

# D:A-3.3: Report of consolidated dissemination activities

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# **Executive Summary**

This deliverable summarises the dissemination activities performed by the participants in the A4Cloud project Consortium throughout the project lifetime, from October 2012 to March 2016. Starting from the dissemination plan, which was drafted in Deliverable D13.2, the dissemination activities have been conducted aiming to address the fundamental objectives of the three phases dissemination strategy. As such, the presentation of these activities in the current document distinguishes between the three dissemination phases, as an attempt to reflect the degree that the project achieved in addressing the objectives set for each phase.

Driven by the project logo and the work conducted in the four streams of the project, the dissemination activities achieved to progressively meet their objectives. More specifically, such activities managed to initially set the environment for raising the awareness of the various target communities on the project scope, the objectives and the way that accountability can be understood and implemented in the cloud. As the project was evolving, the dissemination activities took the form of active engagement of interested stakeholders in the A4Cloud developments. The motivation of these activities was the clear definition of the stakeholders' community, ranging from the business and regulatory community to the technology experts and the researches in the disciplines addressed by A4Cloud.

In the first phase of the project dissemination plan, lasting from M1 (October 2012) to M12 (September 2013), the dissemination efforts emphasised on the deployment of the digital means for the project dissemination and communication to the stakeholders' community, which we started to develop since the beginning of the project lifetime. Such channels include the project logo, the project Web Portal, being set up under the a4cloud.eu domain, and the A4Cloud presence in the social media, specifically in twitter and LinkedIn. On top of the dissemination channels, we delivered an initial package of the dissemination content, including the project general poster and brochure, as well as the project presentation, which was customised ad-hoc to meet the objectives of the partners' individual dissemination activities.

In the second phase of the project dissemination plan, lasting from M13 (October 2013) to M24 (September 2014), the development of the conceptual framework for accountability has driven a mix of raising awareness and user engagement activities. More specifically, in this period, we elaborated on the implementation of the dissemination plan to reach specific groups of stakeholders, including IT and security practitioners, business cloud service providers, experts on the data protection regulations and researches in the area of cloud security, accountability and privacy. Such activities involved the publication of original research and business innovation work to journals, magazines and conference proceedings, the presentation of the concepts, the Accountability Framework and the methods for providing accountability for the use of data in cloud services to scientific conferences and industrial events, the organisation of engagement and training workshops, the 1st A4Cloud summer school and discussion panels to advertise the accountability work and demonstrate the impact to the scientific and industrial communities and the participation in relevant events, in order to exchange ideas and enlarge the project networking efforts.

In the last phase of the project dissemination plan, lasting from M25 (October 2014) to M42 (March 2016), we leveraged our dissemination activities with focused user engagement, research coordination and training activities. In detail, a joint consortium effort has been exercised to reach representatives from all the planned communities of stakeholders through i) publications to journals and proceedings of conferences with referred paper acceptance procedures in place, ii) presentations of dedicated project results or the holistic project approach to scientific and industrial conferences and events, iii) organisation of thematic workshops to convey particular messages to focused audiences and iv) participation in third party events to foster collaboration with interested stakeholders and advertising the A4Cloud work in discussion panels and working groups. As a result of this effort, representatives from the stakeholders' communities with the project results were approached, both in terms of delivering to them new knowledge, and establishing a mutual communication for the demonstration of the accountability mechanisms, and tools. A number of events has been exploited as the vehicle to present the project reflections to the communities of interests and showcase how the project has effectively addressed the stated objectives through building tools and demonstrators and defining architectures, procedures and standards for accountability.

The outcome of this deliverable is the list of activities performed, the impact of these activities to the stakeholders' communities, the communication digital package that was produced in the course of the

project and the dissemination channels that will be maintained to the extend this is possible after the end of the co-funding period. The Web portal has, also, been recently updated to reflect the post project era, giving emphasis on the project results and the material which remains for the communities, including Web articles and publications, the public project deliverables and the Cloud Accountability Reference Architecture.

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## 1 Problem Definition

## 1.1 Introduction

This deliverable reports on the activities performed throughout the A4Cloud project lifetime to disseminate the project achievements and communicate the way that accountability can be adopted by the actors involved cloud and future Internet services to effectively address the governance and control issues for the collection and processing of personal data in cloud environments.

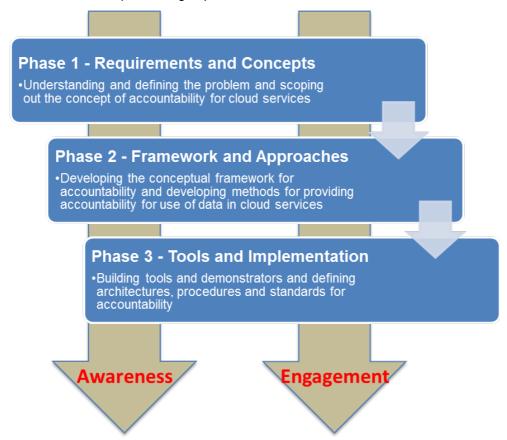


Figure 1: The three phases dissemination plan

The contents of this deliverable report summarise the results of the tasks in WP13. Namely, the work undertaken in tasks T:A-3.1 (Dissemination plan and monitoring), T:A-3.2 (Implementation of dissemination channels), T:A-3.3 (Community engagement), T:A-3.4 (Delivery of training activities) and T:A-3.5 (Concertation with other initiatives) has been reported in this document, which addresses the objectives of the project dissemination strategy and reflects the implementation of the three phases dissemination plan, which was introduced in D13.2 "D:A-3.2 Dissemination Plan", as shown in Figure 1.

In order to present the performed dissemination activities, we have split them into the following categories:

- Journal Publications: this category summarises the project publications and articles to scientific and business referred journals and other scientific and business magazines.
- Publications to conference proceedings: this category contains the project publications to the
  proceedings of conferences with referred paper acceptance procedures in place. In this category,
  we include papers that have been accepted for presentation to a particular conference and they
  have subsequently been included in the proceedings published by the conference organising
  committee in (or not) collaboration with international publishing organisations.
- Project Presentations: this category provides the list of presentations on a specific topic of the project work to scientific conferences and industrial events. In this category, we include

presentations that have not directly resulted in any paper published in the proceedings of the conference or the event.

- Workshop and Conference Organisations: this category summarises the organisation of workshops and conferences with the support of the A4Cloud project. It must be noted that in this category all the workshops and others events, which have been organised with the support of A4Cloud are included, even if a relevant publication, presentation or demonstration has been included in the other categories.
- Participation in events and other dissemination activities: this category acts as the pool for the remaining dissemination activities, which cannot be directly attributed to the above categories. As such, in this category, we include participations in events with the aim to establish a communication channel with stakeholders through demonstrations or panel discussions. In this category, we also consider the production of the dissemination channels, such as the release of the Web Portal and the creation of the social community groups, as well as any project-related announcements and distribution of dissemination material.

In addition to it, for the third phase, we also present the list of papers that i) have been accepted for presentation and/or publication, but the publication is still expected by the time of writing this report, and ii) have been submitted, but the notification of acceptance is still expected by the time of writing this report.

# 1.2 The Scope of this report

The main objective of this deliverable is to report on the dissemination activities conducted by all partners in each of the three phases of the dissemination plan. For each phase a specific set of objectives has been defined, which are also the objectives set for this deliverable, As such, in the first phase, lasting from M1 (October 2012) to M12 (September 2013), the main objective was to support the proper dissemination of the project results, through the implementation of key dissemination channels that would leverage the up-take of the benefits of accountability as a mechanism for security, privacy and trustworthiness, and the creation of communities of interest. In the second phase, lasting from M13 (October 2013) to M24 (September 2014), the objective of the report was the enlargement of the already established communities of interest, through engagement and research coordination activities and the initiation of the training activities. In the third phase, lasting from M25 (October 2014) to M42 (March 2016), the objective was to leverage the engagement of the stakeholders with the A4Cloud developments through various dissemination events, including the organisation of workshops and demonstration events for different stakeholder categories addressing both the research and the industrial communities, and the training of stakeholder groups on how to implement accountability for cloud services using the tools and mechanisms developed by the project.

# 1.3 Structure

This deliverable is structured as follows:

- Section 2 presents the activities performed in the 1<sup>st</sup> Phase of the dissemination plan by elaborating on the journal publications, the publications to conference proceedings, the project presentations, the workshops and the conference organised by the project (mainly in collaboration with other initiatives), and the participation in various events for demonstrating the project results and exchanging views of key research and market problems. Furthermore, this section presents the dissemination channels established in this period, including the Web Portal and the social media channels, as well as the content developed to support the respective communication activities.
- Section 3 follows the structure of the previous section to present the activities performed in the 2<sup>nd</sup>
  Phase of the dissemination plan. In this section, we emphasise on the user engagement, training
  and concertation activities.
- In a similar way, Section 4 presents the activities performed in the 3<sup>rd</sup> Phase of the dissemination plan.
- Section 5 consolidates the activities for the whole project duration and elaborates on the impact achieved through these activities. In detail, it analyses the results of each task in WP13.
- Finally, Section 6 concludes this document by summarising the key achievements.

# 2 Activities performed in the 1<sup>st</sup> Phase

## 2.1 Performed Dissemination Activities

This section includes the list of project performed dissemination activities during the 1<sup>st</sup> phase of the dissemination plan, which started on M1 (October 2012) and ended on M12 (September 2013).

## 2.1.1 Journal Publications

During this period, the Consortium members have published the **three (3) journal publications**. These journal publications have targeted journals issued by the following publishers:

- The journal on Computer Communications and Networks by Springer.
- The International Journal of Trust Management in Computing and Communications (IJTMCC)
- The magazine on Internet Computing by IEEE Computer Society

The details on these journal publications for this period are listed in Table 5.

# 2.1.2 Publications to Conference Proceedings

During this period, the Consortium members presented **eleven (11) papers in various scientific and industrial conferences**, which were accepted after following peer-review process and were finally published in the relevant conference proceedings, issued by national or international publishing organisations. Namely, the proceedings have been issued by well-known editorial organisations, like ACM, IEEE and Springer, as follows:

- IEEE Proceedings of the 4th International Conference on Cloud Computing Technology and Science (CloudCom), 2012.
- Proceedings of the 4th International Workshop on Variability & Composition (VariComp'13) issued by ACM.
- Cyber Security and Privacy EU Forum 2013 chapter book under the Communications in Computer and Information Science, published by Springer Berlin Heidelberg.
- Series of IFIP Advances in Information and Communication Technologies, published by Springer Berlin Heidelberg
- Proceedings of the International Workshop on Trustworthiness, Accountability and Forensics in the Cloud (TAFC)
- Distinguished paper award in the Proceedings of the Ninth Symposium on Usable Privacy and Security, published by ACM
- Proceedings of the OTM 2013 Conferences, published by Springer Berlin Heidelberg

The details of these publications to conference proceedings for this period are shown in Table 6.

### 2.1.3 Project Presentations

In total, the Consortium members have made **twenty (24) presentations** on topics related to the work performed in the context of the A4Cloud project, during this period. In the list of project presentations, we include key speeches to conferences, talks at colloquiums, lectures at summer schools and presentations to industrial events, as follows:

- Keynote speech about accountability in the cloud at CloudCom 2012, in which around 250 attendees from the cloud computing industry and research were present.
- A mixed audience of 40 legal scholars, lawyers, technical experts and people working in medical sector attended a presentation on the data protection issues in cloud computing in an event organised by the Privacy Network of North Netherlands.
- An invited talk was given at a research conference for the Swedish Security Contingency Agency.

- An invited talk about accountability in the cloud at the University of Tokyo in Japan.
- Presentations at the CSP EU Forum 2013 and the relevant A4Cloud workshop.
- Presentations at IFIP privacy summer school and the IFIP Summer School 2013.
- Thematic and project presentations at workshops organised by other projects and research initiatives in the context of international conferences, like TAFC and TCLOUDS.
- Project presentations at industrial and business compliance events with the participation of market representatives, like the CSA EMEA Congress, the SCL Privacy Forum and the TILEC ClubMed.
- Talks and presentations in seminars, colloquiums, and meetings organised by relevant to the accountability and data protection concept initiatives.

The details of the list of the project presentations for this period is given in Table 7.

# 2.1.4 Workshop and Conference Organisations

Apart from participating to conferences and workshops organised by externals, the project have actively involved in the **(co-)organisation of eight (8) conferences and workshops**, as follows:

- The A4Cloud Requirements Workshop, in which 8 participants from the project had the chance to discuss with 7 experts from research and the industry about the requirements for conceptualising and implementing accountability. The results of this workshop are described in Deliverable D22.4: "D:B-2.4 Requirements Report".
- The Swedish A4Cloud HCI Stakeholder workshop with the participation of 7 experts from the Industry, the Swedish government, consumer organisations and data protection commissioner. In this workshop 6 A4Cloud members discussed about the Human Computer Interaction aspects and the results of this workshop are summarised in Deliverable D37.1: D:C-7.1 General HCI principles and guidelines for accountability and transparency in the cloud".
- The Privacy and Accountability workshop organised by HP and the University of Bristol with the participation of 60 attendees from UK.
- The A4Cloud workshop at CSP EU Forum 2013 addressing security and privacy experts in academia, industry and government, including practitioners, standards developers and policy makers. The workshop entitled "Bringing Accountability to the Cloud: Addressing Emerging Threats and Legal Perspectives" aimed to raise awareness on fundamental research being conducted in the project, through the following four presentations:
  - "Accountability for Cloud Computing" by Nick Wainwright (Security and Cloud Lab, HP Labs, UK)
  - "Accountability Challenges for Cloud Computing" by Martin Jaatun (Software Engineering, Safety and Security, SINTEF, Norway)
  - "Accountability Conceptual Framework" by Massimo Felici (Security and Cloud Lab, HP Labs, UK)
  - "Legal and Regulatory Context for Accountability" by Eleni Kosta (Tilburg Law School, Tilburg University, the Netherlands)
- The co-organisation of the International Workshop on Trustworthiness, Accountability and Forensics in the Cloud (TAFC), in conjunction with 7th IFIP WG 11.11 International Conference on Trust Management (IFIPTM), along with DIMACS, BIC and CSA, with the participation of 80 researchers. In this workshop, we presented the conceptual framework for accountability, while the following papers were included in the workshop proceedings:
  - Towards a Model of Accountability for Cloud Computing Services
  - Crime and Punishment in the Cloud Accountability, Transparency, and Privacy
  - A Cross-Disciplinary Review of the Concept of Accountability A Survey of the Literature
  - Evidence for Accountable Cloud Computing Services

- Apart from running the TAFC workshop, A4Cloud supported the organisation of IFIP TM 2013 and the IFIP Summer School 2013, which are regularly attended by researchers worldwide. In the latter, the presentation on "the Principle of Accountability under the Data Protection Directive" was given.
- The A4Cloud Workshop on Risk Modelling for Cloud Services, in conjunction with Cloud Security Alliance EMEA Congress 2013, reaching out 22 cloud professionals and researchers. The results of this workshop are described in Deliverable D22.4: "D:B-2.4 Requirements Report".

These actions are summarised in Table 8.

# 2.1.5 Participation in events and other dissemination activities

In addition to the above dissemination activities, the project has undertaken a list of actions to further leverage the knowledge of cloud accountability in the wider scientific and business audiences. As such, the Consortium members have participated in events to distribute project related dissemination material and discuss with interested parties how the project approaches the problem of data protection in the cloud and other online services. Announcements to online (micro-) blogging sources have been performed, aiming to efficiently implement the dissemination plan and progressively build a multi-disciplinary community of interest around the topic of cloud accountability.

Furthermore, the project has implemented a first draft of the envisaged dissemination channels, which are made available online, since January 2013.

All these actions have been summarised in Table 9.

# 2.1.6 Summary of performed dissemination activities for this period

In this section, we summarise the dissemination activities performed in this reporting period. Table 1 makes a summary of the dissemination activities that have been performed during the 1<sup>st</sup> phase of the dissemination plan execution. In this table, we refer to each category of dissemination activity, presented above.

Dissemination activities	1 <sup>st</sup> Phase
Journal publications	3
Publications to conference proceedings	11
Project Presentations	24
Workshop, Conference and Summer School Organisations	8
Participation in events and other dissemination activities	9

Table 1: Summary of performed dissemination activities in period M1-M12

# 2.2 Dissemination Channels

# 2.2.1 Web Portal

As a central point for dissemination purposes and the main dissemination and communication channel, the A4Cloud Web Portal has been built, aiming not only to raise awareness on the project concepts, but also to actually engage the target stakeholders in delivering innovative ideas on the accountability for the cloud and other future Internet services, demonstrating relevant results and showcasing business use cases. The A4Cloud Web Portal is made available under the <a href="www.a4cloud.eu">www.a4cloud.eu</a> domain and is continuously being maintained to provide up-to-dated information and material of the project deliveries and news. An overview of the A4Cloud Web Portal home page and relevant design is shown in Figure 11 in Appendix 8.1.

In order to get quantitative realisation on the Web Portal impact to the target stakeholders and measure the effectiveness of this dissemination and communication channel, the project uses the AWStats tool [1], which makes use of the logs provided by the Web Server of the Portal.

The Web Portal from its launch (January 2013) until the end of the 1<sup>st</sup> reporting period (September 2013) had **3.141 Unique Visitors** out of a total of 7.457 Visits and 21.781 Page views, as it can be seen in Table 10. Moreover, Table 11 presents an overview of A4Cloud Web Portal Visitors per Domain/Country for this reporting period.

#### 2.2.2 Web 2.0 Channels

# LinkedIn Group

A LinkedIn group dedicated to the accountability for the cloud has been created (see Figure 2). The group targets to bring together all the professionals in the LinkedIn world who belong to the stakeholders groups and are interested in relevant issues and share information about news, discussion and related content.

The Web Portal offers access to the LinkedIn Accountability in the Cloud group from the home page.

Link: <a href="http://www.linkedin.com/groups?home=&gid=4696786">http://www.linkedin.com/groups?home=&gid=4696786</a>

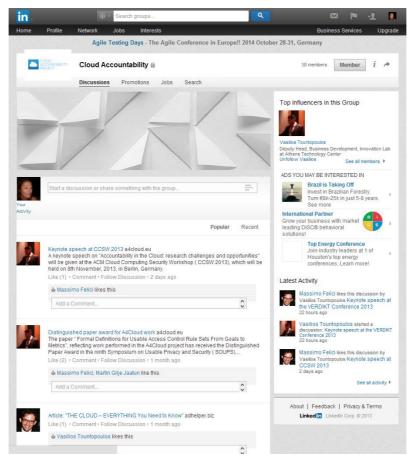


Figure 2: A4Cloud LinkedIn Group

# **Twitter**

An account has been created in Twitter and it can be used to provide short news updates or items for the project (see Figure 3). The A4Cloud Twitter feed is named <a href="A4CloudProject">A4CloudProject</a>.

The Web Portal maintains a twitter widget for the home page.

The statistics on the use of the Web 2.0 channels for this period is provided in Table 12.



Figure 3: A4Cloud Twitter Feed

# 2.3 Content Development

This section describes the material which has been developed in the 1st phase of the project dissemination plan execution to support the dissemination activities.

# 2.3.1 The Project Logo

The project logo has been designed in the very early stages of the project and has been used in all graphic material and documents related to the project as well as all web designs (Web Portal and Web 2.0 channels). The design of the A4Cloud logo has been carried out in a way that it can be representative to the project concepts and objectives, but it can also go beyond it and reflect the vision for accountability in the cloud. The logo of the A4Cloud project is seen in Figure 4.



Figure 4: Logo of the A4Cloud project

# 2.3.2 Project Presentation

A general dissemination A4Cloud PowerPoint presentation graphically based on the A4Cloud PowerPoint template shown in Appendix 8.2 has been prepared in the early stages of the project (as part of the Deliverable D13.1 "DA:-3.1 Project presentation and Web portal") providing a general overview of the project scope and outlining the main results that should be delivered within the project lifetime. The Project Presentation consists of 15 slides, which analyse the environment in which the

A4Cloud research is conducted and explain the rationale for delivering innovative research in the field of trust and security, through an accountability-based approach.

# 2.3.3 Project Flyer

In order to raise awareness of the project even at the initial stage, the consortium has created a first version of a flyer to be distributed through all partners to any dissemination event they participate in. The design and look of the project flyer appears in Figure 17 of Appendix 8.3.

