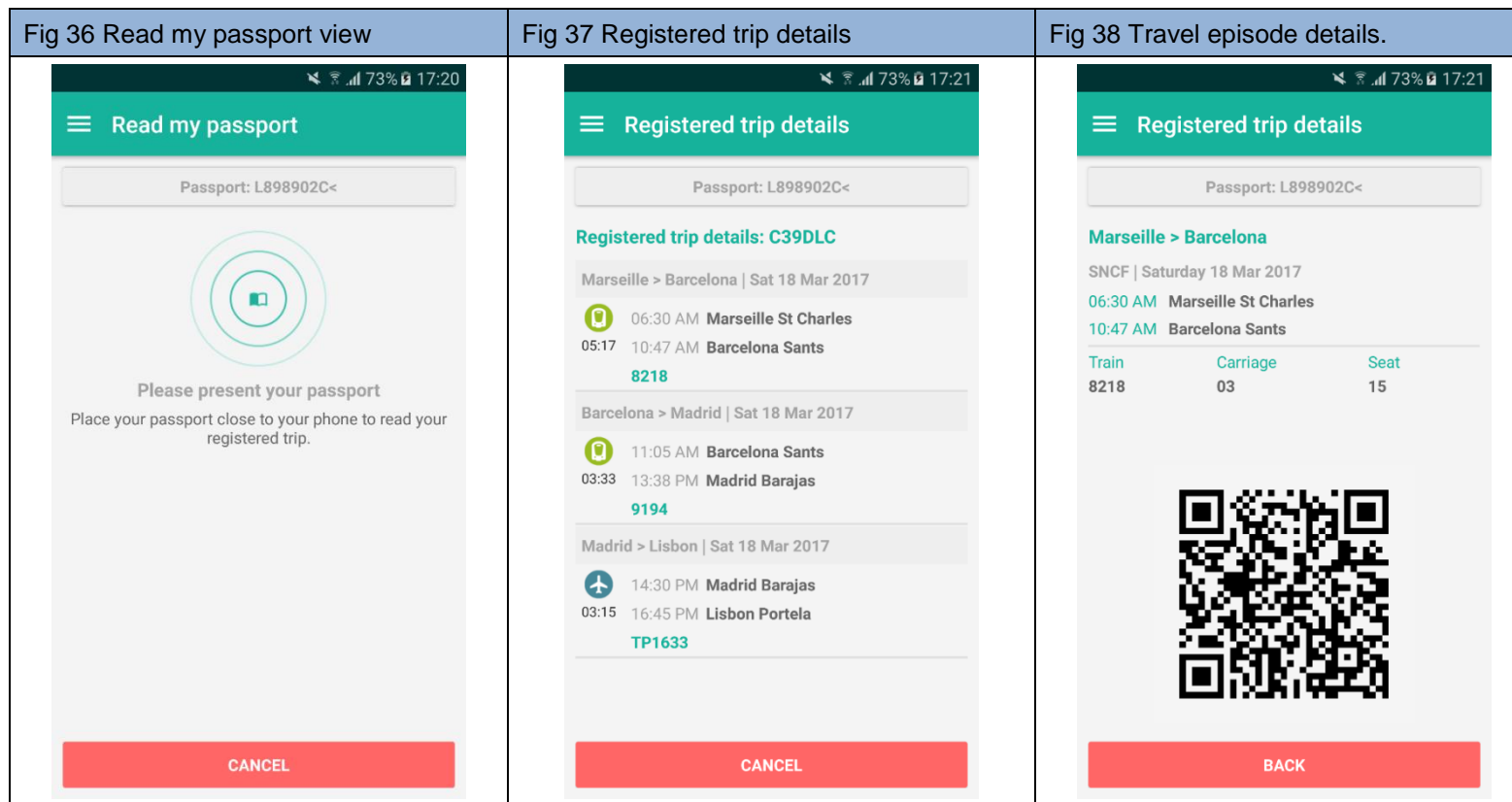
Fig 30 My Passport screen.	Fig 31 Passport verification	Fig 32 My Passport main page
		

Fig 33 Update my passport view.	Fig 34 Trip selected	Fig 35 Updated passport view
 <p>Update my passport</p> <p>Passport: L898902C<</p> <p>Registered trips</p> <p>Please select the trip you wish to backup on your registered passport.</p> <p>Reference: C39DLC 3 connection(s)</p> <p>Leave on Saturday 18 Mar 2017 06:30 AM Marseille St Charles Arrive on Saturday 18 Mar 2017 16:45 PM Lisbon Portela</p> <p>Reference: X51YUG 4 connection(s)</p> <p>Leave on Saturday 01 Apr 2017 09:18 AM Lyon Part Dieu Arrive on Saturday 01 Apr 2017 18:37 PM Swansea Central</p> <p>Reference: E93JAB 2 connection(s)</p> <p>Leave on Wednesday 19 Apr 2017 10:45 AM Stockholm Arlanda Arrive on Wednesday 19 Apr 2017 19:15 PM Roma Fiumicino</p>	 <p>Update my passport</p> <p>Passport: L898902C<</p> <p>Please present your passport</p> <p>Place your passport close to your phone to upload your registered trip.</p> <p>Reference: C39DLC 3 connection(s)</p> <p>Leave on Saturday 18 Mar 2017 06:30 AM Marseille St Charles Arrive on Saturday 18 Mar 2017 16:45 PM Lisbon Portela</p> <p>CANCEL</p>	 <p>Update my passport</p> <p>Passport: L898902C<</p> <p>Passport successfully updated.</p> <p>Reference: C39DLC 3 connection(s)</p> <p>Leave on Saturday 18 Mar 2017 06:30 AM Marseille St Charles Arrive on Saturday 18 Mar 2017 16:45 PM Lisbon Portela</p> <p>BACK</p>



