Progress Report

Grant Agreement number: 621089

Project Acronym: STORM CLOUDS

Project Title: STORM CLOUDS – Surfing Towards the Opportunity of Real Migration to cloud-based public Services

Project type: ☐ Pilot A ☒ Pilot B ☐ TN ☐ BPN ☐ PPI Pilot

Periodic report: ☒ 1st ☐ 2nd ☐ 3rd ☐ 4th

Period covered: From M0 (February 1st, 2014) to M12 (January 31st, 2015)

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DECLARATION BY THE PROJECT COORDINATOR

I, as coordinator of this project and in line with my obligations as stated in Article II.2 of the Grant Agreement declare that:

- The attached periodic report represents an accurate description of the work carried out in this project for this reporting period;
- The project (tick as appropriate):
  - ☐ has fully achieved its objectives for the period;
  - ☒ has achieved most of its objectives for the period with relatively minor deviations;
  - ☐ has failed to achieve critical objectives and/or is deviating significantly from the schedule.
- The public Website is up to date;
- [this point only applies to projects with actual cost reimbursement] To my best knowledge, the information contained in the financial statement(s) submitted as part of this report is in line with the actual work carried out and consistent with the reported resources and if applicable with the certificates on financial statements.

Name and position of Coordinator: Agustín González-Quel. General Manager. Ariadna Servicios Informáticos SL

Date: 10/04/2015

Signature:

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Publishable summary

The objective of STORM CLOUDS project is exploring how the shift by Public Authorities to a cloud-based paradigm in service provisioning is to be addressed. Project's results will answer questions like the following:

For the Municipality	For the Citizen
Is it possible to migrate my legacy applications?	Shall I have better services?
How?	What about employment and economy?
Are there any best practises...?	Will I pay more taxes?
Will it produce an actual cost reduction?	Will my Municipality react quicker to citizens' need?
What about my legacy data?	
How do I interconnect applications?	
How do I federate services?	

In the Document of Work a number of objectives for the first half of the project where scheduled. Already, during the first year of project the basis for all the project activities have been established and most of them have already been achieved,

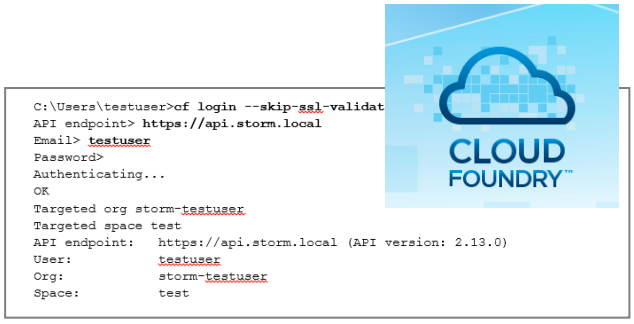
- Activation of relevant stakeholders
- Creation of a full list of available applications
- Choosing from one or two services to be cloudified in each participant city
- following a user-centric innovation methodology with all the relevant stakeholders engaged
- Design and implementation of the Cloud Infrastructure
- Cloudification and/or deployment of the chosen services into the cloud infrastructure.

At this point in time, validation of services migrated to the cloud is in progress as initially scheduled. For this purpose a number of indicators and their associated success criteria are being defined. Monitoring activities are already producing information to be analysed in the coming months so comparisons among services "in the cloud" and services "not in the cloud" will be carried out.

Activities carried out

The initial work of the project focused on two major lines the creation of the Storm Cloud Platfom (SCP) and the activation of users and stakeholders for the selection and validation of applications.

As a results of these activities the SCP it is currently up and running providing two alternative paradigms for Cities to upload their applications: an **IaaS** cloud based on OpenStack and the **PaaS** cloud based on CloudFoundry



Three applications have been successfully migrated to the SCP and they are currently already been used by citizens in Agueda, Thessaloniki and Valladolid.

In parallel, horizontal activities directed to research on data protection and multilinguality issues have been carried out and the results are included in the project deliverable documents.

Dissemination activities started creating the project website, social network accounts, logotype and communication material in four languages: English, Spanish, Portuguese and Greek.

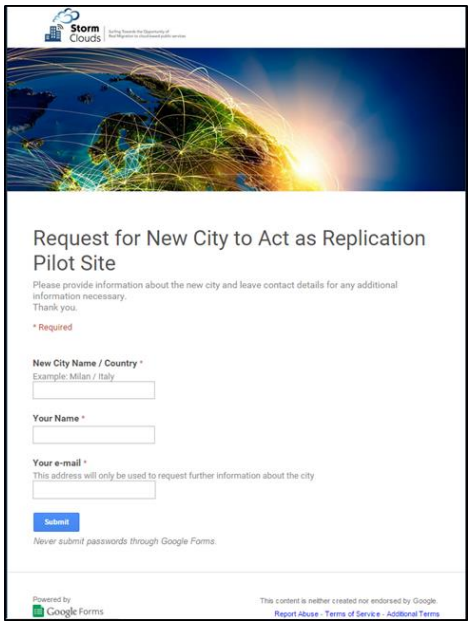
The logotype represents the cities and the clouds while the leaflets provide the reader with an introduction of the project: consortium, objectives and links.

Website and social networks accounts enforce the dissemination activities.

At the end of the first year a Call for Cities has been launched. The objective is to include additional cities in the project to use the SCP and the catalogue of cloudified services. This call for cities is being widely communicated and already during the initial weeks a number of candidates showed their interest.

As a conclusion, we firmly believe that the project has achieved the expected objectives for its first year of life and the basis to continue growing are already in place.

We encourage to visit the project website at http://www.stormclouds.eu/ for updated information on the project.



Project Progress

1 Project objectives for the period

Objectives for each WP in the project for this period are described here below:

The objective of **Work Package 1** is the implementation of the methodological framework of the project based on the user-centric approach. At the end of this period, the first innovative cycle will have been completed. From an initial list of services, the cities a number of them to be migrated to the cloud. The process is to be based on open innovation dynamics with the suitable stakeholders. Then each pilot-city test and validate the applications selected stored in the cloud. Within the first year of the project, one cycle of cloudification will be completed and the second cycle started.

The main objectives of **Work Package 2** are:

- Designing and implementing reference architecture for the Storm Clouds Platform, a cloud software platform for hosting partners' applications.
- Preparing a set of prefab Virtual Machines, Platform as a Services elements and Cloud Application Templates that can be used as building blocks for constructing cloud-enabled applications.
- Implementing a set of tools for automating the deployment of cloud-enabled applications.

The main objective of the **Work Package 3** (Cloud-based services deployment) during the first year of the project is to achieve the adaptation and integration of the first three smart cities. The services selected by each municipality are adapted to the platform. Then the services will be validated and tested.

The main objective of **Work Package 4** is to address general technical issues which affect the operation of the services in the pilot-cities. There are analysed issues as privacy, security, interoperability and the multiple languages available.

Work Package 5 objective for first year is start collecting the best practises and feedback from the cloudification process. Most of the activity in this WP is to be carried out from year 2 on.

The main objectives of the **Work Package 6** during the first year is to design and implement a dissemination strategy that maximizes the impact at European level of STORM CLOUDS and to create tools and material to promote the project as publishing, networking, and user engagement.

Finally, **Work Package 7** is devoted to Project coordination and management.

