



Project acronym:	PrEstoCloud
Project full name:	Proactive Cloud Resources Management at the Edge for efficient Real-Time Big Data Processing
Grant agreement number:	732339

D8.5 Communication Roadmap & Activities Report V2

Deliverable Editor:	Romaos Bratskas, Asimina Kasioni (ADITESS LTD)
Other contributors:	All partners
Deliverable Reviewers:	Noam Amram (LiveU) Nenad Stojanovic (Nissatech)
Deliverable due date:	30/06/2018
Submission date:	30/06/2018
Distribution level:	PU
Version:	1.0

This document is part of a research project funded
by the Horizon 2020 Framework Programme of the
European Union



Change Log

Version	Date	Amended by	Changes
0.1	28/5/2018	Romaio Bratskas (ADITESS)	1st version
0.2	18/6/2018	All partners	Inputs in all sections
0.3	29/6/2018	Romaio Bratskas (ADITESS)	Consolidated version
1.0	29/6/2018	Dirk Mayer (SOFTWARE AG)	Submission of the deliverable

Table of Contents

Change Log.....	2
Table of Contents.....	3
List of Tables.....	3
List of Figures.....	4
List of Abbreviations.....	4
1. Executive Summary.....	5
2. Introduction.....	5
2.1 Deliverable introduction.....	5
2.2 Purpose and Scope.....	6
2.3 Relation with other WPs.....	6
3. PrEstoCloud Communication Plan.....	6
4. Project Logo.....	7
5. Project Website.....	8
5.1 Communication Activities.....	8
5.2 Online blog.....	9
5.3 Progress Against KPIs.....	10
6. Social Media.....	14
6.1 LinkedIn.....	14
6.2 Twitter.....	15
6.3 Facebook group.....	19
6.4 Progress Against KPIs.....	20
7. Project presentation.....	20
8. Project Poster.....	21
9. Project Brochure.....	23
10. Press releases.....	23
11. Newsletter.....	23
12. Conclusions.....	24
Annex I: PrEstoCloud presentation.....	25

List of Tables

Table 1: PrEstoCloud website visitors-----	10
Table 2 PrEstoCloud website KPIs-----	13
Table 3 KPIs suggested in D8.4-----	20

List of Figures

Figure 1: PrEstoCloud Logo for use in the website, social media, documents and deliverables-----	7
Figure 2 News Page-----	9
Figure 3 PrEstoCloud Project's website visitors-----	11
Figure 4 PrEstoCloud Project's website visitors per country-----	11
Figure 5 Average session duration and pages per session-----	12
Figure 6 PrEstoCloud LinkedIn group page-----	15
Figure 7 Current view of PrEstoCloud profile on Twitter-----	16
Figure 8 Twitter Statistics for the last 28 days-----	17
Figure 9 Twitter Impressions over a period of 91 days (25/6/2018)-----	17
Figure 10 Twitter Impressions, Engagements & Tweets over a 91-day range-----	18
Figure 11 Facebook group-----	19
Figure 12 Promotional PrEstoCloud Poster-----	22

List of Abbreviations

The following table presents the acronyms used in the deliverable in alphabetical order.

<i>Abbreviation</i>	<i>Description</i>
EC	European Commission
EU	European Union
CC	Consortium Coordinator
STM	Scientific & Technical Manager
CM	Communication Manager
DM	Dissemination Manager
QM	Quality Manager
IM	Innovation Manager
KPI	Key Performance Indicator
SME	Small and Medium Enterprise
PoC	Point of Contact
KPI	Key Performance Indicator
CT	Communication Team

1. Executive Summary

Efficient communication is considered a fundamental activity of the project, since communication activities are one of the major contributors to the final success of a project in both: short and long term. This report sets out the activity concerning the presentation and communication of the work and relative results of all the work packages achieved during the first 18 months of the PrEstoCloud implementation.

This document, the Communication Activities Report, is designed to report PrEstoCloud communication achievements since the start of the project up to June 2018. This deliverable is the first version of the Communication Activities Reports, followed by D8.6 at M36 of the project.

The deliverable is part of the work carried out within WP8 Dissemination & Exploitation, addressing and reporting the activities of WP8 Task 8.1: Dissemination and awareness creation. No direct interdependencies are envisaged between this deliverable and other specific tasks of the work plan, because the communication process is a horizontal activity of the project and receives inputs from other WPs and supports mostly all the work of the project, especially those related to technical developments. The aim of this document is also to support the project consortium in organising and conducting successful communication by providing the necessary tools and plans.

During the first 18 months, the PrEstoCloud communication activities were focused, on one hand, on defining and deploying collaboration and communication tools in order to help PrEstoCloud consortium partners to work collectively and efficiently and on the other hand to communicate PrEstoCloud efforts through its official website and social media.

2. Introduction

2.1 Deliverable introduction

Nowadays there is a plethora of information available to PrEstoCloud stakeholders making it difficult to highlight efficiently and attract their interest on new developments. The main objective of the planned communication activities is to increase PrEstoCloud visibility to the identified target groups, to communicate the project objectives, acknowledge its progress and relative future plans and share information regarding the results achieved to the relevant project stakeholders. The progress against the set objective will be evaluated against a number of KPIs. Several means and media are used by the consortium for disseminating and promoting PrEstoCloud, through online, face to face and written communication channels.

This deliverable constitutes the first, out of two project communication reports (M18, M36), marked as public, covering activities between January 2017- June of 2018. The activities of the consortium emerge from the combination of each partner's individual communication logs. At the beginning of the project, each partner was provided with templates for recording both communication and dissemination activities. This mechanism assists in not only keeping track of performed activities but also in monitoring each partner's effort.

This deliverable takes into account the roadmap defined in D8.4 “Communication Roadmap &Activities Report”.

The deliverable D8.5 is structured in three main sections: i) Introduction and relation to the PrEstoCloud Communication Roadmap, ii) Review of each individual communication tool/channel ls, iii) Conclusions and future plan.

2.2 Purpose and Scope

The PrEstoCloud consortium considers communication activities of crucial importance. The successful completion of the project will only become possible after the successful diffusion of knowledge enabling raising awareness and the engagement of potential supporters, end users and customers. Communication activities within the framework of PrEstoCloud are accomplished through electronic and printed means as well as through other channels: through the project portal, our presence in social media, delivery of customised (to the audience) presentations etc.

The aim of this report is twofold. First, to provide information concerning the progress in communicating PrEstoCloud outcomes. Secondly, to assess the effectiveness of the introduced plan (D8.4) against the specified KPI quantitative metrics. Therefore, this report includes all communication activities that have been carried out, during a reporting period, by the consortium as a whole as these emerge from the individual plans.

2.3 Relation with other WPs

The Dissemination, Exploitation and Communication work package (WP8) is active throughout the whole duration of the project. At a first sight, its activities might seem independent of the rest work packages which adds some flexibility to the carried out work. On the other hand, tasks within WP8 are highly dependent and effort within them needs to be effectively communicated. The current deliverable derives from Task 8.1 Communication activities.

3. PrEstoCloud Communication Plan

The PrEstoCloud communication plan is the key strategy paper for all communication activities within the project. The communication plan has been prepared and released very early in the project life (M3) as it serves the foundation of WP8 by defining a clear strategy in terms of responsibility, timing, tools and communication channels, as well.

The main objectives of the PrEstoCloud communication plan are to:

- Draw the attention at the local, national and international levels on the project scope and results
- Increase the reputation and visibility of the project partners
- Seek for industrial implementers of the project results
- Generate market demand for the project products
- Attract the interest of potential partners for future collaboration
- Encourage talented scientists to join the consortium institutions and enterprises

A number of communication activities were focused mainly on establishing the communication tools which enable communication with interested organisations, projects, communities or even individually.

The main activities/tools respectively **their outcomes** which are covered in the current document are the following:

- Project Logo
- Project Website
- Social Media
- Project presentation
- Project Poster
- Project Brochure
- Online Publications
- Press releases
- Newsletter

For each of the aforementioned activities we provide briefly information on their frequency, the communication efforts so far as well as their impact.

4. Project Logo

The official PrEstoCloud project logo is depicted in Figure 1.

PrEstoCloud’s logo strictly focuses on the research project topic. It depicts the idea of a cloud being connected to multiple mobile devices in a stylized manner. The mobile devices could be of any type.

The project name is part of the logo’s message in that the term “PrEsto” intrudes the cloud.