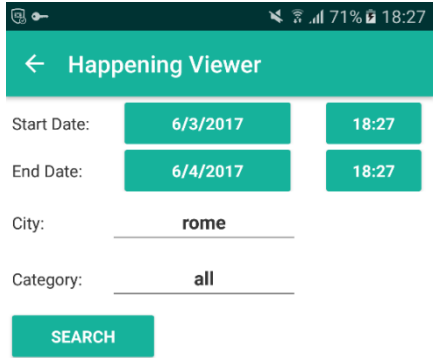
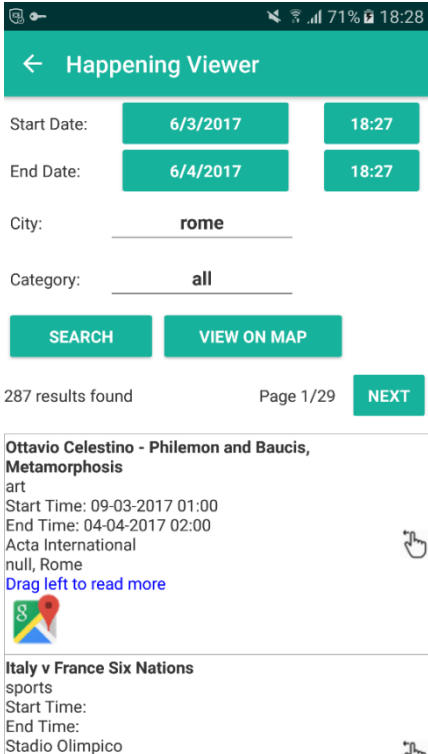
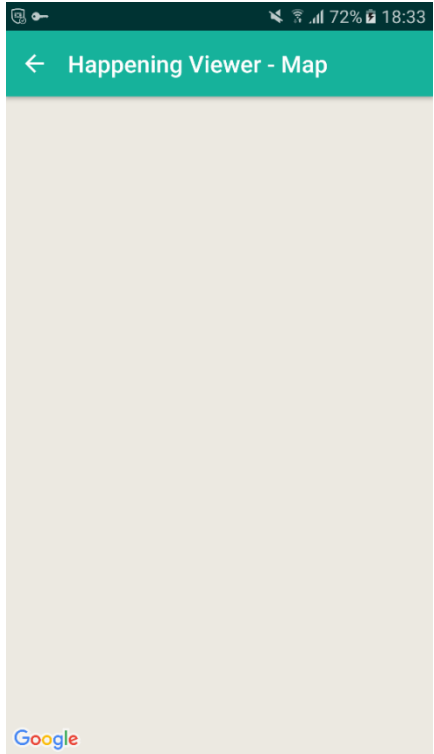
4.1.8 Happenings viewer

WP5TestCase1-8	
Method Of Test	Demonstration
Type of test	Manual
Objectives	
Description	
Status	OK except KO for display of the map
% passed	60%

Standard configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device				
1	Login and press the Happening viewer menu item	The tester is sent to the main Happening viewer page		Passed	

Id	Step description	Expected result	Observed result	State	Associated defect
2	Choose the current date for start date, and one month later for the end date, city "Rome", an category "all"	Some events in the chosen timeslot are displayed		OK	
3	Click on Map icon on the first happening in the list			KO	Mantis 62379 : The map is not displayed

Fig 39 Happening Viewer screen.	Fig 40 Happening Viewer list	Fig 41 Happening Viewer Map
		

4.1.9 KPI viewer

WP5TestCase1-9	
Method Of Test	Demonstration
Type of test	Manual
Objectives	
Description	
Status	OK
% passed	100%

Standard configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device				

Id	Step description	Expected result	Observed result	State	Associated defect
1	Login and press the KPI viewer menu item	The tester is sent to the main KPI viewer page		OK	Information in IT2RAILBoard are not suitable: Both Departure and Arrival values are "Rome". The list is not updated if we change inputs in IT2RAILDashBoard

Fig 42 KPI Viewer part 1.

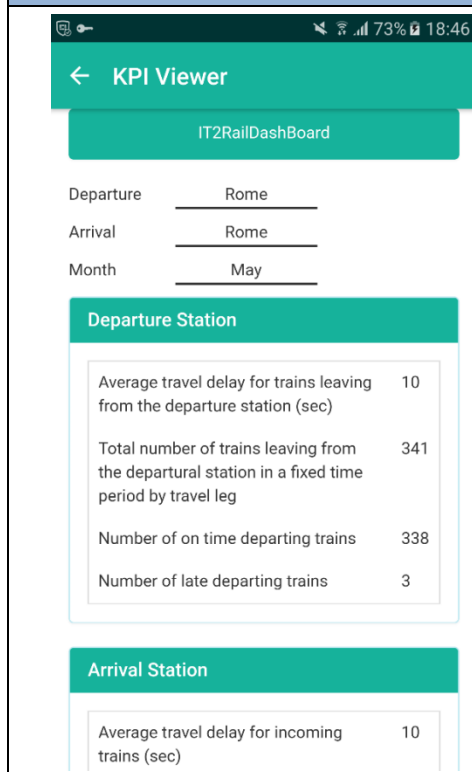


Fig 43 KPI Viewer part 2.