2 Work progress and achievements during the period

2.1 WP1 STORM CLOUDS methodological Framework

WP leader: ASI

Participants: AUTH, ALFAMICRO, MANCHESTER, THESSALONIKI, VALLADOLID, ÁGUEDA

During this period, WP1 activities have launched the open innovation methodology at the Municipalities involved in order to select the most suitable applications to be moved to the cloud. ASI has coordinated all the tasks defined for the work package

Task 1.1 Activation of stakeholders and Users

Task leader: ASI

Participants: AUTH, ED, RTDI, MANCHESTER, THESSALONIKI, VALLADOLID, ÁGUEDA

This task is devoted to the identification and activation of users and stakeholders for the STORM CLOUDS project. Once identified and engaged, guidelines on how keeping stakeholders involved and active within the project were produced. This task involved Public Authorities, Municipality personnel at different levels, Public Servants, ICT/Cloud providers, representatives of business and citizens within a user-centric process.

Activities carried out by each participant partner is described here below:

- ASI provided Pilot Cities with guidelines to select the stakeholders and end-users that participated in the innovative cycle. The stakeholders involved will select which services will be move to the cloud and, when the services are running in the cloud, will test and evaluate the process.
- RTDI designed a fully strategy to cooperate with other R&I projects: value propositions for the projects, STORM CLOUDS concrete interests, assessment of resources available within our consortium during R&I services deployment phases (and potential related risks to be managed in Period 2 – together with proposal for risks management plans), combining technological potential with the interests being expressed by the cities, defining protocols and documents required for the technical, legal and administrative managing of the process, etc.
- Pilot-cities Cities, Valladolid, Thessaloniki, Manchester and Águeda participated in the creation of guidelines for the activation and engagement of stakeholders. They also performed the activation of users and stakeholders in each pilot-cities.

As a result of this task, guidelines and best practices for the activation and engagement of end users and stakeholders were defined. This information is included in the deliverable **D1.1. Report on best practices and guidelines for the involvement of users and stakeholders**. The document edition was led by ASI and officially reviewed by Manchester.

Task 1.2 Compilation of available services and applications

Task leader: ASI

Participants: AUTH, ALFAMICRO, RTDI, MANCHESTER, THESSALONIKI, VALLADOLID, ÁGUEDA

Within this task, partners proposed a list possible services or applications than are the initial candidates for a further selection process. The work performed in this task is:

- AUTH collaborated with Thessaloniki municipality in this task by identifying potential services which are aligned to the overall strategy of the Municipality. They performed with Thessaloniki an extended search for services that aimed at a) supporting the local economy and enhancing entrepreneurship, b) improving the quality of living in the city, and c) taking advantage of the capacities of its citizens.
- Thessaloniki cooperated with AUTH and conducted various meetings in order to identify applications /services that match its goals towards the support for the local economy through entrepreneurship, the further development of tourism and the improvement of the citizen's quality of life.
- Águeda performed the compilation of available services for their pilots, creating initial list of applications to be used in the selection process in Task 1.3. Alfamicro supported the Pilot City of Águeda giving inputs and helping choosing the services that would better suit STORM CLOUDS' end product.

- Valladolid Municipality, supported by ASI, also identified the initial list of applications that will be used in the dynamic with the stakeholders to finally select the applications to be cloudified.
- Manchester looked at both the stakeholder's business needs and the available applications before moving to application selection. High level meetings were held within the authority to discuss business need.
- ED collaborated in the compilation of the available services and applications susceptible to being cloudified. This was achieved by assisting in the process for the selection of appropriate services and applications for cloudification so that a common understanding of what is a "smart city application or service" could be reached. This included helping pilot-cities to pose the right questions to their stakeholders, for example: "What benefits do you think you'll get from porting to the Cloud?"
- RTDI created a database of FP7 projects delivering results potentially deployable in STORM CLOUDS Platform. All projects in this database contacted by mail and phone, becoming aware of the activities in our project and potential for cooperation as part of the project or within our final sustainability plans. Four FP7 projects pre-selected to deploy services in STORM CLOUDS Platform, from which at least 1 will be selected running user-driven innovation cycles. Detailed actuation protocols to involve further projects in the future, during STORM CLOUDS lifetime and beyond. They will be improved in Period 2. The company has required extra effort in defining the strategy regarding cooperation with other projects and protocols.

In this task, **deliverable D1.2.Compilation of available services and applications susceptible to being cloudified** was produced. It contains a classification of the initial set of application with some important technical and functional features. The document also introduces some conditions for selecting the services that are going to be moved to the cloud. These conditions are stated as positive points, for example: it is considered a good candidate when the service solves a necessity in the city. The document edition was led by ASI and officially revised by ED.

Task 1.3 User-driven process for Services/application selection

Task leader: ASI

Participants: AUTH, ALFAMICRO, RTDI, MANCHESTER, THESSALONIKI, VALLADOLID, ÁGUEDA

This task is carried out during stage 1 and 2 of the project. After the selection of the stakeholders, each city conducted a user-driven open innovation process to select applications for the first and second cloudification cycles. The number of services is selected depending on their complexity and the areas of interest of the city.

The work performed by the partners for this task is:

- Thessaloniki, in cooperation with AUTH selected three application /services that were closer to the Municipality's goals and analysed together with each one's stakeholders in a first round of consultation. Additionally, various meetings involving the stakeholders and the end users of the applications were conducted in order to finalize the requirements of the involved parties. The first two are 'Thessaloniki Virtual Mall' and 'Crowdfunding Platform for Social Good', while the third one is 'Thessaloniki Virtual Tour'. Despite the propositions of D1.3.1, during the second semester of the project, the crowdfunding application presented significant problems during its deployment, thus, it was decided to postpone its cloudification till the next innovation cycle. The problems which relate to the limited documentation of the selected open source application as well as the inability to receive payments in euro are explained analytically in D.1.3.2.
- Alfamicro, in order to choose the applications that were more relevant towards completion of the objectives of the project, gave support to Águeda on the best methodological frameworks, following the Open Innovation approach. Examples consisted of interviews, best-case scenarios and previously established services.
- Manchester had the initially planned to drawn up to develop a "cultural concierge" application, working with visitor services in Manchester. This was explored in some detail. At the same time staffs were also considering options based on the modification of an existing service. When a decision was made for the first stage deployment the project and technical leads, it was decided the most mature application would be fulfil the aim of the project best and have the most likely success as a first iteration of cloudification. For this reason, a second option was considered. This was the geo-located "Nodeshot" application enabling mapping of Wifi points within Manchester. Whilst it required some modification to create a Manchester context, this would be possible at the same time

as testing the implementation onto the Storm-Clouds platform. Initial preparation for this was therefore undertaken in WP3.

- Valladolid selected the application UeR (*Urbanismo en Red* – Urbanism in the network)
- In Águeda, stakeholders tried the applications and obtain information about them. Then they filled some questionnaires with their feedback about what of them should be proposed.

As a result of this activity there has been produces two deliverables:

D1.3.1. Selection of services to be cloudified, deployed and transferred. This document gathers the result of the selection of services to be moved to the cloud during the first innovative cycle. All the Pilot Cities provide with their experience about what activities happened, involving stakeholders, to decide which applications select to move to the cloud platform (as meetings, forum groups, interviews, etc). The document also includes the final applications selected by each Pilot City. It was led by ASI and officially revised by Águeda.

D1.3.2. Selection of services to be cloudified, deployed and transferred. The second version of this document is related to the same process during the second innovative cycle. The first one has finished successfully and application has been moved and tested in the cloud platform. Pilot Cities provided with their experience during the first cycle and this information is included in this document in order to facilitate the process during the second cycle. The document also includes the applications selected by each Pilot City for the second step and information about how carry out evaluation for applications in the cloud. It was officially revised by Thessaloniki.