# 2.3.4 Project Banner

On the same sense, the project has created a banner with an eye-catching message and conceptual graphic, which has been used in relevant events to reflect the project concepts. The design and look of the project banner designed in this period appears in Figure 18 of Appendix 8.3.

#### 2.3.5 Press Release

Finally, the project has prepared a general press release to be used by all partners and announced on the Web Site stating the kick-off of the project activities. In addition, a press release that can be customized by each partner to announce the participation of their organization in A4Cloud and their role in the project has been prepared. Both templates can be found in Annex 8.5.

# 2.4 Community Building and Engagement

During this period, the community building and engagement tactics of the project were around building awareness on the A4Cloud work, objectives and envisaged outcome, with particular highlight on the short and long term impact to business and global economy. Through the participation to various events, taking the form of scientific and business presentations, workshop organisations, talks and exchange of views, the project has managed to approach a list of stakeholders' groups, who are members of different worldwide level organisations and support data protection and cloud security activities both from scientific and industrial perspective.

These groups are shown in the following:

- From Business Community regime: Cloud computing industry and technical professionals, Security and Privacy experts, Cloud consumer Organisations, professionals in the Medical sector
- Business Compliance Community: Lawyers
- Regulatory Community: EU MS Governments and Policy Makers, Data protection commissioner (Sweden)
- Research Community: Cloud computing research, Legal Researchers, Social Scientists and Academic Economists

# 2.5 Training Activities

During this period, the work in training activities task has focused on planning the training targeting to address the needs of the various multi-disciplinary stakeholders.

#### 2.6 Concertation Activities

During this period, the concertation activities have been summarised through the active involvement in the EU CSP Forum 2013, as presented in 2.1.4. On May 8<sup>th</sup>-10<sup>th</sup>, 2013, A4Cloud attended the Future Internet Assembly (FIA 2013) in Dublin, Ireland. The project participated in cloud-related networking sessions, taking the opportunity to bring into discussions the problem for accountable Cloud Providers, as an attempt to increase customer and business confidence, when sharing personal and confidential data in the cloud.

The project has, also, established good connections with at least five other EU-funded projects, namely <u>BIC</u>, <u>CIRRUS</u>, <u>PoSecCo</u>, <u>Primelife</u> and <u>TCLOUDS</u>, trying to identify potential liaisons with them and align the research efforts in the field.

# 3 Activities performed in the 2<sup>nd</sup> Phase

## 3.1 Performed Dissemination Activities

This section includes the list of project performed dissemination activities during the 2<sup>nd</sup> reporting period (M13-M24).

## 3.1.1 Journal Publications

During this period, **three (3) journal publications** referring to the work conducted in A4Cloud have been published, as shown in Table 5.

In more details, the journal publications have targeted journals issued by known publishers, as follows:

- Simulation, International Transactions of the Society for Modeling and Simulation
- Special Issue on Secure Cloud Infrastructure in the International Journal of Computer Systems Science and Engineering, which is published by CRL publishing.

It must be noted that the "Transactions on SIMULATION: The Society for Modeling and Simulation International" journal has an Impact Factor of 0.692 and has been ranked 72 over 99 journals in Computer Science/Interdisciplinary Applications journals and 59 over 103 journals in Computer Science/Software Engineering in 2014. Furthermore, the IJCSSE journal has an impact factor of 0.52

# 3.1.2 Publications to Conference Proceedings

During this period, the Consortium members presented **twenty six (26) papers** in various **scientific and industrial conferences**, which were accepted after following peer-review process and were finally published in the relevant conference proceedings. The proceedings have been issued by well-known editorial organisations, like IEEE, ACM, Springer and SCITEPRESS, reflecting the high quality research conducted in all WPs of the A4Cloud project, as follows:

- ISSE 2013 Securing Electronic Business Processes published by Springer Fachmedien Wiesbaden
- ACM proceedings of the 12th Workshop on privacy in the electronic society.
- Proceedings of the 5th International Conference on Cloud Computing Technology and Science (CloudCom), 2013 published by IEEE.
- Proceedings of the Winter Simulation Conference.
- Proceedings of the International Conference on Cloud Engineering (IC2E), published by IEEE.
- Proceedings of the 4th International Conference on Cloud Computing and Services Science, published by SCITEPRESS Digital Library.
- Proceedings of the third Cyber Security and Privacy EU Forum (CSP EU Forum) 2014, published by Springer International Publishing.
- The IARIA proceedings of the 5th Cloud Computing 2014 conference.
- The proceedings of 15th International Conference, BPMDS 2014 and the 19th International Conference, EMMSAD 2014, published by Springer Berlin Heidelberg.
- The proceedings of the 23rd International WETICE Conference (WETICE), published by IEEE.
- The IEEE Cloud 2014 proceedings.
- The proceedings of the IFIPTM 2014, published by Springer Berlin Heidelberg.
- The IEEE proceedings of SEAA 2014.
- The SECRYPT proceedings published by SCITEPRESS Digital Library.
- The ESORICS 2014 proceedings, published by Springer International Publishing.
- The ARES 2014 proceedings published by IEEE

The DPM proceedings published by Springer International Publishing.

The details of these publications to conference proceedings for this period are shown in Table 6.

# 3.1.3 Project Presentations

In total, the Consortium members have made **forty three (43) presentations** on topics related to the work performed in the context of the A4Cloud project, during this period. The list of project presentations is given in Table 7. This list includes presentations to conferences and workshops, invited talks, presentations to CSA Norway events, etc., as follows:

- Presentations at the A4Cloud Workshops on "Accountability and SLA management for the cloud" and "Accountable Cloud Governance: Interoperability and Policy Requirements".
- Keynote speech, lectures and research presentations in the context of the 1st A4Cloud Summer School in an audience of 30 researchers and students
- Keynote speeches at VERDIKT Conference (on the Cloud Trust Protocol), the CCSW 2013
- Keynote speech and tutorials at the 9th International IFIP Summer School on Privacy and Identity
  Management for the Future Internet in the Age of Globalisation in an audience of around 70
  researchers.
- Industrial level presentation HP Cloud Partners.
- Presentation to 60 researchers at the FOSAD seminar
- Talks on the need for security assurance to IT security professionals
- Presentation on the accountability mechanisms and how they alleviate security and privacy concerns in Cloud Computing in the context of the Transatlantic Science Week in an audience of industry experts, executives and funding bodies from the US and Canada.
- Addressing the security, privacy and accountability concerns in the media domain through presenting the project in a group of 35 stakeholders from the European public and private health care sector.
- Presentations of the A4Cloud work from streams B and C to the CPDP conference in an audience of 40 security and privacy experts
- General project presentation to an international audience of 6800 multidisciplinary experts in the context of the Cloud Expo Europe 2014.
- Presentations to seminars at the Warwick University and in national audiences (Norway) with experts from research and the industry.
- Presentation to around 50 experts from research and industry, health-IT professionals and regulators in the context of the CSA Norway meeting.
- Poster presentation at EDF2014.
- Presentation on metrics for accountability at a business meeting held in the context of ESORICS 2014.

It must be noted that, as shown in Table 7, the project heavily supported the workshops, organised by it, as explained in the next Section 3.1.4.

# 3.1.4 Workshop, Conference and Summer School Organisations

Apart from participating to conferences and workshops organised by externals, the project have actively involved in the (co-)organisation of eleven (11) conferences and workshops, as well as in the (co-)organisation of two (2) summer schools, including the one that hosted the 1st project specific training workshop, as listed in Table 8. In more details:

 Organisation of the elicitation workshop on the core principles of the A4Cloud project and broader discussion of privacy and confidentiality in the cloud after the NSA PRISM revelations. In this workshop, 19 experts from CSA Norway/ Dataforeningen discussed about the potentials of the project work and the needs of the industrial in terms of accountability support. The results of this workshop are summarised in Deliverable D22.4: "D:B-2.4 Requirements Report".

- Organisation of the 5th IEEE CloudCom 2013 conference and an associated industry event with the
  participation of 300 researchers and industry representatives with an international profile. In this
  event, we also organised the workshop on Economics of Security in the Cloud (ESC).
- A panel was organised in the context of Computers, Privacy & Data Protection (CPDP 2014), which
  was held in Brussels on the 23rd of January, 2014. The panel was about Accountability in Cloud
  Environments, which 40 participants from the industry, the (public and private) legal and data
  protection domains and researchers attended.
- A national Norwegian workshop on "Health data in the cloud a healthy idea, or simply sickening?", which was attended by 50 experts from research and the industry, health-IT professionals and regulators.
- The workshop on "Accountability and SLA management for the cloud", which was co-located with the SecureCloud 2014 event attracted experts from research and the industry. In this event, a number of A4Cloud members presented the work on the concepts and the methods/mechanisms for accountability, through the following presentations:
  - The A4Cloud Risk and trust model
  - Transparency Requirements for better Cloud Accountability: perspectives of cloud customers
  - The reform of the European Data Protection Directive in the light of cloud computing challenges
  - Interoperability and Standardization
  - Proof of retrievability
  - A tool for visualizing and controlling how my data are used in the Cloud
- The workshop on "Accountable Cloud Governance: Interoperability and Policy Requirements", in the context of CSP EU Forum 2014, which was held in Athens on May 2014. 20 experts from research and the industry attended this workshop and discussed the issues raised the the following presentations given by A4Cloud:
  - The problem of cloud data governance
  - Accountability Model for Cloud Governance
  - An analysis of interoperability requirements for accountable cloud services
  - Regulatory and contractual challenges in cloud computing
- The requirements workshops on "Trust, Risk and Accountability in the Cloud", and the "COAT tool: requirements for cloud brokerage" with the involvement of 60 and 50 professionals (HP stakeholders) respectively, which were held in Paris on 1st of June, 2014.
- The organisation of the 1<sup>st</sup> A4Cloud summer school on Accountability and Security in the Cloud which was held in Malaga, Spain, with the participation of 30 researchers and students (see section 3.5).
- The organisation of the 1<sup>st</sup> Track on Privacy and Accountability for Software and Cloud Services (PASCS'14) held in Parma with more than 25 researchers attending it.
- The organisation of an industrial level workshop on the metrics for accountability with the participation of 18 stakeholders form the industry.
- The 1<sup>st</sup> A4Cloud Tutorial, in the context of the 9th International IFIP Summer School 2014 (see section 3.5).

# 3.1.5 Participation in events and other dissemination activities

In addition to the above dissemination activities, the project has undertaken a list of actions to further leverage the knowledge of cloud accountability in the wider scientific and business audiences. As such, the Consortium members have participated in conference and workshop panels to discuss with

interested parties how the project approaches the problem of data governance in the cloud and other online services as well as aspects on cloud security standardization and future challenges. Additionally, announcements to online blogging sources have been performed.

Furthermore, project related news and upcoming events have been included at the two issues of CSP Forum Newsletter, which were made available on-line on April 2014 and August 2014, respectively.

All these actions have been summarised in Table 9. From these activities, we highlight our participation in the delivery workshop of ETSI for Cloud Standards Coordination with the participation of members from SDOs, which was held in Brussels in December, 2013, and the kick-off meeting of the IPEN initiative held in Berlin in September 2014.

# 3.1.6 Summary of performed dissemination activities for this period

In this section we summarise the dissemination activities performed in this reporting period. Table 2 makes a summary of the dissemination activities that have been performed during the 2<sup>nd</sup> phase of the dissemination plan execution. In this table, we refer to each category of dissemination activity, presented above.

Dissemination activities	2 <sup>nd</sup> Phase
Journal publications	3
Publications to conference proceedings	26
Project Presentations	43
Workshop, Conference and Summer School Organisations	13
Participation in events and other dissemination activities	7

Table 2: Summary of performed dissemination activities in period M13-M24

## 3.2 Dissemination Channels

This section updates on the status of the dissemination channels that were introduced in section 2.2 and how they were evolved within the 2<sup>nd</sup> execution phase of the dissemination plan.

## 3.2.1 Maintenance of the Web Portal

As a central point for dissemination purposes and the main dissemination and communication channel, the <u>A4Cloud Web Portal</u> was continuously being maintained to provide up-to-dated information and material of the project deliveries and news during the 2<sup>nd</sup> reporting period.

Table 10 aggregates the traffic of the Web Portal for the two reporting periods, by providing the numbers of the total unique visitors, the number of visits to the Portal in the period (which is split as the number of unique plus returning visitors for this period), the number of Web Portal pages accessed and the number of hits.

From this table, we can see that, in the second period, we had 14.179 unique visitors in the Web Portal out of a total of 60.733 visits, thus almost a quarter of visitors to be new ones and the other three quarters to be returning visitors. Since the publication of the Web Portal in April 2013, we have 17.320 unique visitors, which means that more than 80% of them have appeared in the second period. Moreover, Table 13 presents an overview of A4Cloud Web Portal Visitors per Domain/Country for this reporting period.

### 3.2.2 Maintenance of Web 2.0 Channels

This section provides an update on the project Web2.0 channels that have already been established and used to reinforce the penetration of the project to existing communities in social media.

# **LinkedIn Group**

The LinkedIn group <u>Cloud Accountability</u> was continuously being maintained to provide up-to-dated information and material of the project deliveries and news. It also shared information and content related to the accountability for the cloud targeted to bring together all the professionals in the LinkedIn world who belong to the stakeholders groups and are interested in relevant issues.

#### **Twitter**

The Twitter account <u>@A4CloudProject</u> was continuously being maintained to provide short news updates or items for the project.

The statistics on the use of Web 2.0 channels in this period are provided in Table 12.

As we have already stated in [2], the project has adopted a strategic decision on attracting the potential stakeholders by following a selective strategy to penetrate the target communities and approach stakeholders, in order to actively engage them in the A4Cloud activities. In that respect, the "proactive advertisement" defines LinkedIn Group as the primary source to engage potential A4Cloud customer approach the project findings. However, analysing the statistics on the use of Web 2.0 channels, which are provided in Table 12, we concluded that our initial intention to use the LinkedIn Group as the main social media driver in order to implement this proactive advertisement has not produced the expected results.

As a forerunner approach to address this and increase the referring traffic to our Web Portal, within the 2<sup>nd</sup> phase, we decided that twitter should be exploited as the primary Web 2.0 channel. The scope was to leverage the adoption of the A4Cloud concepts and tool development by expanding the engagement tactics beyond the barriers of the professionals' regime.

# 3.3 Content Development

This section describes the material which has been developed in the project to support the dissemination activities in the 2<sup>nd</sup> phase. This material either updates the one already developed in the 1<sup>st</sup> phase or is a new type of content that is developed based on the progress of the A4Cloud work.

#### 3.3.1 Project Brochure

In order to raise awareness of the project, the consortium has created a brochure to be distributed through all partners to any dissemination event they participate in. The design of the A4Cloud brochure has been carried out in a way that is representative to the project concepts and objectives, but it also goes beyond it and reflect the vision for accountability in the cloud.

The project brochure has an A5 booklet style layout. The look and feel of the project brochure appears in Figure 20 - Figure 23 in Appendix 8.3.

# 3.3.2 Second version of the project roll-up banner

On the same sense, the project has created a new version of the banner in a roll-up form with eyecatching messages and conceptual graphic. The design and look of the project roll-up appears in Figure 19 in Appendix 8.3.

## 3.4 Community Building and Engagement

Based on the successful implementation of Phase 1 of the Dissemination Plan, which was around establishing awareness on the A4Cloud work, objectives and envisaged outcome, with particular highlight on the short and long term impact to business and global economy, in this period, we elaborated on relevant community building and engagement tactics in order to disseminate and build interest in conceptual framework and approaches to providing accountability for cloud service. This was effected by the various dissemination activities performed in this period and they have been summarised in Section 3.1.

Through the participation to various events, taking the form of scientific and business presentations, workshop organisations, talks and exchange of views, the project has managed to approach a list of stakeholders' groups, who are members of different worldwide level organisations and support data

protection and cloud security activities both from scientific and industrial perspective. These groups are presented in the following lines:

- From the Business Community Group: Cloud computing industry, Cloud consumer Organisations, professionals in the Medical sector
- From the IT Technical Community Group: technical IT professionals, Security, Privacy and Data Protection experts, members of Standardisation Developing Organisations
- From the Business Compliance Community Group: Lawyers and compliance implementation officers
- Regulatory Community: EDPS, Regulatory Experts, EU MS Governments and Policy Makers
- Research Community: Cloud computing research, Legal Researchers, Social Scientists and Academic Economists

# 3.5 Training Activities

During this period, we concentrated our efforts to organise and hold the 1st A4Cloud Summer School and the 1st project specific training workshop. We analyse these activities in the following paragraphs. For each event, we provide a short description on the event scope, the agenda that was followed, the A4Cloud partners involved that placed their effort to support the events, the profile of the participants and the feedback gained by the organization of the specific training activity.

# 3.5.1 1st A4Cloud Summer School on Security and Accountability in the Cloud

### Description

The 1st A4Cloud Summer School was held in Malaga (Spain) from the 2<sup>nd</sup> to the 6<sup>th</sup> of June 2014. It was the first one of its type in the area of security and accountability in the cloud. The main objective of the summer school was to constitute as a reference event for the training of young researchers and practitioners in the areas of Accountability and security in the cloud.

For its first edition, the school was organized by the A4Cloud project, with the collaboration of the EUfunded projects CIRRUS<sup>1</sup>, CocoCloud<sup>2</sup>, CUMULUS<sup>3</sup> and SPECS<sup>4</sup>. This made the school a very attractive forum in Accountability and Security in the cloud.

Besides regular lecturers, we invited contributions from young researchers and practitioners who did benefit from presenting their work as well as receiving training on Accountability and Security in the Cloud. Participants presented and discussed their work and shared their experience with experts from both the academia and the industry.

Submitted papers and presentations were peer-reviewed and received feedback from the A4Cloud's summer school technical committee.

#### Agenda

The official agenda of the event, with all the speakers and the presentations is available online<sup>5</sup>.

# **Participants**

There were 17 PhD students from different organisations, mainly from Europe, and some of them involved in the organising projects. Another group of almost 10 business oriented and research professionals were invited to attend and speak in the school.

Partners' Involved

<sup>1</sup> http://www.cirrus-project.eu/

<sup>&</sup>lt;sup>2</sup> http://www.coco-cloud.eu/

<sup>&</sup>lt;sup>3</sup> http://www.cumulus-project.eu/

<sup>4</sup> http://specs-project.eu/

http://www.a4cloud.eu/sites/default/files/A4CLOUD%20Summer%20school-programme\_v3.pdf.

Almost all A4Cloud partners identified young researchers and PhD students who attended the summer school. Apart from it, the following A4Cloud partners were involved in the lecturing activities: HP, TiU, KAU, CSA, UiS, UMA and QMUL. Furthermore, UMA led the organisation of the summer school, with the support of ATC, especially for the use of Web 2.0 tools to announce and promote the summer school details.

#### Related Material

The participants had the chance to attend a number of slide presentations that were used as a basis for further discussions on the objectives of the school. Apart from these presentations, no other material was provided.

#### Feedback/ Results

The main outcome of the summer school has been the book on "Accountability and security in the Cloud" that will be published by Springer on the Tutorials series. The book contains a chapter on each of the lectures given at the school plus the accepted papers sent by students. We expect to have the book online early next year.

# 3.5.2 1st A4Cloud Training Workshop in the context of the 2014 IFIP summer School

# Description

A4Cloud organised its first training workshop, during the IFIP summer school on Privacy and Identity Management held in Patras (Greece). The workshop took place on the 8th of September 2014.

The first A4Cloud tutorial was the first one of its type in the area of accountability in the cloud. The main aim of the workshop was to introduce the core concepts of accountability in the cloud to researchers in the field of 'privacy and identity management'. It was meant to be a reference event for training researchers in the area of Accountability.

This tutorial was the first in a series of tutorials on the A4Cloud project and tools. Our purpose was to introduce the topics and the problem and how the tools we are going to develop could help. It was not intended to analyse the different regulatory issues that might influence accountability.

# Agenda

The training workshop was evolved in the following presentations:

- Introduction What could A4Cloud do for you? Survey on Metrics for accountability, by Carmen Fernandez-Gago (UMA)
- Privacy issues A4Cloud overview Data track tool, by Simone Fischer-Huebner (KaU)
- A particular case: The COAT tool, by Rehab Alnemr (HP)
- Introduction to the A4Cloud tools, by Vasilis Tountopoulos (ATC)

#### **Participants**

There were 25 from different affiliations and backgrounds. There were PhD students and researchers (both from the academia and private sector) working on technical aspects of privacy and identity management, as well as attendees working on legal aspects.

