IBM Newsroom

IBM to Develop an AI-Powered IoT Solution to Help Clients Manage and Monitor Aging Bridges, Tunnels, Highways and Railways

Sund & Bælt uses IBM Maximo for Civil Infrastructure to help construct Europe's smartest tunnel

ORLANDO, Fla., April 24, 2019 /PRNewswire/ -- At IBM's IoT Exchange, IBM (NYSE: IBM) today announced a collaboration with Sund & Bælt — which owns and operates some of the largest infrastructure in the world — to assist in IBM's development of an AI-powered IoT solution designed to help prolong the lifespan of aging bridges, tunnels, highways, and railways. The new industry solution, IBM Maximo for Civil Infrastructure, further extends the IBM Maximo portfolio while providing deep industry and task-specific functionality to help organizations manage, monitor and administer their infrastructure assets.

Deteriorating infrastructure is a global challenge. Organizations struggle with aging facilities, the difficulty of physical inspections and high cost of continued maintenance. According to the American Road & Transportation Builders Association 2019 Bridge Report, in the United States, 47,052 bridges are considered "structurally deficient." Today's announcement leverages Sund & Bælt's operational expertise with IBM's Maximo Enterprise Asset Management and Asset Performance Management (APM) solutions, to help extend the lifespan of infrastructure and reduce overall maintenance costs.

Maximo for Civil Infrastructure consolidates various sources of data including maintenance and design details, near real-time IoT data generated from sensors placed on structures, wearables from workers, stationary cameras and drones, and weather data from The Weather Company, to help clients identify and measure the impact of damage such as cracks, rust and corrosion, as well as displacement vibrations and stress. By implementing predictive and prescriptive maintenance strategies using IBM Maximo APM coupled with AI visual recognition tools developed by IBM Research, organizations can endeavor to model, map and monitor each structure. This can help them perform rapid assessment to prioritize maintenance decisions that target critical repairs, and address compliance issues in order to help them meet regulatory obligations.

"Bridges, tunnels, and roads provide access to family, job opportunities, education and more, but much of this infrastructure is aging. With Maximo for Civil Infrastructure, IBM is applying IoT and AI technology to help organizations improve the way these structures are monitored and managed," said Kareem Yusuf, Ph.D., General Manager, IBM Watson IoT. "Sund & Bælt's industry expertise coupled with IBM's 30-year investment in Maximo capabilities for the management of physical assets and IBM's Maximo Asset Performance Management portfolio, can be leveraged to help organizations with their maintenance and operation of aging infrastructure worldwide."

Sund & Bælt utilizes AI to maintain some of the world's largest bridges

Sund & Bælt owns and operates some of the largest infrastructure in the world, such as the Storebælt Link and the 16km Øresund Link between Denmark and Sweden. Currently preparing construction for the world's longest immersed tunnel, the 18 km Femern Belt Fixed Link between Denmark and Germany, Sund & Bælt is working to also make this Europe's smartest tunnel. The Maximo for Civil Infrastructure solution is designed to help organizations more efficiently operate and maintain this crucial public infrastructure. "As our infrastructure facilities are aging and traffic increases, it is crucial for us to take in new methods for keeping the structures safe and operational at all times while avoiding rising costs," said Mikkel Hemmingsen, CEO at Sund & Bælt. "Collaborations with world leading tech-partners such as IBM can help us secure the future operation of our link, and at the same time we are pleased that the know-how from our operation can benefit organizations in the industry around the globe through this new IoT solution."

About IBM IoT Exchange:

At IBM IoT Exchange, IBM will outline new offerings, client engagements, partnerships, technology breakthroughs and developer tools that underscore how IBM and partners are driving greater operational efficiency and effectiveness by applying the power of IoT data and artificial intelligence. For more information about IoT Exchange visit: https://www.ibm.com/internet-of-things/news-views/conference/ and follow the conference on Twitter at #watsoniot and #iotexchange. For more information on IBM Watson IoT, please visit www.ibm.com/iot.

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