WP1 Achievements

- Promoting the user-driven innovation process at Municipalities to identify applications to be migrated to the cloud.
- Definition of guidelines and best practices for the activation and engagement of end users and stakeholders.
- Definition of a strategy for cooperation with other EC initiatives to increase the number of applications in the project cloud.
- Identification of tools (questionnaires, focus groups, personal interviews) to be used with stakeholders to select applications.
- Initial identification of candidate applications to be included in the selection process with stakeholders.
- Creation of a database of FP7 projects delivering results potentially deployable in STORM CLOUDS Platform.
- Identification of Stakeholders.
- Communication activites to stakeholders for them to understand STORM CLOUDS Project and their role in it.
- Activities with stakeholders to select the suitable applications: meetings, questionnaires, focus groups and interviews.
- Selection of applications for the initial cloudification activities in the first and second innovation cycle. For the first cycle these applications are:
    - The first two are 'Thessaloniki Virtual Mall' and 'Crowdfunding Platform for Social Good', while the third one is 'Thessaloniki Virtual Tour'.
    - Valladolid selected the application UeR.
    - In Águeda, stakeholders could try the applications and obtain information about them. Then they filled some questionnaires with their feedback about what of them should be proposed.
    - Manchester identified the 'Cultural Concierge' and 'Wifi Map'.

  For the second cycle

    - Thessaloniki selected 'Crowdfunding Platform for Social Good'

- Águeda selected a customised version of Lime Survey, used in the city for polling.
- Valladolid selected "Sense the city".
- Manchester was unable to identify any application for this cycle due to internal organisational problems.

Deliverables Produced in WP1

D1.1 Report on best practices and guidelines for the involvement of users and stakeholders.

D1.2 Compilation of available services and applications susceptible to being cloudified.

D1.3.1. Selection of services to be cloudified, deployed and transferred.

D1.3.2. Selection of services to be cloudified, deployed and transferred.

2.2 WP2 OSS IaaS Cloud Platform and Related Services

WP leader: HP

Participants: ED, AUTH, Manchester, Valladolid, Thessaloniki, Águeda

Activities in this Work Package are directed to the creation of the STORM CLOUDS PLATFORM – from now on SCP – that is the project cloud that will be used in the project. Specific activities at each task are

Task 2.1 Storm Clouds Platform - Requirements and Specification

Task leader: HP

Participants: ED, AUTH, Manchester, Valladolid, Thessaloniki, Águeda

The objectives of the task are the definition of the context and the scope of the Storm Cloud Platform, and the specification of functions and features that the platform shall support. The results of the task are reported into **D2.1 Storm Clouds Platform – Requirements and Specification**, a publicly available project deliverable.

HP, with the collaboration of the project partners, led an assessment of the applications candidate to be ported to cloud in order to identify the technical requirements for the Storm Clouds Platform. For this purpose, HP authored and circulated a ***Candidate Application Template*** document with a list of topics and questions that partners were required to answer. After receiving the information from the partners, HP conducted some more in depth investigations by directly contacting the application owners for clarifications. The results of this activity were first summarized in an ***Assessment Summary*** document and then analyzed and reported in D2.1. Other requirements originated by the analysis of the project business context (illustrated in D2.1) and of the National Institute of Standard Technology (NIST) definitions of cloud computing that were challenged for applicability.

Requirements were fully analyzed in order to design a functional decomposition of the Storm Clouds Platform showing what functions are to be implemented, how they relate each other and what are the external entities (i.e. users, systems, etc.) the platform interacts with. This activity resulted in the Storm Clouds Platform Functional Architecture fully described in D2.1.

Deliverable D2.1 was formally reviewed by project partners: AUTH, ED, Manchester Valladolid and Águeda.

Task 2.2 Storm Clouds Platform – Architecture Design

Task leader: HP

Participants: ED, AUTH

The main objective of the task is to define the technical reference architecture of the Storm Clouds Platform and select the technology for the implementation. The results of the task are documented in the **Storm Clouds Platform Architectural Design** document released in two issues: D2.2.1 and D2.2.2.

According to project description in the DoW, "*the project partners declare strong commitment to an open approach, and this will be heavily considered when selecting concrete services to deploy during the project and include in STORM CLOUDS portfolio*". In this perspective, the Storm Cloud Platform architecture has been designed using software solutions and components backed by open software license. HP started an investigation and a technology scouting aimed to evaluate and select open source software technologies for mapping the required functionality. Practical experimental activities were conducted at the HP laboratories in

order to evaluate the maturity of alternative technologies. The resulting architecture is mainly focussed on the software components used for the implementation; the hardware components are intentionally not fully described assuming that the solution must be supported by commodity hardware equipment.

D2.2.1 Storm Clouds Platform Architectural Design, the first issue of the architecture document, defines the basic services for enabling the porting of the applications to cloud. HP was the main editor of the document in charge of collecting and coordinating contributions and feedback of the partners (ED and AUTH). The document has been formally reviewed by project partners appointed by the project coordinator (ED and ASI).

D2.2.2 Storm Clouds Platform Architectural Design addresses some more advanced aspects regarding a "production ready environment" (e.g. high availability, cloud platform management, monitoring, etc.) and it has been formally reviewed by project partners appointed by the project coordinator (AUTH). The document has been delivered at month 13, about 2 weeks later than the planned date. This delay, mainly due to the time spent for describing the technical solution for implementing backup functions, didn't have significant impacts on the other tasks of the project because the time was primarily spent in the description of the backup solution in the document

The work package leader suggests the preparation and delivery of a third unplanned issue of the Storm Cloud Platform Architectural Design document at month 24. The reason for this is that some topics, that initially were considered as minor (e.g. backup solution for IaaS), might reveal interesting aspects that are worth to be captured in the cloud platform architecture. No significant extra effort is expected for the delivery of the third issue.

Task 2.3 Storm Clouds Platform – Software Construction

Task leader: HP

Participants: ED

The main objective of this task is the implementation of an actual instance of the Storm Clouds Platform architecture in order to provide the partners with a digital workspace for hosting their applications.

The task is aimed to produce three publicly available deliverables: **D2.3.1 Storm Clouds Platform Prototype (Month 6)**, **D2.3.2 Storm Clouds Platform Prototype (Month 12)** and **D2.3.3 Storm Clouds Platform Prototype (Month 18)** that incrementally implement the functions described in Storm Clouds Platform Architectural Design.

In order to meet the objective, HP decided to engage a public operator offering basic cloud services that can be used for implementing the Storm Cloud Platform. The idea was that the public cloud operator would provide the hardware resources like servers, connectivity, storage, Internet access, etc; while HP would eventually use those resources for implementing the Storm Cloud Platform. Several public operators were evaluated taking into account functional, budget and regulatory requirements. Eventually, a public cloud operator based in the EU territory was selected, in order to meet regulatory requirements of the European Community that couldn't be satisfied by engaging a provider with data centres based outside the EU Community territory. Another requirement was that the operator would not impose proprietary solutions.