# Partners involved

UMA organised this training workshop and KaU, HP and ATC supported by giving presentations.

#### Related Material

The participants had the chance to attend four slide presentations and two live demos that were used as a basis for further discussions on the objectives of the workshop. The project brochures were circulated to them as a reference for further information on the project objectives and expected results.

# Feedback/ Results

The A4Cloud tools were of interest for the audience. They raised several questions related to how their data could be protected by the tools.

#### 3.6 Concertation Activities

By performing the dissemination activities listed in Section 3.1, the project participated in research coordination efforts in the area of trustworthy ICT. A4Cloud has established good connections with at least five other EU-funded projects, since the first reporting period, namely BIC<sup>6</sup>, CIRRUS<sup>7</sup>, PoSecCo<sup>8</sup>, Primelife<sup>9</sup> and TCLOUDS<sup>10</sup>. Apart from leveraging this collaboration, other projects have been contacted, with which A4Cloud has established liaisons, taking the form of exchanging knowledge or tools and jointly organizing events. Such examples, include the following:

- A4Cloud participated in the CSP 2014 event, which is by nature a research coordination event in the area of trustworthy ICT.
- The Workshop on "Accountability and SLA management for the cloud" held in Amsterdam on April 3<sup>rd</sup>, 2014 was organised jointly with the EU-funded SPECS project.
- The 1<sup>st</sup> A4Cloud Summer School was organised with the active support of the EU-funded projects CIRRUS, CocoCloud, CUMULUS and SPECS.

A4Cloud actively supported the organisation of the 2014 IFIP summer school, which was organised by the EU-funded ABC4Trust<sup>11</sup> project.

<sup>6</sup> http://www.bic-trust.eu/

<sup>&</sup>lt;sup>7</sup> http://www.cirrus-project.eu/

<sup>8</sup> http://www.posecco.eu/

<sup>9</sup> http://primelife.ercim.eu/

<sup>10</sup> http://www.tclouds-project.eu/

<sup>&</sup>lt;sup>11</sup> https://abc4trust.eu/

# 4 Activities performed in the 3<sup>rd</sup> Phase

## 4.1 Performed Dissemination Activities

This section includes the list of project performed dissemination activities during the 3<sup>rd</sup> reporting period (M25-M42).

## 4.1.1 Journal Publications

During this period, **seven (7) journal publications** referring to the work conducted in A4Cloud has been published, as shown in Table 5.

In more details, the journal publications have targeted journals issued by known publishers, as follows:

- Technology and Society Magazine published by IEEE
- Book chapter to the privacy & identity lab
- Submission to the Elsevier International Journal of Information Management (IJIM).
- Book chapter to the German book Verbrauchervertrauen, Michael Freytag (ed.), Frankfurter Allgemeine Buch.
- Book chapter to the Encyclopedia of Cloud Computing, published by John Wiley & Sons, Ltd
- Book chapter to the Guide to Security Assurance for Cloud Computing, Computer Communications and Networks, by Springer International Publishing Switzerland.
- Privacy Laws & Business United Kingdom Report.

# 4.1.2 Publications to Conference Proceedings

During this period, the Consortium members presented **twenty nine (29) papers** in various **scientific conferences and workshops**, which were accepted after following peer-review process and were finally published in the relevant proceedings. The proceedings have been issued by well-known editorial organisations, like IEEE, Springer and SCITEPRESS, reflecting the high quality research conducted in all WPs of the A4Cloud project, as follows:

- Proceedings of NordSec 2014, published by Springer.
- Proceedings of the International Workshop on Computational Intelligence for Multimedia Understanding, published by IEEE.
- IEEE proceedings of the IEEE/ACM 7th International Conference on Utility and Cloud Computing (UCC), 2014.
- IEEE proceedings of the 6th CloudCom 2014.
- Proceedings of the 1<sup>st</sup> A4Cloud Summer School, which were published by Springer International Publishing.
- Proceedings of the 2014 IFIP Summer School, published by Springer International Publishing.
- ACM proceedings of the 33rd CHI EA '15.
- Proceedings of the 5th International Conference on Cloud Computing and Services Science, published by SCITEPRESS Digital Library.
- Proceedings from the IEEE 39<sup>th</sup> Annual COMPSAC 2015 event, published by IEEE Computer Society.
- IEEE Press on the 2015 IEEE International Symposium on Recent Advances of Trust, Security and Privacy in Computing and Communications.
- Proceedings of ESORICS 2015, published by Springer 2015.
- Proceedings of the Asia Pacific Software Engineering Conference (APSEC), published by IEEE Computer Society.

- IEEE publication on Trust in the Information Society
- Proceedings of CLOSER 2014 in the series of Communications in Computer and Information Science, published by Springer International Publishing.

Of the highlights of the period we can mention that the Consortium members presented **two (2) papers** in **CLOSER 2015 conference**, which were accepted after following peer-review process and were finally published in the relevant proceedings. Additionally, **one (1) more paper** has been published during this period, which has been presented at the 9th IFIP International Summer School in Patras, Greece (September 2014). Moreover, **nine (9) papers** have been published during this period which are included in the "**Accountability and Security in the Cloud**" **book** of the First Summer School of Cloud Accountability Project, A4Cloud, in Malaga, Spain, on June 2-6, 2014 (see Section 3.5 for details).

It's worth mentioning that the A4Cloud work has won the <u>Best Paper Award Certificate</u> for the paper entitled "Cloud Provider Transparency-A View from Cloud Customers", authored by Daniela Cruzes and Martin Gilje Jaatun, at the 5th International Conference on Cloud Computing and Services Science (CLOSER), which was held in Lisbon, Portugal, on 20th-22nd May 2015. The relevant paper is available <u>here</u>.

The details of these publications to conference proceedings for this period are shown in Table 6.

# 4.1.3 Project Presentations

In total, the Consortium members have made **twenty (24) presentations** on topics related to the work performed in the context of the A4Cloud project, during this period. The list of project presentations for this period is given in Table 7. This list includes keynote speeches to conferences and events and presentations to conferences, industry groups and initiatives, as follows:

- Keynote speeches at ISC Big Data'14 and the Powering the Cloud events in Germany.
- Presentation at the NordSec 2014 held in Norway
- Presentations at the ES Workshop in the context of IEEE CloudCom in December 2014.
- Presentation of the Accountability and Privacy Compliance issues at the Compliance Theatre, in the context of the London CloudExpo conference.
- 30 participants (HP business contacts) from the international industry attended a presentation about the project in Bristol.
- Presentation at the CSP EU Forum 2015 to an audience of almost 80 researchers about the specification and enforcement of privacy policies.
- Presentation to the SW Data Protection Group in UK
- Presentation at the Cloud Select Industry Group Meeting of the Subgroup on Service Level Agreements (C-SIG-SLA) in Brussels, with the participation of 25-30 researchers, industry and policy makers from Europe.
- Poster Paper Presentation at Closer 2015.
- Online Project Presentation to the HP Cloud Leaders Forum.
- Lecture at the University of Luxembourg in an audience of 60 academic, industry and regulatory people
- Presentation to 50 industry and academic people in the ICT Ethics Subgroup at the British Computer Society in UK.
- Presentations and Demonstration at the Workshop on Governance-Accountability-Compliance in the Cloud, in the context of the CSA EMEA Congress in Berlin in November 2016.
- Project presentation to the researchers and the industry attended the Cybercmap 2015 event.
- Presentation in the context of the ITU Standardisation Conference with the participation of 200 people from the industry and academia.
- A4Cloud presentation to 35 researchers and students at the Discovery Initiative in Nantes, France.

- Presentation at the CPDP 2016 in Brussels to an audience of 50 people from the industry, academia and regulatory communities.
- Presentation to 50 health IT professionals in Norway.
- Presentation to the CloudScape 2016.

# 4.1.4 Workshop, Conference and Summer School Organisations

In total, the Consortium members have organised **five (5) workshops** on topics related to the work performed in the context of the A4Cloud project, during this period. In more detail:

- Organisation of the DPPT'15 workshop on Data Protection, Privacy and Transparency with one keynote speech from Marit Hansen (Deputy Chief of Unabhängiges Landeszentrum für Datenschutz ULD, Independent Centre for Data Protection) and panel discussion, as part of the IFIPTM 2015 event.
- Co-organisation of a workshop for the implementation of policies in the context of CSP EU Forum 2015.
- A4Cloud Tutorial on Tools for Accountability in the Cloud, in the context of the 10th IFIP Summer School 2015, which was held in Edinburgh, Scotland, U.K (see section 4.5). The project actively participated in the organisation of this summer school, performing having one keynote speech as explained in section 4.5.
- Organisation of a joint workshop on Governance: Accountability-Compliance in the Cloud in the context of the CSA EMEA Congress 2015 in Berlin, held on the 16th of November, 2015. In this workshop, we had the opportunity to join efforts with other EU projects, namely Cloud for Europe, SPECS, PICSE and SLA-Ready. The objectives of the workshop were to:
  - Showcase the latest practices & tools developed through research in the area of Cloud Governance, and how they support the objectives of the Digital Single Market Communication Strategy
  - o Identify synergies between projects' achievements and the CSA WGs' outputs
  - Validate results and identify possible go to market strategies for the tools and services developed.

Several EU Stakeholders, EC, Industry, Research Institutions, SMEs, have been focusing in past years in the identification, creation and deployment of solutions that could facilitate the adoption of security solutions for cloud computing. Those solutions include frameworks, architectures, best practices, tools and educational material that are meant to enforce accountability, manage SLA, facilitate procurement, educate on real and perceived risks to security and privacy, and ultimately facilitate governance and compliance.

The agenda of this workshop was formulated as follows:

- Registration and Welcome Coffee
- Welcome note by Frauhofer FOKUS Director
- o Opening remarks on workshop objectives by Siani Pearson (HPE)
- Introduction on Digital Single Market Communication by Daniele Catteddu (CSA)
- Introduction on projects objectives: overview on Cloud for Europe, A4C, SPECS, PICSE, SLA-Ready projects by Frederic Gittler
- Market requirements based on a public sector: the Cloud For Europe approach by Mauro Draoli (DigiPA), the PICSE approach by Bob Jones (CERN) and the Private Sector approach from the A4Cloud, SPECS and SLA-Ready projects by Said Tabet (EMC)
- Synergies between CSA activities and EU Funded projects CSA GRC and OCF: strategy, results, and future roadmap by Daniele Catteddu
- Tool demos and best practices presentations

- SPECS Demo by Massimiliano Rak (CERICT)
- A4Cloud Demos by Vasilis Tountopoulos (Athens Technology Center) and Rehab Alnemr (HPE)
- PICSE by Bob Jones (CERN)
- Cloud for Europe by Jan Colpaert (Fedict)
- SLA Ready by Arthur van der Wees (Arthur's Legal)
- Closing panel and open discussion (projects contributions to DSM and CSA research WG's) with talks from: Daniele Catteddu, Frederic Gittler, Jesus Luna, Neeraj Suri, Linda Stick or Jan Colpaert (Moderator: Arthur van der Wees)
- Organisation of the training workshop on "Accountability for Cloud and Other Future Internet Services" co-located with Cloudscape 2016 conference in Brussels on March 8th, 2016 (see Section 4.5).

The list of the organised workshops is given in Table 8.

# 4.1.5 Participation in events and other dissemination activities

In addition to the above dissemination activities, the project has undertaken a list of actions to further leverage the knowledge of cloud accountability in the wider scientific and business audiences. As such, the Consortium members have participated in conferences and distributed dissemination material to events. Additionally, announcements to online blogging sources have been performed.

Furthermore, project related news and upcoming events have been included at the four issues of CSP Forum Newsletter, which were made available on-line on November 2014, March 2015, July 2015 and October 2015, respectively and project's overview have been included in the Cloudwatch publication "A portfolio of offers for trusted and secure services". The publication was printed and showcased at the Net Futures 2015 conference, March 25-26.

Moreover, the project has participated with a booth and a demo at the CSP Innovation Forum 2015 and the CSA EMEA Congress 2015 in Berlin on November 2015. In addition the project has participated with a video at the CSA booth at the INFOSEC 2015 and also showcased the project's research results at the poster and demo sessions at Cloudscape 2016. All these actions are summarised in Table 9.

# 4.1.6 Expected Publications to Conference Proceedings

## Apart from already published papers to conference proceedings.

Table 14 shows another **eleven (11) papers**, which have been presented in conferences but not published yet or they have been accepted for publication or they have been accepted for presentation, and they are going to be published in the relevant proceedings. These papers are to be published at:

- The Springer proceedings of the IFIP Summer School 2015;
- The Proceedings of the Second International Conference on Advances and Trends in Software Engineering (SOFTENG 2016);
- The proceedings of the Annual Privacy Forum 2015;
- The proceedings of the 6th International Conference on Cloud Computing and Services Science (CLOSER 2016);

## 4.1.7 Submitted papers / Papers in progress

During this period, four (4) papers have been submitted for publication to journals and magazines as can be shown in Table 15. At the time of writing this report, the notification of acceptance is still pending.

Furthermore, two (2) journal papers, namely "Accountability Review paper" (Siani Pearson, Jean Claude Royer) and "Accountability and Ethics" (Siani Pearson, Penny DuQuenoy) as well as one (1) conference paper, namely Insynd: Improved Privacy-Preserving Transparency Logging Using Balloons (Tobias Pulls and Roel Peeters) are in progress.

# 4.1.8 Summary of performed dissemination activities for the period for the period (M25-M42)

In this section we summarise the dissemination activities performed in this reporting period. Table 3 makes a summary of the dissemination activities that have been performed during the 2<sup>nd</sup> phase of the dissemination plan execution.

Table 3: Summary of performed dissemination activities in period M25-M42

Dissemination activities	3 <sup>rd</sup> Phase
Journal publications	7
Publications to conference proceedings	29
Project Presentations	24
Workshop, Conference and Summer School Organisations	5
Participation in events and other dissemination activities	22
Expected publications	11
Submitted papers / Papers in progress	4

## 4.2 Dissemination Channels

This section updates on the status of the dissemination channels that were introduced in section 2.2 and how they were evolved within the 3<sup>rd</sup> execution phase of the dissemination plan.

## 4.2.1 Maintenance of the Web Portal

As a central point for dissemination purposes and the main dissemination and communication channel, the <u>A4Cloud Web Portal</u> was continuously being maintained to provide up-to-dated information and material of the project deliveries and news during the 3<sup>rd</sup> reporting period.

Table 10 aggregates the traffic of the Web Portal for the three reporting periods, by providing the numbers of the total unique visitors, the number of visits to the Portal in the period (which is split as the number of unique plus returning visitors for this period), the number of Web Portal pages accessed and the number of hits.

From this table, we can see that, in the third period, we had 17.750 unique visitors in the Web Portal out of a total of 34.997 visits, thus almost more than half of visitors to be new ones and the other half to be returning visitors. Since the publication of the Web Portal in April 2013, we have 35.070 unique visitors, which means that almost more than 50% of them have appeared in the third period. Moreover, Table 16 presents an overview of A4Cloud Web Portal Visitors per Domain/Country for this reporting period.

An important update on the Web Portal is the publication of the cloud accountability reference architecture. This set of pages will act as the Web reference for the work conducted in WP42 and will allow interested stakeholders in the future to browse through the contents and the elements of this reference architecture.

Finally, as the project finishes, we have decided to go beyond the initial layout of the Web Portal and adopt a more product oriented approach, As such, for the period after the end of the project, the Web Portal will adopt a look and feel, which will highlight the results of the project and will act as the early adoption channel for those that are interested in the project to be guided on how to adopt an accountability approach. The layout of the new design is provided in the Appendix 8.1.

# 4.2.2 Maintenance of Web 2.0 Channels

This section provides an update on the project Web2.0 channels that have already been established and used to reinforce the penetration of the project to existing communities in social media.

## **LinkedIn Group**

The LinkedIn group <u>Cloud Accountability</u> was continuously being maintained to provide up-to-dated information and material of the project deliveries and news. It also shared information and content related to the accountability for the cloud targeted to bring together all the professionals in the LinkedIn world who belong to the stakeholders groups and are interested in relevant issues.

#### **Twitter**

The Twitter account <u>@A4CloudProject</u> is continuously being maintained to provide short news updates or items for the project.

The statistics on the use of Web 2.0 channels are provided in Table 12.

# 4.3 Content Development

This section describes the material which has been developed in the project to support the dissemination activities in the 3<sup>rd</sup> phase. This material either updates the one already developed in the previous phases or is a new type of content that is developed based on the progress of the A4Cloud work.

# 4.3.1 Tools specific brochures

As the project development has evolved and in order to support the demonstration of the A4Cloud tools in a number of events in the third period, we have developed two booklet style brochures in order to explain the methodology and the rational of the COAT and DPIAT tools.

# 4.3.2 Project specific posters

In this period, the project proceeded with the development of more focused posters to support the demonstration activities and the user engagement tactics in this third phase. Thus, the project has supported the demonstration of the project results on the reference architecture and the technical mechanisms for accountability through tool oriented posters, as follows:

- Project Posters for the demonstration of contract and risk management tools (COAT and DPIAT)
- Project Posters for the demonstration of policy definition tools (DPPT and AccLab)
- Project Posters for the demonstration of policy enforcement and incident management tools (focus on A-PPLE, DTMT and IMT)
- Project Posters for the demonstration of audit and validation tools (AAS)
- Project Posters for the demonstration of cloud subject controls tools (DT, TL and RRT)
- Project Posters for the lifecycle for accountability and the cloud accountability reference architecture
- Project Poster for the A4Cloud toolset prototype and the accountability mechanisms

The look and feel of the project posters are presented in Appendix 8.3.

# 4.4 A4Cloud Community Building and Engagement

Continuing the successful implementation of the engagement activities in the first two years, in this reporting period, we managed to leverage the engagement tactics and approach the communities of the target stakeholder categories in a series of important events. The development of the accountability community was evolved through the use of the content built or updated in the last 18 months, with emphasis on the applicability of the cloud accountability reference architecture and the provision of mechanisms and tools for accountability.

Through the participation to various events, taking the form of scientific and business presentations, workshop organisations, keynote speeches, talks and exchange of views, the project has managed to approach a list of stakeholders' groups, who are members of different worldwide level organisations and support data protection and cloud security activities both from scientific and industrial perspective. These groups are presented in the following lines:

• From the Business Community Group: Cloud providers, cloud consumer organisations, professionals in various sectors, who act as cloud end users.

- From the IT Technical Community Group: technical IT professionals, cloud computing industry, Security, Privacy and Data Protection experts, members of Standardisation Developing Organisations.
- From the Business Compliance Community Group: Lawyers and compliance implementation officers.
- Regulatory Community: EDPS, Regulatory Experts, EU MS Governments and Policy Makers.
- Research Community: Cloud computing research, Legal Researchers on data protection, Social Scientists and Academic Economists.

# 4.5 Training Activities

The training activities within A4Cloud are of various types. On one hand we have contributed to the organization of summer schools and on the other hand we have organized proper training workshops. In the latter events, we showed the audience the relevant results at the time of the workshop.

The training activities that A4Cloud has organized for the third year report are listed and described below:

# IFIP Summer School on Privacy and Identity Management 2015

## Description

The IFIP Summer School on Privacy and Identity Management took place in 2015 from 16<sup>th</sup> to 21<sup>st</sup> of August in Edinburgh (United Kingdom). The event aims to bring together PhD students and researchers on Privacy and Identity Management from different disciplines. Thus, it is very common for this event to gather together researchers from Law, Computer Science or Social Sciences. Given the variety of the audience attending this event, it was preferred by the consortium of A4Cloud to join efforts with this summer school in order to reach as much interested people as possible.

#### Agenda

For the edition of this year, the programme of the school included several talks about A4Cloud. It is worth to highlight that one of the invited speakers was Melek Önen from EURECOM who talked about A4Cloud, in particular, the title of her talk was "Privacy and Verifiability for Data Storage in Cloud Computing". The inclusion of this talk as a keynote speech gives an idea of the influence of A4Cloud in the programme of the school.

Besides this invited talk, the programme of the IFIP summer School included papers that were submitted by authors and selected after a review process. Among these papers three papers containing results about A4Cloud were submitted and selected for presentation. The papers are the following:

- Saul Formoso and Massimo Felici: Security and Privacy Assurance in Cloud Ecosystems
- Michela D'Errico and Siani Pearson: Enhanced Assurance about Cloud Service Provision Promises
- Isaac Agudo, Ali El Kaafarani, David Nunez, and Siani Pearson: A Technique for Enhanced Provision of Appropriate Access to Evidence across Service Provision Chains

# **Participants**

The event was attended by around 50 people from very multidisciplinary fields like Computer Science, Social Sciences or Law.