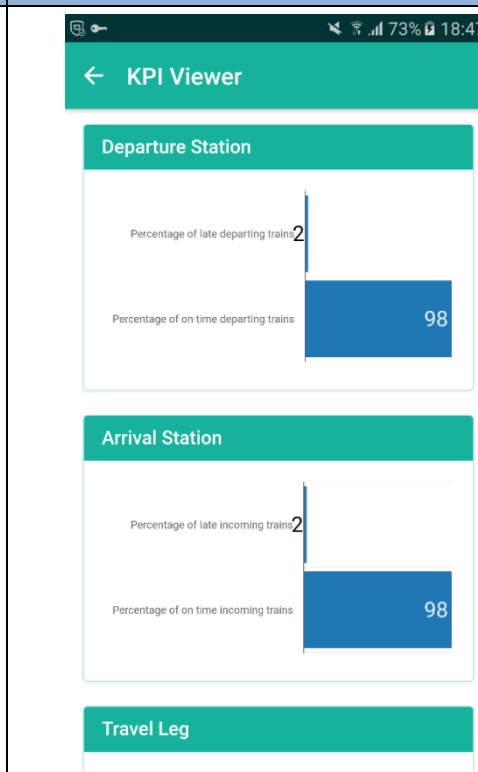
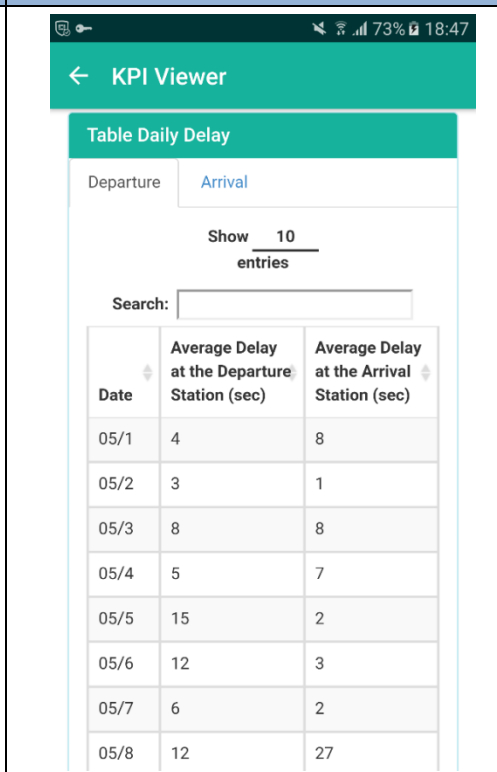


Fig 44 KPI Viewer part 3.



4.1.10 Navigation

WP5TestCase1-10	
Method Of Test	Demonstration
Type of test	Manual
Objectives	
Description	
Status	Mostly KO
% passed	20%

Standard configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - Application installed on mobile device - Positioning is not activated on the phone				
1	- Login - Click on the button to put application on background and deactivate Indra VPN connection on the device. Return to the application and press the Localization menu item	A world map is displayed		Passed	
2	Press the “localization” button on the bottom right	The tester is given a way to activate the positioning on the phone	Message “An error occurred when loading the site” or nothing happens.	KO	Nothing happens when clicking on the “localization” button

Id	Step description	Expected result	Observed result	State	Associated defect
3	Activate manually the positioning on the phone, go back to the world map and press the “localization” button on the bottom right	The tester is positioned on the map	This functionality actually works sometimes, but it seems to be only when the localization functionality of the phone is on from the beginning	KO	Mantis 62381 : Nothing happens when clicking on the “localization” button
4	Press the “camera” button on the bottom right	Camera view is displayed	This functionality actually works sometimes, but it seems to be only when the localization functionality of the phone is on from the beginning	KO	Not mentioned in Mantis as the complete functionality is out of scope for A-rel - works sometimes and only if localization functionality of the phone is on from the beginning