The engagement of the public operator took longer than anticipated because of the HP internal processes that, in the best interest of customers and partners, require an accurate evaluation of the suppliers. This had a negative impact on the delivery date of **D2.3.1 Storm Clouds Platform Prototype** that was due for month 6. In order to address the issue, HP implemented an in-house Storm Cloud Platform at its own premises and delivered on month 6. Functionally speaking, the platform is equivalent to the one that will be eventually implemented using the public operator resources and can be used by the partners for the migration of the applications to cloud. For this purpose, HP is providing access to the partners to the in-house Storm Cloud Platform through a Virtual Private Network (VPN) solution. The main difference between the HP's in-house Storm Cloud Platform and the Storm Cloud Platform at the public operator is that the migrated applications running in the former platform can't be access from Internet by other project stakeholders (i.e. citizens). This is not an issue while the applications are "cloudified" and the problem was addressed by simply moving both the platform and the applications to the operator resources. The Storm Cloud Platform Prototype at the public cloud operator was made available at month 7 and the project partners collaborated in the migration of the applications from the private prototype instance to the public one.

D2.3.1 Storm Clouds Platform Prototype implemented the following features:

- IaaS Services
    - Computing Services
    - Block Storage Services

    - Networking Services
- Database Services
    - MySQL (single node, no HA[1])
    - PostgreSQL (single node, no HA)

D2.3.2 Storm Clouds Platform Prototype was delivered by month 12 and implements the following new features:

- IaaS Services
    - Object Storage Services
- Management Services
    - Monitoring (no HA)
    - Backup
- PaaS Services (deployed at HP premises, only)

Task 2.4 Storm Cloud Platform - Test and Validation

Task leader: HP

Participants: ED, AUTH, Valladolid, Thessaloniki, Águeda

The objective of the task is to verify that the Storm Clouds Platform fulfils the requirements defined in the earlier stages of the project. Validation sessions have been conducted on the HP's in-house Storm Cloud Platform and repeated on the public Storm Clouds Platform.

According to the DoW, no public deliverables were planned for this task but several ***technical notes*** describing in details the steps for testing the implemented cloud services were produced by the partners and shared. The notes give indications on how to use the Storm Clouds Platform and have been extensively used during the application cloudification process. The WP leader suggests gathering all the notes in a single document (not necessarily a public deliverable) in order to capitalize in a tangible asset the practical experience made using the Storm Cloud Platform. This consolidated document will be delivered on Month 24.

Task 2.5 Design and Implementation of Prefab Cloud-Application Templates

Task leader: HP

The objective of the task is to deliver artefacts that, taking advantage of the services implemented at the IaaS level, facilitate the deployment of cloud-enabled applications. Starting from the Storm Clouds Platform Architecture Design, HP has identified some functions that can be implemented by using virtual machines running on top of the IaaS layer.

Area	VM Image	Function	Date
General Purpose Services	DNS-Ubuntu14.04	It provides a Domain Name Services for applications running in the Storm Cloud Platform	M6
DBaaS	MySQL-5.5_Ubuntu-14.04-External-DB	It implements a MySQL DB engine	M6
DBaaS	PostgreSQL-9.3.5_Ubuntu-14.04-External-DB	It implements a PostgresSQL DB engine	M6
Monitoring	Zabbix-2.2.2_Ubuntu-14.04-AIO	Zabbix monitoring tool (all in one deployment)	M12

WP2 Achievements

- Definition of SCP Requirements.
- Identification of restrictions for the implementation: data security, performance, etc.

[1] HA stands for High Availability

- SCP Specifications.
- Definition of the Storm Cloud Platform architecture
- Implementation and deployment of the SCP. The project cloud has had two specific releases:

  D2.3.1 Storm Clouds Platform Prototype implemented the following features:

  - IaaS Services
  - Computing Services
  - Block Storage Services
  - Networking Services
  - Database Services
  - MySQL (single node, no HA)
  - PostgreSQL (single node, no HA)

  D2.3.2 Storm Clouds Platform Prototype was delivered by month 12 and implements the following new features:

  - IaaS Services
  - PaaS Services (deployed at HP premises, only)
  - Object Storage Services
  - Management Services
  - Monitoring (no HA)
  - Backup
- Validation activities on the private cloud – held in HP's premises – and repeated on the public Storm Clouds Platform.
- Initial work on the definition of application templates as included in the Task 2.5 table.

Deliverables Produced in WP2

D2.1 Requirements and Specifications document

D2.2.1 IaaS platform architecture design document.

D2.2.2 IaaS platform architecture design document.

D2.3.1 Storm Clouds IaaS Platform Prototype

D2.3.2 Storm Clouds IaaS Platform Prototype

D2.4.1 Cloud Application Template Catalogue

2.3 WP3 Cloud-based services deployment

WP leader: AUTH

Participants: ASI, HP, ED, RTDI, MANCHESTER, ALFAMICRO, VALLADOLID, THESSALONIKI, ÁGUEDA

The main objective of the Work Package 3 (Cloud-based services deployment) during the first year of the project has been to achieve the adaptation and integration of the first three smart city services into the cloud infrastructure.

There are activities that cover both T3.1 and T3.2 and then, specific activities for each task. This way, activities for HP in Task 3.1 and Task 3.2 were mainly focussed on providing the partners with assistance for porting the selected applications to the cloud infrastructure designed and implemented in WP2. In addition to provide instructions for using the cloud platform, HP collaborated both with the task leader (ED) and the application owners (cities) for addressing issues rose during the cloudification process. This resulted in indications for fixing problems specific to single applications (e.g. configuration problems with some software components) but also in the analysis of more general issues and the design of the corresponding solutions (e.g.

DNS management, data backup, etc). HP provided contents for D3.1.1 regarding how to use the IaaS services and formally reviewed the document. Activities on T3.3 consisted in providing templates for gathering information on the candidate applications and highlighting technical issues related to the application cloudification.

The main contribution of ED was towards WP3 on the adaptation of services, which have been selected in WP1, and the deployment to the Storm Clouds Platform (SCP) public cloud infrastructure. This was a two-step process, where selected public services were initially launched as new instances to the HP's SCP for cloudification, customization, validation, testing and replication. Once the services were validated and tested in the HP's development environment, we simply "moved" them from the HP's SCP to the SCP of Enter S.r.l., the selected public cloud provider (production environment).

RTDI worked on understanding potential opportunities for technology development in relation to STORM CLOUDS infrastructure.

A deviation from the work described in Annex I is the fact that the City of Manchester didn't cloudify any application at this stage.

Task3.1 Adaptation of services and integration into the cloud infrastructure

Task leader: AUTH

Participants: ASI, HP, ED, RTDI, MANCHESTER, ALFAMICRO, VALLADOLID, THESSALONIKI, ÁGUEDA

The services selected by the Municipalities of Águeda, Valladolid and Thessaloniki (presented in D1.3.1) have been adapted and deployed to the Storm Clouds Platform (SCP) public cloud infrastructure. This was a two-step process where selected public services were initially launched as new instances into to the HP's SCP for cloudification, customization, validation, testing and replication. Once the services were validated and tested in the HP's development environment, they moved from the HP's SCP to the SCP at Enter S.r.l., the selected public cloud provider (production environment).

In order to have an effective deployment of services onto the cloud infrastructure, Alfamicro gave support to CM Águeda regarding feedback of possible adaptations to be made to the Public Participation service. The partner also gave support regarding feedback of possible adaptations to be made to the Public Participation service.

Valladolid was supported by ASI for the adaptation of the selected application structure. Valladolid also performed the deployment of "Urbanismo en Red" application into the cloud infrastructure.

Thessaloniki contributed in the adaptation (based on user needs), deployment and testing of the cloudified services for the Municipality in cooperation with AUTH.

