ebbits

Business-Based Internet of Things and Services

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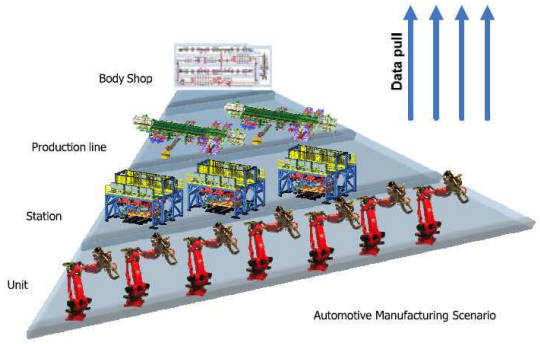
Second year prototypes on their way

ebbits has developed the second round of prototype applications for its two domains Automotive Manufacturing and Food Traceability ready to be shown in demonstrations and field trials.

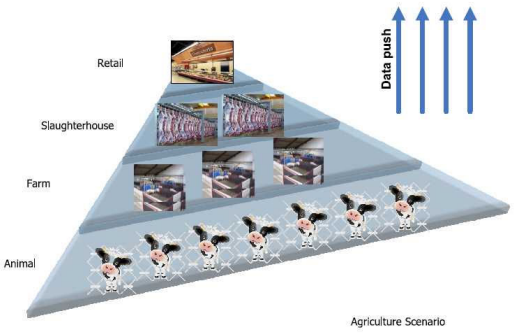
The purpose is to show how the ebbits platform, with an open architecture based on web services and interoperability, can manage both real-time data and historic data.



Management of real-time data will be demonstrated in the automotive manufacturing setting, where real-time data from units, components and sensors are pulled from the underlying layers of the factory into the plant level to be used in online ebbits services for online production management, energy monitoring and maintenance performance.

The prototype will focus on three life cycle aspects: Total productive maintenance in the form of deviations from day-by-day operations, process fault and subsequent recovery; retooling (process change in the introduction of a new car model on an existing production line) and energy monitoring (energy footprint of each car body).

In the food tracebility case, applications will use historic data that have been pushed to data repositories from the physical world through the different layers in the food chain for food traceability and authentication.



The ebbits platform will allow loosely coupled units (animals) and sensors to push data to data repositories where they later can be accessed online. The focus will be on making information about a product (additives, nutritional value, daily recommended values, CO_2 footprint coupled with explanations, comparisons and recommendations) accessible to the consumer via a mobile application and QR codes. This requires implementing consumer software, accessing the available product information and making sure that ebbits can provide relevant information to the consumer.

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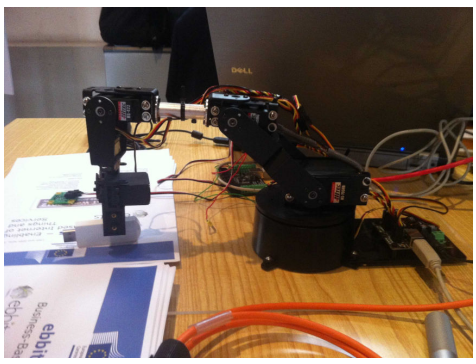
Successful ebbits demo at the IoT Week 2012

At the IoT Week 2012 in Venice, ebbits had a robot demo running, showing online data transmission and interaction between physical devices and the ebbits platform.



To demonstrate how the ebbits platform can handle and respond to data from devices, a temperature sensor was attached to the robot. When the temperature was raised above 30°C, simulating the temperature in the robot's cooling system, the robot stopped immediately and issued a warning signal to the operator central, located in Sweden.

The live demo is a first step towards the final goal in ebbits which will be to demonstrate the ability of ebbits applications to manage manufacturing processes with special emphasis on energy consumption.

In this issue

In other news

Dissemination events:

2012 ASE/IEEE International Conference on Privacy, Security, Risk and Trust
3-5 September, Amsterdam, Netherlands
The conference is the 4th IEEE International Conference on Information Privacy, Security, Risk and Trust. ebbits partner FIT has submitted a paper.

CECIIS - 2012
19-21 September, Varaždin, Kroatia
The conference is a central European conference on Information and Intelligent Systems. ebbits partner IS has submitted a paper.

