Client's NAME
Framework Contract– N°123-ABC-789

Projects: Description of your project(s)

Monthly Progress Report

(**#REFERENCE#**)

Abstract

This document is the Monthly Progress Report for the Framework Contract N°123-ABC-789.

Reported period: #Reporting Period#

Document information

CONTRACTOR	Unisys
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Document History

VER	DATE	AUTHOR	DESCRIPTION	ACTION*	PG
0.01	dd/MM/YY		Initial version	I	As needed

Action: I = Insert, R = Replace

Contents

1 PROJECT MANAGEMENT

1.1 Headlines on Project

Here you may insert some personal comments to complete your report on your project

1.2 Contractual Overview

1.2.1 Open Service Contract List

Please find below an overview on all open Service Contracts from a contractual point of view. This list is sorted by contract end-date.

Latest BSP	Service Contract	Contract Starts	Contract Ends	Notes	FLAG
«TableStart:Contract»«ProposalCode» v.«Version»	«Code» «Description»	«dateStart»	«dateEnd»«TableEnd:Contract»		

1.2.2 Submitted Proposals during reported month

Please find below the list of all submitted proposals and their potential updates during the reported period.

Identifier	Version	Submission Date	Notes
ITEA2 Inclouding	1.00	15/03/2014	«bsp_desc»

Table 1: Submitted Proposals

1.3 Request for Action

Request	Description	Due date
«TableStart:RFA»«rfa_title»	«rfa_desc»	«rfa_duedate»«TableEnd:RFA»

Table 2: Requests for Action

1.4 Management Activities

1.4.1 Management Activities during the reported period

Identifier	Version	Start Date	End Date	Status	Note
IncSTi-WP00-RPT-001	1.00	01/09/2013	27/05/2014	Acknowledged	D0.0: Offer to Innoviris
Participation in EVT-0011		01/04/2016	30/06/2016	Open	D5.2b, software: End-to-end privacy assurance software modules
Participation in EVT-0012		01/03/2014	31/03/2014	Open	D0.0: Offer for H2020 Programme

Table 2: Activities during current month

1.4.2 Management Activities planned for the following period

Identifier	Version	Start Date	End Date	Status	Note
IncSTi-WP01-ACT-001	1.10	01/07/2014	25/07/2014	Open	D1.1bb: Half-yearly ITEA2 progress reports
IncSTi-WP00-RPT-001	1.00	01/09/2013	27/05/2014	Acknowledged	D0.0: Offer to Innoviris
InCloudInG-StiConsult-WP01-ACT-001	1.00	01/01/2015	30/06/2015	Open	D1.1b: Half-yearly ITEA2 progress reports
ITEA2_InCloudInG_13047-WP01-RPT-002	1.00	01/07/2014	30/06/2015	Open	D1.4a: Market monitoring synthesis
InCloudInG-StiConsult-WP05-ACT-002	1.00	01/04/2016	30/06/2016	Open	D5.2b, software: End-to-end privacy assurance software modules
ITEA2_InCloudInG_13047-WP01-ACT-005	1.00	01/01/2016	30/06/2016	Open	D1.1d : Half-yearly ITEA2 progress reports
ITEA2_InCloudInG_13047-WP01-RPT-003	1.00	01/07/2015	30/06/2016	Open	D1.4b : Market monitoring synthesis
Participation in EVT-0011		01/04/2016	30/06/2016	Open	D5.2b, software: End-to-end privacy assurance software modules
InCloudInG-StiConsult-WP03-RPT-001	1.00	01/07/2015	30/09/2015	Open	D3.2: Evaluation of the applicability of Identity and Access standards
InCloudInG-StiConsult-WP04-ACT-001	1.00	01/07/2015	30/09/2015	Open	D4.1a: Proposition of secure patterns to deploy Identity Providers in cloud environments
InCloudInG-StiConsult-WP05-ACT-001	1.00	01/07/2015	30/09/2015	Open	D5.2a: Specification of the end-to-end privacy mechanisms
Participation in EVT-0012		01/03/2014	31/03/2014	Open	D0.0: Offer for H2020 Programme
ITEA2_InCloudInG_13047-WP02-RPT-002	1.00	01/01/2015	31/03/2015	Open	D2.2a: Initial and updated requirements specifications
InCloudInG-StiConsult-WP04-ACT-003	1.00	01/04/2016	31/05/2016	Open	D4.3b, software: Adequate authentication software applications