Águeda had collaborated closely in the adaptation of selected services and their integration in the cloud platform. The result is public and it is functional in a production environment in euparticipo.cm-Águeda.pt.

The documents **D3.1.1. Deployment of the services in the Cloud Infrastructure for Cloudification, customization and testing** includes all the information about adaptation to tools and suggestions to feed WP5 activities.

Task 3.2 Deployment of selected services into pilot cities cloud infrastructure

Task leader: AUTH

Participants: ASI, HP, ED, RTDI, MANCHESTER, ALFAMICRO, VALLADOLID, THESSALONIKI, ÁGUEDA

During the first 9 month cycle, AUTH contributed to the cloudification of the selected service (Thessaloniki Virtual Mall) (Task 3.1). After its adaptation according to the user needs and the feedback received during the first innovation cycle, the service was also deployed and tested by Thessaloniki Municipality in collaboration to AUTH. A number of issues were taken into account during this process such as issues of security and privacy, performance, estimated use of the service, issues of interoperability etc. The service is now publicly available.

Once successfully completed the first cloudification process, the services available are:

Municipality	Application Title	Application URL
Ayuntamiento de Valladolid	Urbanismo en Red (UeR)	http://urbanismoenred.valladolid.es/Visor/

City of Thessaloniki	Thessaloniki Virtual Mall	http://smartcity.thessaloniki.gr/virtual-city-market/el/index.html
Câmara Municipal de Águeda	Participação Pública (PPGIS - Public Participation)	http://euparticipo.cm-Águeda.pt/

The deliverable **D3.2.1. Production start of cloudified or transferred services** reports the cloudification efforts carried out during the first year regarding WP3.

WP3 Achievements

- Technical analysis of the services to be cloudified;
- Customization, validation, testing and replication of services into the HP's SCP development cloud infrastructure;
- Deployment and integration of selected services into the production SCP public cloud infrastructure at Enter S.r.l., the selected public cloud provider;
- Suggested steps for porting services into the SCP cloud infrastructure

Deliverables produced in WP3

D3.1.1. Deployment of the services in the Cloud Infrastructure for Cloudification, customization and testing.

D3.2.1. Production start of cloudified or transferred services

2.4 WP4 Horizontal issues

WP leader: ED

Participants: RTDI, AUTH, MANCHESTER, VALLADOLID, THESSALONIKI, ÁGUEDA

The main objective of Work Package 4 is to address general aspects which affect the operation of the services in the pilot. There are analyzed issues as privacy, security, interoperability and the multiple languages available.

Task 4.1 Ethical issues and data protection

Task leader: ED

Participants: RTDI, AUTH, MANCHESTER, VALLADOLID, THESSALONIKI, ÁGUEDA

The first year contribution towards WP4 included the definition and analysis of the ethical issues and data protection concerns and how these will be addressed in the project. As a result, a detailed ethical issues and data protection report was produced, D4.1.1 Ethical issues and data protection report. This deliverable describes the data protection measures to be implemented for satisfying the data protection/privacy EU legislation. In this direction a detailed analysis of the European Data Protection Directive (95/46/EC) was performed, identifying the commonly recognized data protection principles while indicating how these principles could be applied in practice. Finally an extensive list of recommendations and industry best practices was produced.

AUTH contributed also in the specification of ethical issues and data protection. In particular, a preliminary examination was conducted regarding the type of data which have to be used and potentially stored in each selected service of the Thessaloniki pilot. Some features/ processes of the services were reconsidered in order to comply with the EU regulation for data protection/security regulation as they are described in D4.1.1.

Thessaloniki did an analysis of ethical and data protection issues for the selected applications to be cloudified. It was conducted in cooperation with AUTH. They also did an examination of the interoperability and multilinguality issues related to the selected applications by the Municipality and the languages that each one targets was conducted.

The document **D4.1.1 Ethical issues and data protection report**, was delivered led by Manchester with the active participation of ED and officially reviewed by AUTH.

Task 4.2 – Interoperability and Multilinguality issues

Task leader: ED

Participants: RTDI, AUTH, MANCHESTER, VALLADOLID, THESSALONIKI, ÁGUEDA

The aim of this task is to document and analyze the multilingual features and technologies needed to address multilingual content. On the issue of interoperability, after extensive discussion among the technical partners it was decided that due to the fact that:

1. Selected applications will neither communicate with each other and nor will they provide services to other systems/applications;

2. Application perception in terms of storage and network characteristics does not differ from the traditional IT model;

3. Integration with other cloud platforms and CSPs is not foreseen this aspect was not relevant to the project and would not be covered.

ED has greatly contributed to the definition and analysis of the ethical issues and data protection concerns and to how these will be addressed in the project; this was an activity within WP4. As a result a detailed ethical issues and data protection report was produced, describing the data protection measures to be implemented so as to comply with the data protection/privacy EU legislation. In this direction a detailed analysis of the European Data Protection Directive (95/46/EC) was performed, identifying the commonly recognized data protection principles, while indicating the way such principles could be applied in practice. Finally an extensive list of recommendations and industry best practices was produced. The partner have also documented and analyzed the multilingual features and technologies needed to address multilingual content.

RTDI has worked in understanding and monitoring relevant issues related to interoperability, privacy and security aspects, to be considered in the actuation protocols and cooperation roadmaps being developed under WP4.

Valladolid gathered of information about interoperability issues for Valladolid pilot selected application. They also gathered of information about multilingualism issues for the application.

Águeda: in the horizontal issues work package work was undertaken regarding Multilingual issues, which is essential due to the interoperability aspiration of applications.

The deliverable **D4.2. Interoperability and Multilinguality report** describes the results of Task 4.2. The document edition was led by ED and reviewed by RTDI.

WP4 Achievements

To summarize significant results during this period for WP4 include:

- Analysis of the European Data Protection Directive (95/46/EC);
- Suggested data protection measures for satisfying Directive 95/46/EC;
- Identification of the multilingual features and technologies to address the need for multilingual content.

Deliverables produced in WP4

D4.1.1 Ethical issues and data protection report

D4.2 Interoperability and multilinguality report

2.5 WP5 Definition of guidelines for a successful migration to cloud-based public services

This work package has not started yet. However AUTH, leader of the Work Package, has started to defined activities for it. Pilot Cities have done a literature review and compilations of minutes from meetings with stakeholders and users.

2.6 WP6 Scalability, dissemination, exploitation and sustainability

WP leader: ALFAMICRO

Participants: ASI, HP, ED, RTDI, AUTH, VALLADOLID, THESSALONIKI, ÁGUEDA

Work in WP6 during this first project year has been directed to the definition and implementation Design and implement of a dissemination strategy that maximizes the impact at European level of STORM CLOUDS. The creation of the required tools and material to promote the project as publishing, networking, and user engagement has also been carried out in this period.

Task 6.1 STORM Market Analysis

Task leader: ALFAMICRO

Participants: ASI, HP, ED, RTDI, AUTH, VALLADOLID, THESSALONIKI, ÁGUEDA

This Task focused on the elaboration of a document that evaluates the current Cloud market, opportunities, challenges, scenarios and benchmark of similar projects in Europe, which will serve as a guide to then create STORM CLOUDS' Business Model. Current developments for this task have been made in several areas:

- A benchmark of similar projects was carried out identifying an initial list of three main projects that work with Public Clouds and Administration: Project SUCRE, Project ClouT and project Cloud4Europe.
- A literature review of the Cloud Computing market was done, clearly identifying the macro-environment of this market and its opportunities and threats for the future.
- An analysis was carried out in order to find quantifiable measures and KPI's of the Cloud Computing market. In particular, the analysis was based on an adaptation of Porter's 5 forces model through a business modelling excel tool that served derive STORM CLOUDS market attractiveness.
- A benchmark of business models used in the cloud computing market was elaborated, in order to set an initial analysis to be continued in task T6.2 Business modelling.

