Buildings as a Service Project Newsletter Nº3

Upcoming events

The next Periodic Meeting will take place in Brussels on 2nd and 3rd of November 2015, followed by the 3rd Review with the EC on 4th November.

LI BaaS

Baas will be represented at the General Assembly of the joint ECTP and E2Bplatform meetings 15/16th of October 2015 in Brussels.

Baas papers will be presented at the next CiB W78 workshop in Eindhoven (The Netherlands) on 26th to 29th of October 2015.

Susana Martín Toral, BaaS Project Coordinator

Welcome to the 3rd issue of the BaaS project newsletter on the research of ICT solutions for optimizing energy performance in the application domain of "nonresidential buildings" in an operational stage. At this third stage BaaS prototype has been implemented completely to be then deployed in our three demonstration sites: two office buildings hosting complex energy systems (ZUB building in Kassel, Germany, and the CARTIF building in Valladolid, Spain) and one school hosting common and simple energy systems (Sierra Elvira School located in Granada, Spain).

The variety of complexity in the demonstration buildings will guarantee a wide impact

BaaS Test-Bed and Demo-Sites

Technical. University of Crete (Crete)



Centre for Sustainable Building (Kassel)

of BaaS when analysing the sensibility and replicability of the solution. This approach has allowed our industrial and academic partners to identify clear exploitation initiatives of BaaS results.

By achieving these objectives BaaS has been able to provide a platform that interconnects multiple heterogeneous data sources, energy efficiency services and ICT external tools to improve the energy behaviour of three demonstration buildings. In that sense BaaS platform is now ready and delivering energy-aware monitoring and optimized operation services towards the real validation of the prototype in different scenarios (Use Cases) that affect the buildings' behaviour in summer and winter modes. The final objective is to reduce the energy demands and yield significant energy and economic benefits.

I would like to invite you to follow BaaS activities and achievements by visiting our communication channels: BaaS project website and BaaS LinkedIn Group.

ZUB Demonstration Site

BaaS has made substantial progress since software demonstrations are now installed on all Demonstration Sites.

Along the spring/summer 2015 BaaS has been tested and applied on ZUB building. Summer 2015 were historically one of the warmest summers in Kassel. During this



CARTIF office building (Valladolid)



time BaaS has managed in the blind control to decrease solar loads at the same time that the luminal comfort in work spaces has been assured.

CARTIF Demonstration Site

In the case of the CARTIF building, several BAC (Building Automation and Control) and TBM (Technical Building Management) services have been deployed over BaaS prototype and they are now running for the summer mode. Thanks to the new software control installed in the building, BaaS has been able to reduce drastically the time of operation of the cooling pumps,



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that now take into account not only the effective set-point of the different zones in the building but also the external conditions, occupancy and comfort constrains of the inhabitants. Sierra Elvira: Efficiency Degradation

Sierra Elvira school (Granada)



Sierra Elvira School Demonstration Site

Dalkia manages over 500 facilities with the same characteristics and the same potential energy optimization. It is very useful to DALKIA's business model the reduction of power consumption obtained with BaaS, that can be then replicated in more than 14 schools with the same building typology than Sierra Elvira School. The application of BaaS services has already detected several anomalies:



beside some rule-based ones, biomass boiler degradation monitoring detected a significant (20%) degradation drop during one season. The BaaS infrastructure can, therefore, support optimal maintenance of boiler cleaning.





Publications

The Bass project has presented in the following conferences this year. ICEIS 2015, 18th International Conference on Enterprise Information Systems in Barcelona, NetSYs KiVs 2015 International Conference on networked Systems Cottbus Germany. And will be presenting at IEEE WF IoT, Italy and Hyderabad, India later this year

BaaS system selected in an open competitive tender for monitoring and control in the TU-Crete campus.

As part of the Green campus initiative, the Technical University of Crete has undertaken a number of actions to monitor and reduce energy use, including deployment of a campus-wide energy management system to be installed in the University's main campus in Chania, Greece. An open competitive tender was called by the University's Technical Services for the acquisition and deployment of such a system. An open hardware solution using the BaaS system for data collection, monitoring and control won the tender, surpassing other commercial offerings in terms of features, extensibility and cost. The system is used in a total of 145 offices and rooms in the student residence halls. The system has been commissioned and has been operational in the last nine months, providing central monitoring of energy consumption at room level, and room-level control to ensure reasonable energy use. A number of applications have been developed on top of the BaaS platform: students can monitor energy use in their dormitory rooms and situations of excessive energy consumption have been identified. The project, with a cost of €50,000 and a total installation and configuration time of one month was completed in Autumn last year. Additional analytics are developed and will be deployed in the following months. The system supports the Technical Services team with timely and relevant information for scheduling system maintenance and energy monitoring of the University facilities.

Further Information:

For most recent events, conferences, papers, you can find updated information on BaaS website: https://www.baas-project.eu

Dissemination

Bass Project was presented in the 1st Infrastructure Symposium organised by the Facility Management in the European Space Astronomy Centre (ESAC) which belongs to the European Space Agency (ESA). The Symposium took place in the ESAC offices at Madrid in June this year. The project delivered a speech in the panel session dedicated to the topic "Can Infrastructure Control Systems Speak the Same Language?"



BaaS useful contacts



Susana Martin Toral CARTIF Foundation ICT for Smart Cities and Sustainability Leader of BaaS WP8 e-mail: susmar@cartif.es



Karsten Menzel IRUSE, University College Cork Leader of BaaS WP2 Dissemination Leader e-mail: k.menzel@ucc.ie

Follow us

Visit the BaaS website for more details: www.baas-project.eu

Follow updates and news and benefit from the exchanges among wide-ranging players in the energy efficient community by joining **"BaaS – Building as a Service (Ecosystem) community**" on LinkedIn.

Most Recent Achievements

The BaaS consortium completed work in the areas listed below. Even if most of the Deliverables are confidential or with restricted accessibility the BaaS consortium is committed to share selected results with third parties on the basis of the exploitation plan and the IP-management process.

No	Title	No	Title
D2.4	Methodology for Data Uncertainty Propagation	D 4.3	Model simplification for Control and Monitoring
D2.5	Prototype Deployment, Evaluation, Monitoring, and Support	D 5.2	Development of TBM-Functionalities
		D 5.3	Development of BAC-functionalities
D 3.7	Prototype Specification and Implementation	D 6.3.2	Baseline Period in Pilot Buildings

BaaS useful contacts:

In respect to BaaS Project coordination and management you can contact the BaaS Project coordinator Susana from Fundación Cartif, Energy Division; email susmar@diana.cartif.es

 In respect to BaaS events participation and related dissemination you can contact the BaaS Workshop Coordinator Professor Karsten Menzel from University College Cork, Ireland; email k.Menzel@ucc.ie
 If you have a question related to scientific objectives please contact WP leader

If you would like to become a member of the BaaS Dissemination Network, please contact us at <u>baas_dissemination@cartif.es</u> WP1 Cartif
WP2 UCC
WP3 NEC
WP4 Fraunhofer
WP5 TUC
WP5 TUC
WP6 Dalkia
WP7 Honeywell

susmar@cartif.ie k.menzel@ucc.ie Mischa.Schmidt@neclab.eu juan.rodriguez.Santiago@ibp.fraunhofer.de rovas@dpem.tuc.gr Javier.martin@Veolia.com Karel.Macek@honeywell.com