# Partners involved

A4Cloud has actively contributed to the organization of this event. Thus, one of the general co-chairs was Simone Fischer-Hübner from KAU and Ronald Leenes from TiU is in the steering committee of this school. Besides them as main organizers of the event partners from UMA, HP and TiU acted as part of the programme.

# Related material

Brochures about A4Cloud were available during the event as well as the poster, which was visible in the main room.

# Feedback results

The main outcome of this event is the proceedings of the selected papers that were presented during the school. These proceedings are published by Springer. Besides the papers mentioned above the proceedings of the summer school also include a paper that summarize the structure and the main outcomes of the A4Cloud training workshop that took place during this event. We will describe this workshop next.

# Training workshop 2015 at IFIP summer school 2015

# Description

As part of the programme of the IFIP summer school A4Cloud organized a workshop/tutorial with the title: "A4Cloud Tools: Accountability in the Cloud". The purpose of the workshop was to show the audience a set of tools that we had previously selected and train them on how to use such tools.

The structure of the workshop was as follows. First, we gave a general overview of the A4Cloud project. Then, the group was split into four different sub-groups of four or five people each. Each of these subgroups approached specific booths for each of the tools (there was a shared booth for DPIAT and COAT), where a member of A4Cloud explained their corresponding tool. They introduced the group to their main features and showed how they work in practice. Once the explanations and demos were over the group moved to the next booth for the following tool. In the meantime, other members of the consortium were taking notes about the reactions and questions raised by the audience at each different booth.

The tools that we selected for this workshop were those that at the time being were mature enough to be shown and could be meaningful for the audience. We selected tools for facilitating choice (COAT and DPIAT); control and transparency tools (Data Track, DPPT and A-PPL). The presentation was interactive and anyone could ask guestions at any time.

### Agenda

- General Introduction about A4Cloud: Carmen Fernandez-Gago (UMA)
- COAT: Siani Pearson (HP)
- DPIAT: Siani Pearon (HP)
- Data Track Tool: Tobias Pull (KAU)
- A- PPL engine: Melek Önen (EURECOM)
- Accountability-PrimelifePolicyLanguage (A-PPL): Michela D'Errico (HP)

# **Participants**

The number of attendees was around 20 people from all the different profiles attending the school (PhD students, researchers, professionals and policy makers on privacy issues, etc.).

#### Partners involved

The partners in charge of the organization of the workshop and presentation of the tools were UMA, HP, KAU and EURECOM.

# Related material

The demos for the presented tools were available as well as posters for COAT and DPIAT. Brochures of A4Cloud were available all the time.

# Feedback results

In general, attendees perceived the tools presented as very interesting and very useful for achieving accountability. The feedback from the attendees has been taken into account by the tools owners in order to improve their corresponding tool.

The findings of this training workshop have been published in a paper that has been included in the proceedings of the IFIP summer school.

# Training workshop at Cloudscape 2016

# Description

The cloudscape series of events was held in Brussels 8<sup>th</sup> and 9<sup>th</sup> of March 2016. This event gathered together more than 130 participants working on cloud topics from industry, academia, policy makers and representative from the European Commission.

The event included keynote speakers and panels on different topics around cloud computing and its relationship with IoT. As satellite events several workshops and a place for showing demos and posters was part of the programme as well.

One of the workshops held during the event was the last training workshop of A4Cloud that we will describe next.

#### Agenda

The agenda of the last training workshop included a general presentation of the A4Cloud legacy and the reference architecture. Then, we presented the different use case form the different stakeholders perspectives and the new tool, SPACE. We referred to the audience to visit the booth where we presented our demos during the event.

# **Participants**

The workshop was open to all the Cloudscape participants.

#### Partners involved

The event was organized by HP, ATC and UMA.

#### Related material

We presented during the Cloudscape series event a poster summarizing the reference architecture, brochures as well as the demos that were presented in the demos place. Questionnaires were given to the audience to evaluate the tools of A4Cloud. We also pointed out to the audience a link to the SEIA to be responded by those interested.

# Feedback results

Several questions were raised by the audience:

- The cost of a system like that, which provides accountability.
- Reactiveness of the users or operators? For instance, providers in the US
- Policies are static? Can end users change them? Could they add a claim
- Behaviour of the system, how it works.
- Semantic gaps in between the different layers. How do you bridge those? Based on PLA (answer) and DPPT.

There was a very interesting discussion in between the presenters and the audience trying to solve these questions.

# 4.6 Concertation Activities

In this period, the project continued to establish and leverage research coordination activities, by exploiting the opportunity to organise, be involved or attend relevant networking activities, as they are listed in Section 4.1. Of the highlights of this period for the concertation activities, we emphasise the organisation of a joint event with the EU-funded projects Cloud for Europe 12, SPECS 13, PICSE 14 and SLA-Ready 15 in the context of the CSA Congress EMEA, which was held in Berlin, in November 2015 (see more details in Section 4.1.4). More specifically, this workshop allowed us to discuss with the cloud market issues about data governance in the cloud and the problem of accountability and compliance to business and legal frameworks when delivering a business in the cloud.

Furthermore, in this period, we organised a joint event with the CoCoCloud<sup>16</sup> project, within CSP EU Forum 2015 conference, held in Brussels, late April 2015. The event was about a session track in the core program of the conference with the objective to demonstrate the A4Cloud and the CoCoCloud approaches towards the implementation of privacy policies.

<sup>12</sup> http://www.cloudforeurope.eu/

<sup>13</sup> http://www.specs-fp7.eu/

<sup>14</sup> http://www.picse.eu/

<sup>15</sup> http://www.sla-ready.eu/

<sup>16</sup> www.coco-cloud.eu/

Finally, through the involvement of A4Cloud in the organization of the IFIP Summer School 2015, we had the chance to elaborate discussions on privacy and data protection enabling technologies with other EU projects, like FutureID<sup>17</sup>, PrismaCloud<sup>18</sup> and PRISMS<sup>19</sup>.

# 5 Impact achieved

This section provides a consolidated view of the performed dissemination activities for the whole project duration M1 (October 2012) to M42 (March 2016).

# 5.1 Summary of Activities for the whole project duration

In section, we provide the aggregated numbers for the quantification of dissemination and communication activities since the beginning of the project. This quantified analysis is presented for each category of dissemination activity and for each year to provide a comparative assessment of the efforts allocated in these 42 months period. Table 4 presented the aggregated numbers.

Dissemination activities	M1-M12	M13-M24	M25-M42	Total
Journal publications	3	3	7	13
Publications to conference proceedings	11	26	29 (+11)	77 <sup>20</sup>
Project Presentations	24	43	24	91
Workshop, Conference and Summer School Organisations	8	13	5	26
Participation in events and other dissemination activities	9	7	22	38

Table 4: Summary of performed dissemination activities (whole project duration)

An interesting point for discussion is the interest and even the adoption of our work presented in the journal and conference publications. To this end, we have analysed the available public statistics from the metrics of the relevant publishers and we present here highlights the number of publications downloads or citations to other publications (latest data update March 18<sup>th</sup>, 2016):

- Our paper "Accountability for Cloud and Other Future Internet Services" has been cited 11 times and has been downloaded more than 400 times;
- Our paper "Bringing Accountability to the Cloud: Addressing Emerging Threats and Legal Perspectives" has been downloaded more than 550 times;
- Our papers to the OTM 2013 conference, namely "Cloud Audits and Privacy Risks" and "On the Relationship between the Different Methods to Address Privacy Issues in the Cloud", have been downloaded more than 800 times each;
- Our paper "Accountability for Data Governance in Cloud Ecosystems" at IEEE CloudCom 2013 has been cited 3 times;
- Our paper "Modeling and simulation as a cloud service: A Survey" at WSC 2013 has been cited 5 times;

<sup>&</sup>lt;sup>17</sup> http://www.futureid.eu/

<sup>18</sup> https://prismacloud.eu/

<sup>19</sup> http://prismsproject.eu/

<sup>&</sup>lt;sup>20</sup> Including the expected publications

- Our paper "StealthGuard: Proofs of retrievability with hidden watchdogs" at ESORICS 2014 has been downloaded more than 1100 tiems;
- Our paper "Accountability in Cloud Service Provision Ecosystems" at NordSec 2014 has been downloaded more than 450 times;
- The book of the 1<sup>st</sup> A4Cloud Summer School on "Accountability and Security in the Cloud" has been downloaded more than 5500 times; a paper of this book on "Accountability for Data Governance in the Cloud" has been cited 4 times.
- Our ESORICS 2015 paper "Balloon: A Forward-Secure Append-Only Persistent Authenticated Data Structure" has been downloaded more than 480 times;

As it can be concluded, the project succeeded in achieving high impact from presentation and participation to various multi-discipline events, conferences and workshops, while specific communities were also approached through publications to journals. The wide spread of these actions in these 42 months reflects the commitment of the project participants in a continuous stream of delivering high quality dissemination and communication results.

#### 5.2 Results from the use of the Dissemination Channels

With respect to the project dissemination and communication channels, we had initially defined a strategy that was revised in the course of the project, reflecting our stance to adapt to new environment conditions and the behaviour of our stakeholders. More specifically, the project Web Portal, maintained under the a4cloud.eu domain, was the core dissemination channel used throughout the project duration to host the needs of our target stakeholders to find information about the project, the results produced and any news related to our activities the last 3,5 years. On top of that, we adopted a digital communication strategy in social media to create buzz about the project objectives, the work performed in various areas and the results achieved, either through publications, presentations or workshops. Our initial consideration for exploiting LinkedIn for this proactive engagement tactic was revised, since Twitter proved to be more effective in reaching wider audiences.

More specifically, as shown in Table 10, the Portal had a total of more than 100.000 visits, of which one third was unique visitors and two thirds are returning ones. The time distribution of these visits is presented in Figure 5. The spike identified in this diagram relates to the organisation of the IEEE CloudCom 2013 event in Bristol, which attracted a large number of attendees from many countries worldwide. In the remaining period, we realise a continuous flow of new and returning visitors on an average of something around 1000 new visitors and another 1000 returning visitors per month, giving an average of 2000 visitors per month throughout the project lifetime. From these statistics, we can also see that on average each visitor has accessed 6 pages per visit or, equivalently, 19 hits have been performed per each visit.



# Figure 5: Distribution of visits along the project duration.

Figure 6 summarises the geographical distribution of the visitors and their domain or country of access to the Web Portal. As it can be seen, we have a considerable number of visitors from outside Europe, like China and US, which reflects the international impact of the project concepts and the level of penetration that our activities had in the international communities.

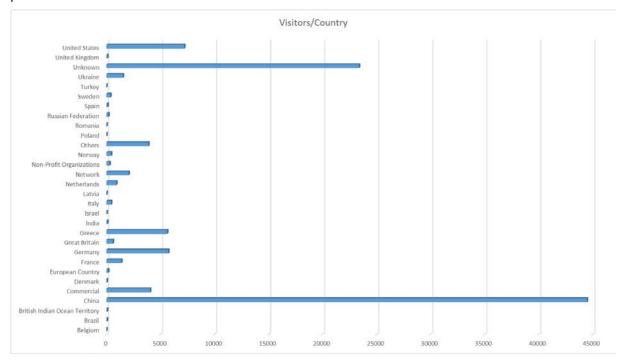


Figure 6: Distribution of visits per domain or country of visit.

Moreover, in Figure 7, we present the percentage of visitors spent a particular time period in browsing the contents of the Web Site. As it can be seen there, 17% of the visitors stayed on the Portal for more than 5 minutes. This is analysed more in Figure 8, in which we present the number of visitors spending more than 5 minutes on the Web Portal, accessing on average 6 pages per visit. Excluding the burst of the period before and after the IEEE Cloud Com 2013 event, we realise that an average number of more than 250 visitors have spent more than 5 minutes on the Portal on a monthly basis.

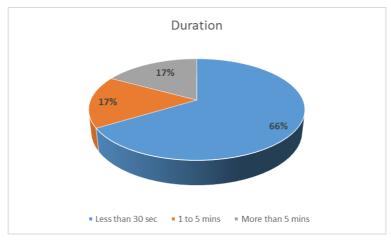


Figure 7: Percentage of visitors' duration on the Web Portal.

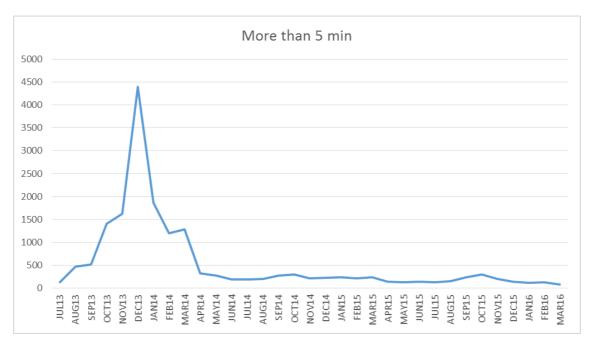


Figure 8: Number of visitors spending more than 5 minutes on the Web Portal per month.

Analysing the statistics from the social media, we emphasise on the twitter stream, the analysis of which<sup>21</sup> shows that we managed to maintain an interest to our stream through mentions and engagement with our posts. In the total number of tweets, one should also count the posts submitted by our 115 following partners, who used their own twitter stream to create buzz on the twitter and engage people with the project results.

Furthermore, we created a number of different content types that have been developed to support the individual partners' activities to penetrate to various communities and talk about the project. Starting from content for raising awareness, we progressively developed material, both off the shell, printed and in digital format, which has been extensively used to support our presence in face-to-face events and on the Internet.

#### 5.3 **Results from the Engagement Actions**

Summarising the dissemination and communication events, we claim that we managed to reach a very good sample of all the target communities that we have identified in the project dissemination plan, as roughly presented in Figure 9.

<sup>&</sup>lt;sup>21</sup> https://analytics.twitter.com

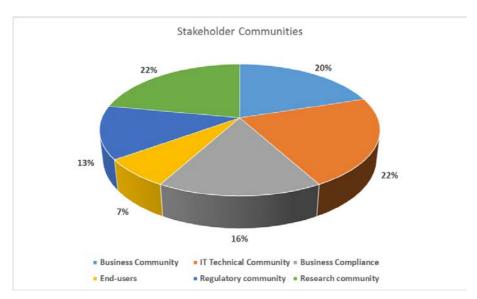


Figure 9: Reaching representatives of the stakeholders' community through engagement activities

### More specifically:

- The Business Community Group: Representatives from the cloud service providers market, cloud brokers and carriers, as well as cloud customers who act as the business cloud service users. These community stakeholders have been reached through our engagement with events organised by the IEEE, ACM, the CSA Congress, the CPDP events, the A4Cloud organised workshops, partners ad hoc meetings with business customers, our involvement in Standardisation Developing Organisations (SDO) activities, the Cloudscape series events, the Cloud Expo event and a number of talks at seminars and colloquiums.
- The IT Technical Community: From this category, we have managed to approach IT Managers, Security Experts, cloud service and application developers, as well as members of Standardisation Bodies, through our involvement in the following events: IEEE and ACM events, conferences organised by the technical communities of IFIP, Closer, NordSec and FOSAD, the CSA Congress, the A4Cloud organised workshops, partners ad hoc meetings with business customers, our involvement in SDO activities, the Cloudscape series events, the Cloud Expo event and a number of talks and presentations at seminars and colloquiums.
- Business Compliance Community Group: Cloud Auditors and Compliance Managers and implementation Officers have been reached in events like the Annual Privacy Forum, CPDP, NordSec, the Cloud Expo, the CSA EMEA Congress, our talks to the Privacy Network Noord Nederland, the SCL Policy Forum and the TILEC ClubMed, the project workshops with the Swedish MSB and the Galway project and other partners' individual meetings.
- We also claim that we managed to reach the end user (citizens community) through our presence in Twitter, while we feel that part of the end users that do not belong to the other stakeholders' groups have been reached at the CSP EU Forum conferences, the IFIP and FOSAD events and our presentations and talks to the MSB and the selected seminars and colloquiums.
- Regulatory Community: Representatives from the community of the Regulatory Experts, the EU MS
  Governments and Policy Makers, as well as consultants of the European Data Protection
  Supervisory environment have been reached through our engagement with the events already
  presented for the Business Compliance Community Group and our presence in the kick-off meeting
  and the emailing list of the IPEN initiative<sup>22</sup>.
- Research Community: Finally, cloud computing and IT security research teams, legal researchers
  on data protection and privacy, social scientists and academic economists have been reached in a
  variety of events supported by the IEEE and the ACM communities, the CSP EU Forum and the

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<sup>&</sup>lt;sup>22</sup> https://secure.edps.europa.eu/EDPSWEB/edps/EDPS/IPEN

Annual Privacy Forum, the well-known series of frequent research oriented events from IFIP, SOUPS, OTM, ISSE, WSC, ESORICS, ARES, SECRYPT, Closer, APSEC, IPICS, CloudScape and FOSAD in the respective research disciplines and the A4Cloud workshops, summer schools and training events and seminars.

#### 5.4 Results from the Training Activities

During the whole duration of A4Cloud several training activities have been organized by the members of the consortium. They have been described in corresponding deliverables, however, we are going to summarize them in the following.

We have held two summer schools and three training workshops.

#### Summer Schools

The first A4Cloud summer school took place in Malaga at the premises of UMA in June 2014. A4Cloud was the main organizing project but the school was held in collaboration with other European projects such as CIRRUS, SPECS, CUMULUS and CocoCloud.

The program of the school included lectures given mainly by A4Cloud partners on the main topics of the project. It also contained one lecture on the topic of each of the collaborating projects. Besides these lectures there was a call for participation for students' papers, which were presented at the school.

The main outcome of the school was the book "Accountability and security in the Cloud" published by Springer on the Tutorials series in 2015.

For the second summer school the 4Cloud consortium decided to join efforts with already existing and strong summer schools as it is the the case of the IFIP Summer school on Privacy and Identity Management. This decision was made on the basis that this summer school attracts participants from very multidisciplinary areas such as Computer Science, Law or Socio-economics.

The A4Cloud influence on the school was very visible. Simone Fischer-Hübner was the general Chair, other members of the consortium were in the steering and programme committee and the first invited talk was given by Melek Önen (EURECOM) on A4Cloud topics about Privacy and A-PPL.

Besides this, three papers from the A4Cloud consortium were submitted for peer review and accepted for presentation and further publication at the summer school proceedings.

### Training Workshops

During the lifetime of the A4Cloud project we held three training workshops. The first one was held as a satellite event of the IFIP Summer School 2014 in Patras (Greece) in September 2014. It was devoted to the concepts of A4Cloud. Thus, we gave an overview of the project and presented the conceptual framework. The architecture of A4Cloud was at the beginning of its design, therefore we introduced it and summarised what the A4Cloud tools will be doing. We also focused on the Data Track Tool and DPIAT as they were being developed at the time and their functionalities could be shown at that time.

For the time of the second training workshop more tools were functional and could be presented to the audience. This workshop took also place as a satellite event of the IFIP Summer School but in 2015. The event was held in Edinburgh in August 2015. Since the tools were in a mature way to be presented we selected 4 of them to be shown: DPIAT, COAT, DT and A-PPL engine and language. This time the attendees were split into 4 different groups in order to present them the demos of the tools in smaller groups. The comments and feedback from the audience were taken into account when refining the implementation of the shown tools.

The third workshop was devoted to show the legacy of A4Cloud and was intended to provide to professionals an overview of the tools and how they could help them in their different roles (cloud providers, policy makers or even users). Thus, we held our last workshop at the Cloudscape event, which took place in Brussels, on the 8<sup>th</sup> and 9<sup>th</sup> of March 2016. This event gathered together more than 130 participants working on very important cloud companies in cloud such as Microsoft or CISCO as well as some members of the European Commission.

The workshop presented to the audience the reference architecture and the legacy of A4Cloud and gave an overall view on how the different A4Cloud tools worked together for the different stakeholders. We also presented SPACE, as a way to show the integration of the A4Cloud tools. Since during this

event we also had a booth to show our demos alive and a poster we invited the attendees to visit them to see how A4Cloud works in practice.

At the end of the workshop we distributed a questionnaire to evaluate how A4Cloud is perceived by potential users and also pointed the attendees to the link to the Socio Economic Impact Assessment questionnaire.