In addition to the abbreviation of the project topic (“Proactive Cloud Resources Management at the Edge for efficient real-time big data processing”), the term “PrEsto” potentially holds two associations:

1. It expresses the Italian meanings “fast” or “early”, thus symbolizing by its placement in the picture the fast and proactive cloud management.
2. In the musical world, “presto” stands for a fast flow of notes which can be associated with a fast and facilitated deployment of the edge resource data.



Figure 1: PrEstoCloud Logo for use in the website, social media, documents and deliverables

5. Project Website

Public information about the PrEstoCloud project, supporting external communication and dissemination purposes and targeted to the public at large, is available at the following URL: www.prestocloud-project.eu . This site will be kept updated and improved during the project lifetime, presenting new content and functionality, under the supervision of WP8 leader.

Recalling from D8.4 Section 5.1: The PrEstoCloud public website is one of the key communication tools. It serves as a public window, in which the project communicates relevant information about its goals, progress, etc. The website also includes features like search and article categorization for improved content discovery. As another means for increasing communication between the consortium and third parties, a blog page is also maintained as a section within the webpage. Blog posts involve aspects or conventions related to the project, including more extensive descriptions about project achievements and demo versions. Additionally, the blog page serve as a means of increasing the traffic of the page and a reason for visitors to check back the website at a later stage. More information regarding the website can be found in www.PrEstoCloud-project.eu.

5.1 Communication Activities

The PrEstoCloud website has been developed as a user-friendly communication mean with high usability standards in mind. In March 2017, the first version of the website was launched with a full operative Content Management System (CMS).

In the first couple of months, the main activity was related to the website content management. Content description and documents have been uploaded. During the first 18 months of the project the published news (see Error: Reference source not found) were related to the Plenary meetings taking place each 6 month as well as different participations in events and conferences.

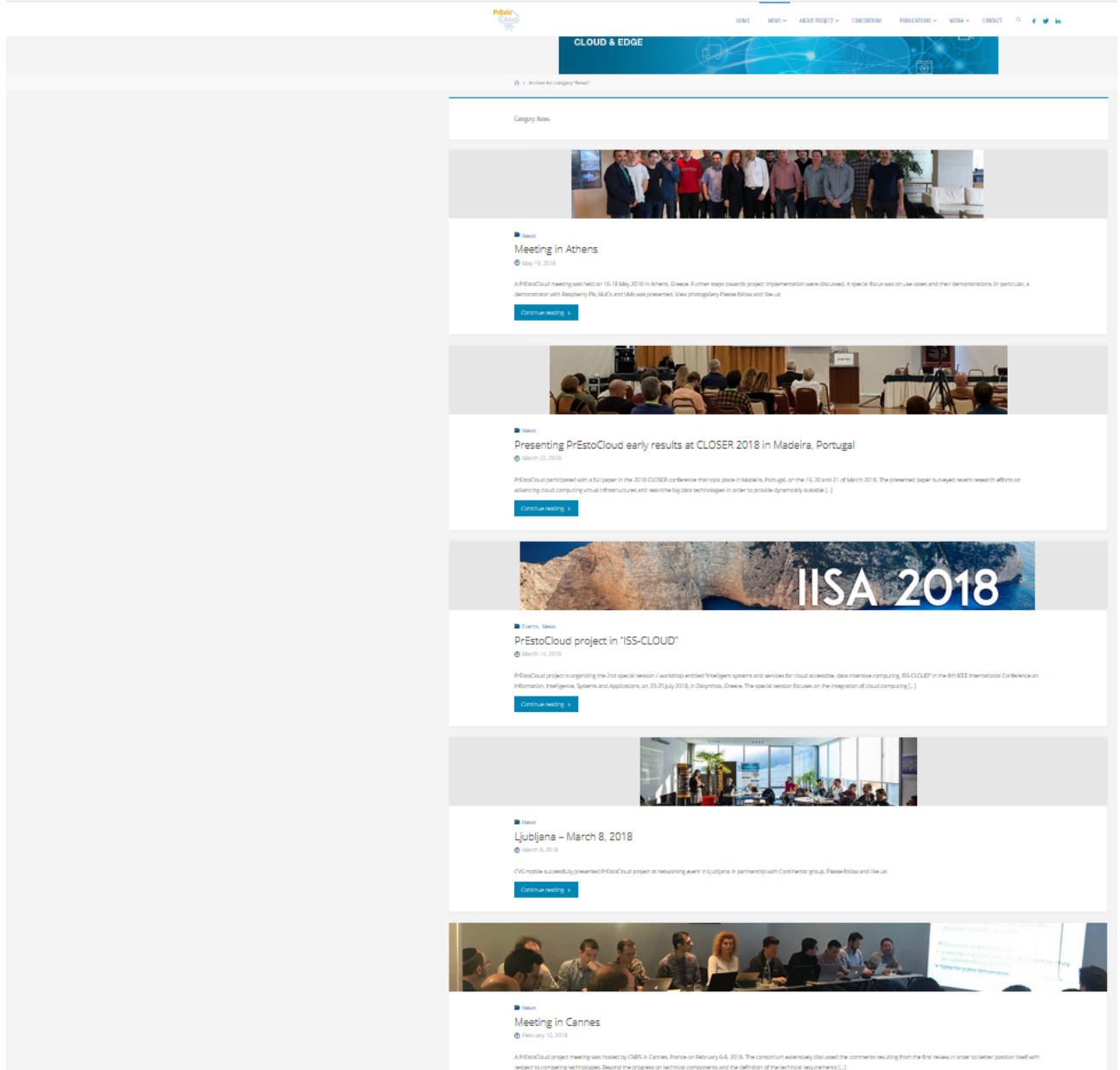


Figure 2 News Page

5.2 Online blog

Another target of PrEstoCloud is to raise awareness regarding its objectives through posts in blogs, electronic newspapers and magazines. A blog page is maintained on the PrEstoCloud website, which currently hosts 15 blogposts. A plan where all partners will be involved in providing blogposts was developed in order to assure the involvement of all partners as well as the best dissemination of these posts through each partner electronic network. The PrEstoCloud Blog can be found on the website subfolder <http://PrEstoCloud-project.eu/category/blog/>

5.3 Progress Against KPIs

The following tables and figures present several statistics from the website for the period from November 2017 to June 2018.

	Month	Visitors	Number of visits	Pages	Hits
1	November 2017	110	160	271	372
2	December 2017	91	119	200	295
3	January 2018	75	104	188	260
4	February 2018	79	111	180	285
5	March 2018	102	190	426	637
6	April 2018	51	79	159	216
7	May 2018	59	114	227	362
8	June 2018	64	116	269	316
	Total	631	993	1920	2743