Fig 45 Localization view: world map

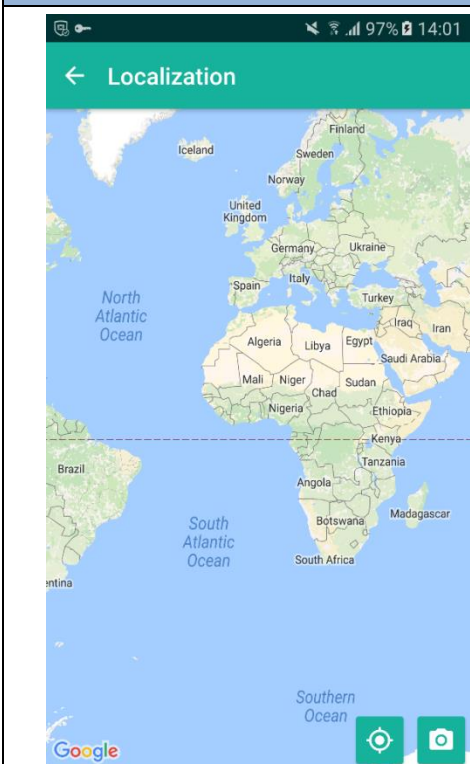


Fig 46 Localization view: error message 1



Fig47 Localization view: error message 2

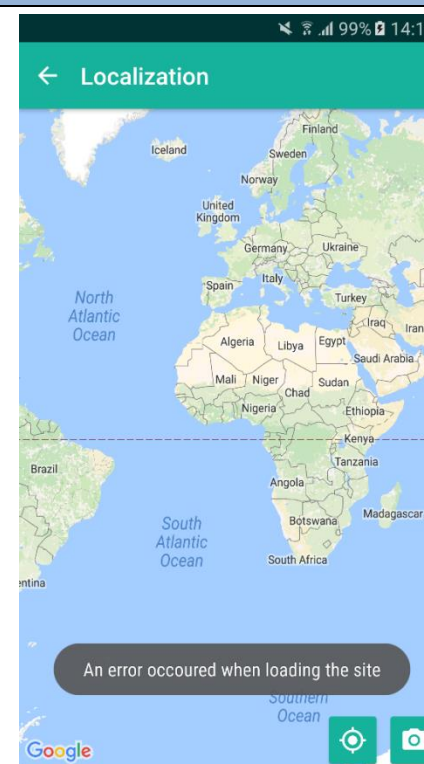


Fig 48 Success case when clicking on “localization” button

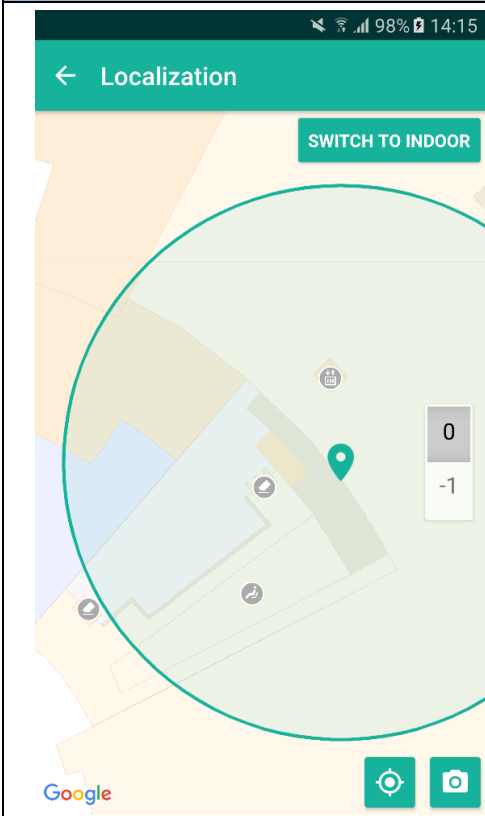
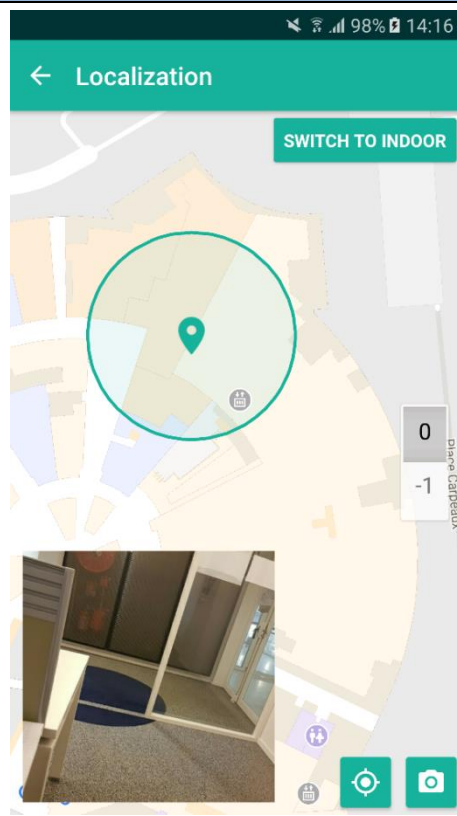


Fig 49 Success case when clicking on “camera” button



4.1.11 Travel Wallet Cloud

WP5TestCase1-11	
Method Of Test	Demonstration
Type of test	Manual (SoapUI)
Objectives	Save and Get Entitlements and Tokens from the Cloud
Description	
Status	OK
% passed	100%

Standard configuration	
Regression	
Test Case Tester	Housseem Chaabane

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: Install SoapUI. Check WP5_Access&WalletManager API v8.2				
1	Save Entitlement in the Cloud Check API doc section 4.3.1	201: Entitlement Saved		Passed	
2	Get Entitlement from the Cloud Check API doc section 4.3.2	200: Entitlement recovered		Passed	
3	Save Token in the Cloud Check API doc section 4.4.1 PS: To use the SendToken Service , userIdToken linked to “Validate” authorization functionality should be passed, instead of “issuing” .	201: Token Saved		Passed	

Id	Step description	Expected result	Observed result	State	Associated defect
4	Get Token from the Cloud Check API doc section 4.4.2	200: Token recoverd		Passed	