Identifier	Version	Start Date	End Date	Status	Note
InCloudInG-StiConsult-WP06-ACT-001	1.00	01/04/2016	31/05/2016	Open	D6.1, software + report: Integration and global validation of the eco-system
ITEA2_InCloudInG_13047-WP01-ACT-002	1.00	01/07/2014	31/12/2014	Open	D1.1a: Half-yearly ITEA2 progress reports
ITEA2_InCloudInG_13047-WP01-RPT-001	1.00	01/07/2014	31/12/2014	Open	D1.3: Dissemination plan
ITEA2_InCloudInG_13047-WP02-RPT-001	1.00	01/10/2014	31/12/2014	Open	D2.1: Use cases definition
InCloudInG-StiConsult-WP02-RPT-001	1.00	01/10/2015	31/12/2015	Open	D2.2b: Initial and updated requirements specifications
InCloudInG-StiConsult-WP03-ACT-001	1.00	01/09/2015	31/12/2015	Open	D3.3: Proposition of principles, protocols and interfaces for governing Identity and Access in cloud envts.
InCloudInG-StiConsult-WP04-ACT-002	1.00	01/10/2015	31/12/2015	Open	D4.3a: Specification of adequate authentication
InCloudInG-StiConsult-WP06-ACT-002	1.00	01/10/2015	31/12/2015	Open	D6.2a: Demonstrators specifications
InCloudInG-StiConsult-WP06-ACT-005	1.00	01/10/2015	31/12/2015	Open	D6.3a: Demonstrators specifications
InCloudInG-StiConsult-WP06-ACT-008	1.00	01/10/2015	31/12/2015	Open	D6.4a: Demonstrators specifications
ITEA2_InCloudInG_13047-WP01-ACT-004	1.00	01/07/2015	31/12/2015	Open	D1.1c : Half-yearly ITEA2 progress reports
InCloudInG-StiConsult-WP06-ACT-003	1.00	01/10/2016	31/12/2016	Open	D6.2b software: Demonstrators
InCloudInG-StiConsult-WP06-ACT-004	1.00	01/10/2016	31/12/2016	Open	D6.2c: Evaluation report
InCloudInG-StiConsult-WP06-ACT-006	1.00	01/10/2016	31/12/2016	Open	D6.3b software: Demonstrators
InCloudInG-StiConsult-WP06-ACT-007	1.00	01/10/2016	31/12/2016	Open	D6.3c: Evaluation report
InCloudInG-StiConsult-WP06-ACT-009	1.00	01/10/2016	31/12/2016	Open	D6.4b software: Demonstrators
InCloudInG-StiConsult-WP06-ACT-010	1.00	01/10/2016	31/12/2016	Open	D6.4c: Evaluation report

Table 3: Activities planned for the following period

2 OPEN SERVICE CONTRACTS REVIEW

2.1 WP00: WP00-Offer

2.1.1 Status report on Service

Artefacts necessary to answer to the RDI issued by Innoviris.
The document is written by 3 parties: Sirris, STi Consult and B2Boost.
Default template for offer is rdi_formulaire_novembre13.

Links
http://www.sirris.be
http://www.softwareinbrussels.be/en/members-card/sti_consult
http://www.b2boost.eu
http://www.innoviris.be

2.1.2 Activities during current month

Identifier	Version	Start Date	End Date	Status	Note
IncSTi-WP00-RPT-001	1.00	01/09/2013	27/05/2014	Acknowledged	D0.0: Offer to Innoviris
Participation in EVT-0012		01/03/2014	31/03/2014	Open	D0.0: Offer for H2020 Programme

Table 1: Activities during current month

2.1.3 Activities planned for the following period

Identifier	Version	Start Date	End Date	Status	Note
IncSTi-WP00-RPT-001	1.00	01/09/2013	27/05/2014	Acknowledged	D0.0: Offer to Innoviris
Participation in EVT-0012		01/03/2014	31/03/2014	Open	D0.0: Offer for H2020 Programme

Table 2: Planned Activities for the following period

2.2 WP01: WP01-Project guidance and dissemination

2.2.1 Status report on Service

2.3 WP01 Project guidance and dissemination

- Assure the overall project management duties,
- Pilot the dissemination activities.

2.3.1 Task 1.1 Project management

This task will be in charge of the overall management of the project, INCLOUDING reporting to ITEA 2, as well as various liaison activities:

- Adoption of the Project Cooperation Agreement, to be set up at the beginning of the project;
- Liaison with ITEA Office, periodic progress reporting;
- Coordination between work packages, internal communication;
- Evaluation of technological and marketing risks on a periodical basis;
- Organisation of physical and virtual project-level meetings and workshops;
- Liaison with other ITEA projects;
- Supervising external communication.

At the beginning of the project, a Project Consortium Agreement will set up the project organisation, working procedures, and internal reporting schemes will be defined. Plenary project meetings will be organised every 3 months. Additional ad hoc meetings will be organised on an as required basis.

The project organisation is based on the recommended ITEA 2 scheme, with country leaders and WP leaders as described in this document. Country leaders are Evidian, Netman, Nextel, Sirris, Teamnet.

In addition to work packages leadership, INCLOUDING gives a leader to each task, with the responsibility of the animation of the work and the respect of deadlines. The task leader is indicated in bold within the list of involved partners.

Based on lessons learned in previous ITEA 2 projects, the tasks delivering software modules in WP 4 and 5 are deliberately handled by a small number of partners. This scheme has proven to maximize the efficiency of the management and the success and quality of such deliverables.

Of course, this will not prevent any partners from getting the knowledge about any task. In addition, formal reviews of the specification documents, with access to all partners, will be organized prior to start the development of the software modules.

Evidian will take care of the management for the project.