Table 1: PrEstoCloud website visitors

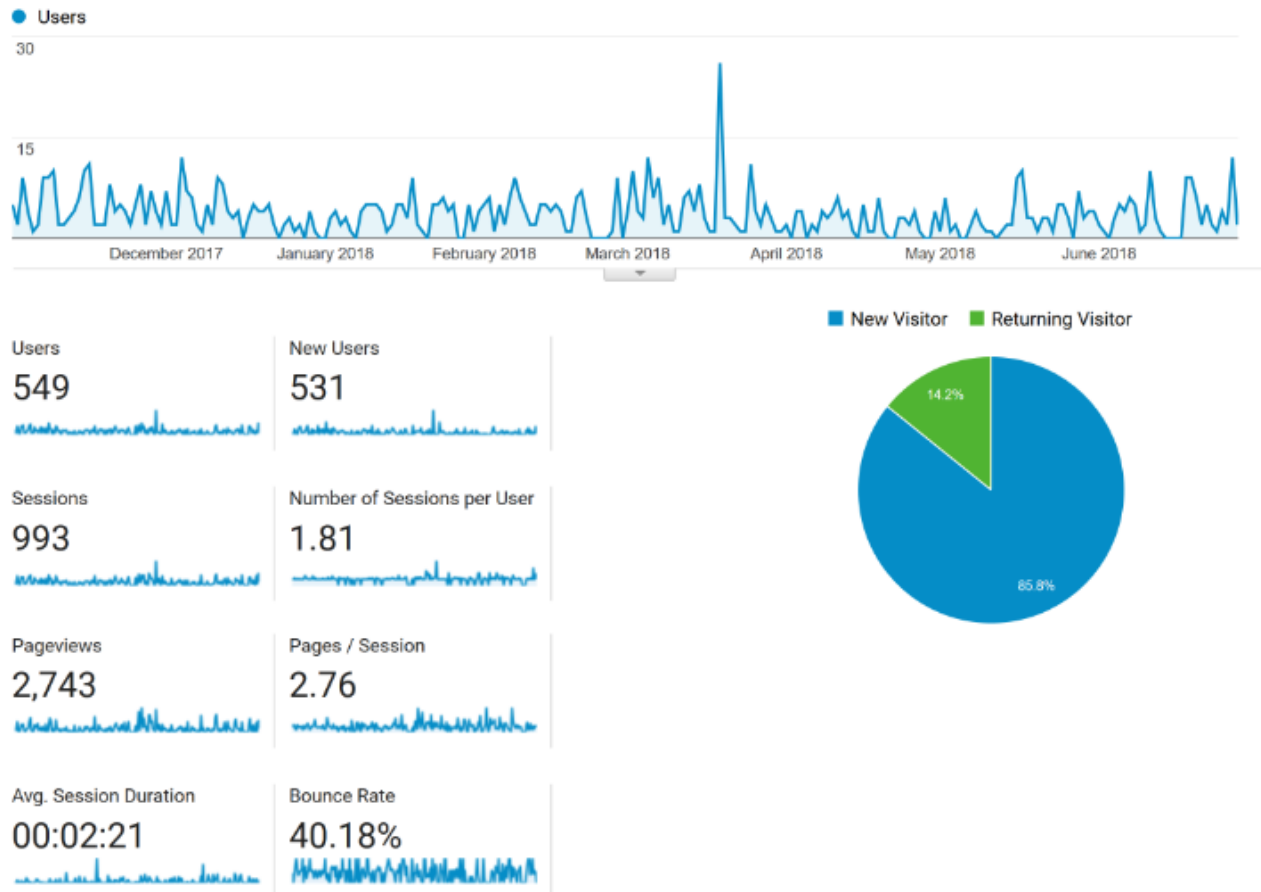


Figure 3 PrEstoCloud Project's website visitors

Demographics	Country	Users	% Users
Language	1. India	74	13.17%
Country	2. Germany	72	12.81%
City	3. United States	64	11.39%
System	4. Greece	49	8.72%
Browser	5. France	48	8.54%
Operating System	6. Slovenia	39	6.94%
Service Provider	7. Canada	19	3.38%
Mobile	8. Cyprus	19	3.38%
Operating System	9. Ukraine	19	3.38%
Service Provider	10. United Kingdom	18	3.20%
Screen Resolution			

Figure 4 PrEstoCloud Project's website visitors per country

Table 1 and Error: Reference source not found present statistics about the number of visits (included unique visits) and the number of opened pages and hits for the period from November 2017 until the month June 2018. A significant metric to be mentioned is the Returning Visitor rate that is 14.2% that is a significant percentage. due to the

fact until the M18 the website couldn't produce new content very often because the project phases 2 & 3 (Development & use Case) begins after the third 6month of the project. So new content will be produced on the ongoing months.

Error: Reference source not found present statistics of website traffic including opened pages and number of hits within the considered period for each country. Specifically, we present the top thirteen countries from a total number of 50 countries. The metrics have shown the visibility of our project from countries outside Europe like India, USA and Canada.

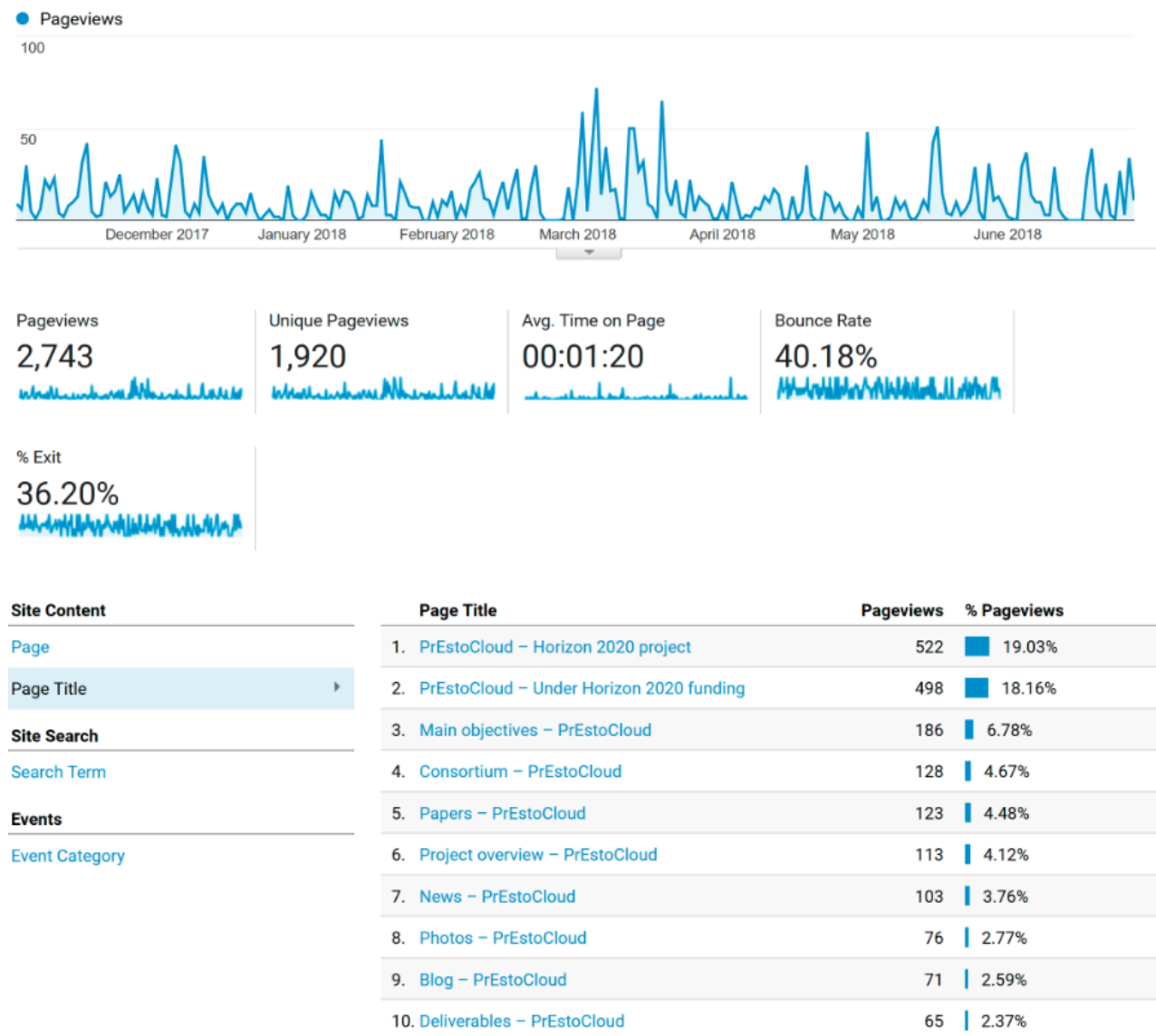


Figure 5 Average session duration and pages per session

Additionally, Error: Reference source not found presents the average session duration and number of pages opened within each session.

The following KPIs were defined with regards to the website

- Number of sessions (pageviews): 2743

- Number of unique visitors: 1920

In June 2018, the following figures (Table 2 PrEstoCloud website KPIs) have been obtained in regard to the overall project KPIs that have to be achieved (D8.4). According to the presented statistics the PrEstoCloud Website serves its purpose and is capable of attracting readers and maintaining their interest.

Communication Mean	KPI	Performance M11-M18	KPI Targets M18
PRESTOCLOUD Website	Number of sessions (pageviews)	2743	1500
	Number of unique visitors	1920	500

Table 2 PrEstoCloud website KPIs

6. Social Media

To increase project visibility and create room for exchange of experiences and knowledge between professionals and stakeholders we have created a LinkedIn group (PrEstoCloud¹) where the members of the consortium may exchange ideas and knowledge not only between them but also with the greater scientific and industrial community. Additionally, a Twitter account (PrEstoCloud²) has also been created. Twitter is an excellent medium for conveying short messages to its followers. The Twitter account is considered essential, especially during workshops and conferences, where the activity of the consortium is advantageous to be populated instantly; the use of hashtags will also allow our vision to reach more people. Further to the two above social media a Facebook group (PrEstoCloud Project³) was created in order to increase the visibility of the project.