Deliverables released:

The following deliverables have been completed:

- D1.2.2 6-month progress reports for the commission 2 (confidential)
- D2.5.2 Prototype application specification 2 (confidential)
- D2.7.1 Lessons Learned and results of usability evaluation 1 (public)
- D2.8.1 Change request and reengineering report 1 (public)
- D2.9.1 Updated requirements report 1 (public)
- D3.3 Business logic models (public)
- D3.4 Business framework for online OEEE applications (public)
- D3.5 Business framework for online food traceability(public)
- D4.5 Analysis and design of semantic interoperability mechanisms (public)
- D4.6 Improvements of scalability, query expressivity, reasoning (restricted)
- D5.2.2 Architecture for intelligence integration 2 (restricted)
- D5.4.2 Multi-sensory fusion and context awareness prototype 2 (restricted)
- D5.5.1 Prototype of control management services 1 (restricted)
- D7.3.2 Technical description of implementation of Data and Event Management 2 (public)
- D7.4.2 Prototype of Data Management subsystem 2 (restricted)
- D8.3 Physical World adaptation layer (restricted)
- D8.5.1 Integration of new sensors/actuators in manufacturing scenario 1 (restricted)
- D8.6 Integration of Physical World

As well as running a live demo, ebbits partners CNET and ISMB made several presentations at the conference and ran a half-day workshop on IoT Exploitation with presentations from nine projects. You can find and download all the ebbits presentations from the IoT Week 2012 on the ebbits website.

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FInES workshop on next generation enterprises – now available as webcast

Around 60 people joined the workshop organised by the European Commission's (FInES) Cluster on 9th May in Aalborg, Denmark to discuss how European enterprises can exploit the full potential of the future internet. The workshop was recorded on video and can now be watched online.

The workshop was titled "Translating Knowledge into Growth: Views from ICT Research to Support Future Business Innovation" and the aim was to explore and debate several major inter-connected themes which are expected to have a significant impact on the development of next generation enterprise systems.

ebbits has been involved in the planning of the workshop and was represented by partner IN-JET at one of the workshop panels on business values, value objects and constellations, making a presentation on Identification of value objects in IoTS.

Other themes discussed were a new vision of the Sensing Enterprise and the characteristics, properties and architectural design principles for the enterprise systems.

View FInES workshop where you can choose the presentations you prefer to see.

The workshop was organised by FInES together with the European Factories of the Future Research Association (EFFRA) and Aalborg University and took place in conjunction with the Future Internet Week held in Aalborg, Denmark on 7-11th May 2012. On 11th May, FInES also co-organised a special Future Internet Assembly session titled "IoT applications and business models" which included another presentation from ebbits.

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ebbits at CeBIT

Neelie Kroes, Vice-President of the European Commission visited the ebbits stand.

In March 2012 ebbits exhibited at CeBIT as part of the Factories of the Future stand. The stand was arranged by the ActionPlanT project and featured a handful of EU-funded projects within enterprise systems.

During the exhibition Vice-President of the European Commission, Neelie Kroes visited the ebbits stand to get a glimpse of what the project is about. She was introduced to ebbits and its vision to develop a service platform, which provides customers, manufacturers and enterprise systems with online information about a product throughout its life cycle whether tracking the CO_2 footprint of cars or tracing the food we consume.

The platform, based on a Service-oriented Architecture with open protocols and middleware, collects information from data repositories, devices and sensors and transforms it into intelligent web services. Neelie Kroes was given examples of how ebbits works in both its domains; automotive manufacturing and food traceability.

See more pictures from the Factories of the Future stand on the Digital Agenda Facebook site or watch a Feature from the Factories of the Future stand in the CeBIT video produced by the European Commission.

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in traceability scenario (public)
- D8.8.1 ebbits network management & security framework 1 (restricted)
- D9.4 Integrated platform prototype with focus on production optimisation (restricted)
- D10.2 Prototype of bi-directional communication to industrial subsystems (restricted)
- D10.3 Prototype of product tag identification and smart home integration (restricted)
- D12.2.2 Dissemination strategy, cluster and other activities 2 (public)

Public deliverables can be downloaded from the project website after they have been reviewed and approved by the EC:
www.ebbits-project.eu

SEVENTH FRAMEWORK PROGRAMME

The ebbits project is a 4-year project started in 2010. It is partly funded by the European Commission under the 7th Framework Programme in the area of Internet of Things and Enterprise environments under Grant Agreement no. 257852

Read more at:
www.ebbits-project.eu