



NAPA VINEYARD IMPROVES OPERATIONS WITH WI-FI SOLAR SYSTEM AND BATTERY TEST REMOTE MONITOR

Napa's Bouchaine Vineyards needed to improve Wi-Fi networks performance and connectivity across its 104-acre estate vineyard. They contacted Cisco, an American-based multinational technology conglomerate corporation, and its preferred value-added reseller (VAR) to improve Wi-Fi network performance and connectivity across its 104-acre estate vineyard.

CHALLENGE

Bouchaine Vineyards was looking to expand live virtual wine tastings. These live virtual wine tastings drove the need to provide services often taken for granted or overlooked in the physical tasting rooms. Stable, high-speed Wi-Fi to stream multiple 4K video feeds to participants joining from around the world and to those streaming from their mobile devices was a "must-have."

Just as important was the need to provide network connectivity for the environmental observation of the vineyard as needed by the winemaker and vineyard management. This included temperature and moisture sensors to monitor both air and soil. Cisco and the commissioned VAR recommended and sourced the solutions needed to meet these goals. They began by installing several network elements, including the Cisco IR1101 with cellular providing layer 3 connectivity and Edge Intelligence agency. Additional equipment included a Meraki Wireless access point, Cisco Ultra-Reliable Wireless Backhaul (CUWRB) base station, Davis Instruments EnviroMonitor, and a 4K outdoor camera.

With so many network elements installed, it was evident to Cisco and the VAR that they would need continuous power to critical network elements where no AC power was available.

SOLUTION

Cisco and the commissioned VAR enlisted Ventev, a specialty manufacturer with well-engineered solar, intermittent, and harsh environment power solutions for wireless and other networking installations. Ventev recommended its Wi-Fi Solar System, a complete, fully integrated power enclosure system that is pre-wired and pre-assembled for on-site installation of outdoor access points requiring PoE/PoE+ power. This

OVERVIEW

COMPANY

Bouchaine Vineyards in Napa, CA

CHALLENGE

Provide reliable, high-speed Wi-Fi for live virtual wine tastings and network connectivity to support observation and automation of the vineyard's agricultural operations.

SOLUTION

Wi-Fi Solar System & Battery Test Remote Monitor

Ventev's [Wi-Fi Solar System](#) and the [Battery Test Remote Monitor](#) (BTRM) facilitate continuously managed power for these important projects.

The Wi-Fi Solar System is a complete, fully integrated power enclosure system that is pre-wired and pre-assembled for onsite installation of outdoor access points requiring PoE/PoE+ power. This rugged system includes:

- Proven, long-lasting PSOC lead acid batteries
- Corrosion-resistant materials provide years of autonomous service in even the harshest environments

BTRM products perform automatic battery load tests and send exception reports via SNMP, text, or email using Ethernet or DNP3 communication protocols.



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rugged system includes proven, long-lasting PSOC lead acid batteries and corrosion-resistant materials to provide years of autonomous service in even the harshest environments.

To ensure its Wi-Fi Solar System continuously worked properly, Ventev also recommended Battery Test Remote Monitors that can perform automatic battery load tests and send exception reports via SNMP, text, or email using Ethernet or DNP3 communication protocols.

Cisco and the VAR found what they were looking for with Ventev's innovative solutions.

"Ventev's solar systems provided Bouchaine with cutting-edge technology to power our cameras and computer systems to work from the middle of the vineyard," explained Chris Kajani, winemaker and General Manager of Bouchaine Vineyards. "Now, the winery's agricultural story and views of the San Francisco Bay are even more vibrantly showcased during our virtual tastings to wine lovers around the world."

The Wi-Fi Solar System was sized according to hardware and deployment area coverage needs. The short interval from initial discovery to delivery of Ventev's products, and the simplicity of deploying Ventev and Cisco solutions, exceeded Bouchaine Vineyards' expectations. Installation was performed by an electrician for adherence to the National Electrical Code (NEC).

Bouchaine Vineyards now actively host virtual wine tasting experiences, onsite with a live video and sound experience supported by full-speed Wi-Fi with solid low latency backhaul.

From an operational perspective, connecting sensors in the vineyard is now possible without having to trench for fiber and power. Allowing for 24/7 autonomous functionality more than justifies a project that would otherwise be cost prohibitive.



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Winemaker & General Manager of Bouchaine Vineyards