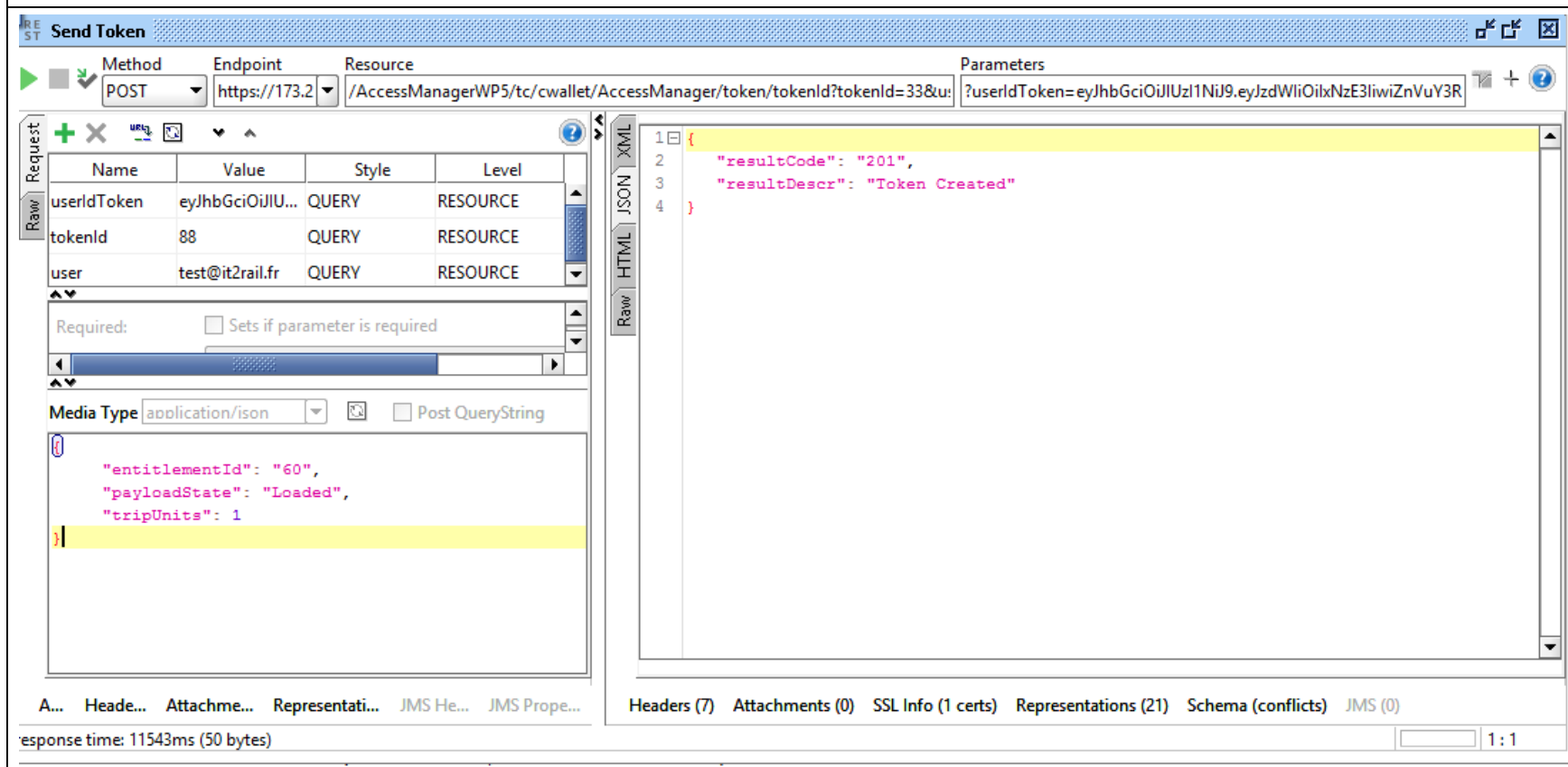
Fig 51 Get Entitlement API from SoapUI

The screenshot shows the REST Client interface with the following details:

- Method:** GET
- Endpoint:** https://173.27.0...
- Resource:** /AccessManagerWP5/tc/cwallet/
- Parameters:** ?userIdToken=eyJhbGciOiJIUzI1NiJ9.ejZdWlriOiIxNzE3liwiZnVuY3RpbmdldGVudGI0bGVtZW50liwiZ2V0d
- Request Headers:**

Name	Value	Style	Level
userIdToken	eyJhbGciOiJIUzI1NiJ9.ejZdWlriOiIxNzE3liwiZnVuY3RpbmdldGVudGI0bGVtZW50liwiZ2V0d	QUERY	RESOURCE
entitlementId	77	QUERY	RESOURCE
- Response:** A JSON object containing result information, entitlement details, and token lists.

Fig 52 Send Token API from SoapUI



Send Token

Method: POST | Endpoint: https://173.2 | Resource: /AccessManagerWP5/tc/cwallet/AccessManager/token/tokenId?tokenId=33&u: | Parameters: ?userIdToken=eyJhbGciOiJIUz11NiJ9.eyJzdWliOiIxNzE3IiwiaXNzLnVuY3R...

Name	Value	Style	Level
userIdToken	eyJhbGciOiJIUz11NiJ9...	QUERY	RESOURCE
tokenId	88	QUERY	RESOURCE
user	test@it2rail.fr	QUERY	RESOURCE

Required: ☐ Sets if parameter is required

Media Type: application/json | ☐ Post QueryString

```

{
  "entitlementId": "60",
  "payloadState": "Loaded",
  "tripUnits": 1
}

```

Response Body (JSON):

```

{
  "resultCode": "201",
  "resultDescr": "Token Created"
}

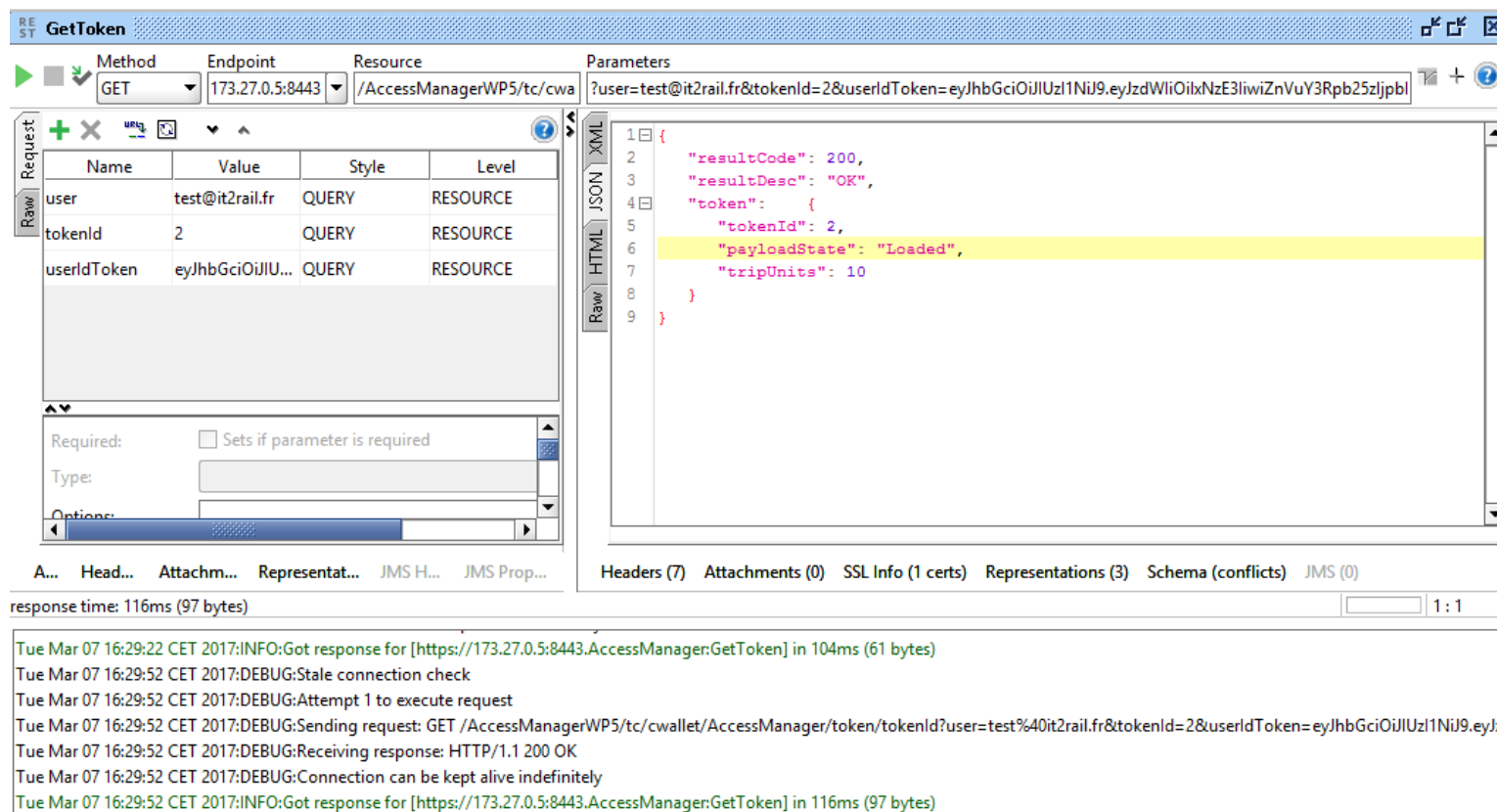
```

