DITAS: Data-intensive applications Improvement by moving data and computation in mixed cloud/fog environments

**Fact Sheet**

<table>
<thead>
<tr>
<th>Project information</th>
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<tr>
<td><strong>DITAS</strong></td>
<td>Funded under: H2020-EU.2.1.1.</td>
</tr>
<tr>
<td>Grant agreement ID: 731945</td>
<td>Overall budget: € 4 890 066,25</td>
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<td>Project website</td>
<td>EU contribution € 4 420 187,50</td>
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<tr>
<td>Status</td>
<td>Coordinated by: ATOS SPAIN SA</td>
</tr>
<tr>
<td>Ongoing project</td>
<td>Spain</td>
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<tr>
<td>Start date</td>
<td>End date</td>
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<tr>
<td>1 January 2017</td>
<td>31 December 2019</td>
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**Objective**

There is an increasing need to develop data intensive applications able to manage more and more amounts of data coming from distributed and heterogeneous sources effectively, quickly, correctly, and securely. However, the current adoption of Cloud Computing paradigm is not fully appropriate to store and analyse such data: latency, security, and compliance are still significant barriers. At the same time, Fog Computing has emerged as a paradigm promising to fully exploit the potential of the edge of the network involving traditional devices as well as new generation of smart devices, which can process data closer to where they are produced and/or consumed but which cannot ensure the same reliability and scalability as cloud computing offers.

The goal of DITAS is to propose a framework, composed by an SDK and an execution environment, which aims to overcome the barriers that now hamper the adoption of Cloud Computing and increase the adoption of Fog computing by exploiting the full potential of these two paradigms in a synergic way. This will support the development and execution of data-intensive application that are now – and even more in the future – crucial for organizations and companies that want to manage their data in an efficient, reliable, scalable, and secure manner.

Abstractions provided in DITAS with Data Virtualization and Data Utility will expose the data to be managed by the application in terms of Virtual Data Containers which hide the complexity of the underlying infrastructure composed of heterogeneous data sources, smart devices, traditional servers, and sensor
networks Distribution could also change dynamically. Conversely, Virtual Data Containers offer to developers the possibility to express requirements on data in terms of performance, quality, security and privacy thus to focus only on the application logic, leaving to the DITAS execution environment the responsibility of finding, processing, and delivering the data according to user needs.

Programme(s)

H2020-EU.2.1.1. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT)

Topic(s)

ICT-06-2016 - Cloud Computing

Call for proposal

H2020-ICT-2016-1

See other projects for this call

Funding Scheme

RIA - Research and Innovation action

Coordinator

ATOS SPAIN SA

Address

Calle De Albarracin 25
28037 Madrid
Spain

Activity type

Private for-profit entities
(excluding Higher or Secondary Education Establishments)

EU Contribution

€ 568 750

Website

Contact the organisation

Participants (7)
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Country</th>
<th>EU Contribution</th>
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<tr>
<td>POLITECNICO DI MILANO</td>
<td>Italy</td>
<td>€ 542 500</td>
<td>Piazza Leonardo Da Vinci 32</td>
<td>Higher or Secondary Education Establishments</td>
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<td>20133 Milano</td>
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<td>TECHNISCHE UNIVERSITAT BERLIN</td>
<td>Germany</td>
<td>€ 768 937,50</td>
<td>Strasse Des 17 Juni 135</td>
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<td>IDEKO S COOP</td>
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<td>€ 547 500</td>
<td>Calle Arriaga 2</td>
<td>Research Organisations</td>
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<td>20870 Elgoibar</td>
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<td>CLOUDSIGMA AG</td>
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<td>Badenerstrasse 549</td>
<td>Private for-profit entities (excluding Higher or</td>
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<td>8048 Zurich</td>
<td>Secondary Education Establishments)</td>
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Activity type
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EU Contribution
€ 526 250

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EU Contribution
€ 970 000

Website
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Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

EU Contribution
€ 496 250

Website
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Last update: 7 June 2017
Record number: 205979