#### 5.5 Results from the Concertation Activities

Regarding concertation, the project selected key events that would be the avenue to share research interests and ideas with other EU-funded projects, as well as other research initiatives. Such events consist of the CSP EU Forum and the IFIP Summer Schools. In both cases, A4Cloud had a continuous presence to the respective annual events, through which we managed to establish research oriented alliances with a number of projects and initiatives. The corresponding concertation efforts refer to many aspects of the project research, like risk management, policy specification, privacy preserving technologies and techniques for cloud security.

### 5.6 Addressing the KPIs of the Dissemination Plan

We summarise the impact of the dissemination and communication activities by presenting the degree of fluffiness of the key performance indicators (KPIs) that we have defined and introduced in the Dissemination Plan [2]. These KPIs are project quality metrics that are exploited to measure the efficiency of the dissemination and communication tactics, as well as assess the engagement effectiveness to penetrate to target stakeholders' groups.

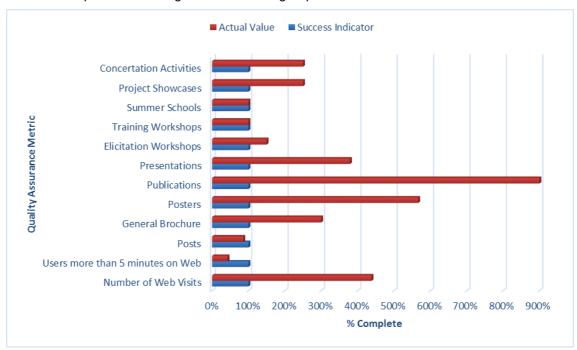


Figure 10: Normalised quality metrics for the dissemination activities

Figure 10 shows the quality metrics that quantify the KPIs, their initially considered success indicators and the values finalised measured during the project lifetime (October 2012 – March 2016), in a normalised mode. As we can conclude, for most of the critical quality metrics, we have exceeded the expected threshold, which showcases the great impact that we managed to achieve these 42 months. Of course, for a couple of metrics the relevant KPI actual value is below the threshold, namely for the number of users spending more than 5 minutes on the Portal and the continuous posting to social media. We can argue here that the respective measurement value for the metrics is subject to errors, as the respective measurement technique was not accurate enough. For example, the objective for the posts was a continuous flow, which means at least one post per day for 42 months. The social media do offer some statistics to count on the number of posts per day (although LinkedIn has recently dropped the

relevant service), but they do not offer accurate statistics on the number of comments for example. Furthermore, from the enormous number of visitors we had on the Portal, it was expected that the majority of them (more than 50%) would access the portal at the time that we hear of the portal url in a conference for example, while they would leave the browsing to the portal for some other visit.

#### 6 Conclusions

This report summarises the activities performed in WP13 for the whole project duration by detailing the evolution of these actions in the three phases of the project dissemination plan. More specifically, in the first phase of the project dissemination plan, lasting from M1 (October 2012) to M12 (September 2013), the dissemination efforts emphasised on the deployment of the digital means for the project dissemination and communication to the stakeholders' community, which we started to develop since the beginning of the project lifetime. On top of the dissemination channels, we delivered an initial package of the dissemination content, including the project general poster and brochure, as well as the project presentation, which was customised ad-hoc to meet the objectives of the partners' individual dissemination activities. In the second phase of the project dissemination plan, lasting from M13 (October 2013) to M24 (September 2014), the development of the conceptual framework for accountability has driven a mix of raising awareness and user engagement activities. In the last phase of the project dissemination plan, lasting from M25 (October 2014) to M42 (March 2016), we leveraged our dissemination activities with focused user engagement, research coordination and training activities.

The dissemination and communication activities targeted to reach representatives from all the planned communities of stakeholders through i) publications to journals and proceedings of conferences with referred paper acceptance procedures in place, ii) presentations of dedicated project results or the holistic project approach to scientific and industrial conferences and events, iii) organisation of thematic workshops to convey particular messages to focused audiences and iv) participation in third party events to foster collaboration with interested stakeholders and advertising the A4Cloud work in discussion panels and working groups. As a result of this effort, representatives from all the stakeholders' communities with the project results were approached, both in terms of delivering to them new knowledge, and establishing a mutual communication for the demonstration of the accountability mechanisms, and tools. The outcome of this deliverable is the list of activities performed, the impact of these activities to the stakeholders' communities, the communication digital package that was produced in the course of the project and the dissemination channels that will be maintained to the extend this is possible after the end of the co-funding period. The Web portal has, also, been recently updated to reflect the post project era, giving emphasis on the project results and the material which remains for the communities, including Web articles and publications, the public project deliverables and the Cloud Accountability Reference Architecture.

# 7 References

- [1] http://awstats.sourceforge.net/
- [2] A4Cloud Consortium, Deliverable D:A-3.2 Dissemination Plan, March 2013

# 8 Appendices

## 8.1 The A4Cloud Web Portal



Figure 11: The home page of the A4Cloud Web Portal in the course of the project (M1-M42)



Figure 12: The design of the home page of the Web Portal for the Cloud Accountability Project beyond March 2016.

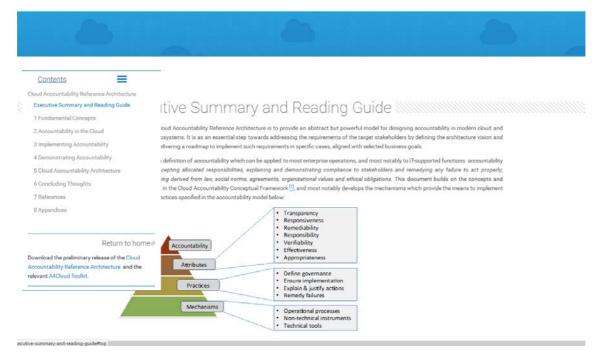


Figure 13: The new design of the page on the cloud accountability reference architecture.

### 8.2 The A4Cloud Project Presentation



Figure 14: A4Cloud PowerPoint Template - First Page



Figure 15: A4Cloud PowerPoint Template – Inner Page

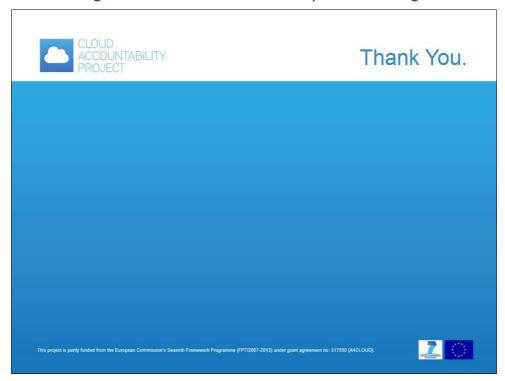


Figure 16: A4Cloud PowerPoint Template – Last Page

### 8.3 A4Cloud material

Figure 17 shows the A4Cloud project flyer developed in the first reporting period.



Figure 17: Project Flyer

The first version of the A4Cloud banner is shown in Figure 18. This was created during the 1st phase of the dissemination plan. An updated version was developed in phase 2, as shown in Figure 19.



Figure 18: Project Banner

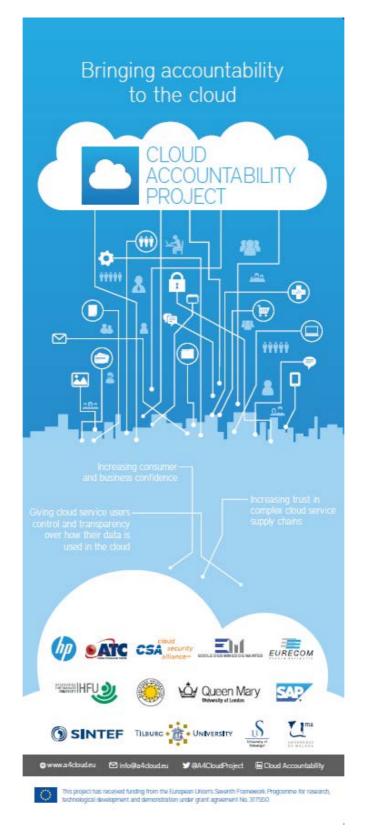


Figure 19: Project Roll-up

The A4Cloud brochure is shown in the following figures.



Figure 20: Project Brochure - Cover Page



Figure 21: Project Brochure - Inner Page 1



Figure 22: Project Brochure - Inner Page 2



Figure 23: Project Brochure – Back Page

Apart from these general brochures and posters, the project has supported the demonstration of the project results on the reference architecture and the technical mechanisms for accountability through tool oriented posters, like the ones presented next.

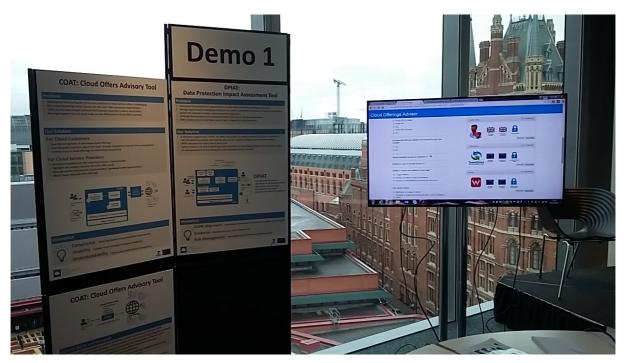


Figure 24: Project Posters for the demonstration of contract and risk management tools (COAT and DPIAT)

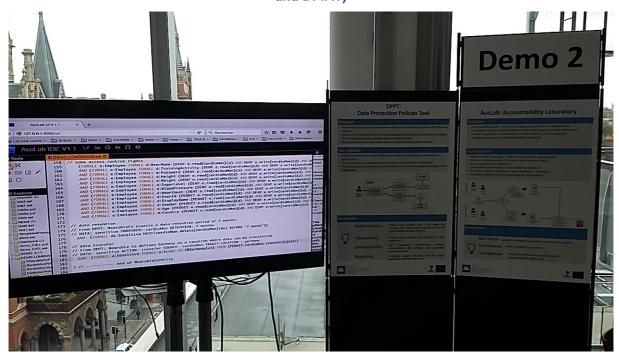


Figure 25: Project Posters for the demonstration of policy definition tools (DPPT and AccLab)



Figure 26: Project Posters for the demonstration of policy enforcement and incident management tools (focus on A-PPLE, DTMT and IMT)



Figure 27: Project Posters for the demonstration of audit and validation tools (AAS)



Figure 28: Project Posters for the demonstration of cloud subject controls tools (DT, TL and RRT)

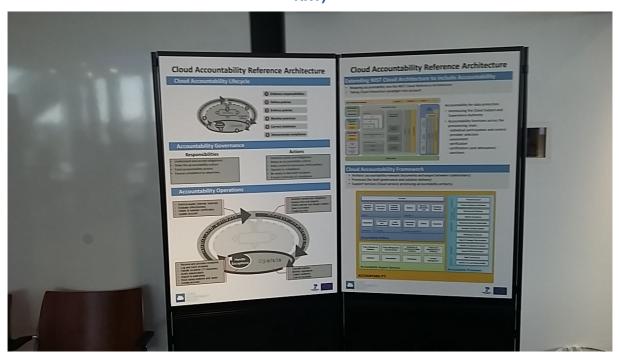


Figure 29: Project Posters for the lifecycle for accountability and the cloud accountability reference architecture



Figure 30: Project Poster for the A4Cloud toolset prototype and the accountability mechanisms in the middle (from the A4Cloud kiosk at CSA EMEA Congress 2015)

Furthermore, in order to explain the methodology and the rational of the COAT and DPIAT tools, we have produced to booklet style brochures for these tools.

## 8.4 List of Tables

**Table 5: List of Journal Publications** 

Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
		Phase 1	(M1-M12)		
Siani Pearson (HP)	Privacy, Security and Trust in Cloud Computing	Privacy and Security for Cloud Computing	Computer Communications and Networks, Springer, pp. 3-42 Print ISBN 978-1-4471-4188-4 Online ISBN 978-1-4471-4189-1	<u>10.1007/978-1-4471-4189-1</u> <u>1</u>	2013
Siani Pearson and Nick Wainwright (HP)	An Interdisciplinary Approach to Accountability for Future Internet Service Provision	International Journal of Trust Management in Computing and Communications (IJTMCC)	volume 1, issue 1, pp. 52-72	10.1504/IJTMCC.2013.052524	March 2013
Siani Pearson (HP)	Toward Accountability in the Cloud	IEEE Internet Computing	pp. 6-10		May/June 2013
		Phase 2	(M13-M24)		
Cayirci, E.	Configuration Schemes for Modelling and Simulation as a Service Federations	SIMULATION Transactions of The Society for Modeling and Simulation International	SIMULATION 0037549713501574	10.1177/0037549713501574	SIMULATION November 12, 2013
Volkmar Lotz, Anderson Santana de Oliveira, and Jakub Sendor	Control as a Means towards Accountable Services in the Cloud	Special Issue on Secure Cloud Infrastructure in the International Journal of Computer Systems Science and Engineering	Vol 28 No 6 Special issue: 2nd International Symposium on Secure Virtual Infrastructures		November 2013

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Tomer Gershoni, Miranda Mowbray, Siani Pearson (HP)	Mechanisms for protecting sensitive information in cloud computing	Special Issue on Secure Cloud Infrastructure in the International Journal of Computer Systems Science and Engineering	Vol 28 No 6 Special issue: 2nd International Symposium on Secure Virtual Infrastructures		November 2013
		Phase 3	(M25-M42)		
Wouter Steijn, Maartje Niezen	The value of accountability in the cloud: Individuals' willingness to pay for transparency	Technology and Society Magazine IEEE	Volume 34, issue 4, Page(s): 74 - 82, ISSN : 0278- 0097, INSPEC Accession Number: 15669159, IEEE	10.1109/MTS.2015.2494373	December 2015
Maartje Niezen, Wouter Steijn	Public perception on data and/in the cloud: Distinguishing cloud enthusiasts from cloud worriers	Book chapter	The privacy & identity lab. Four years later. Pages 103-115, ISBN 9789082483505		11 December 2015
Martin Gilje Jaatun, Siani Pearson, Frederic Gittler, Ronald Leenes, Maartje Niezen	Enhancing Accountability in the Cloud	International Journal of Information Management (IJIM)			submitted January 2016
Siani Pearson and Heiko Meyer	Auch der Datenschutz braucht eine digitale Revolution	book chapter	Verbrauchervertrauen, Michael Freytag (ed.), Frankfurter Allgemeine Buch, Germany, pp. 224- 237		November 2015

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Travis Breaux and Siani Pearson	Ensuring Privacy in Clouds	book chapter	Encyclopedia of Cloud Computing, First Edition, San Murugesan and Irena Bojanova (eds.), pp 255-266, John Wiley & Sons, Ltd		February 2016
Siani Pearson, Jesus Luna and Christoph Reich	Improving Cloud Assurance and Transparency Through Accountability Mechanisms	book chapter	S.Y. Zhu et al. (eds.), Chapter 9, Guide to Security Assurance for Cloud Computing, Computer Communications and Networks, Springer International Publishing Switzerland	DOI 10.1007/978-3-319-25988- 8_9.	March 2016
Rehab Alnemr	DP Impact Assessment: A technologist's perspective	Privacy Laws & Business United Kingdom Report	pp 15-16		March 2016

# **Table 6: List of Publications to Conference Proceedings**

Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place			
	Phase 1 (M1-M12)							
Pearson, S., Tountopoulos, V.; Catteddu, D.; Sudholt,	Accountability for Cloud and Other Future Internet Services	4th IEEE International Conference on Cloud Computing Technology	E-ISBN: 978-1-4673- 4509-5 Print ISBN: 978-1-	10.1109/CloudCom.2012.642751 2	3-6 December 2012, Taipei, Taiwan			

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
M.; Molva, R.; Reich, C.; Fischer-Hubner, S.; Millard, C.; Lotz, V.; Jaatun, M.G.; Leenes, R.; Chunming Rong; Lopez, J.		and Science (CloudCom), 2012	4673-4511-8 pp 629-632		
Ronan-Alexandre Cherrueau, Omar Chebaro, Mario Südholt	Flexible Aspect-Based Service Adaptation for Accountability Properties in the Cloud	4th International Workshop on Variability & Composition (VariComp'13), ACM	ISBN: 978-1-4503- 1867-9, pp 13-18	<u>10.1145/2451617.2451621</u>	March 26, 2013, Fukuoka
Massimo Felici, Martin Gilje Jaatun, Eleni Kosta, Nick Wainwright	Bringing Accountability to the Cloud: Addressing Emerging Threats and Legal Perspectives	Cyber Security and Privacy Trust in the Digital World and Cyber Security and Privacy EU Forum 2013	Communications in Computer and Information Science Volume 182, 2013, pp 28-40 Print ISBN: 978-3- 642-41204-2	10.1007/978-3-642-41205-9_3	18-19 April 2013, Brussels, Belgium
Siani Pearson (HP)	Privacy management and accountability in global organisations	Privacy and Identity 2014	IFIP AICT 421, pp. 33–52 Print ISBN 978-3-642-55136-9 Online ISBN 978-3-642-55137-6	<u>10.1007/978-3-642-55137-6_3</u>	June 2013, Tilburg, the Netherlands
Daniele Catteddu(CSA), Massimo Felici (HP), Giles Hogben (CSA), Amy Holcroft (HP), Eleni Kosta (TiU), Ronald Leenes (TiU), Maartje Niezen (TiU),	Towards a Model of Accountability for Cloud Computing Services	DIMACS/BIC/A4Cloud/C  SA International Workshop on Trustworthiness, Accountability and Forensics in the Cloud (TAFC)			6-7 June 2013, Malaga, Spain

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Christopher Millard (QMUL), David Nuñez (UMA), Nick Papanikolaou (HP), Siani Pearson (HP), Daniel Pradelles(HP), Chris Reed (QMUL), Jean-Claude Royer (EMN), Dimitra Stefanatou (TiU), Vasilis Tountopoulos (ATC), Tomasz Wiktor Wlodarczyk (UiS)					
Stefan Berthold, Simone Fischer- Hubner, Leonardo A. Martucci, and Tobias Pulls (KAU)	Crime and Punishment in the Cloud - Accountability, Transparency, and Privacy	DIMACS/BIC/A4Cloud/C SA International Workshop on Trustworthiness, Accountability and Forensics in the Cloud (TAFC)			6-7 June 2013, Malaga, Spain
Nick Papanikolaou, Siani Pearson (HP)	A Cross-Disciplinary Review of the Concept of Accountability - A Survey of the Literature	DIMACS/BIC/A4Cloud/C SA International Workshop on Trustworthiness, Accountability and Forensics in the Cloud (TAFC)			6-7 June 2013, Malaga, Spain
Thomas Rubsamen, Christoph Reich (HFU), Aryan Taherimonfared, Tomasz Wlodarczyk,	Evidence for Accountable Cloud Computing Services	DIMACS/BIC/A4Cloud/C SA International Workshop on Trustworthiness, Accountability and			6-7 June 2013, Malaga, Spain

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
and Chunming Rong (UiS)		Forensics in the Cloud (TAFC)			
Matthias Beckerle, Leonardo A. Martucci	Formal Definitions for Usable Access Control Rule Sets From Goals to Metrics	Proceedings of the Ninth Symposium on Usable Privacy and Security (received distinguished paper award)	ISBN 978-1-4503- 2319-2	10.1145/2501604.2501606	24-26 July, 2013, Newcastle, UK
Thomas Rubsamen and Christoph Reich	Cloud Audits and Privacy Risks	On the Move to Meaningful Internet Systems: OTM 2013 Conferences Publisher: Springer Berlin Heidelberg	Lecture Notes in Computer Science Volume 8185, 2013, pp 403-413 Print ISBN: 978-3- 642-41029-1	10.1007/978-3-642-41030-7_29	9-13 September, 2013, Graz, Austria
Siani Pearson	On the Relationship between the Different Methods to Address Privacy Issues in the Cloud	On the Move to Meaningful Internet Systems: OTM 2013 Conferences Publisher: Springer Berlin Heidelberg	Lecture Notes in Computer Science Volume 8185, 2013, pp 414-433 Print ISBN: 978-3- 642-41029-1	10.1007/978-3-642-41030-7_30	9-13 September, 2013, Graz, Austria
		Phase 2	(M13-M24)		
Peeters R., Pulls T. and Wouters K.	Enhancing Transparency with Distributed Privacy- Preserving Logging	ISSE 2013 Securing Electronic Business Processes, Highlights of the Information Security Solutions Europe 2013 Conference	Print ISBN: 978-3- 658-03370-5, Online ISBN: 978-3-658- 03371-2, pp 61-71	10.1007/978-3-658-03371-2 6	22-23 October 2013, Brussels, Belgium
Pulls T., Peeters R. and Wouters K	Distributed Privacy- Preserving Transparency Logging	Proceedings of the 12th ACM workshop on Workshop on privacy in the electronic society	ISBN: 978-1-4503- 2485-4, Pages 83-94	10.1145/2517840.2517847	4 November 2013, Berlin, Germany