response time: 11543ms (50 bytes)

Headers (7) | Attachments (0) | SSL Info (1 certs) | Representations (21) | Schema (conflicts) | JMS (0)

1:1

Fig 53 Get Token API from SoapUI



4.1.12 Use a different device

WP5TestCase1-12	
Method Of Test	Simulation and Demonstration
Type of test	Manual
Objectives	Check that a user can find his personal environment on a different device
Description	Login on a different device, check the Preferences, and receive a message coming from the WP4 Trip Tracking
Status	Passed except default already mentioned in previous test
% passed	80%

Standard configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: - WP5TestCase1-1 and WP5TestCase1-3 passed on another device - Application installed on the new mobile device, linked with Android studio with logs activated (to allow retrieval of the userIDToken) - - VPN to Indra configured on the new device - API Simulator (Postman) available and connected through the VPN of Indra - Tester not logged in				
1	On the new device, login with the credentials from WP5TestCase1-1	The tester is logged in. The homepage contains no search history (it is stored locally only)		Passed	

Id	Step description	Expected result	Observed result	State	Associated defect
2	Check Preferences Go to the menu, choose the Preferences menu item, and check the value of the Preferences	The Preferences are in the same state as in WP5TestCase1-2		Passed	
3	Send message : The simulator is used to simulate WP4 sending a message to the user (see WP5TestCase1-5 for details)	A notification is received on the user device with the defined title and content		Passed	
4	Click on the notification : Tester clicks on the notification (and if his phone is locked, enters his PIN code)	Tester is sent to the Message details in the application, and can see the details that were in the simulated Trip Tracker message	Same observation as TestCase1-5	KO with same defect as TestCase1-5	Same remark as TestCase1-5

Fig 54 User login on Sliding menu on new device.

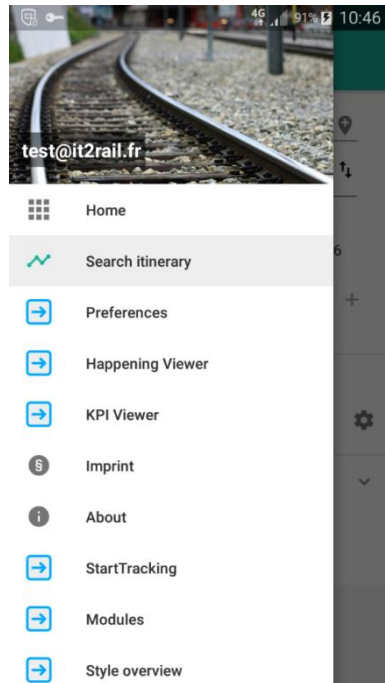


Fig 55 User preferences retrieved on new device.

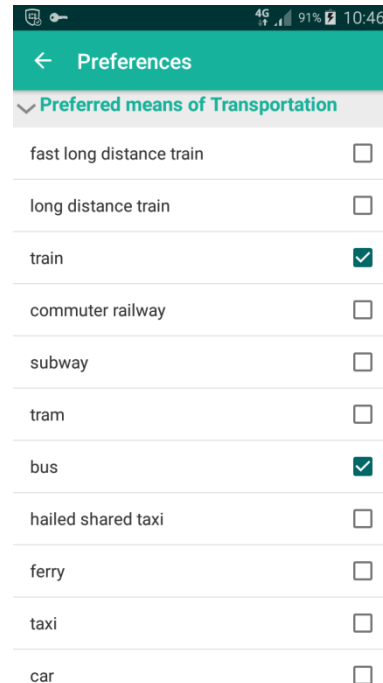
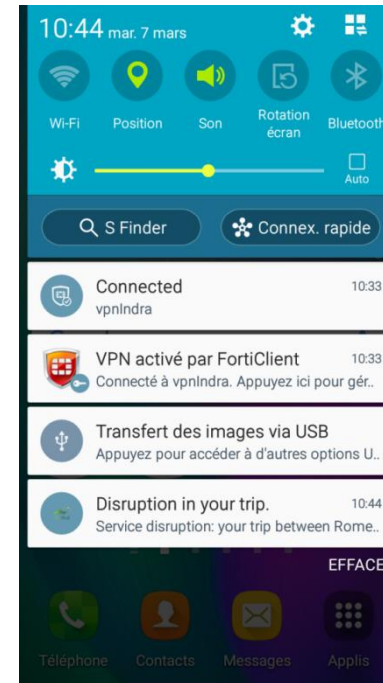


Fig 56 Alert message received on new device.



4.2 TECHNICAL TESTS

These tests are intended to check problems that can arise with the implementation of any mobile application (i.e., they are not specific to the travel companion).