Partners involved: All

2.3.2 Activities during current month

Identifier	Version	Start Date	End Date	Status	Note
IncSTi-WP01-ACT-001	1.10	01/07/2014	25/07/2014	Open	D1.1bb: Half-yearly ITEA2 progress reports
InCloudInG-StiConsult-WP01-ACT-001	1.00	01/01/2015	30/06/2015	Open	D1.1b: Half-yearly ITEA2 progress reports
ITEA2_InCloudInG_13047-WP01-RPT-002	1.00	01/07/2014	30/06/2015	Open	D1.4a: Market monitoring synthesis
ITEA2_InCloudInG_13047-WP01-ACT-005	1.00	01/01/2016	30/06/2016	Open	D1.1d : Half-yearly ITEA2 progress reports
ITEA2_InCloudInG_13047-WP01-RPT-003	1.00	01/07/2015	30/06/2016	Open	D1.4b : Market monitoring synthesis
ITEA2_InCloudInG_13047-WP01-ACT-002	1.00	01/07/2014	31/12/2014	Open	D1.1a: Half-yearly ITEA2 progress reports
ITEA2_InCloudInG_13047-WP01-RPT-001	1.00	01/07/2014	31/12/2014	Open	D1.3: Dissemination plan
ITEA2_InCloudInG_13047-WP01-ACT-004	1.00	01/07/2015	31/12/2015	Open	D1.1c : Half-yearly ITEA2 progress reports

Table 1: Activities during current month

2.3.3 Activities planned for the following period

Identifier	Version	Start Date	End Date	Status	Note
IncSTi-WP01-ACT-001	1.10	01/07/2014	25/07/2014	Open	D1.1bb: Half-yearly ITEA2 progress reports
InCloudInG-StiConsult-WP01-ACT-001	1.00	01/01/2015	30/06/2015	Open	D1.1b: Half-yearly ITEA2 progress reports
ITEA2_InCloudInG_13047-WP01-RPT-002	1.00	01/07/2014	30/06/2015	Open	D1.4a: Market monitoring synthesis
ITEA2_InCloudInG_13047-WP01-ACT-005	1.00	01/01/2016	30/06/2016	Open	D1.1d : Half-yearly ITEA2 progress reports
ITEA2_InCloudInG_13047-WP01-RPT-003	1.00	01/07/2015	30/06/2016	Open	D1.4b : Market monitoring synthesis
ITEA2_InCloudInG_13047-WP01-ACT-002	1.00	01/07/2014	31/12/2014	Open	D1.1a: Half-yearly ITEA2 progress reports
ITEA2_InCloudInG_13047-WP01-RPT-001	1.00	01/07/2014	31/12/2014	Open	D1.3: Dissemination plan
ITEA2_InCloudInG_13047-WP01-ACT-004	1.00	01/07/2015	31/12/2015	Open	D1.1c : Half-yearly ITEA2 progress reports

Table 2: Planned Activities for the following period

2.4   WP02: WP02-REQUIREMENTS & ARCHITECTURE

2.4.1   Status report on Service

2.5   WP02-REQUIREMENTS & ARCHITECTURE

WP2 start date	T0: 2014/Q3
WP2 end date	T0+27 months: 2016/Q3

This work package concerns the following aspects:

- Define pertinent use cases for the relevant partners' markets, and prepare the final demonstration use cases. The detailed specifications of the demonstrators implementing the use cases are done in WP6;
- Conduct the general requirements analysis and setting the scene for the complete suite to be developed;
- Set up the global project architecture and specifications.

2.5.1   Task 2.1 Use cases definition.

This task will define realistic use cases based on the participants' knowledge on their respective markets, where INCLOUDING provides a real added-value to the business of organisations to ensure security and trust, and at the same time makes users' life easier.

The use cases will :

- describe the current methods employed by users to address the use cases;
- explain the INCLOUDING added value in terms of cost savings, time savings, better collaboration with partners, new services and new customers etc;
- collect first ideas on service usability and identify technical issues.

As part of this task, partners will provide an explicit understanding on the reasons why the different stakeholders face identity problems, which exact features are critical in this area, and how they can cope with identity-related problems.

Three use cases are demonstrated in WP6, and each demonstrator will be specified formally and separately.

Involved partners: Evidian, Cassidian, Thales, Gemalto, Oberthur, NetMan, Relator, Paytrail, Unimetrik, Datapixel, i-DENTITY, B2Boost, TeamNet, BEIA

2.5.2   Task 2.2 Requirements.

The project will work on a complete vision of the suite of modules required to support the implementation of the security mechanisms enabling effective management of identities in multi-cloud environments.The project will work on a complete vision of the suite of modules required to support the implementation of the security mechanisms enabling effective management of identities in multi-cloud environments.

Based on the use cases, these requirements will define the scope of the INCLOUDING project.

This includes:

- the user's requirements,
- the security requirements,
- the workflows of the solution,
- the technical necessary conditions and the architecture constraints,
- interoperability and the use of standards,
- the organizational, business, legal and deployment aspects and the issues related to governance.