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Jens Prüfer	How to Govern the Cloud? Characterizing the Optimal Enforcement Institution that Supports Accountability in Cloud Computing	Cloud Computing Technology and Science (CloudCom), 2013 IEEE 5th International Conference on (Volume:2)	Page(s): 33 - 38 INSPEC Accession Number: 14146267 Publisher: IEEE	10.1109/CloudCom.2013.100	2-5 December 2013, Bristol, UK
Pasquale Puzio, Refik Molva, Melek Önen, Sergio Loureiro	ClouDedup: Secure Deduplication with Encrypted Data	Cloud Computing Technology and Science (CloudCom), 2013 IEEE 5th International Conference on (Volume:1)	Page(s): 363 - 370 INSPEC Accession Number: 14146200 Publisher: IEEE	10.1109/CloudCom.2013.54	2-5 December 2013, Bristol, UK
Thomas Ruebsamen, Christoph Reich	Supporting Cloud Accountability by Collecting Evidence Using Audit Agents	Cloud Computing Technology and Science (CloudCom), 2013 IEEE 5th International Conference on (Volume:1)	Page(s): 185 - 190 INSPEC Accession Number: 14146176 Publisher: IEEE	10.1109/CloudCom.2013.32	2-5 December 2013, Bristol, UK
Anderson Santana de Oliveira, Jakub Sendor, Alexander Garaga and Kateline Jenatton	Monitoring Personal Data Transfers in the Cloud	Cloud Computing Technology and Science (CloudCom), 2013 IEEE 5th International Conference on (Volume:1)	Page(s): 347 - 354 INSPEC Accession Number: 14146238 Publisher: IEEE	10.1109/CloudCom.2013.52	2-5 December 2013, Bristol, UK
David Nuñez, Carmen Fernandez-Gago,	A Metamodel for Measuring	Cloud Computing Technology and Science (CloudCom), 2013 IEEE	Page(s): 355 - 362 INSPEC Accession	10.1109/CloudCom.2013.53	2-5 December 2013, Bristol, UK

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Siani Pearson ans Massimo Felici	Accountability Attributes in the Cloud	5th International Conference on (Volume:1)	Number: 14146206 Publisher: IEEE		
Ronan-Alexandre Cherrueau and Mario Sudholt and Omar Chebaro	Adapting workflows using generic schemas: application to the security of business processes	Cloud Computing Technology and Science (CloudCom), 2013 IEEE 5th International Conference on (Volume:1)	Page(s): 519 - 524 INSPEC Accession Number: 14146173 Publisher: IEEE	10.1109/CloudCom.2013.75	2-5 December 2013, Bristol, UK
Massimo Felici, Theofrastos Koulouris, Siani Pearson	Accountability for Data Governance in Cloud Ecosystems	Cloud Computing Technology and Science (CloudCom), 2013 IEEE 5th International Conference on (Volume:2	Page(s): 327 - 332 INSPEC Accession Number: 14146301 Publisher: IEEE	10.1109/CloudCom.2013.157	2-5 December 2013, Bristol, UK
Marianthi Theoharidou, Nick Papanikolaou, Siani Pearson, Dimitris Gritzalis	Privacy Risk, Security, Accountability in the Cloud	Cloud Computing Technology and Science (CloudCom), 2013 IEEE 5th International Conference on (Volume:1	Page(s): 177-184 INSPEC Accession Number: 14146218 Publisher: IEEE	10.1109/CloudCom.2013.31	2-5 December 2013, Bristol, UK
Erdal Cayirci	A joint trust and risk model for MSaaS mashups	2013 Winter Simulation Conference (WSC)	Page(s): 1347 - 1358 Print ISBN: 978-1-4799-2077-8	10.1109/WSC.2013.6721521	8-11 December 2013, Washington, DC

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Erdal Cayirci	Modeling and simulation as a cloud service: A Survey	2013 Winter Simulation Conference (WSC)	Page(s): 389 - 400 Print ISBN: 978-1-4799-2077-8	10.1109/WSC.2013.6721436	8-11 December 2013, Washington, DC
Jakub Sendor , Yann Lehmanny, Gabriel Sermez and Anderson Santana de Oliveira	Platform-level support for Authorization in Cloud Services with OAuth 2	2014 IEEE International Conference on Cloud Engineering (IC2E)	Page(s): 458 – 465 INSPEC Accession Number: 14615315 Publisher: IEEE	10.1109/IC2E.2014.60	11-14 March 2014, Boston, Massachusetts, USA
Benghabrit, Walid; Grall, Hervé; Royer, Jean-Claude; Sellami, Mohamed; Azraoui, Monir; Elkhiyaoui, Kaoutar; Önen, Melek; Santana De Oliveira, Anderson; Bernsmed, Karin	A Cloud Accountability Policy Representation Framework	Proceedings of the 4th International Conference on Cloud Computing and Services Science	ISBN 978-989-758- 019-2, pp. 489-498, SCITEPRESS Digital Library	10.5220/0004949104890498	3-5 April 2014, Barcelona, Spain
Vasilios Tountopoulos, Massimo Felici, Alain Pannetrat, Daniele Catteddu, Siani Pearson	Interoperability Analysis of Accountable Data Governance in the Cloud	Third Cyber Security and Privacy EU Forum, CSP Forum 2014	Communications in Computer and Information Science, Volume 470, pp 77- 88, Print ISBN 978-3-319-12573-2 Online ISBN 978-3-319-12574-9 Publisher Springer International Publishing	<u>10.1007/978-3-319-12574-9_7</u>	21-22 May 2014, Athens, Greece

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Nick Papanikolaou, Thomas Rübsamen, Christoph Reich	A Simulation Framework to Model Accountability Controls for Cloud Computing	The Fifth International Conference on Cloud Computing, GRIDs, and Virtualization (IARIA CLOUD COMPUTING 2014)	Page(s) 12 - 19, ISBN: 978-1-61208- 338-4, IARIA, 2014	http://www.thinkmind.org/downloa d.php?articleid=cloud_computing_ 2014_1_30_20077	25 -29 May, 2014, Venice, Italy
Anderson Santana De Oliveira, Anis Char, Benjamin Schmeling and Gabriel Serme.	A Model-Driven Approach for Accountability in Business Processes	Proceedings of 15th International Conference, BPMDS 2014, 19th International Conference, EMMSAD 2014, Held at CAISE 2014, Thessaloniki, Greece, June 16-17, 2014.	Enterprise, Business- Process and Information Systems Modeling, Lecture Notes in Business Information Processing Volume 175, 2014, pp 184- 199 Print ISBN 978-3-662-43744-5 Online ISBN 978-3-662-43745-2	10.1007/978-3-662-43745-2_13	16-17 June 2014, Thessaloniki, Greece
Ronan-Alexandre Cherrueau, Mario Südholt	Enforcing Expressive Accountability Policies	2014 IEEE 23rd International WETICE Conference (WETICE)	IEEE Xplore,Page(s): 333 - 338, INSPEC Accession Number: 14686559	10.1109/WETICE.2014.71	23-25 June 2014, Parma, Italy
Massimo Felici, Siani Pearson (HP)	Accountability, Risk, and Trust in Cloud Services: Towards an Accountability-Based Approach to Risk and Trust Governance	IEEE Services 2014	Print ISBN: 978-1-4799-5068-3 IEEE, pp. 105-112	10.1109/SERVICES.2014.29	27 June-2 July 2014, Anchorage, Alaska, USA

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Karin Bernsmed, W. Kuan Hon, Christopher Millard	Deploying Medical Sensor Networks in the Cloud – Accountability Obligations from a European Perspective	7th IEEE International Conference on Cloud Computing, IEEE CLOUD 2014	Page(s): Print ISBN: 978-1-4799-5062-1, pp. 898 - 905, IEEE	10.1109/CLOUD.2014.123	27 June - 2 July, 2014, Alaska, USA
Walid Benghabrit, Herve Grall, Jean- Claude Royer, Mohamed Sellami, Karin Bernsmed and Anderson Santana De Oliveira	Abstract Accountability Language	Trust Management VIII IFIP Advances in Information and Communication Technology 8th IFIP WG 11.11 International Conference, IFIPTM 2014	Print ISBN 978-3-662-43812-1 Online ISBN 978-3-662-43813-8 Volume 430, 2014, pp 229-236 Series ISSN 1868-4238 Publisher Springer Berlin Heidelberg	<u>10.1007/978-3-662-43813-8_17</u>	7-10 July 2014, Singapore
Benghabrit, Walid and Grall, Hervé and Royer, Jean-Claude and Sellami, Mohamed	Accountability for Abstract Component Design	EUROMICRO DSD/SEAA 2014	IEEE proceedings, pages 213-220	10.1109/SEAA.2014.68	27-29 August 2014, Verona, Italy
Kaoutar Elkhiyaoui, Melek Önen, and Refik Molva (EURECOM)	Privacy preserving delegated word-search in the cloud	SECRYPT, 11th International conference on Security and Cryptography	Vol. 1 - 978-989-758- 045-1, pp. 137 - 150, SCITEPRESS Digital Library	10.5220/0005054001370150	28-30 August 2014, Vienna, Austria
Monir Azraoui, Kaoutar Elkhiyaoui, Refik Molva, Melek Önen (EURECOM)	StealthGuard: Proofs of retrievability with hidden watchdogs	Proceedings (Part I) of 19th European Symposium on Research in Computer Security, Wroclaw, Poland, September 7-11, 2014.	Computer Security - ESORICS 2014, Lecture Notes in Computer Science, Volume 8712, 2014, pp 239-256	10.1007/978-3-319-11203-9_14	7-11 September 2014, Wroclaw, Poland

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
			Print ISBN 978-3-319-11202-2 Online ISBN 978-3-319-11203-9		
Karin Bernsmed, Daniela Soares Cruzes, Martin Gilje Jaatun, Børge Haugset, Erlend Andreas Gjære	Healthcare Services in the Cloud – Obstacles to Adoption, and a Way Forward	Ninth International Conference on Availability, Reliability and Security (ARES), 2014	Page(s): 158 - 165 INSPEC Accession Number: 14819439 Publisher IEEE	10.1109/ARES.2014.28	8-12 September 2014, Fribourg, Switzerland
Monir Azraoui, Kaoutar Elkhiyaoui, Melek Önen, Karin Bernsmed, Jakub Sendor, Anderson Santana de Oliveira (EURECOM, SINTEF, SAP)	A-PPL: An accountability policy language	DPM, 9th International Workshop on Data Privacy Management	Data Privacy Management, Autonomous Spontaneous Security, and Security Assurance, Volume 8872 of the series Lecture Notes in Computer Science, pp 319-326, Print ISBN 978-3-319-17015-2, Online ISBN 978-3-319-17016-9, Springer International Publishing	10.1007/978-3-319-17016-9_21	10 September 2014, Wroclaw, Poland
Phase 3 (M25-M42)					
Siani Pearson (HP)	Accountability in Cloud Service Provision Ecosystems	19th Nordic Conference, NordSec 2014, Tromsø, Norway, October 15-17,	Secure IT Systems Lecture Notes in Computer Science 2014, pp 3-24, vol	10.1007/978-3-319-11599-3_1	15-17 October 2014, Tromso, Norway

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
		2014, Proceedings, NordSec 2014	8788, Springer Print ISBN 978-3-319-11598-6 Online ISBN 978-3-319-11599-3		
Julio Angulo, Erik Wästlund, Johan Högberg	What Would It Take for You to Tell Your Secrets to a Cloud? - Studying Decision Factors When Disclosing Information to Cloud Services	19th Nordic Conference, NordSec 2014, Tromsø, Norway, October 15-17, 2014, Proceedings, NordSec 2014	Secure IT Systems Lecture Notes in Computer Science 2014, pp 129-145, vol 8788, Springer Print ISBN 978-3-319-11598-6 Online ISBN 978-3-319-11599-3	10.1007/978-3-319-11599-3_8	15-17 October 2014, Tromso, Norway
Mohamed Sellami, Jean-Claude Royer and Walid Benghabrit	Accountability for Data Protection	International Workshop on Computational Intelligence for Multimedia Understanding	IEEE pages 1-5	10.1109/IWCIM.2014.7008804	1-2 November 2014, Paris, France
Erdal Cayirci, Alexandr Garaga, Anderson Santana De Oliveira, Yves Roudier	A Cloud Adoption Risk Assessment Model	IEEE/ACM 7th International Conference onUtility and Cloud Computing (UCC), 2014	Page(s): 908 - 913 INSPEC Accession Number: 14902668 Publisher IEEE	10.1109/UCC.2014.148	8-11 December 2014, London, UK
Karin Bernsmed	Accountable Health Care Service Provisioning in the Cloud	IEEE/ACM 7th International Conference onUtility and Cloud Computing (UCC), 2014	Page(s): 902 - 907 INSPEC Accession Number:	10.1109/UCC.2014.147	8-11 December 2014, London, UK

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
			14888528 Publisher IEEE		
Rehab Alnemr, Siani Pearson, Ronald Leenes and Rodney Mhungu	COAT: Cloud Offerings Advisory Tool	IEEE 6th International Conference on Cloud Computing Technology and Science (CloudCom), 2014	Page(s): 95 - 100 INSPEC Accession Number: 14930260 Publisher IEEE	10.1109/CloudCom.2014.100	15-18 December 2014, Singapore
Martin Gilje Jaatun, Siani Pearson, Frederic Gittler and Ronald Leenes	Towards Strong Accountability for Cloud Service Providers	IEEE 6th International Conference on Cloud Computing Technology and Science (CloudCom), 2014	Page(s): 1001 - 1006 INSPEC Accession Number: 14930271 Publisher IEEE	10.1109/CloudCom.2014.123	15-18 December 2014, Singapore
Massimo Felici, Carmen Fernández-Gago	Accountability and Security in the Cloud	First Summer School, Cloud Accountability Project, A4Cloud, Malaga, Spain, June 2- 6, 2014, Revised Selected Papers and Lectures	Lecture Notes in Computer Science, Volume 8937, Print ISBN 978-3-319-17198-2 Online ISBN 978-3-319-17199-9 Publisher Springer International Publishing	<u>10.1007/978-3-319-17199-9</u>	2015, Malaga, Spain
Massimo Felici, Siani Pearson	Accountability for Data Governance in the Cloud	Accountability and Security in the Cloud, First Summer School, Cloud Accountability Project, A4Cloud,	Lecture Notes in Computer Science Volume 8937 of the series pp 3-42 Print ISBN	10.1007/978-3-319-17199-9_1	2015, Malaga, Spain

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
		Malaga, Spain, June 2- 6, 2014, Revised Selected Papers and Lectures	978-3-319-17198-2 Online ISBN 978-3-319-17199-9 Publisher Springer International Publishing		
Simone Fischer- Hübner , John Sören Pettersson, Julio Angulo	HCI Requirements for Transparency and Accountability Tools for Cloud Service Chains	Accountability and Security in the Cloud, First Summer School, Cloud Accountability Project, A4Cloud, Malaga, Spain, June 2- 6, 2014, Revised Selected Papers and Lectures	Lecture Notes in Computer Science Volume 8937 of the series pp 81-113 Print ISBN 978-3-319-17198-2 Online ISBN 978-3-319-17199-9 Publisher Springer International Publishing	10.1007/978-3-319-17199-9_4	2015, Malaga, Spain
Carmen Fernández- Gago , David Nuñez	Metrics for Accountability in the Cloud	Accountability and Security in the Cloud, First Summer School, Cloud Accountability Project, A4Cloud, Malaga, Spain, June 2- 6, 2014, Revised Selected Papers and Lectures	Lecture Notes in Computer Science Volume 8937 of the series pp 129-153 Print ISBN 978-3-319-17198-2 Online ISBN 978-3-319-17199-9 Publisher Springer International Publishing	<u>10.1007/978-3-319-17199-9_6</u>	2015, Malaga, Spain

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Erdal Cayirci	Models for Cloud Risk Assessment: A Tutorial	Accountability and Security in the Cloud, First Summer School, Cloud Accountability Project, A4Cloud, Malaga, Spain, June 2- 6, 2014, Revised Selected Papers and Lectures	Lecture Notes in Computer Science Volume 8937 of the series pp 154-184 Print ISBN 978-3-319-17198-2 Online ISBN 978-3-319-17199-9 Publisher Springer International Publishing	<u>10.1007/978-3-319-17199-9_7</u>	2015, Malaga, Spain
Philipp Ruf , Thomas Rübsamen, Christoph Reich	Agent-Based Evidence Collection in Cloud Computing	Accountability and Security in the Cloud, First Summer School, Cloud Accountability Project, A4Cloud, Malaga, Spain, June 2- 6, 2014, Revised Selected Papers and Lectures	Lecture Notes in Computer Science Volume 8937 of the series pp 185-198 Print ISBN 978-3-319-17198-2 Online ISBN 978-3-319-17199-9 Publisher Springer International Publishing	<u>10.1007/978-3-319-17199-9_8</u>	2015, Malaga, Spain
Maartje G. H. Niezen , Wouter M. P. Steijn	Understanding the Cloud: The Social Implications of Cloud Computing and the Need for Accountability	Accountability and Security in the Cloud, First Summer School, Cloud Accountability Project, A4Cloud, Malaga, Spain, June 2- 6, 2014, Revised	Lecture Notes in Computer Science Volume 8937 of the series pp 201-225 Print ISBN 978-3-319-17198-2 Online ISBN	10.1007/978-3-319-17199-9_9	2015, Malaga, Spain

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
		Selected Papers and Lectures	978-3-319-17199-9 Publisher Springer International Publishing		
Brian Dziminski, Niamh Christina Gleeson	Legal Aspects of Cloud Accountability	Accountability and Security in the Cloud, First Summer School, Cloud Accountability Project, A4Cloud, Malaga, Spain, June 2- 6, 2014, Revised Selected Papers and Lectures	Lecture Notes in Computer Science Volume 8937 of the series pp 226-247 Print ISBN 978-3-319-17198-2 Online ISBN 978-3-319-17199-9 Publisher Springer International Publishing	10.1007/978-3-319-17199-9 10	2015, Malaga, Spain
Alain Pannetrat , Jesus Luna	Standards for Accountability in the Cloud	Accountability and Security in the Cloud, First Summer School, Cloud Accountability Project, A4Cloud, Malaga, Spain, June 2- 6, 2014, Revised Selected Papers and Lectures	Lecture Notes in Computer Science Volume 8937 of the series pp 275-288 Print ISBN 978-3-319-17198-2 Online ISBN 978-3-319-17199-9 Publisher Springer International Publishing	10.1007/978-3-319-17199-9_12	2015, Malaga, Spain

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Massimo Felici	Cloud Accountability: Glossary of Terms and Definitions	Accountability and Security in the Cloud, First Summer School, Cloud Accountability Project, A4Cloud, Malaga, Spain, June 2- 6, 2014, Revised Selected Papers and Lectures	Lecture Notes in Computer Science Volume 8937 of the series pp 291-306 Print ISBN 978-3-319-17198-2 Online ISBN 978-3-319-17199-9 Publisher Springer International Publishing	10.1007/978-3-319-17199-9_13	2015, Malaga, Spain
Carmen Fernandez- Gago, Vasilis Tountopoulos, Simone Fischer- Hübner, Rehab Alnemr, David Nuñez, Julio Angulo, Tobias Pulls, Theo Koulouris	Tools for Cloud Accountability: A4Cloud Tutorial	Privacy and Identity Management for the Future Internet in the Age of Globalisation, IFIP International Federation for Information Processing	Springer International Publishing, V. 457, ISSN 1868-4238, pp. 219-236, 2015	10.1007/978-3-319-18621-4_15	2015, Patras,Greece
Julio Angulo, Simone Fischer-Hübner, Tobias Pulls, Erik Wästlund	Usable Transparency with the Data Track: A Tool for Visualizing Data Disclosures	Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA '15)	Pages 1803-1808, ACM, ISBN: 978-1- 4503-3146-3	10.1145/2702613.2732701	18-23 April, 2015, Seoul, Korea
Thomas Ruebsamen, Tobias Pulls, Christoph Reich	Secure Evidence Collection and Storage for Cloud Accountability Audits	Proceedings of the 5th International Conference on Cloud Computing and Services Science	Vol. 1 - 978-989-758- 104-5, pp. 321-330, SCITEPRESS Digital Library	10.5220/0005408403210330	20-22 May, 2015, Lisbon, Portugal