4.2.1 Reinstall application

WP5TestCase2-1	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Check that the application will still work after being updated, and cached data are still available
Description	User will login, set preference, uninstall application, and then install the application with a greater version number
Status	OK
% passed	100%

Standard configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: 2 version of the application, the older and the newer				
1	Install older version Tester launches the application He logs in with a login already created during test WP5TestCase1-1 He goes to the preference screen. He checks the following preferred transport mode: bus, tram, subway.	User logged in, and preferences set		Passed	
2	Uninstall the application The tester uninstalls the application	Application no more present in the device		Passed	
3	Install newer version of the application Tester will install the other, more recent version of the application.	Application present again in the device		Passed	

Id	Step description	Expected result	Observed result	State	Associated defect
4	Login, and check Tester launches the application. Tester log into the application, with the credentials of step1. Tester goes to the preference screen. Tester checks that the preferred transport mode bus, tram and subway are checked.	Tester is able to launch the application and preferences are still here.		Passed	

Fig 57 Old version number: 1.0

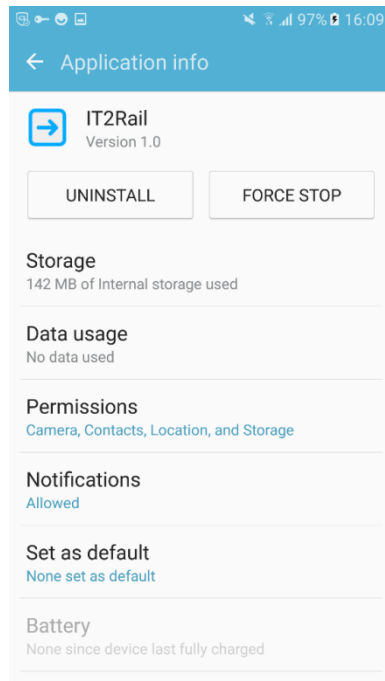
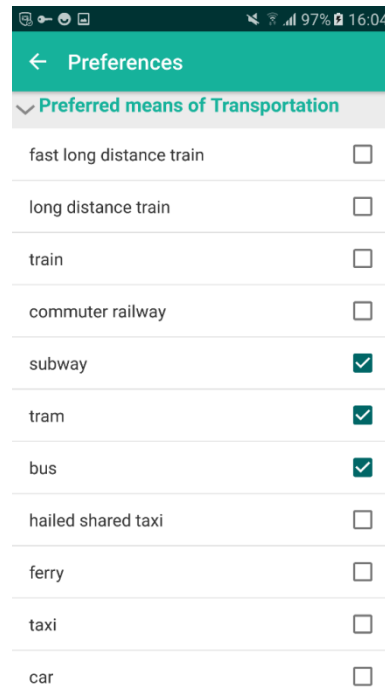


Fig 58 Old version number: Preferences screen





Contract No. H2020 – 636078



Fig 59 New version number: 1.1

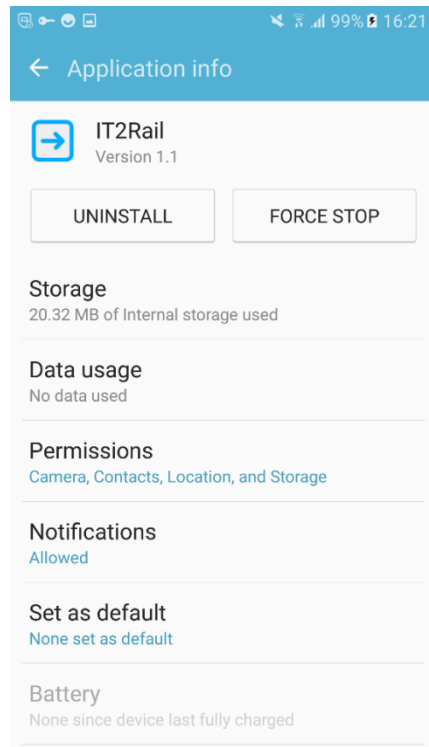
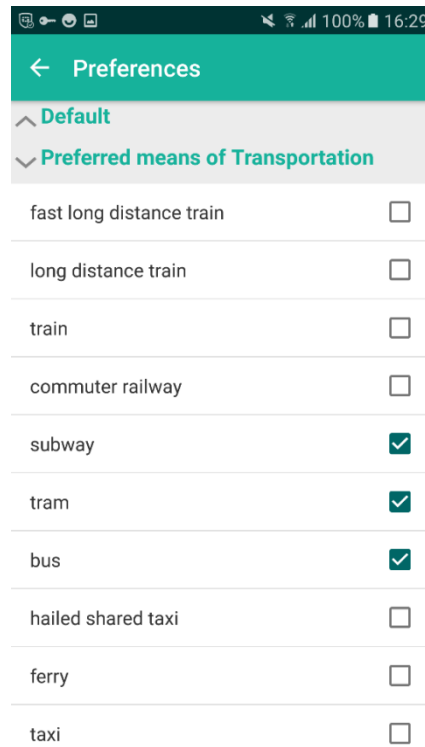


Fig 60 New version: Preferences screen



4.3 ERROR TESTS

These tests are intended to check what happens in case of misuses of the application by the user.

4.3.1 Existing email

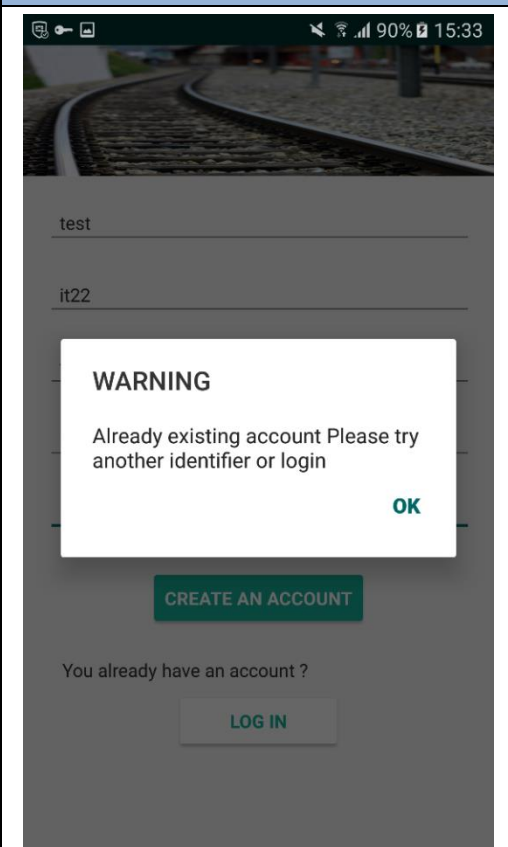
WP5TestCase3-1	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Check that the user cannot create an account with an already existing email
Description	The tester will try to create an account with test credentials, to trigger the error in the ID Manager Stub
Status	OK
% passed	100%