Indeed, the technological aspect is only a part of the difficulties when setting up a structuring project in an organization or between several organizations. The project will formally take these considerations into account in this task related to the requirements.

The initial requirements will be the starting point of the global architecture. This document will sum up all the requirements the architecture will have to deal with.

Two requirements documents will be produced: an initial one and an updated one, in order to keep in line with the evolution of the state-of-the-art and the market expectations.

Involved partners: All, leader Sirris

2.5.3   Task 2.3 Common architectural aspects.

This task covers overall design issues that span work packages. The fundamental result of this task is to set up a strong and robust global architecture supporting the project requirements, taken as one input for the detailed specifications of the different tasks in work packages 4 and 5.

The INCLOUDING project will produce a solution built on modules. Each module will correspond to one major functionality, and the modules to deploy will depend on the deployment needs. All modules will be able to work together for global solutions, or a subset of modules will be able to work independently for specific solutions in which only a subset of features is required. This modular approach will bring flexibility to organizations that will deploy the projects deliverables.

Then the global architecture will focus on :

- Interoperability: defining the interfaces of the modules, and defining the use of standards.
- Reusability: reusing already developed and available components, and mutualizing components developed in INCLOUDING.

The list of software modules is the list of deliverables as described in work packages 4 and 5.

Involved partners: Evidian, Cassidian, Thales, Gemalto, Oberthur, Institut Mines Télécom, NetMan, Relator, Paytrail, Univ. Jyväskylä, Nextel

2.5.4 Activities during current month

Identifier	Version	Start Date	End Date	Status	Note
ITEA2_InCloudInG_13047-WP02-RPT-002	1.00	01/01/2015	31/03/2015	Open	D2.2a: Initial and updated requirements specifications
ITEA2_InCloudInG_13047-WP02-RPT-001	1.00	01/10/2014	31/12/2014	Open	D2.1: Use cases definition
InCloudInG-StiConsult-WP02-RPT-001	1.00	01/10/2015	31/12/2015	Open	D2.2b: Initial and updated requirements specifications

Table 1: Activities during current month

2.5.5 Activities planned for the following period

Identifier	Version	Start Date	End Date	Status	Note
ITEA2_InCloudInG_13047-WP02-RPT-002	1.00	01/01/2015	31/03/2015	Open	D2.2a: Initial and updated requirements specifications
ITEA2_InCloudInG_13047-WP02-RPT-001	1.00	01/10/2014	31/12/2014	Open	D2.1: Use cases definition
InCloudInG-StiConsult-WP02-RPT-001	1.00	01/10/2015	31/12/2015	Open	D2.2b: Initial and updated requirements specifications

Table 2: Planned Activities for the following period

2.6 WP03: WP03-Interchange mechanisms

2.6.1 Status report on Service

2.7 WP03-Interchange mechanisms

This work package will focus on :

- Collecting, analysing and putting a statement about the applicability of all dedicated or related mechanisms and good practices for handling identity management in inter-cloud environments;
- Then, analysing the applicability of existing or emerging standards;
- Proposing and detailing as a synthesis the approach that the project will follow;
- Monitoring and impacting if appropriate relevant standards as previously identified.

2.7.1 Task 3.1 State of the art monitoring.

In the same way as WP1 monitors the market relevance with impact on the requirements, this task will monitor the evolution of the state-of-the-art with possible impact on the architecture. In order to develop best-of-breed modules in the INCLOUDING eco-system, the architectural or implementation choices will be adapted accordingly as appropriate.

Partners will analyse the state-of-the-art in terms of emerging technologies, good practices of the domain as well as de facto principles. They will assess how they fit to the project's requirements.

In particular, the emerging trend of the "API economy" must be evaluated and assessed.

Involved partners: Thales, Gemalto, Institut Mines Télécom, Relator, Paytrail, Nextel

2.7.2 Task 3.2 Applicability of standards.

This task will study the interchange mechanisms already available as standards or emerging drafts of standards. An assessment about the direct applicability of the standards or about a need to extend the standards will be made.

Involved partners: Evidian, Thales, Oberthur, Institut Mines Télécom, NetMan, Relator, Paytrail, Nextel, Innovalia, Sirris, i-DENTITY, B2Boost

2.7.3 Task 3.3 Interfaces and protocols definition.

This task is the cornerstone of the project specifications.

Based on the state-of-the-art update and the analysis of applicable standards, the project will make recommendations about the principles, technologies, protocols and APIs that the software modules delivered in WP4 and WP5 will implement.
This will concern all processes related to identity management and access management, such as account creation, account suppression, multi-domain authorization, strong authentication, identity federation etc.

The project will study the identity management life cycle, and deduce the methodology guidelines to set up and run an inter-cloud infrastructure to manage identities. It will consider the existing situation in organizations today, and will propose recommendations to smoothly evolve or migrate to a futurearchitecture, as proposed by INCLOUDING. No big band will be allowed by the proposed architecture.

The recommendations will guarantee flexibility to allow extensions in the future, such as new authentication schemes.

