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Industrial IoT applications

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Extended abstract. Cloud and edge computing platforms offer new possibilities for data analytics applications. Microsoft's Azure and Siemens Mindsphere are examples of commercial cloud computing platforms that offer wide possibilities for application development and deployment in the cloud especially in big data storage, analysis and visualization. Edge computing platforms and 5G technologies offer possibilities for instance real-time data streaming, analytics, and visualization in the edge of networks

Fiware is an open source platform, which offers components for analyzing and visualization of data from IoT sources. Orion Context Broker component and NGSI information model are the core of Fiware. Orion Context Broker (OCB) provides a NGSI API. Context Broker publishes context information from entities (virtual real-world objects). Entities can be IoT sensors or application components etc. Context Broker publish context information to context consumers. It supports two-way communication.

Especially SMEs can benefit from Fiware due to open source approach and ease of deployment of the components. Fiware has a strong European background and is favored by the European Union in many projects funded by EU.

VTT has implemented advanced edge computing applications. In this paper, we present three oriented applications from industrial robotic, intralogistics and smart water management domains. They utilize Fiware components.