

Reality Sensing, Mining and Augmentation for Mobile CitizenGovernment Dialogue FP7-288815

D1.3 - Privacy Aware Sensor Data Storage and Miner

Dissemination level:	PU - Public
Contractual date of delivery:	Month 30, October 2014
Actual date of delivery:	Month 30, October 2014
Workpackage:	WP1 - Reality Sensing and Mining
Task:	T1.3, T1.4
Туре:	Prototype
Approval Status:	PMB Final Draft
Version:	12
Number of pages:	9
Filename:	D1-3.tex

Abstract

The information in this document reflects only the author's views and the European Community is not liable for any use that may be made of the information contained therein. The information in this document is provided as is and no guarantee or warranty is given that the information is fit for any particular purpose. The user thereof uses the information at its sole risk and liability.





This work was supported by the EU 7th Framework Programme under grant number IST-FP7-288815 in project Live+Gov (www.liveandgov.eu)

Copyright 2013 Live+Gov Consortium consisting of:

- Universitt Koblenz-Landau
- Centre for Research and Technology Hellas
- Yucat BV
- Mattersoft OY
- Fundacion BiscayTIK
- EuroSoc GmbH

This document may not be copied, reproduced, or modified in whole or in part for any purpose without written permission from the Live+Gov Consortium. In addition to such written permission to copy, reproduce, or modify this document in whole or part, an acknowledgement of the authors of the document and all applicable portions of the copyright notice must be clearly referenced.

All rights reserved.



History

Versi	on Date	Re	ason	Revised by
01	2014-	-07-17 Ou	tline	Heinrich Hartmann

Author list

Organization	Name	Contact Information
UKob	Heinrich Hartmann	Phone: +49 261 287 2759
		Fax: +49 261 287 100 2759
		E-mail: hartmann@uni-koblenz.de
UKob	Christoph Schaefer	Phone: +49 261 287 2786
		Fax: +49 261 287 100 2786
		E-mail: chrisschaefer@uni-koblenz.de



Executive Summary

The deliverable is accompanied with source code of the components in Java, API documentation (javadoc), and pre-compiled packages for direct installation and testing on mobile devices.



Abbreviations and Acronyms

AJAX Asynchronous JavaScript and XML
ALC Attribute Language with Complement
API Application Programming Interface
GeSA Geographical Semantic Analysis

GPS Global Positioning System

GSM Global System for Mobile Communications

HTML HyperText Markup LanguageHTTP Hypertext Transfer Protocol

ID Identifier

IEEE 802.11 see WIFI, WLAN

JSON JavaScript Object Notation

LAN Local Area Network

REST Representational State Transfer
RF-ID Radio-Frequency Identification
SDCF Sensor Data Collection Framework

SQLStructured Query LanguageSVMSupport Vector MachineTBoxTerminological Box

UI User Interface

URL Uniform Resource Locator

UUID Universal Unique Device Identifier

WP Work Package

WIFI Wireless Fidelity (IEEE 802.11), WLAN

WLAN Wireless Local Area Network XML Extensible Markup Language



Table of Contents

1	Introduction					
2	Privacy Protection					
	2.1	Historical Definitions	9			
	2.2	Privacy Definition and Taxonomy	9			
	2.3	Privacy and Law	9			
	2.4	IT Security Analysis.	9			
	2.5	Implementation	9			
3	Improved Sensor Data Mining Methods					
	3.1	Battery Awareness of Sensor Collector	9			
	3.2	Service Line Detection (new method)	9			
	3.3	Issue Analysis	9			



List of Figures

List of Tables



1 Introduction



2 Privacy Protection

Intro

2.1 Historical Definitions

Aristotle Warren and Brandeis Fried

2.2 Privacy Definition and Taxonomy

2.3 Privacy and Law

European Convention on Human Rights - Article 8 EU Data Protection Direvtive

2.4 IT Security Analysis

Live+Gov Privacy Protection Analysis Step 1. World Analysis Assets: Privacy IT-Systems and Humans Conflict of Interests Vulnerabilities Step 2. Potential Analysis Step 3. Plan Development

2.5 Implementation

* Sensor Data Privacy Control * Rising Awareness

3 Improved Sensor Data Mining Methods

3.1 Battery Awareness of Sensor Collector

Results from Projektprakikum (Wifi/Zip)

3.2 Service Line Detection (new method)

MA thesis results from Sven Milker

3.3 Issue Analysis

Christoph Schfer with Niko Beck