Establishing market awareness through business oriented dissemination in the channels created in task 6.5. Examples of the contacted list of projects from Alfamicro and RTDI include: SUCRE, CloudforEurope, eEnviPer, CloudSpaces, SEED, CloudOpting, Clouding SMEs, CloudWatch, CloudWave, S-CASE, CACTOS, SeaClouds, ClouT, ECIM, CELAR.

The deliverable **D6.2. STORM CLOUD Market analysis** is a description of the work done in Task 6.1. It was led by Alfamicro and reviewed by HP.

Task 6.4 STORM networking activities for scalability and sustainability

Task leader: ALFAMICRO

Participants: ASI, HP, ED, RTDI, AUTH, VALLADOLID, THESSALONIKI, ÁGUEDA

Alfamicro conducted this task in order to explore future scalability opportunities at PAN-European level. In order to create a network, work has been focuses on:

- Elaborating a benchmarking list of similar projects, which was leveraged from the work conducted for task 6.2 STORM Market Analysis.
- Creating synergies with RTDI in order to maximize partner efforts, therefore fully working towards completion of the Project's objectives, in particular regarding the replication of STORM CLOUDS list of services and cloud platform in other cities.
- Contacting the list of projects mentioned above.
- Sharing project information and links of these projects on the web-portal related projects area.
- Following projects on social accounts.
- Promoting future joint-collaboration initiatives.
- An Open Call for Cities was launched in January. Alfamicro developed all the necessary requirement to evidence this call on STORM CLOUDS web portal tool and social accounts. A web banner and notice were developed and made available to other partners and publicly by Alfamicro. Moreover, a google form for contact details of new cities was developed http://stormclouds.eu/open-call-for-

cities/. The Call for Cities also required the elaboration of a Memorandum of Understanding (MoU), ellaborated by ASI. This draft was based upon templates given by Alfamicro. Alfamicro was involved in contribution and final writing stage of the document.

- The network created was already used by Alfamicro and STORM CLOUDS to disseminate the open Call for Cities launched in January 2015. Project SUCRE, CloudforEurope and Smart Campus were requested to help increase the reach and visibility of the initiative through online tools or such as the (National Body of Municipalities, Portugal) and the Covenant of Mayors.

Task 6.5 Dissemination strategy and planning

This task focused on explaining the overall communication strategy to disseminate the project's results, conclusions and recommendations (Alfamicro leading):

- A general leaflet written in English was produced to be distributed at events, conferences or other relevant events. It introduces project STORM CLOUDS, the project's vision, main objectives, methodologies used and pilot locations. The leaflet is available online on the STORM CLOUDS web-portal for public dissemination, as well as on Basecamp internal administration. The URL are: http://www.twitter.com/StormCloudsEU and http://www.facebook.com/stormclouds.eu?ref=hl

- local leaflets written in each pilot local language were produced to be distributed by each pilot at local level. Each leaflet introduces project STORM CLOUDS, the project's vision, main objectives, methodologies used and a list of services that will be cloudified as well as the one that was selected during the first cloudification round. The leaflets are available online on the STORM CLOUDS web-portal and pilots local webpage for local dissemination, as well as on Basecamp internal administration.

- Alfamicro gave a presentation on the European Union Digital Agenda during the CHOICE Webinar in which project STORM CLOUDS was mentioned and explained for a 34 person audience which consisted of interested stakeholders from Europe and China.

- Alfamicro went to the CLASS 14' Conference in Bled in which a 30 minute presentation on cloudification of services in the Public Sector was given in front of a 50 person audience. http://videolectures.net/classconference2014_nina_public_services/

- During the CLASS 14' Conference, an interview on Cloud Adoption trends in Governments or Public Services was given to project CloudCatalyst, whose contents will be available later in 2015.

- Project STORM CLOUDS was featured in the news and events section of the 4th issue of CloudSource Magazine. A magazine specialized in Cloud Computing. The CloudSource Magazine's is a partnership initiative launched by project SUCRE in partnership with project Cloud4Europe, its editorial is composed by: Prof. Alex Delis, SUCRE Coordinator, National & Kapodistan University of Athens, Greece. Dr. Norbert Meyer, Head of the Supercomputing Department at the Poznan Supercomputing Center, Poland. Prof. Dr. Keith Jeffery, President of ERCIM, U.K. Dr. Yuri Glikman, OCEAN project Coordinator, Fraunhofer Institute, Germany. Dr. Toshiyasu Ichioka, Project Manager, EU-Japan Centre for Industrial Cooperation, Japan. Mrs. Cristy Burne, Scientific Editor and Journalist, Australia. The Magazine is available at: http://issuu.com/sucreproject/docs/sucre_cloudsource_magazine_issue_42/0

- Online dissemination on the Portal and Social accounts in the form of blogposts is managed by Alfamicro. A plan is constructed at the beginning of each month, which also requires a follow up on other partners' contributions. At the moment 9 blogposts have been released. Blogposts are released twice per month, which means that at the end of the project there should be approximately 35 in total.

The deliverable **D6.4. STORM CLOUDS Dissemination Plan** is a description of the work done in Task 6.5. This document was delivered on month 9, date scheduled. The document was led by Alfamicro and officially reviewed by ASI.

Task 6.6 - STORM Awareness Tools

This task focused on the design and implementation of dissemination and promotion tools to raise project awareness for all relevant stakeholders. Such tools can be described as:

- The STORM web-portal was developed as a comprehensive platform to communicate and disseminate the project. It is developed and perceived as the primary source of promotion and

communication channel for dissemination purposes. The web-portal contains information about the project; its objectives, its methodologies used, as well as detailed information about each testing city and the services created in STORM CLOUDS cloud-based portfolio. It contains a dedicated area to FP7 and CIP Cloud Computing projects in order to foster joint-collaboration activities. It contains the area where new cities can get in touch with the consortium in order to start acting as replication pilot sites. Lastly, the web-portal has a blog area where all news is transmitted to targeted audiences. Additionally, the web-portal is syndicated to other STORM CLOUDS social accounts in order to boost its reach to the target audience desired. The web-portal can be reached through the link http://www.stormclouds.eu .

- STORM Facebook and Twitter Accounts were created to leverage from social networking tools and further gain market share in terms of public audience. The social accounts are syndicated and linked with the web-portal, meaning that whenever a blog post, news or event is released in one of the accounts, all will immediately share the news. The hashtag #StormCloudsEU was created as a way for all relevant stakeholders to share related news about project STORM CLOUDS, which will also link to the project's social accounts.

- At the moment, STORM CLOUDS have 39 likes on Facebook 14 with posts and 52 followers on Twitter with 41 tweets.

The deliverable **D6.1. STORM CLOUDS Portal and social media accounts** is a description of the work done in Task 6.6. It was delivered on M4 a month delayed regarding schedule date. The document was led by Alfamicro and revised by all partners.

Other activities performed by partners to WP6 are:

ASI has been actively involved in all the dissemination activities, encouraging partners to contribute with the update of social network and the publication of news in the website. The company also has design the leaflet presenting the project and has distributed it in different events attended related to smart cities and clouds. ASI also has formally reviewed D6.4.