Involved partners: Evidian, Thales, Gemalto, Oberthur, Institut Mines Télécom, Relator, Paytrail, Nextel, i-DENTITY, B2Boost

2.7.4 Task 3.4 Standardization.

Beyond the study of applicable standards, the project will monitor and wherever possible join current initiatives, on-going standardization activities, and other related professional forums. This activity includes the collaboration activities with standardisation bodies and other forums addressing the field of identity management or access management, such as the Organization for the Advancement of

Structured Information Standards (OASIS) or the Internet Engineering Task Force (IETF).

The project has selected the following appropriate standardization bodies and forums for contributions of the project, with identified INCLOUDING members: OASIS, Cloud Security Alliance, Secure Identity Alliance and Fast IDentity Online.

Involved partners: Thales, Gemalto

2.7.5 Activities during current month

Identifier	Version	Start Date	End Date	Status	Note
InCloudInG-StiConsult-WP03-RPT-001	1.00	01/07/2015	30/09/2015	Open	D3.2: Evaluation of the applicability of Identity and Access standards
InCloudInG-StiConsult-WP03-ACT-001	1.00	01/09/2015	31/12/2015	Open	D3.3: Proposition of principles, protocols and interfaces for governing Identity and Access in cloud envts.

Table 1: Activities during current month

2.7.6 Activities planned for the following period

Identifier	Version	Start Date	End Date	Status	Note
InCloudInG-StiConsult-WP03-RPT-001	1.00	01/07/2015	30/09/2015	Open	D3.2: Evaluation of the applicability of Identity and Access standards
InCloudInG-StiConsult-WP03-ACT-001	1.00	01/09/2015	31/12/2015	Open	D3.3: Proposition of principles, protocols and interfaces for governing

Identifier	Version	Start Date	End Date	Status	Note
					Identity and Access in cloud envts.

Table 2: Planned Activities for the following period

2.8 WP04: WP04-Inter-cloud authentication & identity management

2.8.1 Status report on Service

2.9 WP04-INTER-Cloud authentication & identity management

This work package will focus on :

- The delivery of identities by a trusted service;
- The life cycle of identities in all applications running in all cloud platforms;
- The secure authentication of end-users owning these identities.

2.9.1 Task 4.1 Identity provider patterns.

This task will focus on characterizing all possible deployment situations for Identity Providers. These infrastructure components are structuring where and how authentication is realized, depending on the level of responsibility/delegation that stakeholders are assuming. An IdP can be located at a cloud provider's, at a cloud customer, or Identities can be federated among several clouds or several cloud customers.

As a result, defining deployment patterns is key to ensure that Identity Providers in a multi-cloud environment are in line with relevant security and compliance rules.

This task will analyse the possible deployment scenarios of IdPs interoperability, and define the best detailed configuration solutions. It will constitute an important input for the task 4.3 on Adequate Authentication.

Involved partners: Evidian, Thales, Gemalto, Oberthur, Relator, Paytrail, Nextel, i-DENTITY, TeamNet

2.9.2 Task 4.2 Identity provisioning.

This task is in charge of solving the challenge of bulk provisioning/de-provisioning in multi-cloud environments. It will define the best approach, such as SCIM, SPML, UMA (…) or an innovative approach leveraging the dedicated APIs for provisioning applications running in a Software-as-a-Service mode.

The project will specify and implement software modules solving all requirements from WP2 related to identity provisioning.

Involved partners: Evidian, Gemalto, Relator, Nextel

2.9.3   Task 4.3 Adequate authentication.

The project will study and integrate several authentication technologies, needed to ensure trust of endusers in the inter-cloud infrastructure:

- Adaptive authentication to match assurance level;
- Multi factor authentication solutions with different form factors;
- Innovative mechanisms based on mobile devices;
- New "adequate" authentication trends such as risk-based or context-based authentication.

This task will also review emerging authentication mechanisms and principles, proposed by new initiatives such as the "Fast IDentity Online" alliance. The project will assess the pros and cons of such innovative approaches.

In addition, the project will address the challenges of biometrics applied to multi-factor authentication with mobile devices.

Accessibility to the infrastructure using these methods will be in charge of one or several identity providers, as studied in task 4.1.

Depending on the actions performed by the user during the service, the user may start the service execution with lower sensitive actions and then move to higher sensitive actions. In that case, a stronger authentication mechanism may be required to execute these more sensitive actions.

To do so, the project will develop dynamic re-authentication mechanisms that provide the user with capabilities to dynamically re-authenticate without deactivating the on-going service. These dynamic re-authentication mechanisms will be controlled by the negotiated multi-domain policy which will decide that the access requested by the user requires stronger authentication. These mechanisms will include context-based reasoning mechanisms based on metrics measured over the security policy.

The developed module will dynamically activate re-authentication functions as necessary, and/or depending on the access context. With this approach, the service implementation is not changed and maintenance of the service infrastructure is much more manageable.

