Bossa Nova

Protecting IT & product assets with cloud-managed environmental sensors

bossanova

350+
stores operating
Bossa Nova robots

$30k
avoided hardware
sensor costs

$100k
cost if robot
damaged

Industry

🏭 Manufacturing

Location

🌐 North America

Products

📡 MT

📶 MR

👁 MX

🗄 MS

Highlights

- Developer of advanced robotics technology to assist global retailers with inventory

- Named to Forbes' AI 50 list as one of America's most promising AI companies

- Utilizing Meraki MT sensors to remotely monitor environment and avoid costly losses

Challenge

Founded in 2005 as a spin-off from Carnegie Mellon University's Robotics Institute, Bossa Nova develops advanced robotics technology that helps some of the world's largest retailers predict with confidence what's on their shelves. In 2018, the company acquired the artificial intelligence (AI) company, HawXeye, to further advance the AI capabilities in its products, and in 2019, Bossa Nova was named to Forbes' AI 50 list as one of America's most promising AI companies.

The company's newest robot, the Bossa Nova 2020, features an industry-leading AI stack and a smart 2D camera system that enables retailers to collect and process real-time intelligence about their inventory. The robots autonomously roam store aisles multiple times per day to confirm that each product is on the right shelf and has the right price. They also identify products that are out of stock. Bossa Nova robots are currently operating in over 350 stores across the U.S. and Europe, and the company has plans to grow its customer base to 1,000 stores by the end of 2020.

As it continues on this rapid growth trajectory, Bossa Nova has begun to place a renewed emphasis on protecting its IT infrastructure and the valuable equipment in its robotics manufacturing labs. Across its multiple office locations, Bossa Nova lacked a reliable method of monitoring environmental conditions, including temperature and humidity changes and water leaks, which put its assets and its business operations at risk. Throughout 2020, effective environmental monitoring has become even more important for Bossa Nova. With the majority of the company's IT staff working from home, it's no longer possible for them to check environmental conditions in person at regular intervals.

Solution

To address this challenge, Bossa Nova was looking for an environmental monitoring solution that was cost effective, easy to deploy, and could be quickly integrated into its existing IT infrastructure. The company had previously deployed stand-alone environmental sensors from another vendor, but their effectiveness was limited. It was in part because they were not tightly integrated into Bossa Nova's IT environment, including its existing monitoring tools and dashboards.

Already a full-stack Cisco Meraki customer with switching, wireless LAN, and security solutions, Bossa Nova decided to add two types of cloud-managed sensors to its existing deployment: the MT10 temperature and humidity sensor and the MT12 water leak detection sensor. These sensors, along with their existing Meraki solutions, could now all be managed from a single dashboard.

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"Meraki makes it easy for the IT team to learn what they need to do with very minimal training. They don't need to be experts, which is great for me, because I'm usually busy with other things."

TODD SHIPWAY

Director of IT and Robot Communications

The company has experienced temperature-related issues in the past with its IT equipment, including heat-induced hardware failures, especially during the summer months when temperature and humidity levels can rise significantly. As a result, Bossa Nova installed the MT10 and MT12 sensors in its most important IT closets, as well as in an area where up to 15 of its robots are typically being charged at any given time.

For the company's IT staff, MT sensors simplify the monitoring of environmental changes across all of Bossa Nova's facilities.

As Bossa Nova's Director of IT and Robot Communications, Todd Shipway notes, "Meraki makes it easy for the IT team to learn what they need to do with very minimal training. They don't need to be experts, which is great for me because I'm usually busy with other things."

Using the Meraki dashboard, IT staff can now securely monitor the MT environmental sensors in real time from wherever they are. When temperature or humidity thresholds are reached or a water leak occurs, they are immediately alerted. These thresholds can be easily customized and users can choose how they want to receive notifications, for example, SMS, push notifications, and email.

Results

The addition of the Cisco Meraki MT10 and MT12 sensors to Bossa Nova's IT facilities has given the company peace of mind knowing that its critical infrastructure and assets will be protected in the event of HVAC system failures, leaky pipes, severe weather events, and other adverse environmental conditions.

In their first few months of deployment, the MT sensors have already helped Bossa Nova avoid heat-induced switch failure on at least two occasions. Not only would these failures have cost the company more than $30,000 in hardware replacement costs, they also would have temporarily halted operations and led to days of lost productivity.

In addition to ensuring that business-critical systems remain functioning at all times, and helping to maximize network uptime and equipment lifespan, Meraki MT sensors are also critical to protecting Bossa Nova's R&D investment in robotics products. According to Shipway, "if we didn't have a way to monitor the temperature, we could easily lose one or more robots, and at upwards of $100,000 each, that's obviously a significant cost hit for the business."

Contact us at sales@meraki.com for more details.

Additional resources   **Meraki for manufacturing**   **Meraki MT sensors**