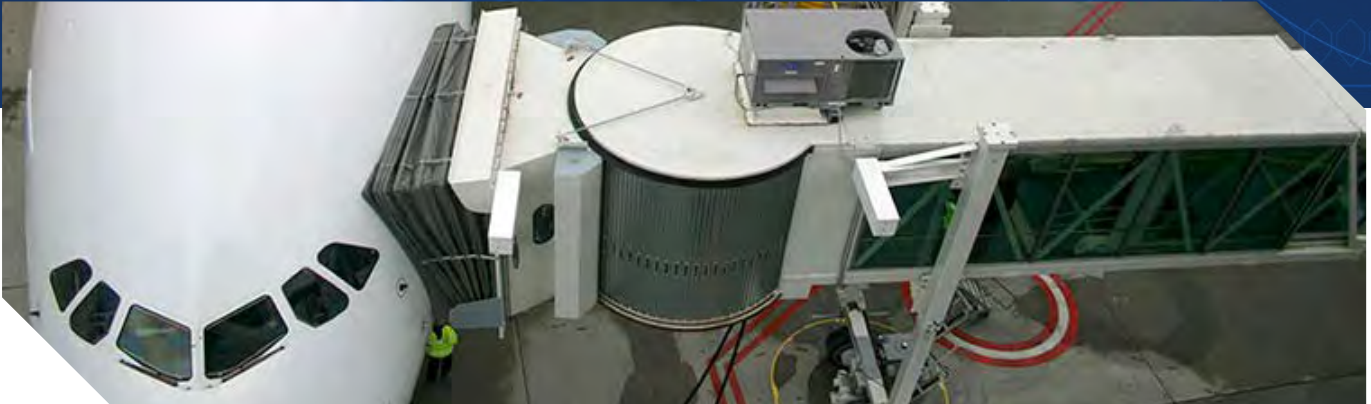




JBT AeroTech Finding a Bridge for Reliability, Support & Deployment

JBT AeroTech needed a reliable and cost effective technology to help manage and connect airport equipment with real-time and secure data. STEP CG had the answer.



John Bean Technologies (JBT) Corporation saw a customer problem that needed solving: "How to manage and connect existing Passenger Boarding Bridges (PBBs) and gate systems in airports to communicate and facilitate real-time data that was reliable, easily supported, and cost effective to deploy."

One typical install can easily run from \$20,000 to \$100,000, so a solution was needed that could give the needed data without the exorbitant price tag. The challenge was not only the monetary expenditure but also the need to build a system that was secure, and could be monitored and validated 24/7.

CUSTOMER OVERVIEW

John Bean Technologies (JBT®) Corporation, a global leader in food processing and air transportation solutions, began over a century ago in 1884 when John Bean set out to solve a problem. His truly industry-changing solution, the continuous spray pump, was used to protect California's orchards from the San Jose scale. Bean's pioneering and achievements set the bar for the next century of evolution of JBT. From problem solving and innovative solutions, JBT provides customized solutions that are engineered for the food processing and air transportation industries. The JBT FoodTech and JBT AeroTech business segments can deliver sophisticated systems and products in design, manufacturing, testing, and technologic servicing. The Aerotech Division of JBT furnishes airports with:

- Ground support equipment, including cargo loaders, aircraft deicers, and passenger steps
- Gate equipment, including boarding bridges and preconditioned air units
- Airport services, including maintenance, technology, and technical services
- Military equipment, including loaders, mobile air units, and aircraft tow tractors

JBT employs approximately 4000 people.

BUSINESS NEEDS

An important service of JBT is to manage and monitor airport operations, gate equipment operations, ramp equipment, and mobile ground support equipment in real time. The information from the airport and ramp equipment is consistently updated to the computer or mobile device for on-site or remote ramp and gate operations management. An expansive service of JBT is management of passenger boarding bridges (PBB's) — JBT manufactures the Jetway® brand of boarding bridges. The brains of the PBB are the Programmable Logic Controllers (PLC) which dictate how the boarding bridge functions and often act as a control conduit for other equipment attached to the boarding bridge. The PLC can monitor everything from power, status, and faults, to the performance of aircraft air conditioners and ground power units connected to the boarding bridge.



“JBT customers had a need to be able to pull information from the equipment and give real time status updates without it costing tens of thousands of dollars in infrastructure upgrades,” said Stephen Tatton, director of business systems and new technology.