Social media can serve as a great medium through which we may channel our messages and report on the progress of the project. However, messages need to be structured in ways that the deployed social media engine may yield the optimum exposure and popularity. Due to this, recycling of messages from LinkedIn to Twitter and the opposite is not used. Our strategy suggests the use of Twitter for the communication of small messages, images, content on our official webpage or other interesting content. On the other hand, LinkedIn serves as a really good medium for sharing longer posts and initiating discussions. Our experience with social media has proven not only the message needs to be customized but also the way audience is engaged. For instance, the audience of Twitter is a lot more dynamic and active than the audience of LinkedIn. Posting on Twitter requires a greater degree of interaction with your followers and also far more frequent posts. This is to say that it usually takes some time (and great work) until the right audience is engaged through Twitter while it also requires some ‘expertise’ in using the correct hashtag words.

The primary Point of Contact (PoC) for the management of the social media is Kathrine Smolianky & Noam Amram (LiveU). The main tasks of the PoC are to maintain the social media accounts of PrEstoCloud by providing updates on project events and responding to any posts/questions directed to PrEstoCloud. However, it is the responsibility of all consortium parties to invite people potentially interested in the objectives and targets of the project and suggest valuable sources of information.

6.1 LinkedIn

As of the end of June 2018, the PrEstoCloud LinkedIn group has got 24 members (Figure 6). We see the best potential in promoting milestone achievements in the lifetime of the project which will become available during the second half of PrEstoCloud project. So far, the LinkedIn group has been used by uploading different articles related to the PrEstoCloud “environment” or for announcing plenary and technical meetings as well as press releases/newsletters and updates on the architectural framework. Followers are expected to increase in the next year of the project as more interesting results are expected to emerge during the implementation phase of the project.

During the second half of PrEstoCloud project we shall devote more efforts in enhancing the engagement of users in the LinkedIn group and generating discussions and sharing of knowledge which was the intended purpose of its creation.

1 <https://www.linkedin.com/groups/13538899>

2 <https://twitter.com/PrEstoCloud>

3 <https://www.facebook.com/groups/119938801943429/>

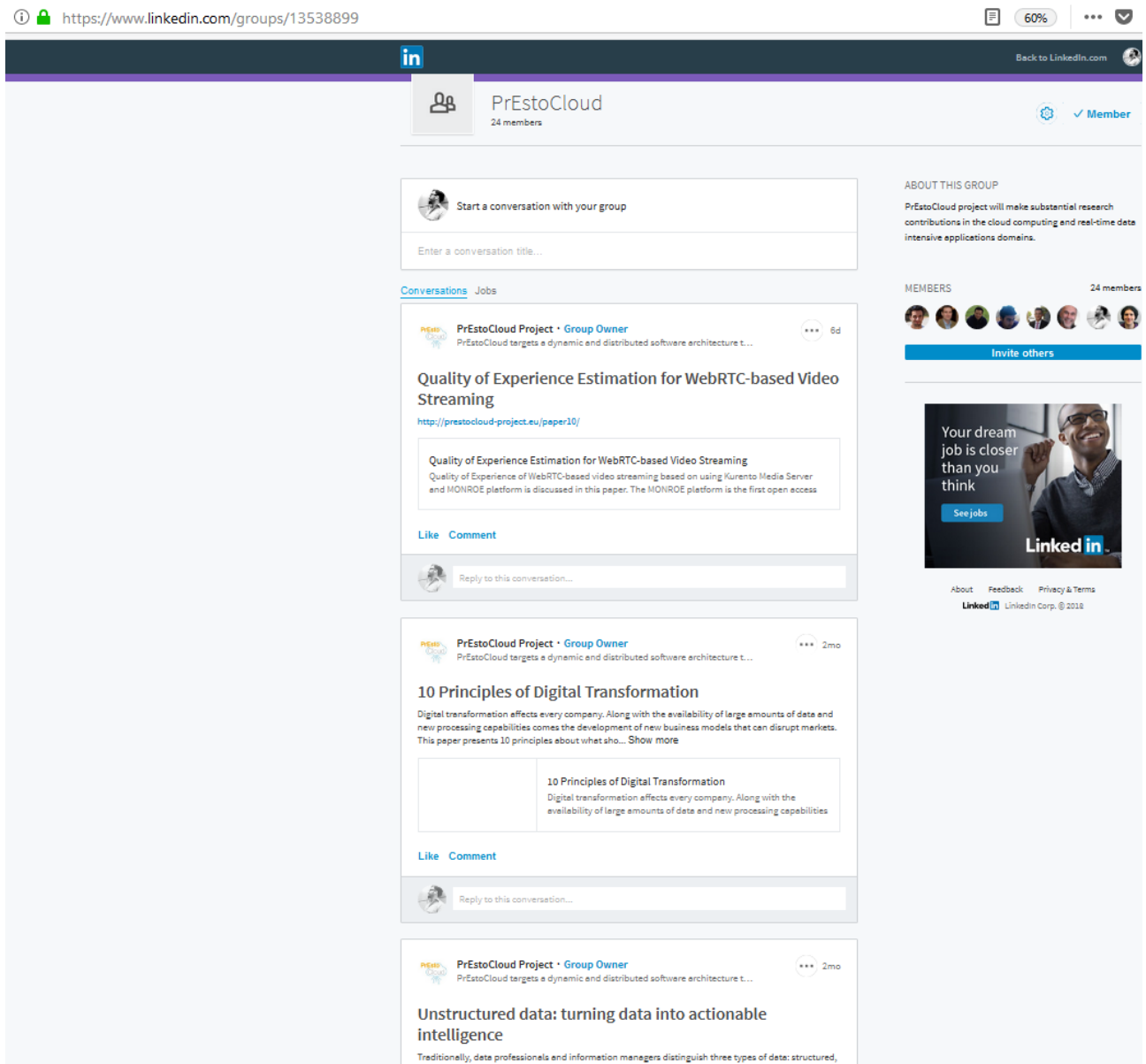


Figure 6 PrEstoCloud LinkedIn group page

6.2 Twitter

PrEstoCloud twitter (Figure 7) account has 436 followers as of late June 2018. Through the twitter account we aim to inform our followers with real-time information about the progress of PrEstoCloud project and activities. Also, through the twitter account PrEstoCloud is able to follow other related projects and initiatives. For the rest of this section, statistics and analytics will be prepared based on data obtained by Twitter Analytics⁴, the official Twitter site for the provision of statistics and audience concentrations. As a disclaimer, it is worth noting that the calculation of these statistics is not calculated in real time and therefore some figures may not be perfectly aligned.

shows the current status of the PrEstoCloud profile on twitter.

⁴ <http://analytics.twitter.com>



Figure 7 Current view of PrEstoCloud profile on Twitter

Throughout the duration of this first 18 months, updates on project meetings were posted on Twitter, however as this type of content is perceived as “boring” for twitter (90% of the followers at that stage were coming from consortium members) we opted by spotting pages dedicated to IoT matters, cloud computing and big data and share updates from the field almost every day.

