



thyssenkrupp and Microsoft turbo-boost digitalization of global elevator industry

- MAX expands to Latin America and extends compatibility to escalators
- 120,000 elevators in the US, Germany, Spain and South Korea are already connected to the Microsoft Azure cloud-enabled platform and are benefiting from predictive analytics
- Machine learning allows mobility systems to deliver real efficiency gains and save time for customers

thyssenkrupp Elevator expects to have about 28,000 additional elevators connected to its cloud-based predictive maintenance solution MAX in Brazil, as the region joins the global MAX network. The network now covers markets that account for approximately 30 per cent of all elevators worldwide. In addition, the company has upgraded the MAX solution to also provide predictive maintenance for escalators.

How does MAX work? MAX collects real-time data from sensors in elevators and escalators, sending them to the Microsoft Azure cloud where the remaining lifetime of key components is calculated, determining which parts will require maintenance and when. The system subsequently flags potential repair issues before they occur. The predictive modelling increases efficiency and reduces elevator downtime.

Over 50 MAX-connected elevator pilot units are already successfully running in Brazil, and the service will now be offered on a wider scale to customers in the region. thyssenkrupp Elevator has also already received requests from customers to install MAX for escalators, including at one of Germany's leading airports which moves approximately 16 million people each year, and for 137 escalators in the Valencia Metro, Spain, which transport over 62 million passengers per year.

Partnering with Microsoft, thyssenkrupp Elevator benefits from being the first in the elevator industry to develop an IoT-based predictive service solution, bringing cutting edge technology to the 160 year-old elevator industry. Elevators carry over 1 billion passengers each day, making them the most used mode of transport in the world.

The Machine-to-Machine (M2M) learning capabilities, based in the Microsoft Azure cloud, have been improving based on data that has been collected since 2015. As a result, thyssenkrupp is confident that MAX can reduce elevator downtime by up to 50 per cent, making its digitalization models second to none in the global elevator industry. Up to now, MAX has already helped to maximize elevator uptime for over 40,000 customers.

Andreas Schierenbeck, CEO of thyssenkrupp Elevator, commented: “This is a significant moment for our business, and for cities as a whole. Population growth and urbanization are putting the infrastructure within our buildings under more pressure than ever before. Data really is the key to truly understanding the challenges our buildings face and developing solutions to improve them for both property managers and users alike.”

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The system also now features a new enhanced customer service portal currently being rolled out in Spain. The portal grants building managers access to important real-time information about their elevators’ performance, allowing them to facilitate more timely and effective repair work with thyssenkrupp’s maintenance engineers.

Sam George, Director Azure IoT, at Microsoft added: “MAX is a perfect example of digitalization in action; developing and applying technology to a very specific industry issue to drive real business value. The MAX model has evolved over the last three years in line with customer and company needs. We’re delighted with its success to-date and the tangible business benefits. We look forward to working closely with thyssenkrupp on its continued evolution and growth.”

Schierenbeck further commented: “Since the first launch of MAX in 2015, the platform has gone from strength to strength. At a macro level this is about data-led technology aiding city efficiency and growth. At a micro level, it’s getting us more seamlessly from A to B and making people’s daily lives easier. We’re looking forward to introducing MAX to the Latin American market and, with the potential to reduce downtime by up to 50%, we hope it can continue to support sustainable growth and evolution in our cities for years to come.”

With MAX providing timely and valuable insights into exactly what customers need and when, thyssenkrupp is able to adjust its service offerings to deliver better customer service. At the same time, the MAX Global Technician App is effecting a cultural transformation within the business, providing a highly valuable tool that is changing how those at thyssenkrupp carry out their daily work and interact with customers.

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[Disrupt or be disrupted: How companies can innovate and do more with digitalization](#)

About us:

thyssenkrupp Elevator

thyssenkrupp Elevator brings together the Group’s global activities in passenger transportation systems. With sales of €7.7 billion in fiscal 2016/2017 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 1,000 locations around the world provide an extensive sales and service network to guarantee closeness to customers.

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thyssenkrupp

thyssenkrupp is a diversified industrial group with a growing share of capital goods and service businesses and traditional strengths in materials. Over 158,000 employees in 79 countries work with passion and technological know-how 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 2016/2017 thyssenkrupp generated sales of €41.5 billion.

Together with our customers we develop competitive solutions for current and future challenges in their respective industries. 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. Our technologies and innovations are the key to meeting diverse customer and market requirements around the world, growing on the markets of the future, and generating strong and stable earnings, cash flows and value growth.

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