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Cruzes D. and Jaatun M.	Cloud Provider Transparency: A View from Cloud Customers	Proceedings of the 5th International Conference on Cloud Computing and Services Science	Vol. 1 - 978-989-758- 104-5, pp. 30-39, SCITEPRESS Digital Library	10.5220/0005439000300039	20-22 May, 2015, Lisbon, Portugal
Benghabrit, Walid and Grall, Hervé and Royer, Jean-Claude and Sellami, Mohamed	Checking Accountability with a Prover	39th IEEE Annual Computer Software and Applications Conference, (COMPSAC) 2015	IEEE Computer Society, pages 83-88	10.1109/COMPSAC.2015.8	Taichung, Taiwan, July 1- 5, 2015
Ronan Cherrueau, Rémi Douence, Mario Südholt	A Language for the Composition of Privacy-Enforcement Techniques	The 2015 IEEE International Symposium on Recent Advances of Trust, Security and Privacy in Computing and Communications (RATSP)	IEEE Press Page(s): 1037 - 1044 INSPEC Accession Number: 15635677	10.1109/Trustcom.2015.480	20-22 Aug. 2015, Helsinki, Finland
Tobias Pulls and Roel Peeters	Balloon: A Forward- Secure Append-Only Persistent Authenticated Data Structure	Computer Security - ESORICS 2015 - 20th European Symposium on Research in Computer Security, Vienna, Austria, September 21-25, 2015, Proceedings, Part II.	Lecture Notes in Computer Science Volume 9327, Springer 2015, ISBN 978-3-319-24176-0, pp. 622-641	10.1007/978-3-319-24177-7_31	21-25 September, 2015, Vienna, Austria
Benghabrit, Walid and Grall, Hervé and Royer, Jean-Claude and Sellami, Mohamed	Abstract Accountability Language: Translation, Compliance and Application	Asia Pacific Software Engineering Conference (APSEC)	IEEEComputer Society	http://www.apsec2015.org/	New Delhi, India, 1-4 December 2015

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Siani Pearson	Accountability in the Cloud	ITU Kaleidoscope Conference, Barcelona, Spain	IEEE. Trust in the Information Society, pp. 5-16	http://www.itu.int/en/ITU- T/academia/kaleidoscope/2015/ Documents/Proceedings%20Kal eidoscope-2015.pdf	09-11 December 2015, Barcelona, Spain
Walid Benghabrit, Hervé Grall, Jean- Claude Royer, Mohamed Sellami, Monir Azraoui, Kaoutar Elkhiyaoui, Melek Önen, Anderson Santana De Oliveira, Karin Bernsmed	From Regulatory Obligations to Enforceable Accountability Policies in the Cloud	International Conference and Services Sciences, CLOSER 2014, Barcelona Spain, April 3-5, 2014, Revised Selected Papers	Springer, vol 512, series Communications in Computer and Information Science	<u>10.1007/978-3-319-25414-2 9</u>	30 December 2015,Springer International Publishing Switzerland
Martin Gilje Jaatun, Daniela S. Cruzes, Julio Angulo, Simone Fischer-Hübner	Accountability Through Transparency for Cloud Customers	5th International Conference, CLOSER 2015, Lisbon, Portugal, May 20-22, 2015, Revised Selected Papers	Cloud Computing and Services Science Volume 581 of the series Communications in Computer and Information Science pp 38-57 Print ISBN 978-3-319-29581-7 Online ISBN 978-3-319-29582-4 Publisher Springer International Publishing Switzerland	10.1007/978-3-319-29582-4_3	3 February 2016

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Thomas Rübsamen, Tobias Pulls, Christoph Reich	Security and Privacy Preservation of Evidence in Cloud Accountability Audits	Cloud Computing and Services Science 5th International Conference, CLOSER 2015, Lisbon, Portugal, May 20-22, 2015, Revised Selected Papers	Volume 581 of the series Communications in Computer and Information Science pp 95-114, Print ISBN 978-3-319-29581-7 Online ISBN 978-3-319-29582-4 Springer International Publishing	10.1007/978-3-319-29582-4_6	3 February 2016

# **Table 7: List of Project Presentations**

Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
			Phase 1 (M1-M12)			
03- 06/12/2012	Taipei, Taiwan	Accountability in the Cloud  – keynote speech	4th IEEE International Conference on Cloud Computing Technology and Science (CloudCom), 2012	Cloud computing industry and research Size: 250	Worldwide	HP
06/12/2012	Groningen – Netherlands (University of Groningen)	Data protection issues in cloud computing	Organised by the Privacy Network of North Netherlands ( <u>Privacy</u> <u>netwerk Noord Nederland</u> )	mixed audience: legal scholars, lawyers, technical experts, people working in medical sector Size: 40		TiU (Eleni Kosta)

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Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
20/12/2012	Stockholm	How can people gain better control over their data? (Invited talk)	MSB (Swedish Security Contingency Agency) research conference	Swedish Government, Universities Size: 50	Sweden	KAU
01/02/2013	Warwick, UK	Privacy Management in Global Organisations	Warwick Uni seminar	60	UK	HP
01/02/2013	Warsaw, Poland	cloud ecosystems	Galway project series meeting	50	Worldwide	HP
13/02/2013	TU Darmstadt	How can people gain better control over their data?	(Colloquium)	Researchers Size: 30	Germany and other countries	KAU
21/02/2013	New Dehli/India	How can people gain better control over their data? (invited keynote via video conference)	ICIT 2013 Conference	Universities, industry Size: 100	India and other contries	KAU
27/02/2013	Skövde University	Usable Privacy and Transparency	(Colloquium)	Researchers Size: 25	Sweden and other countries	KAU
01/03/2013	Bristol, UK	Privacy and Accountability	HP/Bristol University Security Workshop	45 researchers and students	European	HP
02/04/2013	University of Tokyo, Japan	Accountability in the Cloud	(Invited talk)	Researchers, industry Size: 25	Japan and other countries	EMN
18/4/2013	Brussels	Accountability for Cloud Computing	CSP EU Forum		EU	HP
18/4/2013	Brussels	Accountability Challenges for Cloud Computing	CSP EU Forum		EU	SINTEF

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Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
18/4/2013	Brussels	Accountability Conceptual Framework	CSP EU Forum		EU	HP
18/4/2013	Brussels	Legal and Regulatory Context for Accountability	CSP EU Forum		EU	TiU
01/06/2013	Malaga, Spain	conceptual framework	TAFC workshop	70	Worldwide	HP
01/06/2013	Tilburg, Netherlands	Privacy Management and Accountability in Global Organisations	IFIP privacy summer school	60	European	HP
19/06/2013	Nijmegen, NL	Presentation on "The Principle of Accountability under the Data Protection Directive"	IFIP Summer School 2013	Computer Scientists, Legal Researchers, Social Scientists	Worldwide	TiU
23/7/2013	University of the Aegean (Samos- Greece)	Lecture on data protection issues in cloud computing	IPICS Summer School	PhD students, researchers Size: 40	EU and other counties	TiU
01/09/2013	Edinburgh, UK	Cloud Accountability Project (A4Cloud)	CSA EMEA Congress	40	Worldwide	HP
01/09/2013	Graz, Austria	conceptual framework	DOA-SVI	70	Worldwide	HP
12- 13/9/2013	Royal Holloway, University of London, UK	Privacy preserving delegated word-search in the cloud (Submission of an extended abstract - Pdf file)	TCLOUDS 2013, Workshop on Trustworthy Clouds, in connection with ESORICS 2013		Worldwide	Kaoutar Elkhiyaoui, Melek Onen, and Refik Molva (EURECOM)
13/09/2013	London, UK	Accountability for Cloud (A4Cloud presentation)	SCL Policy Forum 2013	Lawyers, researchers	UK	HP

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Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
18/09/2013	Tilburg, NL	Economic Governance and Cloud Computing		Academic economists & legal scholars Size: 15	EU	TiU
25/09/2013	Tilburg, The Netherlands	"Data protection issues in cloud computing"	TILEC ClubMed	Economists, lawyers, researchers Size: 15	EU	TiU
			Phase 2 (M13-M24)	<u>,                                      </u>		
02/10/2013	Trondheim	<u>Uninett-konferansen</u>		Experts from research and industry Size: 50	Norway	SINTEF
10/10/2013	web	Talk entitled "Towards trustworthy clouds: the need for security assurance"	"Cloud and Virtualization Security Summit" sponsored by BrightTalk	IT security professionals	Worldwide	CSA
15/10/2013	Trondheim, Norway	"Cloud Trust Protocol: Cloud computing security continuous monitoring and the impact on assurance, transparency and control" Keynote speech	VERDIKT Conference 2013		Norway	CSA
8/11/2013	Berlin, Germany	"Accountability in the Cloud: research challenges and	CCSW 2013		Worldwide	CSA

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Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
		opportunities" Keynote speech				
13/11/2013	Washington, DC	How can accountability mechanisms alleviate security and privacy concerns in Cloud Computing?	Transatlantic Science Week	Industry experts, executives, funding bodies Size: tbc	US/Canada	SINTEF
21/01/2014	Delft, the Netherlands	Security, privacy and accountability in cloud-based medical sensor networks	International workshop on safety & security of (wireless) medical sensor net	~35 stakeholders from the European public and private health care sector	European	SINTEF
23/01/2014	Brussels, Belgium	Accountability in Cloud Environments: Relationships and the Role of Contracts	A4Cloud workshop at CPDP 2014	40	European	QMUL
23/01/2014	Brussels, Belgium	Cloud Accountability Project	A4Cloud workshop at CPDP 2014	40	European	HP
29- 30/01/2014	London, UK	Accountability in the Cloud	Cloud Expo Europe 2014	-6800	Worldwide	HP
31/01/2014	Royal Society, London, UK	H2020 launch in the UK – Business Perspective	H2020 launch in the UK	-	-	HP
01/02/2014	Warwick, UK	Trust management and accountability	Warwick University seminar	60	UK	HP
25/02/2014	Tronheim	Health data in the cloud - a healthy idea, or simply sickening? CSA Norway/Dataforeningen member meeting	Experts from research and industry, health-IT professionals, regulators	~50	Norway	SINTEF

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Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
19/03/2014	Athens, Greece	Protecting profiling data in cross-domain cloud application scenarios	EDF2014 Poster Session	~100	European	ATC
03/04/2014	Amsterdam, The Netherlands	The A4Cloud Risk and trust model	A4Cloud workshop on Workshop on "Accountability and SLA management for the cloud"	2	EU	SAP
03/04/2014	Amsterdam, The Netherlands	Transparency Requirements for better Cloud Accountability: perspectives of cloud customers	A4Cloud workshop on Workshop on "Accountability and SLA management for the cloud"	2	EU	SINTEF
03/04/2014	Amsterdam, The Netherlands	The reform of the European Data Protection Directive in the light of cloud computing challenges	A4Cloud workshop on Workshop on "Accountability and SLA management for the cloud"	2	EU	TiU
03/04/2014	Amsterdam, The Netherlands	Interoperability and Standardization	A4Cloud workshop on Workshop on "Accountability and SLA management for the cloud"	2	EU	CSA
03/04/2014	Amsterdam, The Netherlands	Proof of retrievability	A4Cloud workshop on Workshop on "Accountability and SLA management for the cloud"	2	EU	Eurecom
03/04/2014	Amsterdam, The Netherlands	A tool for visualizing and controlling how my data are used in the Cloud	A4Cloud workshop on Workshop on "Accountability and SLA management for the cloud"	2	EU	KAU

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Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
22/05/2014	Athens, Greece	The problem of cloud data governance	A4Cloud workshop on <u>"Accountable Cloud</u> <u>Governance:</u> Interoperability and Policy  Requirements"	20 Experts from research and industry	EU	ATC
22/05/2014	Athens, Greece	Accountability Model for Cloud Governance	A4Cloud workshop on <u>"Accountable Cloud</u> <u>Governance:</u> Interoperability and Policy  Requirements"	20 Experts from research and industry	EU	HP
22/05/2014	Athens, Greece	An analysis of interoperability requirements for accountable cloud services	A4Cloud workshop on <u>"Accountable Cloud</u> <u>Governance:</u> Interoperability and Policy  Requirements"	20 Experts from research and industry	EU	CSA
22/05/2014	Athens, Greece	Regulatory and contractual challenges in cloud computing	A4Cloud workshop on <u>"Accountable Cloud</u> <u>Governance:</u> Interoperability and Policy  Requirements"	20 Experts from research and industry	EU	TiU
01/06/2014	Paris, France	Trust, Risk and Accountability in the Cloud	Workshop to HP Cloud Partners	Industry	European	HP
02- 06/06/2014	Malaga, Spain	StealthGuard: Proofs of retrievability with hidden watchdogs (abstract and talk)	1st A4Cloud Summer School	30 researchers and students	Worldwide	EURECOM

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Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
02- 06/06/2014	Malaga, Spain	Conceptual Framework for Cloud Accountability (lecture)	1st A4Cloud Summer School	30 researchers and students	Worldwide	HP
02- 06/06/2014	Malaga, Spain	Metrics for Accountability (lecture)	1st A4Cloud Summer School	30 researchers and students	Worldwide	UMA
02- 06/06/2014	Malaga, Spain	Trust and Risk models for Cloud (lecture)	1st A4Cloud Summer School	30 researchers and students	Worldwide	UoS
02- 06/06/2014	Malaga, Spain	Socio-economic Context of Cloud Accountability (lecture)	1st A4Cloud Summer School	30 researchers and students	Worldwide	TiU
02- 06/06/2014	Malaga, Spain	How can cloud users be supported in deciding, tracking and controlling how their data are used? (lecture)	1st A4Cloud Summer School	30 researchers and students	Worldwide	KAU
02- 06/06/2014	Malaga, Spain	Legal Aspects of accountability (lecture)	1st A4Cloud Summer School	30 researchers and students	Worldwide	QMUL
02- 06/06/2014	Malaga, Spain	Interoperability and Standards in Cloud Computing (lecture)	1st A4Cloud Summer School	30 researchers and students	Worldwide	CSA
02- 06/06/2014	Malaga, Spain	Accountability Terms and Definitions (lecture)	1st A4Cloud Summer School	30 researchers and students	Worldwide	HP
02- 06/06/2014	Malaga, Spain	Accountability Evidence framework for Cloud Services with Trusted Event-Linked Time Stamping (abstract and talk)	1st A4Cloud Summer School	30 researchers and students	Worldwide	UoS

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Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
17/06/2014	Oslo, Norway	Tools for accountability in the cloud: When not all of your problems look like nails	CSA Norway Summer Conference	Experts from research and industry	Norway	SINTEF
01/09/2014	Bertinoro, Italy	Privacy and Accountability in the Cloud	14th International School on Foundations of Security Analysis and Design (FOSAD) seminars	60	European	HP
08/09/2014	Patras, Greece	Accountability for the Cloud (keynote)	9th International IFIP Summer School on Privacy and Identity Management for the Future Internet in the Age of Globalisation	~70	Worldwide	HP
08/09/2014	Patras, Greece	What could A4Cloud do for you? Survey on Metrics for accountability (lecture)	A4Cloud tutorial	25	Worldwide	UMA
08/09/2014	Patras, Greece	Privacy issues- A4Cloud overview- Data track tool (lecture)	A4Cloud tutorial	25	Worldwide	KaU
08/09/2014	Patras, Greece	A particular case: The COAT tool (lecture)	A4Cloud tutorial	25	Worldwide	HP
08/09/2014	Patras, Greece	Introduction to the A4CLoud tools (lecture)	A4Cloud tutorial	25	Worldwide	ATC
10/9/2014	Wroclaw, Poland	A4Cloud and metrics for accountability	Business meeting of the 10th International Workshop on Security and	25	Worldwide	UMA

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Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
			Trust Management ( <u>STM</u> 2014),			
			in conjunction with ESORICS 2014			
16/9/2014	Trondheim, Norway	Incident Response Management in the Cloud - State of the Art and Future Needs	UI requirements workshop	16 IT professionals	Norway	SINTEF
			Phase 3 (M25-M42)			
02/10/2014	Germany	Keynote speech: Trustworthy Clouds for Big Data, Are We There Yet?	ISC Big Data'14			CSA
16/10/2014	Tromso, Norway	Accountability in Cloud Service Provision Ecosystems	NordSec 2014		European	HP
28/10/2014	Germany	Keynote speech: Cloud and Trust	Powering the Cloud			CSA
15/12/2014	Singapore	Towards Strong Accountability for Cloud Service Providers	ES Workshop, IEEE CloudCom		Worldwide	HP
16/12/2014	Singapore	Cloud Security: will it ever be ready/secure?	Security Panel, IEEE CloudCom		Worldwide	HP
11/03/2015	London, UK	Accountability and Privacy Compliance	Compliance Theatre, CloudExpo		Worldwide	HP

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Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
08/04/2015	Bristol, UK	Accountability in the Cloud	Business contacts	30 industry participants	Worldwide	HP
28/04/2015	Brussels, Belgium	Specification and Enforcement of Privacy Policies" Michela D'Errico , A4Cloud project, HP, UK	CSP Forum, Track 12 "Implementing Privacy Policies In the cloud" in Co- organisation with CocoCloud Project	70-80 researchers	European	HP
30/04/2015	Bristol, UK	Unclouding the Cloud: A (semi-)technical perspective	SW Data Protection Group		UK	HP
11/05/2015	Brussels, Belgium	A4Cloud- Accountability in the Cloud	The Cloud Select Industry Group  – Meeting of the Subgroup on Service Level Agreements (C-SIG-SLA)	25-30 researchers, industry and policy makers	European	UMA
21/05/2015	Lisbon, Portugal	A4Cloud and Audit Agent System	Closer 2015 - European Project Space Poster Session		European	HFU
21/07/2015	Teleconference	A4Cloud project	HP Cloud Leaders Forum	15 industry participants	Worldwide	HP
28/07/2015	Luxembourg	Accountability in the Cloud	Thought Leadership Lecture Series, University of Luxembourg,	60 academic, industry and regulatory	European	HP
17/8/2015	Edinburgh, Scotland, U.K	Invited talk on Privacy and Verifiability for Data	10th IFIP Summer School on Privacy and Identity	70	Europe	EURECOM

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Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
		Storage in Cloud Computing	Management – Time for a Revolution?			
27/10/2015	London, UK	Accountability for Cloud and other Future Internet Services	British Computer Society, ICT Ethics Subgroup	50 industry and academic	UK	HP
16/11/2015	Berlin, Germany	Workshop Objectives	Workshop on Governance- Accountability-Compliance in the Cloud		Worldwide	HP
16/11/2015	Berlin, Germany	Market requirements for the private sector: the A4Cloud approach	Workshop on Governance- Accountability-Compliance in the Cloud	25 cloud industry	Worldwide	HP
16/11/2015	Berlin, Germany	Synergies between CSA activities and EU Funded projects - CSA GRC and OCF: strategy, results, and future roadmap	Workshop on Governance- Accountability-Compliance in the Cloud	25 cloud industry	Worldwide	CSA
28/11/2015	Madrid, Spain	Accountability for the Cloud and other Future Internet Service (A4Cloud)	Cybercmap 2015	researchers, industry General public	Spain	UMA
10/12/2015	Barcelona, Spain	Accountability in the Cloud	Kaleidoscope, ITU Standardisation Conference	200 industry and academic	Worldwide	HP
16- 17/12/2015	Nantes, France	The Discovery Intiative, A4Cloud presentation		35 Researchers and students	European	Armines
27/01/2016	Brussels, Belgium	Accountability in Practice	CPDP 2016	50 industry, academic and regulatory	Worldwide	HP

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Date	Place	Title of presentation	Event	Type and Size of the audience	Countries addressed	Partner(s)
08/03/2016	Trondheim, Norway	Challenges in the cloud	National competence forum for ICT security in the health sector	50 health IT professionals	Norway	SINTEF
8/3/2016	Brussels, Belgium	A4Cloud Accountability for Cloud and Other Future Internet Services	A4Cloud Workshop at Cloudscape 2016	10 research and industry	Worldwide	ATC, HP, UMA