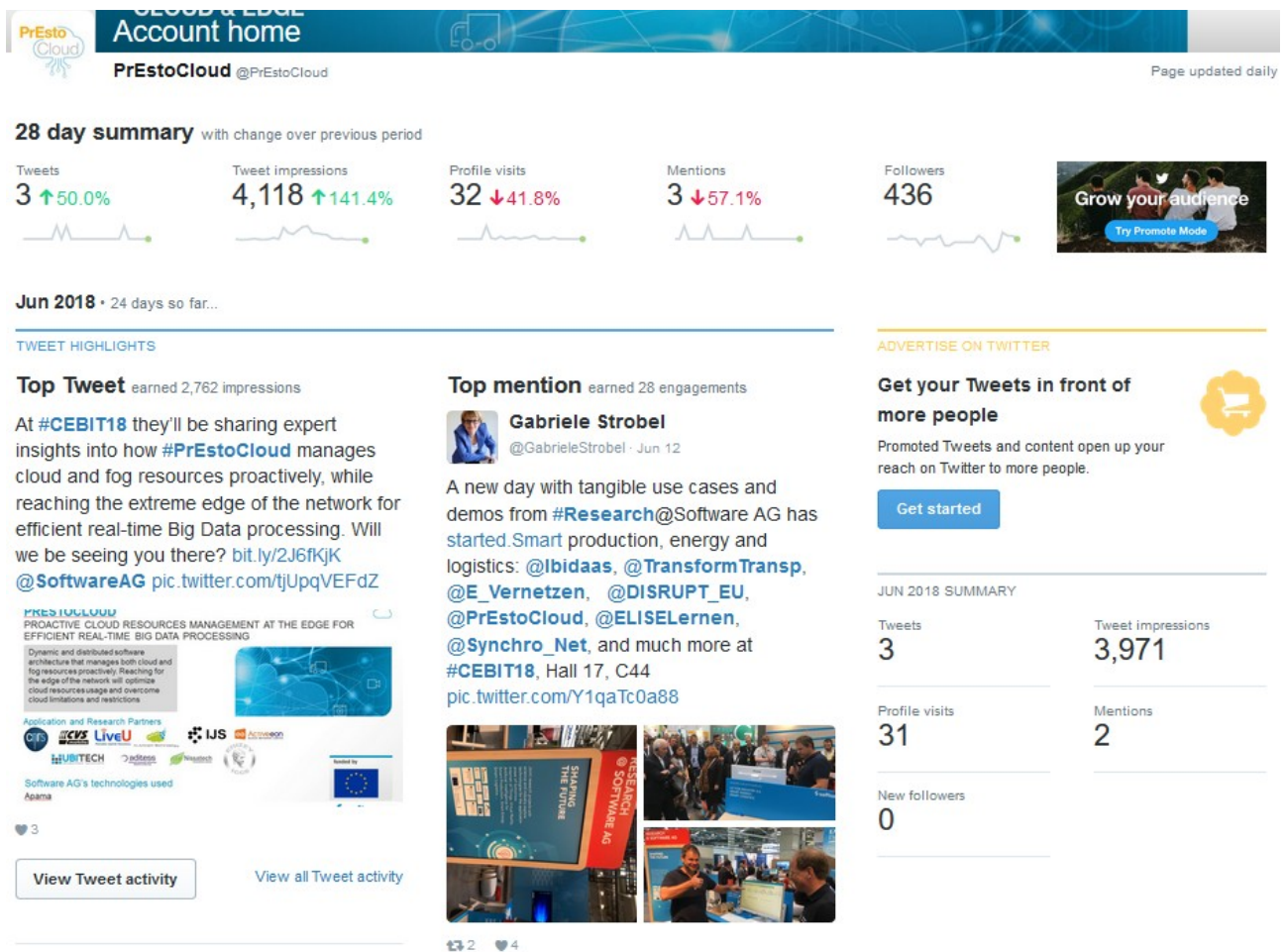


Figure 8 Twitter Statistics for the last 28 days

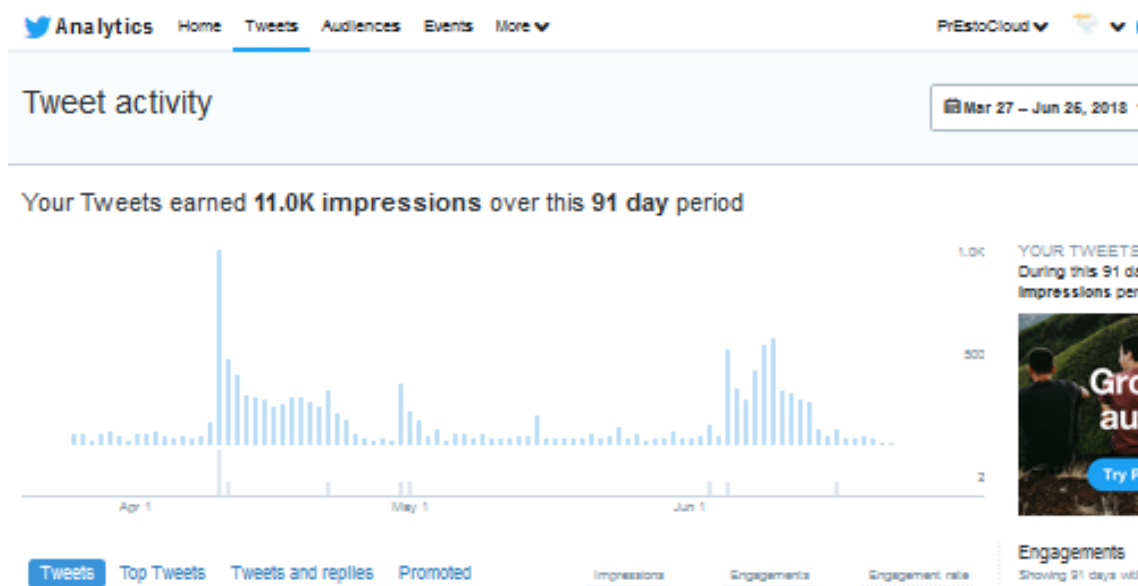


Figure 9 Twitter Impressions over a period of 91 days (25/6/2018)

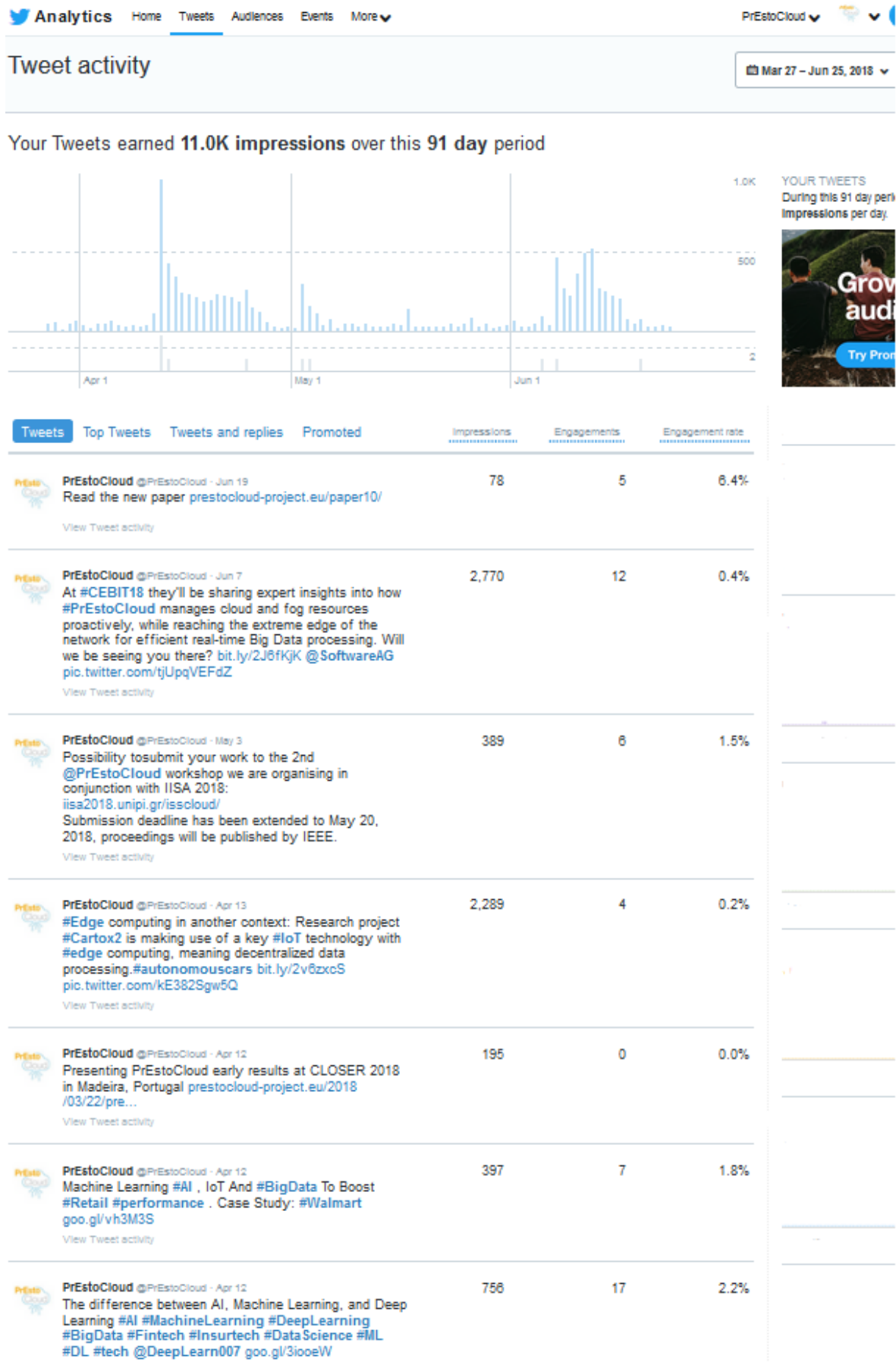


Figure 10 Twitter Impressions, Engagements & Tweets over a 91-day range

Analysis of the most recent data, also illustrated in Figure 10, shows that the PrEstoCloud account successfully engages its followers who show their actual interest by reading and liking our posts. In an effort to study further the traffic of the account and gain an insight on occurred patterns that will lead to increasing further our numbers/KPIs.