Involved partners: Evidian, Cassidian, Gemalto, Oberthur, Paytrail, i-DENTITY

2.9.4 Activities during current month

Identifier	Version	Start Date	End Date	Status	Note
InCloudInG-StiConsult-WP04-ACT-001	1.00	01/07/2015	30/09/2015	Open	D4.1a: Proposition of secure patterns to deploy Identity Providers in cloud environments
InCloudInG-StiConsult-WP04-ACT-003	1.00	01/04/2016	31/05/2016	Open	D4.3b, software: Adequate authentication software applications
InCloudInG-StiConsult-WP04-ACT-002	1.00	01/10/2015	31/12/2015	Open	D4.3a: Specification of adequate authentication

Table 1: Activities during current month

2.9.5 Activities planned for the following period

Identifier	Version	Start Date	End Date	Status	Note
InCloudInG-StiConsult-WP04-ACT-001	1.00	01/07/2015	30/09/2015	Open	D4.1a: Proposition of secure patterns to deploy Identity Providers in cloud environments
InCloudInG-StiConsult-WP04-ACT-003	1.00	01/04/2016	31/05/2016	Open	D4.3b, software: Adequate authentication software applications
InCloudInG-StiConsult-WP04-ACT-002	1.00	01/10/2015	31/12/2015	Open	D4.3a: Specification of adequate authentication

Table 2: Planned Activities for the following period

2.10 WP05: WP05-Inter-cloud governance

2.10.1 Status report on Service

2.11 WP05-Inter-Cloud governance

This work package is dedicated to :

- The delivery of identities by a trusted service;
- The life cycle of this identity in all applications running in all cloud platforms;
- The secure authentication of end-users owning these identities.

2.11.1 Task 5.1 Multi-domain policy.

This task will work on managing security policy in multi domain environments, targeting community clouds.

In the NIST Cloud Taxonomy, a community cloud serves multiple participant organizations that request and consume cloud services. These organizations have entered into sharing arrangements with one or more cloud providers. Members of the participating organizations may also collaborate on shared projects, which may lead them to exercise shared control over cloud-hosted resource instances.

Software running in the cloud instances may serve the community members or act on their behalf. For these reasons, a flexible framework for identity and authorization is essential for these community clouds.

This work will leverage the results of ITEA2 MULTIPOL by focusing on the authorization policies models and languages in usage by Cloud Service providers. It will consider especially the part of XACML V3.0 language in use by most of the cloud providers to offer a standardized API for the policy provisioning.
This task will also address the negotiation of access to sensitive resources in multi-cloud environments. This implies to define new protocols for secure and fair negotiation for multi-domain policy. Once the policy is negotiated, the project will also define efficient protocols for trust negotiation between users involved in the interoperability through exchanges of credentials. Credential provides means to prove some conditions related to the profile of users, like their role or membership to an organization.

Involved partners: Thales, Institut Mines Telecom

2.12 Task 5.2 End-to-end privacy assurance

The project will produce a study and an implementation plan to enforce security in the inter-cloud identity infrastructure, for what concerns confidentiality and privacy.

In particular, the project will leverage the outcomes of the French research project LYRICS, that provides an open general purpose architecture for privacy preserving services and a set of innovative cryptographic mechanisms for mobile devices.

Based on this preliminary research, INCLOUDING will study and deliver software modules that deliver privacy management, on the mobile device and as Software as a Service. This will help compliance with European regulations, such as the European directives for data protection 95/46 and 2009/136/EC.

The project will also provide web-services mechanisms for credentials validation. Cloud service providers will have the opportunity to manage respective security policies and other "end-users" credentials based on "match-tables" (between unique identifier and multiple email address for example). Any current CA and/or OCSP will have the opportunity to take part to this major IAM evolution. End-Users will keep the same user experience for authentication, signature and encryption.

Involved partners: Gemalto, Oberthur, i-DENTITY

2.12.1 Task 5.3 Inter-cloud service level agreements

This task will address the SLA issues related to the management of identities between several cloud providers, allowing binding dependencies or ensuring the commitment to SLAs.
The task will define protocols for secure SLA-based negotiation. Current solutions to manage interoperability between SLAs, for example the approach suggested by WS-Trust, are based on purely syntactical matching: the negotiation will fail if the exact matching between the SLAs involved in the negotiation is not possible. This leads to development of complex and specific integration mechanisms that lack flexibility.

In this task, the project aims at specifying and implementing more flexible negotiation protocols based on semantic matching of SLAs. One innovation of the approach is that it will be based on ontology of security concepts and the definition of logical framework to compare security requirements to be negotiated. The project will address context-based negotiation, where the outcome of the negotiation process may depend upon chains of events and states that are not included in the access request.
This task will also analyse the impact that identity management and identity federation solutions have in the values of SLAs agreed between cloud service providers and clients.

The activity will consider existing SLA frameworks for Cloud services, analysis of market SLA values and monitoring the effect on service delivery.
The result will consist of a framework for managing cloud service SLAs in the context of federated identities, definition of an exhaustive list of metrics, methodology and requirements for continuous SLAs monitoring.

Involved partners: Institut Mines Télécom, TeamNet, BEIA

2.12.2 Task5.4 Cloud gateway

In order to ensure a smooth evolution between today implementations of identity and access management, and tomorrow's Identity Management as a Service, the project will define a gateway acting as a focus point in the organization for authentication, identity management, audit, reporting etc.