Table 8: (co-)Organisation of workshops and conferences

Date	Place	Title	Type of the audience	Size of the audience	Countries addressed	Partner(s)
		F	Phase 1 (M1-M12)			
16/01/2013	Brussels	A4Cloud Requirements Workshop	Experts from research and industry	7 (+8 A4Cloud members)	Worldwide	KaU, HP, SINTEF, TiU, QMUL, SAP
27/02/2013	Karlstad	A4Cloud HCI Stakeholder workshop	Swedish experts from Industry, government, consumer organisations, data protection commissioner	7 experts (+ 6 A4Cloud participanst)	Sweden	KAU
01/03/2013	Bristol, UK	Privacy and Accountability, HP/Bristol Uni Security Workshop		60	UK	HP
18- 19/04/2013	Brussels	CSP EU Forum	Security and Privacy experts in academia, industry and government, incl. practitioners,	-	EU	HP, SINTEF, TiU

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Date	Place	Title	Type of the audience	Size of the audience	Countries addressed	Partner(s)
			standards developers and policy makers			
06- 07/06/2013	Malaga, Spain	DIMACS/BIC/A4Cloud/CSA International Workshop on Trustworthiness, Accountability and Forensics in the Cloud (TAFC), in conjunction with 7th IFIP WG 11.11 International Conference on Trust Management (IFIPTM)	Research	80	Worldwide	HP, CSA
03- 07/06/2013	Malaga, Spain	IFIP TM 2013	research	100	Worldwide	UMA (PC chair, host), HP (general chair)
17- 21/06/2013	Radboud University Nijmegen in the Netherlands	Co-organisation of IFIP Summer School 2013	Research		Worldwide	
27/09/2013	Edinburgh, Scotland	Workshop on Risk Modelling for Cloud Services (in conjunction with Cloud Security Alliance EMEA Congress 2013)	cloud professionals and researchers	22	Worldwide	UiS, SAP, Karlstad, HP, SINTEF, UMA, TiU
		P	hase 2 (M13-M24)			
November 2013	Trondheim, Norway	Elicitation workshop on the core principles of the A4Cloud project and broader discussion of privacy and confidentiality in the cloud after the NSA PRISM revelations.	Experts from CSA Norway/ <u>Dataforeningen</u>	19	Norway	SINTEF
01/12/2013	Bristol, UK	5th IEEE International Conference on Cloud Computing Technology	research and industry	300	Worldwide	HP (PC chair, general chair, host)

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Date	Place	Title	Type of the audience	Size of the audience	Countries addressed	Partner(s)
		and Science ( <u>IEEE CloudCom</u> 2013), and associated industry event				
02- 05/12/2013	Bristol, UK	Workshop on Economics of Security in the Cloud ( <u>ESC</u> ), co-located with I <u>IEEE CloudCom 2013</u> ,	Industry/University	-	Worldwide	HP Labs (organiser); UMA, SINTEF, TiU, QMUL (PC Members)
23/01/2014	Brussels, Belgium	Panel on "Accountability In Cloud Environments", in the context of Computers, Privacy & Data Protection (CPDP 2014)	Industry (public and private) from legal and data protection domains, researchers	40	European	HP
25/02/2014	Tronheim	Workshop on "Health data in the cloud - a healthy idea, or simply sickening?"	Experts from research and industry, health-IT professionals, regulators	~50	Norway	SINTEF
03/04/2014	Amsterdam, The Netherlands	Workshop on "Accountability and SLA management for the cloud" colocated with SecureCloud 2014	Experts from research and industry	2	EU	TiU
21- 22/05/2014	Athens, Greece	Workshop on "Accountable Cloud Governance: Interoperability and Policy Requirements", in the context of Cyber Security & Privacy Forum 2014 (CSP Forum)	Experts from research and industry	20	European	ATC (chair), HP Labs, CSA, TiU
01/06/2014	Paris, France	Requirements workshop on Trust, Risk and Accountability in the Cloud, and COAT tool	industry	60 professionals	European	HP

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Date	Place	Title	Type of the audience	Size of the audience	Countries addressed	Partner(s)
01/06/2014	Paris	Requirements workshop on cloud brokerage with HP stakeholders	industry	50 professionals	European	HP
02- 06/06/2014	Malaga, Spain	1st A4Cloud summer school on Accountability and Security in the Cloud	Researchers and students	30	European	UMA (organiser), HP, ATC, CSA, TiU, QMUL, UoS, KaU
23- 25/06/2014	University Campus, Parma , Italy	1st Track on Privacy and Accountability for Software and Cloud Services - PASCS'14	Research	25+	Worldwide	Armines, SAP
03/09/2014	Malaga, Spain	A4Cloud and metrics for accountability, Stakeholders workshop	industry	18	Spain	UMA
07- 12/09/2014	University of Patras, Greece	A4Cloud Tutorial in the context of the 9th International IFIP Summer School on Privacy and Identity  Management for the Future Internet in the Age of Globalisation	Researchers and students	~25	Worldwide	UMA, HP, KaU, ATC
		Pr	nase 3 (M25-M42)			
28/4/2015	Brussels, Belgium	CSP Forum, Track 12 "Implementing Privacy Policies In the cloud" in Co- organisation with CocoCloud Project	Researchers	80	European	HP
29/05/2015	Hamburg, Germany	DPPT'15-Data Protection, Privacy and Transparency Workshop				HP

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Date	Place	Title	Type of the audience	Size of the audience	Countries addressed	Partner(s)
16- 21/08/2015	Edinburgh, Scotland, U.K	10th IFIP Summer School on Privacy and Identity Management – Time for a Revolution? A4Cloud Tutorial: A4Cloud Tools: Accountability in the Cloud				HP, UMA, KAU, Eurecom
16/11/2015	Berlin, Germany	CSA Congress EMEA: Workshop on Governance: Accountability- Compliance in the Cloud				CSA
08/03/2016	Brussels, Belgium	A4Cloud Accountability for Cloud and Other Future Internet Services"  Workshop co-located with Cloudscape 2016 conference	Industry		European	ATC, HP, UMA, TiU

# **Table 9: Events Participation and other activities**

Date	Place	Title	Type of the audience	Size of the audience	Countries addressed	Partner(s)				
	Phase 1 (M1-M12)									
21/01/2013	-	Release of the <u>a4cloud.eu</u> Web Portal (see Section 2.2.1)	All	-	Worldwide	All				

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Date	Place	Title	Type of the audience	Size of the audience	Countries addressed	Partner(s)
21/01/2013	-	Creation of the Cloud Accountability LinkedIn Group (see Section 2.2.2)	All	-	Worldwide	All
21/01/2013	-	Creation of the A4CloudProject Twitter Stream (see Section 2.2.2)	All	-	Worldwide	All
21/01/2013	-	Creation of the project YouTube channel (see Section 2.2.2)	All	-	Worldwide	All
03- 08/02/2013	Dagstuhl	Dagstuhl Seminar on "Decentralizing Systems for Privacy"	University, industry	30	Worldwide	KAU
25/02/2013	CSA summit at RSA 2013, San Francisco	Distribution of flyers	Industry	-	Worldwide	CSA
21/03/2013	-	Comments provided to Public Review for Privacy Management Reference Model and Methodology (PMRM) V1.0	-	-	-	All Partners
21/05/2013	-	The Cloud Accountability Research Project - A4Cloud, Blog Post on SAP Community Network	-	-	Worldwide	SAP
07/06/2013	Nantes, France	Software Quality and Cloud WS	Research, industry		Worldwide	EMN
		Phase 2 (M13-M24)				
07/11/2013	Trondheim	CSA Norway/Dataforeningen member meeting	Experts from research and industry	-	Norway	SINTEF
11/12/2013	Brussels, Belgium	ETSI Cloud Standards Coordination - Delivery Workshop	Members of Standardisation Developing Organisations	-	Worldwide	CSA
13/01/2014	On-line	Monitoring data transfers in the cloud	Research, industry	-	Worldwide	SAP

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Date	Place	Title	Type of the audience	Size of the audience	Countries addressed	Partner(s)	
April 2014	On-line	A4Cloud Project news at the CSP Forum Newsletter-Issue 1	Research, industry		Worldwide	ATC	
01/05/2014	On-line (restricted access)	http://scn.sap.com/community/research/blog/2014/04/10/platform-level-support-for-authorization-in-cloud-service-with-oauth-2'	Research, industry	-	Worldwide	SAP	
August 2014	On-line	A4Cloud Project news at the CSP Forum Newsletter-Issue 2	Research, industry	-	Worldwide	ATC	
26/09/2014	Berlin, Germany	Internet Privacy Engineering Network (IPEN) workshop	Industry	-	European	HP	
	Phase 3 (M25-M42)						
05/10/2014	Sao Paolo, Brazil	ISO/IEC SC38 meeting	Industry	100+	Worldwide	CSA	
18/11/2014	Rome, Italy	CSA EMEA Congress	Industry	250+	European	CSA	
November 2014	On-line	A4Cloud Project news at the CSP Forum Newsletter-Issue 3	Research, industry	-	Worldwide	ATC	
01/12/2014	Singapore	IEEE CloudCom 2014	Research and industry	250+	Worldwide	HP (PC chair)	
8- 11/12/2014	London	<u>CLASP 2014</u>	-	-	-	CSA, UoS	
March 2015	On-line	A4Cloud Project news at the CSP Forum Newsletter-Issue 4	Research, industry	-	Worldwide	ATC	
11- 12/03/2015	London, UK	Distribution of dissemination material at the Cloud Expo Europe	IT decision makers	-	Worldwide	CSA	

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Date	Place	Title	Type of the audience	Size of the audience	Countries addressed	Partner(s)
22/03/2015	Vienna, Austria	ISO/IEC SC38 meeting	Industry	100+	Worldwide	CSA
25- 26/03/2015	On-line	A4Cloud at Cloudwatch publication "A portfolio of offers for trusted and secure services". The publication was printed and showcased at the Net Futures 2015 conference, March 25-26.	Research, industry	-	Worldwide	
28- 29/04/2015	Brussels, Belgium	Booth and Demo at CSP Innovation Forum 2015	Research, industry	450	European	ATC, HP, UMA
30/4/2015	Tilburg University, The Netherlands	y, Presentation "Understanding and governing the cloud" in the Global Law Bachelor Technology & Society course				TiU
02- 04/06/2015	London, UK	Video at CSA booth at the INFOSEC 2015	Research, industry	13000	European	CSA
15/06/2015	Oslo, Norway	CSA Nordic Summit 2015	Experts from research and industry,	TBD	Nordics	SINTEF
16/06/2015	Riga, Latvia	Panel: Implementations and solutions of the EU28 Cloud Security  Conference	Industry	250+	European	CSA
24- 25/06/2015	London, UK	Distribution of brochures at the CSP forum and CSA exhibition				HP
July 2015	On-line	A4Cloud Project news at the CSP Forum Newsletter-Issue 5	Research, industry	-	Worldwide	ATC
22- 24/07/15	Ottawa, Canada	Vigitalizing data disclosure" sat Sullips 2015 (Symposium on		-	-	KAU

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Date	Place	Title	Type of the audience	Size of the audience	Countries addressed	Partner(s)
01/10/2015	Brussels, Belgium	Distribution of brochures at the CSP forum exhibition stand at the 3rd Annual European Cybersecurity Conference	Research, industry, decision makers	200+	Worldwide	All Partners
October 2015	On-line	A4Cloud Project news at the CSP Forum Newsletter-Issue 6	Research, industry	-	Worldwide	ATC
17- 18/11/2015	Berlin, Germany	Booth and Demo at CSA Congress EMEA 2015	cloud industry, policy makers	200	Worldwide	ATC, HP, CSA
08/03/2016	Brussels, Belgium	"Accountability in the Cloud" poster at the Cloudscape 2016 poster session	Industry		European	ATC, HP, UMA, TiU
08/03/2016	Brussels, Belgium	"Supporting Accountability in Cloud Ecosystems" demo at the Cloudscape 2016 demo session	Industry		European	ATC, HP, UMA, TiU

Table 10: The evolution of the visits to the A4Cloud Web Portal

Website Statistics	Period 1	Period 2	Period 3	Total
Unique Visitors	3.141	14.179	17.750	35.070
Number of visits	7.457	60.733	34.997	103.187
Pages	21.781	415.442	138.308	575.531
Cumulative Hits	129.048	978.239	857.655	1.964.942

**Table 11: Web Portal Visitors Domains/Countries (M1-M12)** 

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Visito	Visitors Domains/Countries						
Domains / Countries	Pages	Hits					
Belgium	12	327					
China	219	219					
Commercial	8935	21891					
France	211	1471					
Germany	787	3372					
Greece	2730	43243					
Italy	15	133					
Latvia	80	82					
Netherlands	524	4574					
Network	1203	9150					
Norway	120	1888					
Others	910	11946					
Russian Federation	95	341					
Sweden	408	2724					
Ukraine	304	304					
Unknown	5094	25535					
United Kingdom	134	1848					
Total	21781	129048					

**Table 12: Social Networks Usage Cumulative Statistics** 

Channel	Statistics	End of Phase 1	End of Phase 2	End of Phase 3
LinkedIn	Members of the LinkedIn group	60	73	76

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Channel	Statistics	End of Phase 1	End of Phase 2	End of Phase 3
	Tweets	110	181	383
Twitter	Followers	21	46	114
	Following	21	32	43

Table 13: Web Portal Visitors Domains/Countries (M13-M24)

Visitors Domains/Countries						
Domains / Countries	Pages	Hits				
Belgium	28	598				
France	244632	253156				
Germany	2022	9453				
India	2804	47516				
Italy	26640	66884				
Latvia	2239	38576				
Netherlands	5607	51730				
Network	269	4240				
Others	2206	15357				
Spain	2921	20944				
Sweden	1438	6159				
Unknown	1423	22373				
United Kingdom	10524	156119				
Total	415442	978239				

**Table 14: Expected Publications to Conference Proceedings** 

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Isaac Agudo, Ali El Kaafarani, David Nunez, and Siani Pearson	A Technique for Enhanced Provision of Appropriate Access to Evidence across Service Provision Chains	IFIP Summer School 2015, Final paper for Springer proceedings			November 28, 2015, Edinburgh, Ireland
Carmen Fernandez- Gago, Siani Pearson, Michela D'Errico, Rehab Alnemr, Tobias Pulls, Melek Onen, and Anderson Santana de Oliveira	A4CloudWorkshop: Accountability in the Cloud	IFIP Summer School 2015, Final paper for Springer proceedings			November 28, 2015, Edinburgh, Ireland
Michela D'Errico and Siani Pearson	Enhanced Assurance about Cloud Service Provision Promises	IFIP Summer School 2015, Final paper for Springer proceedings			November 28, 2015, Edinburgh, Ireland
Saul Formoso and Massimo Felici	Evidence Collection for Security and Privacy Assurance in Cloud Ecosystems	IFIP Summer School 2015, Final paper for Springer proceedings			November 28, 2015, Edinburgh, Ireland
Jenni Reuben, Leonardo Martucci, Simone Fischer-Hübner	Automated Log Audits for Privacy Compliance Validation: A Literature Survey	IFIP Summer School 2015, Final paper for Springer proceedings			November 28, 2015, Edinburgh, Ireland

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Karin Bernsmed	Applying Privacy by Design in Software Engineering - An European Perspective	Proceedings of the Second International Conference on Advances and Trends in Software Engineering (SOFTENG 2016)	ISSN: to be announced ISBN: 978-1-61208-458-9		February 21 - 25, 2016 - Lisbon, Portugal
Rehab Alnemr, Erdal Cayirci, Lorenzo Dalla Corte, Alexandr Garaga, Ronald Leenes, Rodney Mhungu, Siani Pearson, Chris Reed, Anderson Santana de Oliveira, Dimitra Stefanatou, Katerina Tetrimida and Asma Vranaki	A Data Protection Impact Assessment Methodology for Cloud	Annual Privacy Forum 2015	B. Berendt et al. (Eds.): APF 2015, LNCS 9484, pp. 1–33, 2016.	10.1007/978-3-319- 31456-3_4	
Thomas Rübsamen, Dirk Hölscher and Christoph Reich	Towards Auditing of Cloud Provider Chains Using CloudTrust Protocol	CLOSER 2016; 6th International Conference on Cloud Computing and Services Science			April 23-25. 2016, Rome, Italy

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Author(s)	Title of publication	Title of book/proceedings	Issue No/ISBN/pages	doi	Date, place
Thomas Rübsamen, Christoph Reich, Martin Knahl and Nathan Clarke	Evidence Collection in Cloud Provider Chains	CLOSER 2016; 6th International Conference on Cloud Computing and Services Science			April 23-25. 2016, Rome, Italy

**Table 15: Submitted Papers (M25-M42)** 

Date	Place	Title of the event	Title of the submission	Partner(s)
22/1/2015	Journal	Computers and Security Journal	Eliciting Metrics for Accountability of Cloud Systems	David Nuñez, Carmen Fernandez-Gago, Jesus Luna
21/1/2016	Journal	International journal of Information Management	Enhancing Accountability in the Cloud	Martin Gilje Jaatun, Siani Pearson, Frederic Gittler, Ronald Leenes, Maartje Niezen
January 2016	Magazine	IEEE Communications  Magazine	Accountability for the Cloud	Siani Pearson, Frederic Gittler
February 2016	Magazine	IT Professional	Accountability in Practice	Siani Pearson, Daniel Pradelles

Table 16: Web Portal Visitors Domains/Countries (M25-M42)

Visitors Domains/Countries					
Domains / Countries	Pages	Hits			
Brazil	313	2005			
British Indian Ocean Territory	403	413			
China	3228	6204			
Commercial	11635	39144			

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Visitors Domains/Countries					
Domains / Countries	Pages	Hits			
Denmark	241	353			
European Country	959	1288			
France	4721	29437			
Germany	4563	35818			
Great Britain	1087	17405			
Greece	23090	185705			
India	246	3938			
Israel	163	164			
Italy	241	4675			
Netherlands	1742	10972			
Network	8816	46579			
Non-Profit Organizations	1655	1964			
Others	10292	128430			
Poland	53	53			
Romania	103	153			
Russian Federation	131	636			
Sweden	819	6721			
Ukraine	8091	8818			
Unknown	42191	286203			
United Kingdom	398	4223			
United States	13127	36354			
Total	138308	857655			

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## 8.5 Project Press Release

# Press Release - One page max

The attached press release is general enough to be used by all partners and announced on the Web Site stating the kick-off of the project activities.

## Increasing consumer and business confidence in cloud services

The A4Cloud research project will increase trust in cloud computing. This 42 month, €14 million project is led by HP Labs, and will devise methods and tools, through which cloud stakeholders can be made accountable for the privacy and confidentiality of information held in the cloud. These methods and tools will combine risk analysis, policy enforcement, monitoring and compliance auditing. They will contribute to the governance of cloud activities, providing transparency and assisting legal, regulatory and socioeconomic policy enforcement.

# **World-leading Consortium**

The consortium combines industry and academia to achieve cutting-edge research results. From industry, two powerful multinationals (HP LABS-UK, SAP AG-Germany) will work with two specialized SMEs (ATC-Greece, CSA EMEA-UK). Seven of the Europe's top universities and research institutions (École des Mines de Nantes-France, EURECOM-France, FURTWANGEN-Germany, KARLSTAD Universitet-Sweden, QMUL-UK, SINTEF-Norway, TiU—the Netherlands, UNIVERSITETET I STAVANGER-Norway and UMA-Spain) complete the consortium.

Together this group balances theoretical research capability and industrial knowhow, giving it the potential achieve ground-breaking results which can be applied in the real world.

#### Notes to editors

A4Cloud is short for "Accountability for Cloud and Other Future Internet Services".

Detailed information on A4Cloud is available at www.a4cloud.eu.

### Template for Partner Press Release - Short

The attached press release is a suggestion that can be customized by each partner to announce the participation of their organization in A4Cloud and their role in the project. Partner can be any of us and Role is the partners' role in the project.

## Partner as Role in an EC-funded project

Partner participates in the EC-funded integrated project A4Cloud – "Accountability for Cloud and Other Future Internet Services", which develops methods and tools to increase confidence in cloud computing services, through risk analysis, policy enforcement, monitoring and compliance auditing. The project delivers novel results in the area of trustworthy ICT to make cloud stakeholders accountable for the privacy and confidentiality of information held in the cloud.

HP Labs is leading this effort, while *Partner* is responsible for *Extended Role*. The project brings together researchers in technical, legal and socio-economic disciplines, including SAP AG, the Cloud Security Alliance, an experienced SME in the ICT domain, renowned Universities and broadly recognised Research Institutes. A4Cloud is a 42 months project with almost M€ 14 budget. See more in www.a4cloud.eu.

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