Error: Reference source not found0 goes a step further and explains the engagements of each tweet in retweets and likes. Engagements are measured as any type of interaction one may have with a post including link clicks, picture clicks, profile clicks etc., therefore the number of retweets and likes do not add up to the number of engagements. The positive outcome is that tweets containing pictorial information regarding the project return the highest engagement rates and profile views. The presented data suggests that the rate of engagements is not directly proportional to the number of impressions, in other words, a tweet with many impressions will not necessarily engage many people, further strengthening the idea that Twitter users have very specific interests one may not guarantee a post's success. However, many impressions indicate that many people have been reached, increasing the likelihood of gaining more followers.

6.3 Facebook group

For the needs of the project (even if not planned in D8.4) a new social media was used. A Facebook group was created. As for the end of June 2018 the group counts 62 members/followers.

https://www.facebook.com/groups/119938801943429/

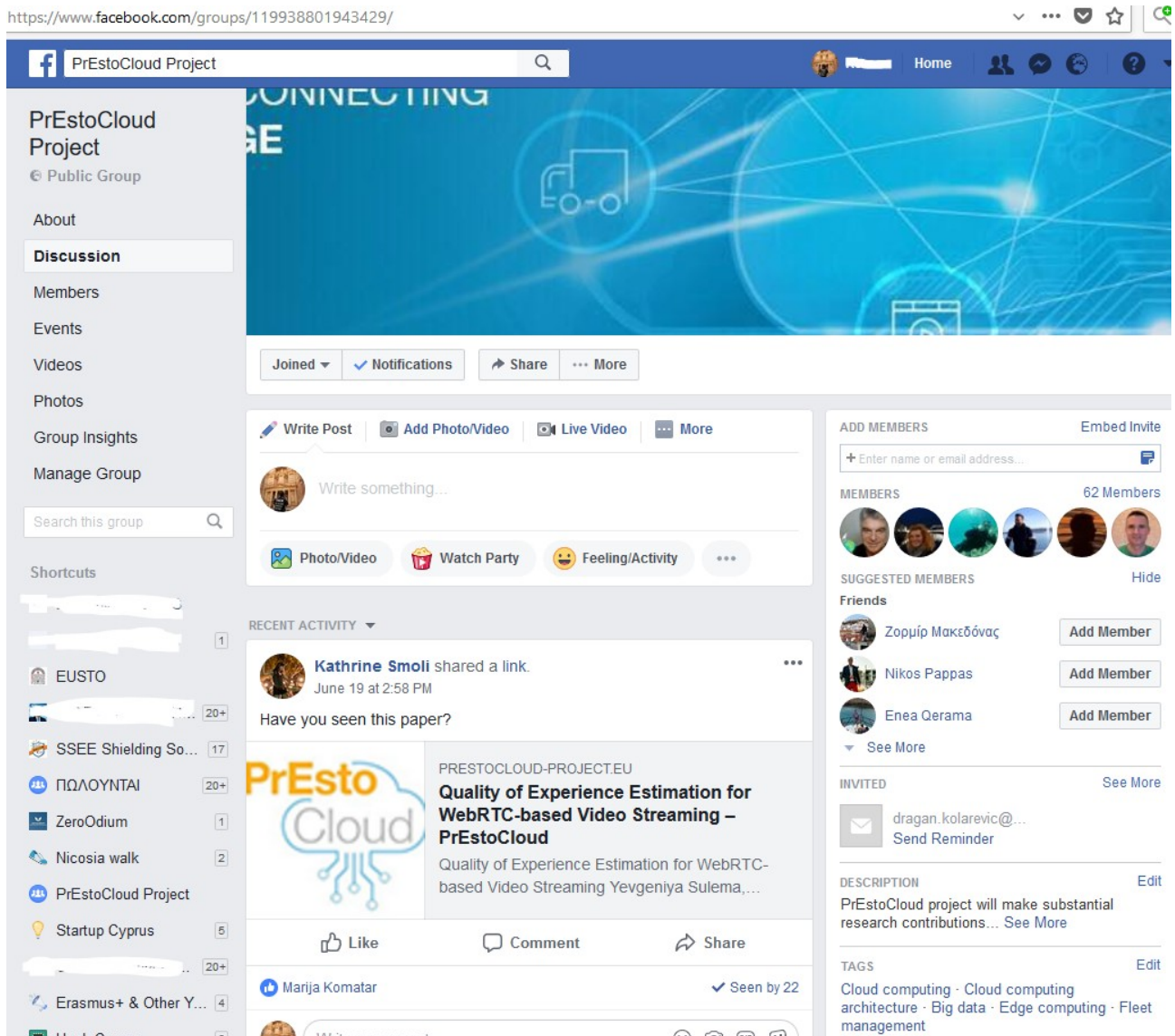


Figure 11 Facebook group

6.4 Progress Against KPIs

Error: Reference source not found shows the project's progress against the KPIs suggested in D8.4. At this stage and having evaluated the mechanics of LinkedIn and Twitter, we believe that the targets of the KPIs were met as regards the Twitter and partially LinkedIn. Of course, the KPIs putted for M36 were met from M18. We will therefore focus on meeting the rest of KPIs for LinkedIn and focus on increasing the project's visibility mainly to PrEstoCloud end-users and secondly to the wider community raising awareness on the innovation of the technology.

Communication Means	Target audience, Delivery	Performance M18	KPIs M36
Social media	All target audiences Twitter, LinkedIn, SlideShare	Twitter: 386 tweets, 436 followers LinkedIn: Group formation	Twitter: 200 tweets, 200 followers LinkedIn: Group formation

		24 followers, 38 discussion topics Facebook: 62 members	>50 followers, >5 discussion topics
--	--	---	--

Table 3 KPIs suggested in D8.4

7. Project presentation

The PrEstoCloud presentation is a document with the aim to be used by the project partners in order to provide an overview of the project scope, objectives and expected results in various events (e.g., workshops, conferences, etc.).

A first version of the PrEstoCloud Presentation was developed by ACTIVEEON in March 2017, including slides that they were mainly focused in providing an overview of the project. The sections included in the presentation were:

- What is PrEstoCloud
- Partners
- Objectives
- Challenges
- Concept Architecture
- System Architecture
- Use cases
- Contact details

The plan is to create new versions of the presentation based on the planned research activities as well as on new materials available. Therefore, in compliance with the D8.4 Communication Roadmap it is expected to have two versions, which will be released at the start of the project on March 2017 and on December 2018.

In this point, ACTIVEEON will create a new version of the PrEstoCloud presentation on M24 with more information about the project and an audience friendly version.

Screen shots of the first version of the PrEstoCloud presentation can be found in Annex I- PrEstoCloud Presentation.