The Gateway will enable Cloud services consumers to access services from disparate infrastructures in a reliable and transparent approach. It will provide a single front-end vision to SaaS applications to end-customers, and at the same time will still maintain the traditional on-premise management of identities and accesses.

The gateway will contain modules dedicated to specific features: identity management, access governance, dynamic authorization, privacy, accounting, reporting

Involved partners: Evidian, Cassidian, Thales, Gemalto, Institut Mines Télécom, Nextel, Innovalia

2.12.3 Activities during current month

Identifier	Version	Start Date	End Date	Status	Note
InCloudInG-StiConsult-WP05-ACT-002	1.00	01/04/2016	30/06/2016	Open	D5.2b, software: End-to-end privacy assurance software modules
Participation in EVT-0011		01/04/2016	30/06/2016	Open	D5.2b, software: End-to-end privacy assurance software modules
InCloudInG-StiConsult-WP05-ACT-001	1.00	01/07/2015	30/09/2015	Open	D5.2a: Specification of the end-to-end privacy mechanisms

Table 1: Activities during current month

2.12.4 Activities planned for the following period

Identifier	Version	Start Date	End Date	Status	Note
InCloudInG-StiConsult-WP05-ACT-002	1.00	01/04/2016	30/06/2016	Open	D5.2b, software: End-to-end privacy assurance software modules
Participation in EVT-0011		01/04/2016	30/06/2016	Open	D5.2b, software: End-to-end privacy assurance software modules
InCloudInG-StiConsult-WP05-ACT-001	1.00	01/07/2015	30/09/2015	Open	D5.2a: Specification of the end-to-end privacy mechanisms

Table 2: Planned Activities for the following period

2.13 WP06: WP06-Integration and demonstrators

2.13.1 Status report on Service

2.14 WP06-Integration and demonstrators

This work package will apply the INCLOUDING ecosystem to a set of experimental applications, for each of the application domains covered by the project, and implement the corresponding demonstrator

applications. The application domains will be formally identified and studied in the task dedicated to Use Cases in WP2.

For each use case, a specification document is delivered, prior to the demonstrator itself. Each use case demonstrator is managed as a small sub-project, with one partner being the sponsor and leader of the demonstrator. The sponsor is in charge of defining the scenario of the use case, possibly with the help of other partners, and managing the implementation of the use case.

2.14.1   Task 6.1 Integration and global validation.

This task will consist in integrating and validating as a consistent set of software modules the software deliverables produced in WP4 and WP5. Indeed, the project intends to deliver a consistent eco-system of modules, and this task will check the interoperability of these modules, taking as inputs the data from other modules and providing outputs for other modules. For instance, inter-cloud identity provisioning will take into account the identities created by CSP's customers.

This task will also check the modularity of the software components, in order to prove that some of them can run together even if the all list of modules is not installed. For instance, managing the Governance, Risk Management and Compliance should be possible even if automatic inter-cloud provisioning is not set up.

Each partner delivering software modules is responsible for validating that these modules fully interoperate with the other modules, as defined in the global architecture.

Involved partners: Evidian, Cassidian, Thales, Gemalto, Oberthur, Institut Mines Télécom, Relator, Paytrail, Nextel, Sirris, i-DENTITY, B2Boost, TeamNet, BEIA

2.14.2   Task 6.2 From on-premise to Identity management-as-a-Service demonstrator.

This use case applies to the smooth migration from full on-premise identity management to a mixed infrastructure of on-premise applications and identity processes and IDaaS.

Full on-premise identity management is well-known and well addressed today.

Full management from the cloud for web-based applications is according to the INCLOUDING partners a simplified challenge. Indeed, for a long time if not for ever, enterprises will need a mixed approach for web-based application and legacy on-premise applications.

As a result, this demonstrator will show the benefit of project's results in the worst case, mixing all kind of applications, local or hosted in different clouds.

The sponsor and leader is Evidian.

Involved partners: Evidian, Cassidian, Thales, Gemalto, Oberthur, Institut Mines Télécom, Paytrail, i-DENTITY, TeamNet, BEIA

2.14.3   Task 6.3 Cloud-based crisis management demonstrator.

This use case applies the project results to crisis management. It illustrate the notion of community cloud.

Several organizations and numerous participants in these organizations are involved during the operations of crisis management. These organizations use the support of dedicated and generic software running on multiple independent platforms. They want to take advantage of a cloud service provider to support these specific IT runs.

In the demonstrator, each organization is affiliated to a cloud provider that can be either private, self managed in the organization or public, in order to support the services proposed by these CSPs for its users or user groups.

During the crisis evolution, a crisis manager has to push a policy towards the different cloud providers. The fine-grained rights in the cloud need to be consistent to solve the crisis, in accordance to the roles attributed by the organizations.

The sponsor and leader is Thales.

