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Case Study

IT-based Security Solution from Siemens for Airbus

The aircraft manufacturer Airbus, a subsidiary of EADS, manages its systems for access control, video surveillance and intrusion detection using Siveillance Fusion security management software from Siemens. Data from other systems, such as fire safety, also flow into the central security management platform. This gives Airbus complete transparency and control over its security systems in all its worldwide subsidiaries and plants.

For an aircraft manufacturer such as Airbus, the primary imperative is ensuring the highest level of security at its subsidiaries and production facilities. The company not only has to be armed for natural threats in the form of fire or environmental disasters. As an international company, Airbus must also consider itself a potential target of terrorist attacks or acts of sabotage in light of the international political situation. Airbus not only needs to protect its employees and assets, but must also ensure uninterrupted operations. Each of these factors is critical to safeguarding aircraft security as well as the reputation and business activities of the company.

In and of itself, building an aircraft is complex enough. Thousands of operations must be correctly executed and processes carefully followed, all involving some 1,200 suppliers and partner companies. Painstaking diligence is also needed to prevent problems with the aircraft from later endangering the lives and limbs of its passengers. Materials used in production, for example, must be used properly to prevent construction-related defects during later operation.

In the public spotlight: the A380
The individual components of Airbus aircrafts, including those of the world's largest passenger carrier, the A380, are manufactured at geographically dispersed locations. The modules then make their way by land or sea from around the globe to Toulouse, France for final assembly. These logistics routes also require security monitoring.

To guarantee around-the-clock security of not only the physical sites, but the manufacturing and logistics processes as well, Airbus selected Siveillance Fusion, Siemens' IT-based security management platform, for all of its locations worldwide. The software gives command centers a real-time overview of all security-related parameters. Siveillance Fusion can also capture data from other disciplines and third-party manufacturers to assess the overall security situation.

As such, Siveillance Fusion is a prime example of the paradigm shift now taking place in the security industry. The proprietary, hardware-centric products for access control, video surveillance, intrusion detection and perimeter protection in use until now are being increasingly replaced by flexible, IT-based solutions with standard interfaces that can be seamlessly linked even with third-party products.

Comprehensive platform that unites many systems

The benefits Airbus derives from this type of central security management platform are obvious. Airbus headquarters can access all security-relevant details on production and logistics in real time. This improves production quality as well as security since standards and processes are easier to implement and put into practice. The result is a transnational, integrated security concept.

For the users at the security management command center, Siveillance Fusion is intuitive to use since it offers a familiar Windows-like user interface and has been customized to Airbus requirements. This is particularly important for mapping and supporting internal workflows. Should they change, the software can change along with them.

The numerous Airbus suppliers and partners are integrated at the same time. For example, Siveillance Fusion makes it possible to define for each individual supplier to which areas of a plant its employees have access. This functionality is important because a constantly changing array of suppliers and partners is involved in the construction of individual aircraft. One reason is that new technologies involving new partners are regularly brought to market; another is that airlines want customized planes featuring products from specific suppliers.

Positive assessment from Airbus

"In Siemens we have found a strategic partner whose international presence is equal to ours, making them always close by," said Craig Morton, Head of Security Operations at Airbus. "Siemens is able to support us with our security activities over the entire life cycle of our products. Just as importantly, Siveillance Fusion allows for a customized, flexible and scalable solution. After all, protecting our security-related investments is a key issue for our company."

The ultimate passenger aircraft: Airbus A380

EADS subsidiary Airbus is a global leader in the construction of passenger aircraft with more than 100 seats. 55,000 people work for the aviation company headquartered in Toulouse in the south of France. Airbus' flagship is the A380 wide-body that offers room for 525 passengers. The A380 has a range of over 15,000 km. The aircraft's various components are produced in over a dozen different plants in Europe, the USA and Asia. Airbus procures individual parts from more than 1,200 suppliers in 32 countries. Pre-finished parts are shipped to Toulouse for final assembly. The first A380 took to the skies in 2007. In 2011, 26 planes were delivered. Thus far, 18 million passengers have flown in the A380. Airbus currently has another 185 A380 jets on order from airlines from all over the world.

Fire safety on board the A380

Airbus has also entrusted Siemens with fire safety on board the A380 wide-body jet. Special fire detectors with a guarantee against false alarms were developed. That means that Siemens warrants that the detectors will set off an alarm only in the event of an actual fire. The fire detectors are built into the aircraft during pre-assembly. Particular challenges are presented by those areas of the plane that are inaccessible during flight. For example, detectors are installed in cargo holds and in areas with critical aircraft electronics. Crew rest areas and onboard lavatories are also equipped with fire detectors.

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