8. Project Poster

The poster was released (Figure 18) including information regarding the framework's architecture and technical implementation. The poster that can be used in different events/conferences provides information about:

- What is PrEstoCloud: brief introduction to the PrEstoCloud project and proposed solutions
- Overview: including expected results, challenges and objectives of the project
- Partners and project details: including duration, Grant Agreement number, Call, budget, and contact details.
- Use cases
- Conceptual diagram of the PrEstoCloud solution

The PrEstoCloud Poster can be found as well on the website subfolder

<http://PrEstoCloud-project.eu/documents/PrEstoCloud-poster.pdf>

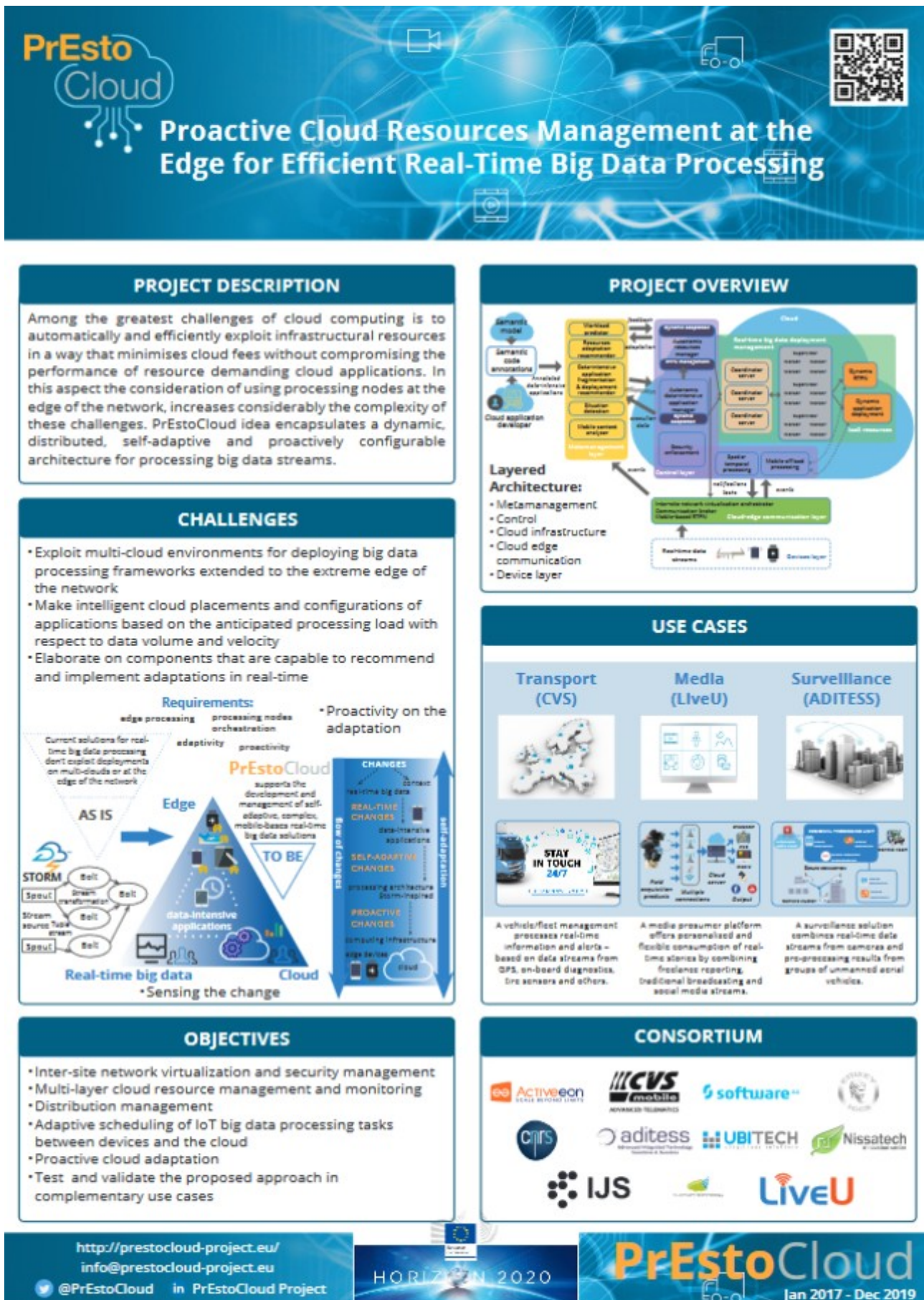


Figure 12 Promotional PrEstoCloud Poster

9. Project Brochure

To support partners with successful dissemination of PrEstoCloud ideas and results, the PrEstoCloud brochure was designed. In the website subfolder <https://goo.gl/M4CvVz> the PrEstoCloud brochure is presented and is able for downloads.

The PrEstoCloud brochure is available in both as a soft copy on the PrEstoCloud website and as hard copies to be disseminated by the partners in any dissemination event. This brochure provides information about:

- What is PrEstoCloud project: Aims and Vision
- PrEstoCloud Architecture
- PrEstoCloud Objectives
- PrEstoCloud Use cases
- Contact and project details

10. Press releases

Local press is another communication channel used in the project. All partners putted additional effort to release the project concept, scope, objectives and expected outcomes in local press in all PrEstoCloud partners' countries. NISSATECH together with Software AG are the responsible partner for the development of press releases in English. In accordance to the D8.4 Communication roadmap, the two first press releases were prepared in M6 and the second press release in M10. All partners had disseminated through their channels to the Local media. The next press releases are planned for M20 and M24.

The PrEstoCloud press releases can be found on the website subfolder <http://PrEstoCloud-project.eu/category/press-releases/>

11. Newsletter

Periodic newsletters are produced during the project lifetime (5 total newsletters), providing news, articles, and in-depth information about the project progress and outcomes, and any other relevant information that applies at the time of the publication. The newsletters will present the several activities undertaken by PrEstoCloud, describing the project developments, the deliverables' findings and the results that will be reached step-by-step, and they will provide suggestions coming from the project's meetings and the partners' collaboration.

The newsletter is developed in electronic format in order to better disseminated electronically. Of course, there is the possibility to be printed and disseminated as a hardcopy.

The newsletter's issues contain at least the following elements:

- The PrEstoCloud logo and logos of all the project's partners.
- The project details, i.e., start/end date and project duration, the specific HORIZON call and the Grant Agreement reference, the budget and EU funding.
- The web address of the PrEstoCloud website
- The contact details of the PrEstoCloud project.
- The standard disclaimer for the HORIZON Programme.

The first newsletter was prepared in M9 and the second newsletter in M14. The newsletters were released electronically, through the PrEstoCloud website and social media accounts to a wide audience of all target groups and also via all partners' existing websites. Until the reporting period, there was no need for printing of the newsletters (for potential distribution in occasion of major events e.g., conferences, workshops, etc.).

The next newsletter will be prepared on M21, M25 and M36. The PrEstoCloud newsletters can be found on the website subfolder <http://PrEstoCloud-project.eu/PrEstoCloud-newsletter/>

12. Conclusions

The communication activity of PrEstoCloud during the first 18 months of the project implementation was quite satisfactory (2743 website visitors, 522 followers in social media) taking into account that the project has started in the beginning of 2017.

The performance of KPI's showed that the social media and the communication via these channels have been achieved but need to be further extended using more targeted and customized communication actions in order to enrich further the audience as well as the targets.

All the rest of the communication tools described and planned on D8.4 have been developed and implemented as planned.

Way ahead actions:

- Continuous update of project web site (Blog and related news)
- Dissemination of project Brochure in different events
- Present the project in different events
- Disseminate the project press releases in the target groups
- Prepare and disseminate the PrEstoCloud Newsletters to the partners
- Take part on Conferences/events
- Social media (continuous update of social media, link & share with related news @all partners)

Deliverable by month 36:

- D8.6 – Communication Roadmap & Activities Report - Iteration 2 (ADITESS, Report, Month M38 PU), Report documenting the communication activities of the project partners

Annex I: PrEstoCloud presentation



PrEstoCloud: Proactive Cloud Resource Management at the Edge for Real-time Big Data Processing



Overview



- Factsheet
- Objectives
- Challenges
- Concept and Architecture
- Use cases
- Next steps

PrEstoCloud factsheet



Partners

- Management
 - Software AG (DE)
- Research
 - ICCS (GR)
 - CNRS -I3S (FR)
 - JSI (SI)
- Technology Providers
 - ActiveEon (FR)
 - NISSA Tech (SR)
 - UBITECH (GR)
- Uses Case providers
 - LiveU (IL)
 - CVS Mobile (SI)
 - ADITESS (CY)
 - N.AM RAM tech. (IL)

Pole SCS

Organization

- Start on January 2017
- 3 years
- 518 MM (42 MY)
- Budget : 4,2 M€
- 12 partners
- 7 countries

H2020 Program

- ICT-06 Cloud Computing
 - Cloud
 - Edge
 - Virtualization, software defined
 - Big Data on the Edge

Objectives



- Lambda-like framework for Real-time big data processing
 - Resource provisioning in new cloud computing paradigm
 - Extended to Edge
 - Tight interaction between computing and networking infrastructure
 - Hybrid multi-clouds
 - Data-centric
 - Monitoring cloud resources
 - Application and resource deployment and management
 - Adaptive scheduling of IoT Big Data processing
 - ProActive Cloud adaptation