NB as Identity manager in cloud was not in CRel perimeter, a stub has been developed. This stub return the existing email only with the credentials above

Standard configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: Application installed on the device WP5TestCase1-1 passed				
1	<p>Account Creation :</p> <p>Tester launches the application, then goes to the create account screen.</p> <p>In demo mode for the IDManager, tester creates an account with these credentials:</p> <p> Login: cersei@got.org</p> <p> Password: testpwd</p> <p> Password confirmation: testpwd</p> <p>If not in demo mode for the IDManager, tester creates an account with a login already created during test WP5TestCase1-1</p> <p>Tester touches the “Create an account” button.</p>	Error message		Passed	

Fig 61 Existing email error msg.



4.3.2 Wrong credentials

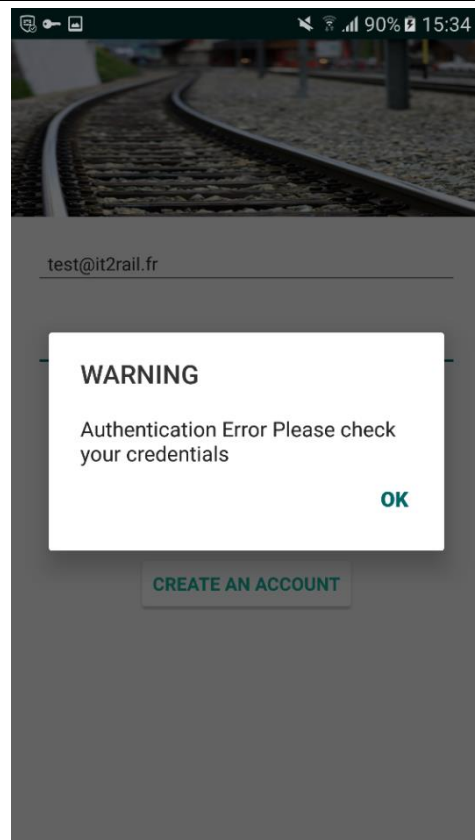
WP5TestCase3-2	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Check that valid credentials are necessary to connect
Description	Tester will try to login with invalid credentials
Status	Passed in demo mode for IDManager
% passed	100%

Standard configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: Application installed in the device, and cache emptied				

Id	Step description	Expected result	Observed result	State	Associated defect
1	<p>Tester will log in with a wrong credential: Tester launches the application. He goes to the login screen. In demo mode for the IDManager, he uses these credentials: Login: arya@got.org Password : WrongPassword</p> <p>If not in demo mode for the IDManager, he uses the credentials: Login: the one created in WP5TestCase1-1 Password : WrongPassword</p>	Error Message		Passed	

Fig 62 Wrong credentials error msg.



4.3.3 Not Corresponding password

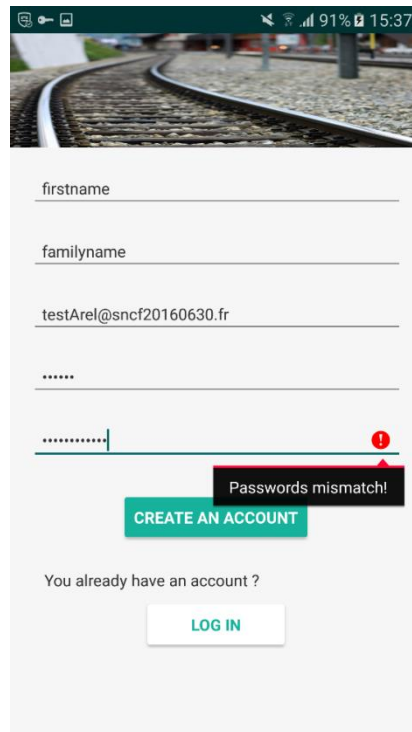
WP5TestCase3-2	
Method Of Test	Demonstration
Type of test	Manual
Objectives	Check that a correct password confirmation is necessary to create an account
Description	Tester will try to create an account with a password confirmation that does not match the password
Status	Passed
% passed	100%

Standard configuration	
Regression	
Test Case Tester	Cécile Dueme

Id	Step description	Expected result	Observed result	State	Associated defect
	Preconditions: Application installed in the device, and cache emptied				

Id	Step description	Expected result	Observed result	State	Associated defect
1	<p>Account Creation :</p> <p>Tester launches the application, then goes to the create account screen.</p> <p>Tester creates an account: he set testArel@sncf20160830.fr in login field, testpwd in the password and testpawdtestpwd in password verification field, and touches the “Create an account” button.</p>	Error Message		Passed	

Fig 63 Not corresponding password error msg.



A screenshot of a mobile application interface for account creation. The top status bar shows a battery icon, signal strength, 91% battery, and the time 15:37. Below the status bar is a header image of train tracks. The form contains the following fields: 'firstname', 'familyname', 'testArel@sncf20160630.fr', and a password field with five dots. A red exclamation mark icon is positioned to the right of the password field. A black error message box with white text 'Passwords mismatch!' is displayed above the 'CREATE AN ACCOUNT' button. The button is green with white text. Below the button is the text 'You already have an account ?' and a 'LOG IN' button with green text on a white background.