

thyssenkrupp and Microsoft revolutionize urban mobility in Spain with world's first predictive elevator maintenance service

- MAX technology, powered by the Microsoft Azure Internet of Things (IoT), significantly increases the elevator's availability
- This service reduces to half the inactivity time of the elevator increasing its efficiency and can be used on other manufacturers models
- Pilot countries include the US, Germany, and Spain

Urban mobility in Spain is getting a lift with thyssenkrupp's MAX – the industry's first predictive service solution for elevators. This solution, powered by the Microsoft Azure Internet of Things (IoT), is capable of cutting elevator downtime in half, significantly increasing availability levels and improving efficiency for cities aiming to go smart, like Madrid, Barcelona and many others.

Thousands of elevators in Spain are already connected and sending data to the cloud, and the number of connected units is rapidly increasing every day, making a strong contribution to thyssenkrupp's plan to connect 180,000 elevators worldwide by the end of 2017. Along with the U.S. and Germany, Spain is one of the first countries chosen for the initial MAX rollout, further building on thyssenkrupp's strong presence in the country, where it has three production plants and one R&D center, employing more than 5,000 people.

Customers who have already opted to improve their elevators' uptime through MAX include public transportation companies Metro de Madrid and Metro de Barcelona, supermarket and department stores like Mercadona, Alcampo and El Corte Inglés, banking and insurance institutions like BBVA and Mutua Madrileña, and air navigation company, Aeropuertos Españoles y Navegación Aérea (AENA). For customers such as Metro de Madrid, dealing with more than 1.5 million passengers per day, MAX will serve as an invaluable asset in providing users with efficient mobility.

Andreas Schierenbeck, CEO of thyssenkrupp Elevator, said: "Modern cities require innovations that meet the challenges of urbanization. MAX is the perfect addition to Spain's already impressive toolbox of solutions that improve urban efficiency and make cities better places to live. In a country that has long been leading the way for smart cities, we at thyssenkrupp are proud to be contributing to this ongoing transformation, using advanced technology and our engineering expertise to further improve reliability and safety in urban mobility."



Pilar López, president of Microsoft Ibérica, said: "The capabilities of Microsoft Azure IoT, built on our flexible and secure cloud platform, are connecting millions of thyssenkrupp's systems, helping them to integrate and to analyze all their information. The knowledge which is extracted from the data allows thyssenkrupp to transform its business into a more proactive model, collaborating with the managers of buildings and infrastructure in an enriching way".

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Juan Diego Carrasco, Director of Property Management at Mutua Madrileña, remarked: "The 52 floors at the well-known Torre de Cristal are an example of innovation and Mutua Madrileña's commitment to digitalization, which is one of the pillars of our Strategic Plan 2015-2017. Mutua Madrileña is not unfamiliar to the possibilities that Internet of Things opens in the insurance sector, both in transport and buildings".

The Spanish government recently pledged 63 million euros to 14 smart city projects, and the country is already host to events like the smart city expo World Congress, where the latest in smart city technology is exhibited and thought leaders from around the world share their vision and ideas for the future.

Cities like Zaragoza and Santander are applying smart technology to deal with the challenges of waste disposal, water and energy efficiency, irrigation of public parks, and even parking. As a part of a sustainable mobility plan, Madrid aims to reduce pollution and congestion levels by decreasing daily car usage in the city and increasing pedestrian zones, while Barcelona is looking to fulfil its energy requirements through a city-owned solar energy company.

How MAX works

With MAX, elevators are connected to Azure, Microsoft's cloud, allowing accurate monitoring of all functions – from operating speed, to capacity, to door mechanisms. This data is then analyzed using a unique algorithm, resulting in precise diagnoses sent directly to the technician. In this way, MAX makes it possible for an elevator to "tell" service technicians its real needs.

In the near future, MAX will be able to predict maintenance issues before they occur, flagging the need to replace components and systems before the end of their lifecycle. With the provision of clear elevator data, it also gives customers the comfort of transparency and the capacity to plan well in advance for required repairs.

By 2018, thyssenkrupp envisages that MAX will be compatible for installation with 80% of all elevators worldwide, further enhancing the company's unique capabilities in maintaining third-party manufacturers' equipment. Through a dedicated global network of experts and spare parts supply available 24/7, thyssenkrupp already offers a one-stop-shop for all maintenance needs, regardless of which company manufactured the equipment.



MAX in combination with the recently introduced Microsoft HoloLens will transform thyssenkrupp's elevator service operations worldwide. Using HoloLens, service technicians will be able to visualize and identify problems with elevators ahead of a job, and have remote, hands-free access to technical and expert information when on site – all resulting in significant savings in time and stress. Initial field trials have already shown that a service maintenance intervention can be done up to four times faster than before by using the device.

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About us:

thyssenkrupp Elevator

thyssenkrupp Elevator brings together the Group's global activities in passenger transportation systems. With sales of 7.2 billion euros in fiscal 2014/2015 and customers in 150 countries, thyssenkrupp Elevator built its position as one of the world's leading elevator companies from scratch in a mere 40 years' time applying thyssenkrupp unique engineering capabilities. With more than 50,000 highly skilled employees, the company offers smart and innovative products and services designed to meet customers' individual requirements. The portfolio includes passenger and freight elevators, escalators and moving walks, passenger boarding bridges, stair and platform lifts as well as tailored service solutions for all products. Over 900 locations around the world provide an extensive sales and service network to guarantee closeness to customers.

thyssenkrupp

thyssenkrupp is a diversified industrial group with traditional strengths in materials and a growing share of capital goods and services businesses. Around 155,000 employees in nearly 80 countries work with passion and technological expertise to develop high-quality products and intelligent industrial processes and services for sustainable progress. Their skills and commitment are the basis of our success. In fiscal year 2014/2015 thyssenkrupp generated sales of around €43 billion.

Together with our customers we develop competitive solutions for the challenges of the future in the areas Mechanical, Plant and Materials. With our engineering expertise we enable our customers to gain an edge in the global market and manufacture innovative products in a cost- and resource-friendly way. For us, technical progress and innovations, allied with the combined strength of the Group, are key factors enabling us to meet current and future customer and market requirements around the world, grow on the markets of the future, and generate strong and stable earnings, cash flows and value growth.

About Microsoft Ibérica

Microsoft (Nasdaq "MSFT" @microsoft) is the leading company for platforms and productivity in the "mobile-first, cloud-first" world, and its mission is to help every person in every organization on the planet, to do more in their daily lives.

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