For D6.2 the contributions of HP were mainly focussed on articulating the cloud computing from the technical view point providing feedback and material related to cloud computing service models (IaaS, PaaS and SaaS) and cloud computing deployment models (public, private and hybrid). Contributions were also provided on cloud computing market with indications on market share and trends. For D6.2, HP was appointed as the official formal reviewer. For D6.4, HP reviewed the document and provided feedback on the dissemination plan.

Águeda collaborated with the consortium and WP6 leaders, regarding creation of contents to be published as monthly blogposts on the web portal tool and social networks. Águeda also carried local dissemination activities in order to gather stakeholders that were interviewed within the scope of tasks designed for WP1. Related networks of the Municipality such as the Convenant of Mayors were contacted in early January with the intent of raising awareness of other cities to the Call for Cities opened in February 2015 that seeks to attract new cities that wish to have closer insights of the process of cloudification of public services.

Thessaloniki did a plan for the dissemination of the results of the project through brochures, websites, blogs, social media, meetings and conferences. They also created a facebook account for the Municipality of Thessaloniki. Besides they created a special webpage inside the website of the Municipality of Thessaloniki containing information about the joint actions of the Municipality and AUTH within the project. They contributed to the project's blog. Translation of the main STORM brochure in Greek and addition of information about the applications Thessaloniki plans to deploy.

Valladolid collaborated in dissemination material design for Valladolid pilot: Valladolid leaflet and project website. Authoring project blog posts and translating material to Spanish.

AUTH in collaboration with Municipality of Thessaloniki established a Facebook account for STORM-CLOUDS. In addition, it provides input for the pilot web page which is hosted in the municipality's website. URENIO also contributed to the deployment of the dissemination plan, mainly by actively engaging itself in dissemination activities including the distribution of printed material (project leaflets, manual of the services etc) and the conduction of scientific publications. Finally, a lot of effort was towards the scalability of the results by engaging other cities to participate as replication pilots (Task 6.4). Despite the networking activities, it is not yet clear which cities will also implement the cloudified services.

RTDI objective for Period 1 in relation to this WP was to lead the activities around business modeling for STORM CLOUDS (T6.2), and help raising market awareness through business oriented dissemination (T6.6). These tasks will become the top priority for RTDI's participation in the project during Period 2, once the first

round of services have been chosen, collaboration with other projects launched and call for other cities being open. Their activities and resulting outcomes in this WP during this period have been channeled to deliverable D6.2, as part of the preliminary market analysis towards the real definition of business models.

WP6 Achievements

Specific achievements in WP6 are:

- Analysis of potential market of STORM CLOUDS results.
- Ellaboration of a dissemination plan.
- Establishement of links with similar projects to enhance dissemination
- Participation in live events promoting the project
- Edition of paper and electronic leaflets in English, Spanish, Portuguese and Greek.
- Creation of project Web site and social networks account.
- Maintenance of online dissemination activities.
- Launching of the Call for Cities to include in the project additional cities to test the applications in SCP.

Deliverables Produced in WP6

D6.1. STORM CLOUDS Portal and social media accounts

D6.2. STORM CLOUD Market analysis

D6.4. STORM CLOUDS Dissemination Plan

2.7 WP7. Project Management

Description of work and achievements in this WP is included in section 4 this document.

3 Deliverables and milestones tables

TABLE 1. DELIVERABLES

Del. no.	*Deliverable name*	*WP no.*	*Lead participant*	*Nature*	*Dissemination level*	*Due delivery date from Annex I*	*Delivered Yes/No*	*Actual / Forecast delivery date*	*Comments*
D1.1	Report on best practices and guidelines for the involvement of users and stakeholders.	1	1	R	PU	4	Yes	5	This document had a minor delay.
D1.2	Compilation of available services and applications susceptible to being cloudified.	1	1	R	PU	4	Yes	4	
D1.3.1	Selection of services to be cloudified, deployed and transferred.	1	1	R	PU	6	Yes	6	
D1.3.2	Selection of services to be cloudified, deployed and transferred.	1	1	R	PU	12	Yes	12	
D2.1	Requirements and Specifications document	2	2	R	PU	3	Yes	3	
D2.2.1	IaaS platform architecture design document	2	2	R	PU	6	Yes	6	
D2.2.2	IaaS platform architecture design document	2	2	R	PU	12	Yes	12	
D2.3.1	SC IaaS platform prototype	2	2	P	PU	6	Yes	6	
D2.3.2	SC IaaS platform prototype	2	2	P	PU	12	Yes	12	
D2.4.1	Cloud Application Template Catalogue	2	2	P	PU	6	Yes	6	
D3.1.1	Deployment of the services in the Cloud Infrastructure for Cloudification, customization and testing	3	3	O	PU	9	Yes	9	
D3.2.1	Production start of cloudified or transferred services	3	3	P	PU	11	Yes	11	
D4.1.1	Ethical issues and data protection report	4	7	R	PU	6	Yes	6	

D4.2	Interoperability and multilinguality report	4	3	R	PU	9	Yes	9	
D6.1	STORM CLOUDS Portal and social media accounts	6	6	O	PU	3	Yes	3	
D6.2	STORM CLOUD Market analysis	6	6	R	PU	9	Yes	9	
D6.4	STORM CLOUDS Dissemination Plan	6	6	R	PU	9	Yes	9	
D7.1	Project on-line collaborative tool	7	1	R	RE	3	Yes	3	
D7.2.1	Periodic Progress Report and financial statements	7	1	R	CO	12	Yes	12	

TABLE 2. MILESTONES

Milestone no.	Milestone name	Due achievement date from Annex I	Achieved Yes/No	Actual / Forecast achievement date	Comments
MS1	1st innovation cycle	M9	Yes	M9	The milestone was achieved successfully in expected date.

4 Project Management

This section summarises the management work during the period.

Consortium management tasks and achievements;

The management of the consortium has been carried out by analysing the DoW and delivering to each WP leader the expected activities for the period. Then, periodic teleconferences were used to enforce cohesion and to detect any deviation.

In general the consortium has shown interest in the project and each partner has delivered their duties as scheduled. At the begining of the project, WP1 was delayed as it will explained later in this section but this delay was catechd up and no particular impact in the project has taken place.

The initial tasks about coordination, project standards and project on-line collaborative tool were carried out successfully

Two deliverable documents has been produced in this period:

- D7.1. Project on-line Collaborative Tool.
- D7.2.1. Periodic project progress reports and financial statements, this document.

Problems which have occurred and how they were solved or envisaged solutions

The main problem is the withdrawal of Manchester City Council as a project partner. Fortunately, the other three cities in the project participate actively and the suite of applications available for cloudification will be enough to achieve the project objectives.

This issues has not yet been solved but there are candidate cities to join the project, as well as, corrective actions in other WPs already in place.

Changes in the consortium

At month 11 of the project Manchester City Council expressed their difficulties to fulfil their duties to the project, due to internal restructuration processes taking place in the Municipality.

Immediately Ariadna established a direct communication to identify possible solutions, as reducing their participation or reshaping their contributions to the project. Finally, they decided to withdraw from the project. The termination of their participation took place by November the 30th, 2014.