Involved partners: Evidian, Cassidian, Thales, Gemalto, Oberthur, Institut Mines Télécom, i-DENTITY, TeamNet, BEIA

2.14.4 Task 6.4 Cloud platform for metrological data demonstrator.

This use case aims at applying the technologies developed to govern identity and access, to a cloud environment where many tenants are accessing a large amount of sensitive manufacturing information.

A huge quantity of data consisting in the virtual image of manufacturing parts is stored remotely at a Cloud Service Provider.

Technological metrology customers, such as Datapixel and Unimetrik, need to access these data and to exploit them: Datapixel is responsible to create, with their optical sense, the image to be stored on the server and to process the files to include all the information needed for further analysis, while Unimetrik retrieves the data to analyse, manipulate and process them, to extract information about dimensions, defects and details about the manufacturing process.

In addition to them, other tenants need to appropriately and securely be granted the access to the data, such as Datapixel and Unimetrik customers and their affiliate companies. Every agent contextually needs different permissions and not all agents should access all information. All aspects related to multi-factor authentication, contextual policy negotiation, provisioning are needed to reach this use case's objectives.

The sponsor and leader is Unimetrik.

Involved partners: Evidian, Cassidian, Thales, Gemalto, Oberthur, Institut Mines Télécom, Unimetrik, Datapixel, Innovalia, i-DENTITY, TeamNet, BEIA

2.14.5 Activities during current month

Identifier	Version	Start Date	End Date	Status	Note
InCloudInG-StiConsult-WP06-ACT-001	1.00	01/04/2016	31/05/2016	Open	D6.1, software + report: Integration and global validation of the eco-system
InCloudInG-StiConsult-WP06-ACT-002	1.00	01/10/2015	31/12/2015	Open	D6.2a: Demonstrators specifications
InCloudInG-StiConsult-WP06-ACT-005	1.00	01/10/2015	31/12/2015	Open	D6.3a: Demonstrators specifications
InCloudInG-StiConsult-WP06-ACT-008	1.00	01/10/2015	31/12/2015	Open	D6.4a: Demonstrators specifications
InCloudInG-StiConsult-WP06-ACT-003	1.00	01/10/2016	31/12/2016	Open	D6.2b software: Demonstrators
InCloudInG-StiConsult-WP06-ACT-004	1.00	01/10/2016	31/12/2016	Open	D6.2c: Evaluation report
InCloudInG-StiConsult-WP06-ACT-006	1.00	01/10/2016	31/12/2016	Open	D6.3b software: Demonstrators
InCloudInG-StiConsult-WP06-ACT-007	1.00	01/10/2016	31/12/2016	Open	D6.3c: Evaluation report
InCloudInG-StiConsult-WP06-ACT-009	1.00	01/10/2016	31/12/2016	Open	D6.4b software: Demonstrators
InCloudInG-StiConsult-WP06-ACT-010	1.00	01/10/2016	31/12/2016	Open	D6.4c: Evaluation report

Table 1: Activities during current month

2.14.6 Activities planned for the following period

Identifier	Version	Start Date	End Date	Status	Note
InCloudInG-StiConsult-WP06-ACT-001	1.00	01/04/2016	31/05/2016	Open	D6.1, software + report: Integration and global validation of the eco-system
InCloudInG-StiConsult-WP06-ACT-002	1.00	01/10/2015	31/12/2015	Open	D6.2a: Demonstrators specifications
InCloudInG-StiConsult-WP06-ACT-005	1.00	01/10/2015	31/12/2015	Open	D6.3a: Demonstrators specifications
InCloudInG-StiConsult-WP06-ACT-008	1.00	01/10/2015	31/12/2015	Open	D6.4a: Demonstrators specifications
InCloudInG-StiConsult-WP06-ACT-003	1.00	01/10/2016	31/12/2016	Open	D6.2b software: Demonstrators
InCloudInG-StiConsult-WP06-ACT-004	1.00	01/10/2016	31/12/2016	Open	D6.2c: Evaluation report
InCloudInG-StiConsult-WP06-ACT-006	1.00	01/10/2016	31/12/2016	Open	D6.3b software: Demonstrators
InCloudInG-StiConsult-WP06-ACT-007	1.00	01/10/2016	31/12/2016	Open	D6.3c: Evaluation report

Identifier	Version	Start Date	End Date	Status	Note
InCloudInG-StiConsult-WP06-ACT-009	1.00	01/10/2016	31/12/2016	Open	D6.4b software: Demonstrators
InCloudInG-StiConsult-WP06-ACT-010	1.00	01/10/2016	31/12/2016	Open	D6.4c: Evaluation report

Table 2: Planned Activities for the following period

3   REFERENCE AND APPLICABLE DOCUMENTS

3.1   Applicable documents

ID	Reference	Title	Version
A1			
A2			
A3			

Table 1: Applicable Documents

3.2   Reference documents

ID	Reference	Title	Version
R1			

Table 2: Reference Documents

4 TERMINOLOGY

4.1 Definitions

Term	Meaning
Title	Insert Definition

Table 3: Definitions

4.2 Acronyms & Abbreviations

Acronym or Abbreviation	Meaning

Table 4: Acronyms & Abbreviations

*** End of #REFERENCE# ***