



About Customer

UISA is the leading sugar producer in Brazil. Yet, the company's vision goes far beyond sugar. Focused on sustainable growth, UISA maximizes the productivity of its sugarcane farms and uses by-products for biofuels, alcohol gels, yeast, and other products.

www.uisa.com.br

Geo

Latin America

Industry

Manufacturing

Solution Area

Accelerate Core Applications
 Activate Real-time Analytics
 Power Artificial Intelligence

Products in Use

Pure Storage FlashStack™
 Pure Storage FlashArray//X

About Partner

BS4IT is an IT Infrastructure solutions provider, based in Ribeirão Preto, Brazil, with over 18 years of industry experience.

www.bs4it.com.br



Through Innovation, UISA Grows More Than Sugar

UISA is investing heavily in sustainable growth, innovation, and efficiency—part of a large-scale Agriculture 4.0 initiative. The initiative calls for extensive AI-powered automation and massive amounts of data from equipment in the fields. As the company plants, irrigates, harvests, and processes crops into sugar and biofuels for clean energy, it's optimizing each step to produce more on every acre.

UISA needed a fast, flexible IT infrastructure—one that could scale up rapidly to accommodate increasing automation, as well as new ventures in biofuels and agrotech. The company found the speed, flexibility, and simplicity it needed in a FlashStack converged infrastructure.

“With FlashStack, we have the scalability and speed to support our entire Agriculture 4.0 initiative.”

RODRIGO GONÇALVES,
 CIO, UISA

Impact on UISA



Boosts sugarcane yields 30% through automated harvesting operations



Supports biofuel ventures, using clean energy to help power 862 cities across Brazil



Saves more than US\$300,000 per year in data center costs

Challenges



Scaling production in a sustainable manner



Outdated IT infrastructure hindering innovation



Slow data processing delayed monitoring and reporting in the field

Results



Increased harvest productivity from 20,000 to 25,660 tons per day



Cut fuel consumption up to 5% by optimizing transportation



Provides a scalable foundation for UISA's journey to Agriculture 4.0

A Platform Fit for the Future of Agriculture

CIO Rodrigo Gonçalves heads up UISA's Automation and Innovation Technology department—a team of 50 people building the infrastructure for a large-scale Agriculture 4.0 initiative.

“Our challenge is to transform our business by making technology simple and fast—capable of supporting rapid innovation,” says Gonçalves.

To support its ambitious goals for sustainable growth and next-level efficiency, UISA required an infrastructure that could scale, with unfailing performance and availability.

Scalability and Speed Enable Fully Automated Sugarcane Production

UISA chose FlashStack, a converged infrastructure solution from Pure Storage and Cisco, to power its Agriculture 4.0 initiative.

“FlashStack gives us the scalability and speed to support our entire Agriculture 4.0 initiative,” says Gonçalves. “We canceled our hosting contract and brought everything in-house, saving US\$300,000 every year.”

And with an Evergreen Storage™ subscription, Gonçalves knows he can scale up fast, without disruption. “Evergreen offers an ideal subscription model that gives us priceless peace of mind,” he says.

With FlashStack as a foundation, UISA has fully automated its sugarcane production process using artificial intelligence (AI) and Internet of Things (IoT)—capturing and analyzing data from 850 equipment sensors across 222,000 acres of sugarcane fields.

One AI-powered application uses intelligent algorithms to monitor harvest operations and detect productivity losses in real time. Supervisors no longer need to rely on paper reports from the field. They can now find and fix problems in hours rather than days, such as machines leaving too much sugarcane uncut in the fields—boosting daily yields from 20,000 to 25,660 tons of sugarcane. Another application has reduced diesel fuel consumption by up to 5%, optimizing transport of sugarcane and byproducts to production plants.

FlashStack Paves a Path for Innovation

Next, Gonçalves is deploying SAP HANA on FlashStack to automate logistics and routing. His team is also extending 4G coverage in the fields, providing an incubation space for agritech startups, and supporting new ventures into biofuels. As the innovation continues, he knows he can count on the infrastructure.

“We trust the technology to work, and we have a solid partnership with Pure and Cisco, which means my team can focus on supporting our business,” says Gonçalves.