CAP

Making a valuable asset out of Big Data

While the arrival of enabling technologies has made a wealth of public and organisational data available for analytic processing, access to the data and to efficient analytic tools is often difficult. Furthermore, combining such sources of massive data can yield much richer applications and greater insights into intelligence reporting. This requires a collaborative platform, which makes it easy for the participants to share data securely and to easily gain access to the latest technology tools. By positioning the target open-source architecture to support Big Data, ecosystems and value chains, the ITEA CAP (Collaborative Analytic Platform) project contributed to the development of new but sustainable business models and laid the foundation for a market value proposition of 'Big Data as a Service'.

Impact highlights

› Turkcell Technology and KoçSistem created a partnership with a large industry company and established a real-time IoT data flow from fuse boards. Turkcell Technology developed predictive models by getting electric consumption values from these fuse boards and developed a trendtracking dashboard that will enable near realtime energy-saving actions to be taken. There are plans to integrate this same model for restaurant and market chains, which is a great opportunity for Turkcell Technology to enter new markets, with more than 20,000 market chains and 5,000 restaurant chains as potential users.

› During the CAP project, the French La Poste Group examined fraud on franking marks by targeting the customers and/ or the products where the legal manual controls may be the most cost-effective. These same control mechanisms may enable several million euros to be recovered. Furthermore, in 2016 La Poste Group decided to invest in Probayes, a very successful French data science SME , to accelerate the digital transition.

› Through the CAP project, VTT has been able to create the world's first public in-cloud icing atlas (WIceAtlas) for identifying icing risks for wind power and potentially other tall man-made structures. WIceAtlas has proven to be highly accurate according to 3rd party assessment: over 80% of all analysed wind farms globally have been correctly identified regarding icing losses with WIceAtlas.

› Innodep attracted great interest in introducing its interactive CCTV monitoring service, which is based on CAP results, to several exhibitions and local district surveillance centres in Korea and has been implementing the steps for its commercial product.

Project results

The CAP consortium defined standard, extensible data models and interfaces for the exchange of data between the data owners, platform operators, cloud infrastructure operators and data scientists. The platform incorporated open Big Data tools and features that all participants can use and enhance, thus enabling access to data, sharing and processing in real time facilitated by a single platform. A key deliverable was the new range of business models that established metrics for the value of Big Data. These features enabled CAP to regulate the stakeholders' collaboration and develop a new innovative business environment based on shared data and knowledge in a secure setting – the Big Data Marketplace – where data owners have the opportunity to valorise their data across other domains. CAP delivered industry-based use cases that demonstrate how an enabling platform can generate remarkable benefits in response to a highly diverse range of industrial and commercial needs. The demonstration of instantiations of the platform model and the interoperability tests proved that the standard tools for Big Data can operate as a common service platform across Europe and beyond.

Exploitation

Turkcell Technology and KoçSistem created a partnership with a large industry company and established a real-time IoT data flow from fuse boards. Once the integration was completed, Turkcell Technology developed predictive models by getting electric consumption values from these fuse boards and developed a trend tracking dashboard that will enable near real-time energy-saving actions to be taken, such as improving refrigerators that consume a lot of energy. In addition, Turkcell and Ericsson have been testing the applications of Narrow Band IoT in LTE networks since the beginning of 2017 with contributions from their own engineers and their local business partners. During the project, KoçSistem started to build new product lines such as IoT, Mobile Business and Big Data Analytic Platforms.

Participation in the CAP project has focused the mail division of the French La Poste Group on the real value of the data collected by its mail sorting machines. Several terabytes were analysed to qualify the quality of the data and then to extract useful conclusions about the processes.

Through the CAP project, VTT has been able to create the world's first public in-cloud icing atlas (WIceAtlas), providing information on in-cloud icing severities for existing and planned wind farms worldwide. WIceAtlas consists of over 4500 meteorological stations worldwide with over 20 years of observation data and 35 years of MERRA reanalysis data.

Thanks to the CAP results, NetMan created services focused on entities needing a high level of automation and data exploitation. NetMan was acquired by MPY in 2017.

ETRI developed a concrete CAP platform with multitenant architecture. Based on this platform, Innodep developed the interactive CCTV monitoring service which analysed CCTV metadata together with data from external systems (e.g. weather, traffic, accident, etc.) and recommended more important CCTV videos and situations to focus observer attention on them.

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12010

PROJECT LEADER
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November 2013

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PROJECT WEBSITE
https://itea4.org/project/cap.html

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