INTERNET OF THINGS FOR EUROPEAN SMALL AND MEDIUM ENTERPRISES

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ShowCase

IoT arrives at cargo ships thanks to Cargotec and Cloudera.

Products

Cloudera Enterprise Data Hub and a cloud-based IoT-as-a-service.

Results

New ways of doing business

Increase operational efficency

Encourage revenue growth

Enable predictive mainteinance

Develope intuitive data-driven services

Project Details

Project developed by Cargotec, and Cloudera. Cargotech is a huge enterprise in the sector of the cargo handling and goods, that operates in over 100 countries. Last year has moved a quarter of the world's containers with solutions for air operations and ports, with solutions and engineering services for half of the world's ships to make sea transport safe and reliable.

Introduction

Cargotec, a company specializing in cargo handling solutions, and Cloudera, provider of cloud platforms, has partnered with the end of Thing's Internet in the naval market. Thanks to Cloudera Enterprise Data Hub, Cargotec will be able to improve its use of IoT this time in order to carry out predictive maintenance in its facilities and develop intuitive data services.

Challenges

The main objective of the company is to be a leader in the intelligent management of products, which is feasible thanks to the possession of a scalable IoT platform, which allows to offer its clients certain information extracted from the data it collects. They allow customers to control the performance of their cargo handling equipment in diverse weather conditions using IoT data and automatic learning. Also, thanks to what has been explained above, the relationship between use and expense rate can be visualized, which allows detecting anomalies in transport systems.

Solution

The platform developed by Cloudera with the help of Tata Consulting services are part of IoT-as-a-service, that is, a solution in the cloud that guarantees digital connectivity for management and integration operations. potential offered by machine learning.

In this case, the platform has been designed as a software-as-a-service, which implies that it uses automatic learning in order to extract information from data flows that arrive from different equipment and management machines. load to allow remote monitoring and predictive maintenance. Thanks to the data that is collected, the cargo handling operations are improved and the maintenance becomes predictive, being possible to detect anomalies and errors in real time. At the moment in which the data have been collected and cross-referenced, they will be used to promote new types of ecosystems,

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exposing this data through API in a robust and controlled way to take advantage of the assets of this data in other contexts.

In order to achieve the objectives set by Cargotec, Cloudera has been responsible for analyzing sensor data to create an analytical framework in the cloud to help collect, store, analyze and correlate sequences of sensor data with other data from sources internal, external and third-party The tool that has been used to perform the analysis is based on the Cloudera Enterprise Data Hub platform, so that data is obtained from the management of equipment and fleets, weather patterns and forecasts are applied and the geography is compared to carry out a remote monitoring analysis, maintenance of predictive equipment and detection of anomalies in real time.

The name of the tool designed is Digital Reimagination ™ and it allows to acquire data from a sensor in real time in order to establish a diagnosis and thus make predictive maintenance easier. A big data backbone network has been established that is scalable, robust and cost-effective and that will help boost agility in data-driven strategies and business growth.

In addition to the above, Cloudera Enterprise Data Hub allows us to know the fuel efficiency and route optimization of end users, such as ports or ships, which can be purchased to improve operational efficiency. Another tool used to build learning solutions is Cloudera Data Science Workbench, an integrated development and collaboration center capable of running Python, R or Scala with Apache support.

References

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