One install could cost anywhere from \$20,000 to \$100,000 per gate system. Early on, the focus was on hard wired solutions. This added cost. A solution was needed that would be cost effective, would not impact existing IT structures,

and could give real time data. Because of the high security and multifaceted networks in many airports, third party companies are required to bring their own networks. Getting an internet connection could prove quite difficult without a hardwired solution which required much of JBT's gate management process to be manual. Automation was impossible since little connectivity was available, pilots and gate operations crew were forced to manually call in issues.

THE STRATEGY and SOLUTION

STEP CG introduced Stephen Tatton, director of business systems and new technology at JBT, to Cradlepoint's COR IBR1100 routers to facilitate 4G LTE as a WAN. JBT had tried other solutions but nothing had the same functionality as Cradlepoint. Tatton was looking for a comprehensive solution and found it through Cradlepoint's router, Enterprise Cloud Manager (ECM), and NetCloud Perimeter. Adding each of these solutions to the network solved the problems he was facing and allowed him to have the flexibility, security, and reliability of data that he needed on each of the boarding bridges. Not only was JBT able to save millions of dollars by rolling out this solution, they were also able to pass through the savings and reliability to their customers because they were able to build something that was safe and very cost effective.



It was important to implement a technology that was easy to deploy, expandable and extremely flexible. Cradlepoint offered all of this and more, doing so with no wiring, minimal infrastructure and portability.

– Stephen Tatton, director of business systems & new technology





The Cradlepoint COR IBR1100 routers are mounted on the gates, terminals and in other locations to directly connect them to the controllers. Critical information is then sent to the NetCloud Perimeter which then securely links the information together and sends the data to a virtual cloud network and other applications to be processed.

It was critical that JBT could have communication back to the servers in the Cloud without having to build infrastructure to manage security. JBT wanted to ensure security for its customers and that the system worked. Since Cradlepoint's NetCloud Perimeter runs at the data center and on the COR IBR1100 routers, this allows the controllers to communicate with the server and provide consistent, secure network access to real-time gate system data.

THE BENEFITS

RETURN ON INVESTMENT

Multiple benefits were realized when JBT implemented Cradlepoint routers in airports all over the US. Not only did JBT save millions of dollars in infrastructure costs and downtime, they also gained new customers with their innovative, cost effective solution. They saw growth in their business and were able to build something that brought real value to their customers. It helped their customers save millions of dollars a year in time, flight costs, fuel burn and enhanced public satisfaction.

When asked for an estimate of his ROI, Tatton responded, "Typical gate related downtime costs can run at \$87 per minute. Every second we saved working on an aircraft or troubleshooting a problem

at the gate saves money for our customers. That is millions of dollars in savings over the years both for us and for our customers."

LESS HARDWARE, MORE SCALEABLE

There is no longer a large accumulation of hardware and devices necessary to run the solution which makes Tatton's job much more manageable. With the Cradlepoint solution, there is minimal downtime and less components. This makes it easier to scale since there are fewer things to go wrong. Cradlepoint allowed JBT to implement a pop-up wireless LAN infrastructure with little to no wiring necessary.

BETTER SECURITY

The infrastructure used for LTE networks enables layers of security that aren't possible through typical Wi-Fi. The network architecture gave JBT the ability to keep traffic private and more secure. For faster and easier deployments, Cradlepoint's NetCloud Perimeter allows all the controller to share the same Internal LAN IP address scheme. Prior to this, each LAN had to have its own unique subnet.

FLEXIBILITY

Cradlepoint allows for implementation anywhere, even in highly remote areas. Because there isn't the hard-wired infrastructure build-out, the solution can be instantly applied and executed wherever it is needed. Capital expenditures, man-hours for installation and deployment decrease immensely.



It is truly impressive that our customers can be standing on a boarding bridge, turn on the Cradlepoint and see their gate system appear on their phone—all in less than a minute going through cellular service.

– Stephen Tatton, director of business systems & new technology



WHAT MADE STEP CG STAND OUT

STEP CG is an award-winning, nationwide IT services engineering firm headquartered in Northern Kentucky/Greater Cincinnati. STEP is known for providing cutting-edge IT services and solving complex IT challenges through a blend of experience and expertise

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It was STEP CG’s phenomenal customer service and support that made the difference.

– Stephen Tatton, director of business systems & new technology

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STEP CG’s team is comprised of expert engineers who provide enterprises with solutions for cloud, security, collaboration, core infrastructure, managed services and more.

