

Reality Sensing, Mining and Augmentation   
for Mobile Citizen–Government Dialogue

FP7-288815

**Test scenario’s &** **results**

**Mobile Sensor Mining Component (C15)  
Mobile HAR service**

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**1. Template instructions**

This template is used for documenting test scenarios and test results. ‘D4.4 – Technical verification and testing strategies’ describes per phase which tests need to be performed and which work package/partner is responsible for setting up and performing these tests.

Along with the software development the test scenarios are constructed based on the requirement as described in ‘D4.1 – System Architecture and Design’ and ‘D5.1 – Detailed Use Case Descriptions’.

These test scenarios are described and agreed upon before starting the actual tests. This means that all blue sections need to be pre-filled before starting the actual test. The red sections need to be completed during/after the test.

**2. Test configuration**

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| --- | --- |
| Software identification |  |
| Name | Mobile Sensor Mining Component (C14) |
| Versions | Released 1. June 2014 |

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| --- | --- |
| Test period |  |
| Test phase | Service Level Testing |
| Test Types | Functional |
| Test Status | Test plan concept |
| Planned test start date | 01.06.2014 |
| Actual test start date | 20.06.2014 |
| Test completion date | 01.07.2014 |
| Partners(s) | UKOB |
| Tester(s) | René Wilhelm |

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| Test environment |  |
| Test environment | Development |
| Test devices | * Google Nexus 5, Android 4.4.4, Kernel 3.4.0-gd59db4e (KTU84P) |
| Test pc’s | * Macbook Air, 13-inch, Mid 2012, OS X 10.9.4 (13E28) |

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| --- | --- |
| References |  |
| Reference | Deliverable D1.2 contains technical documentation of the Sensor Mining Component. |

# 3. Test scenarios

## Approach

The mobile HAR service classifies activities of the user on the mobile device. We test the correct controlling of the service on the mobile device and the correctness of the classification using the HAR inspection tool and a Live Streaming HAR visualization.

Note that, the Mobile Sensor Mining Component does not directly communicate with the Live+Gov Service Center, so that no integration tests need to be performed.

## Scenarios

The table below should describe the test scenarios executed by the testers to make sure the software meet its requirements and is ready for deployment.

General guidelines for describing scenario’s:

* Tests should be described is such a way that somebody with only minor project knowledge should be able to perform them, so be specific.
* Concentrate on real life scenarios. What are the users, and what should they be able to with the application.
* Try to make separate test scenarios for individual function points.
* While writing test cases keep in mind all your test cases should be simple and easy to understand. Don’t write explanations like essays. Be to the point.
* Keep in mind input data for test cases is very important part in testing, your test cases should validate range of input data. Also check how system behaves in the normal & abnormal conditions, e.g. purposely provide invalid input.
* Make sure test scenarios are added that cover all test types (Functional / User Acceptance / Security / Interoperability), however it is not required to make separate sections for each test type.
* Make sure the test scenarios covers all the required functionality. Assume that all functionality that is not covered by the test scenarios does not work.
* Avoid repetition of test cases

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| --- | --- | --- | --- | --- | --- |
| No. | Requirements | Expected behaviour | Results round 1 | Results round 2 | Results round 3 |
| 1 | R-SC.8. Clicking „Start HAR“ must activate the human activity recognition. Clicking „Stop HAR“ must deactivate human activity recognition. | The state of the human activity recognition must be indicated by a green bar in the respective button.  When the human activity recogniton is activated, the currently recognized activity must be shown in the user interface below the ID text-box. | OK | OK |  |
| 2 | RB.1 - RB.4. A user should be able to do activities and see them live on a demo page with his user id. | When the streaming address points to a live activity recognition server and streaming and human activity recognition is activated, the front end of the server must show the same activity as the device. A small delay may be accepted due to internet latency.  The activity displayed has to reflect the current activity of the user. | OK | OK |  |
| 4 | The component should recognize when the phone lies still on the table | The user should mark down the start time and lay down the phone for two minutes. When inspecting the data at that time, the amount of recognized *on\_table* activities should be significant. | OK | OK |  |
| 5 | RB.1 The component should recognize a sitting carrier | * The user should carry the phone in the right pocket and mark down the start time and sit for two minutes. When inspecting the data at that time, the amount of recognized *sitting* activity should be significant. | NOK | NOK |  |
| 6 | RB.2 The component should recognize a standing carrier | The user should carry the phone in the right pocket and mark down the start time and stand for two minutes. When inspecting the data at that time, the amount of recognized standing activity should be significant. | OK | OK |  |
| 7 | RB.3 The component should recognize a walking carrier | The user should carry the phone in the right pocket and mark down the start time of a walk, as well as its end time. When inspecting the data at that time, the amount of recognized walking activities should be significant. | NOK | OK |  |
| 8 | RB.4 The component should recognize a running carrier | The user should carry the phone in the right pocket and mark down the start time of a run, as well as its end time. When inspecting the data at that time, the amount of recognized running activities should be significant. The run should be about 50 to 100 meters. | NOK | OK |  |

**4. Issues raised**

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| --- | --- |
| Issue No. | 1 |
| Scenario ID | 5 |
| Severity | High |
| Type | Bug |
| Summary | Sitting not recognized |
| Description | Start streaming, put the phone into your right pocket and sit. The recognized activity is ‘on\_table’. |
| Workaround |  |
| Recommendations | Need to manually adjust decision tree. |

|  |  |
| --- | --- |
| Issue No. | 2 |
| Scenario ID | 7 |
| Severity | High |
| Type | Bug |
| Summary | Walking not recognized |
| Description | Start streaming and walk. The recognized activity switches between on\_table and standing. |
| Workaround |  |
| Recommendations |  |

|  |  |
| --- | --- |
| Issue No. | 3 |
| Scenario ID | 8 |
| Severity | High |
| Type | Bug |
| Summary | Running not recognized |
| Description | Start streaming and run. The recognized activity switches between on\_table and standing. |
| Workaround |  |
| Recommendations |  |

**5. Issue screenshots**

n/A