List of project meetings, dates and venues;

The following meetings have taken place (all in 2014, except otherwise noted):

- February 10th, 2014: Kick-Off Meeting: Madrid (Ariadna premises).
- March 18th, Progress meeting (Teleconference)
- March 20th, WP1 meeting (Teleconference)
- March 25th, Progress meeting (Teleconference)
- April 14th, Progress meeting (Teleconference)
- April 22th, WP2 meeting (Teleconference)
- May 29th, WP2 meeting (Teleconference)
- June 2nd, Progress meeting (Teleconference)
- July 1st, Progress meeting (Teleconference)
- September 16-17th, 1st PMB Meeting. Milano (HP premises)
- October 15th, Progress meeting (Teleconference)
- November 20th, Progress meeting (Teleconference)
- December 10th, Progress meeting (Teleconference)

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- 2015, January 10th, Progress meeting (Teleconference)
- 2015, January 21st, Progress meeting (Teleconference)

Project planning and status;

There are no deviation from planning at year 1 of the project.

During the first months of the project, WP1 experimented some delay due to the renewal of Ariadna team. This fact impacted to D1.1 that was delivered 3 weeks after scheduling. In order to reduce the impact the activities in other tasks in WP1 started in parallel whenever possible.

Finally, the WP achieved its objectives as expected.

Impact of possible deviations from the planned milestones and deliverables

Milestone 1 has been achieved at the expected date.

D1.1 was delivered with 3 weeks delay but the activities depending on this document started in parallel and there was no specific impact to the project.

Impact of possible deviations from the planned resources;

Devitation from planned resources that impact the project are:

- Manchester City Council underspend of resources affects the project as they have not cloudified any application. This impact will be reduced as
    - Thessaloniki has cloudified more applications than initially expected.
    - Other partners will provide for free applications to be moved to the cloud.
    - It is under discussion in the project, the incorporation of a new partner to the project.

Any changes to the legal status of any of the beneficiaries, in particular non-profit public bodies, secondary and higher education establishments, research organisations and SMEs status;

There have been no changes

Development and use of the Project website;

The project web site was delivered as scheduled and it is used, in addition to the social networks accounts, to spread the work done in the project. During the first year the web site had over 5000 visits. In January 2015 the number of visits was 681.

The project web site is also used to communicate the Call for Cities and the specific form to participate in the call is also available in the web site.

Use and dissemination activities during this period

First activities carried out torwards dissemination were the preparartion of material foro online dissemination (website, social networks, …) and presential dissemination: leaflets and powerpoint presentation.

LEaflets were prepared in English, Spanish, Greek and Portuguese, so they can be used in dissemination activities with stakeholders at the Cities.

Presential dissemination activities carried out so far are:

- Project presentation at CloudWatchHub Concertation meeting. Brussels (March 12-13th, 2014)
- Project presentations to stakeholders in Agueda, Manchester, Thessaloniki and Valladolid. February-March 2014.
- Project presentation at CloudWatchHub Concertation meeting. Brussels (September 10-11th, 2014)
- CLASS 14' Presentation, September 2014, Slovenia
- Project presentation at "Ciudades que Caminan" event. Pontevedra, Spain (October 16-17th, 2014)
- Shaping and preparing the H2020 LEIT ICT WP2016-2017, October 2014, Belgium
- Participation to "Cloud of Public Services" workshop. Brussels (November 24-25th, 2014)

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Project contacted are summarised in the next table

	SUCRE **CloudforEurope**	• Contacted and Shared Links & Social Accounts • Shared Dissemination Posts & Tweets • Article published on CloudSource Magazine September 2014 • Class'14 STORM CLOUDS Presentation
	eEnviPer **CloudSpaces** **SEED**	• Contacted • Shared Links & Social Accounts
	CloudOpting **Clouding SMEs** **CloudWatch** **CloudWave** **S-CASE** **CACTOS** **SeaClouds** **ClouT**	• Contacted • Shared & Social Accounts • Pending STORM CLOUDS project information on website
	ECIM **CELAR**	• "Shaping and preparing the H2020 LEIT ICT WP2016-2017" Contact Arranged • Memorandum of Understanding • Cross-arcticle publication on open data

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Use of Resources

5 Overview Person-Month Status

The following table provides with information about Person-Month status for each partner.

The Planned columns refer to the total effort planned for the project, and for each WP, in the latest version of the description of work - annex I to the grant agreement.

The Actual columns refer to the number of person months consumed from the beginning of the project to the end of this period (first year).

Consortium		WP1		WP2		WP3		WP4		WP5		WP6		WP7		TOTAL	
Nr	short name	Actu	Plann	Actual	Plann	Actu	Plann	Actua	Plann	Actua	Plann	Actual	Plan	Actual	Plann	Actua	Plann
1	ASI	19,5	38,0	0,0	0,0	7,1	18,0	0,0	0,0	1,1	7,0	4,4	6,0	8,7	20,0	40,7	**89,0**
2	HP	0,0	0,0	14,5	47,5	2,4	4,0	0,0	0,0	0,0	2,0	1,3	4,0	0,3	2,0	18,4	**59,5**
3	ED	1,3	4,0	2,8	8,0	8,7	26,0	8,5	14,0	0,0	2,0	0,0	5,0	0,7	2,0	22,0	**61,0**
4	RTDI	7,0	12,0	0,0	0,0	1,5	8,0	2,0	3,0	0,0	0,0	2,5	14,0	0,6	2,0	13,6	**39,0**
5	AUTH	1,8	4,0	5,5	6,0	4,3	29,0	1,3	4,0	0,0	14,0	1,7	5,0	0,9	3,0	15,4	**65,0**
6	ALFAMICRO	3,0	6,0	0,0	0,0	2,5	13,0	0,0	0,0	0,0	0,0	17,3	28,0	0,5	2,0	23,3	**49,0**
7	MANCHESTER	4,6	20,0	0,0	2,0	1,9	15,0	2,7	3,0	0,0	5,0	0,0	9,0	0,0	3,0	9,2	**57,0**
8	VALLADOLID	6,0	16,0	1,0	2,0	1,5	4,0	1,0	3,0	0,5	5,0	2,0	8,0	1,0	2,0	13,0	**40,0**
9	THESSALONIKI	6,0	18,0	1,6	2,0	2,9	9,0	2,2	3,0	1,0	9,0	4,3	9,0	0,5	2,0	18,5	**52,0**
8	AGUEDA	5,0	16,0	2,0	2,0	1,0	4,0	1,5	3,0	0,0	5,0	2,0	8,0	1,0	2,0	12,5	**40,0**
Total		**54,1**	**134,0**	**27,3**	**69,5**	**33,7**	**130,0**	**19,1**	**33,0**	**2,6**	**49,0**	**35,5**	**96,0**	**14,2**	**40,0**	**186,5**	**551,5**
	Percenteage	40%		39%		26%		58%		5%		37%		35%		34%	

5.1 Explanation of the use of resources

The usage of resources in the first year has suffered from some deviations with respect to the amounts initially planned in the DoW.

- Ariadna Servicios Informáticos has overspent resources according to:
  - The staff of Ariadna has changed during this year and most of the personal involved in the project has a less senior profile. Therefore, the activities in WP1 have devoted more personnel effort. However, the final cost are under planned as this new team has lower salaries.
  - In WP6, the withdrawal of Manchester produced that the preparation of the Call for Cities load had to be taken by Ariadna.
  - Also the withdrawal of Manchester has moved to increase the effort spent in WP7, management.
- ED overspent in WP3 to provide additional support for cities in the cloudification process.
- Manchester City Council has underspend resources due to their internal restructuration processes in place.

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