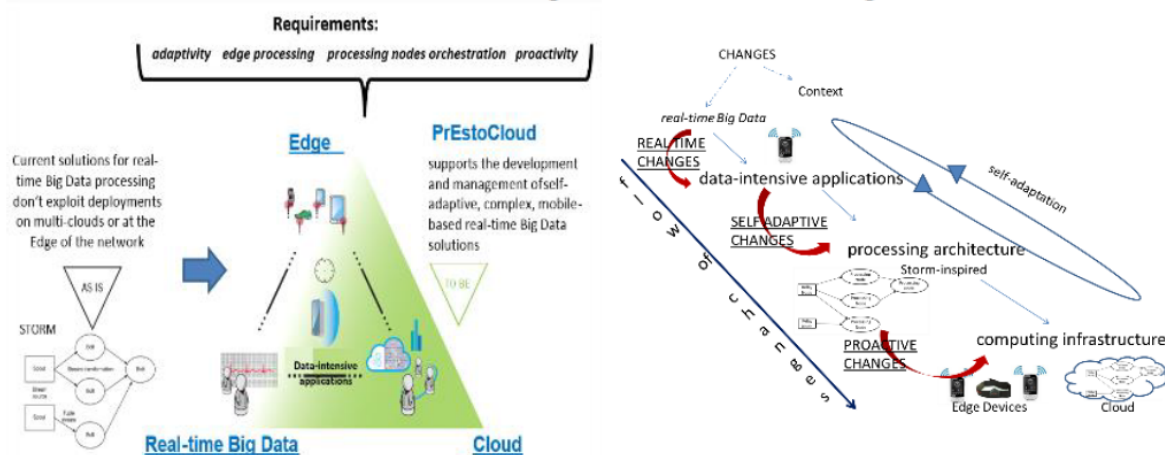
Challenges

- Business driven
 - Personalized innovative and superior user-experience
 - Edge analytics
 - Stream mining
 - Processing and exploitation for QoS
 - Limitation of the traditional Big Data architectures
- Evolution of Real-time big data processing
 - Distributed processing network
 - Real-time mobile processing
 - Spatial complex event processing
 - Self-adaptive big data processing
- Efficient cloud resource utilization
 - Adaptivity
 - Proactivity
 - Efficient and Scalable Process Scheduling
 - Edge processing

Challenges

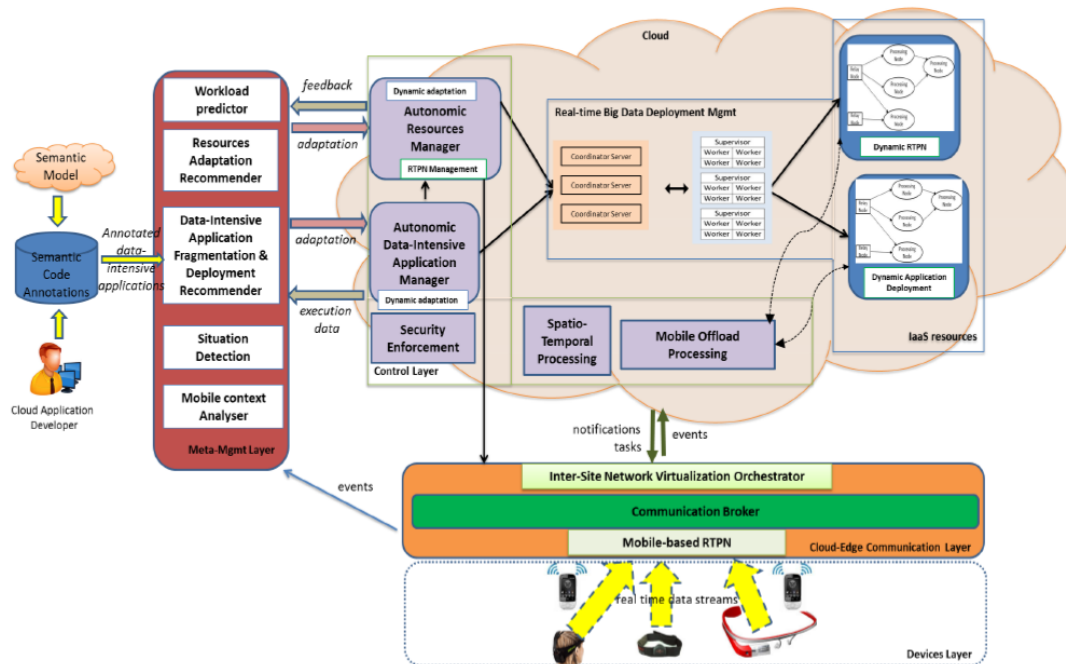


➤ Evolution of real-time Big Data Processing

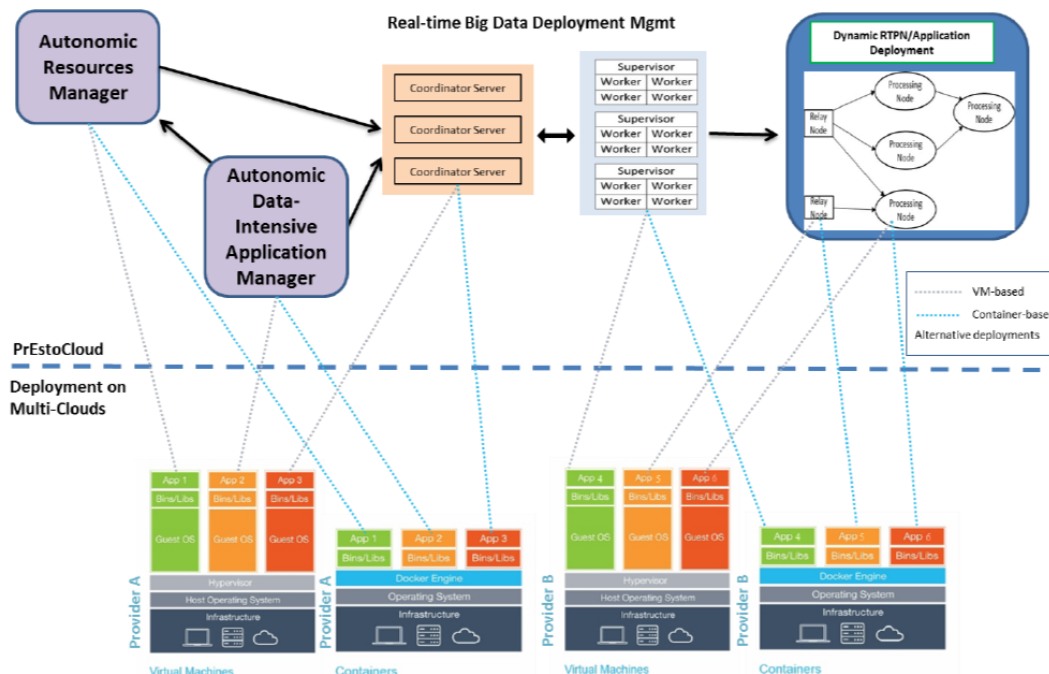


- Self adaptation
- Multi-Clouds
- Mobile&Edge based Processing
- Change: 4th V (variety of velocity)
 - Sensing the change, analyze and predict resource availability

Conceptual Architecture



Multi-Cloud Deployment



Use-case: Logistic - Transport



- Pilot
 - Vehicle telematic data sources
- Processing Requirement
 - Complex event detection
 - Smart sampling of Data
 - Situation awareness unsupervised
 - Abnormality detection; complex data
 - Visualization
- Success criteria
 - Applicability
 - Performance
 - Cost effectiveness



Use-case 2: Media - Journalisme



- Pilot
 - Mobile journalism over Mediacube contribution and consumption service
- Processing Requirement
 - Video transcoding
 - Point to multipoint WebRTC streaming
 - Authentication of the content
 - Augmented reality oriented processing
- Success criteria
 - Applicability
 - Performance
 - User /broadcasters acceptance



Use-case 3: Security/ Surveillance



➤ Pilot

- Security video feed with CCTV & UAV surveillance video streams

➤ Processing Requirement

- Video transcoding
- Audio Analytics
- Security-related events detection



➤ Success criteria

- Performance
- Level of security
- Variety of data streams



Next



➤ Looking for

- Big Data use-case partners with data sets in :
 - Environmental Data analysis
 - Smart Energy
 - Smart Cities
- New collaboration on IoT with Big Data
 - ICT-14
 - ICT-16
 - IoT-03

