



Success Story

Covell Group Deploys ZyXEL Solution to Monitor Smart Irrigation System



Daniel Covell
Founder and President,
The Covell Group

“The only time in the last six years the ZyXEL product stopped working was when it was unplugged due to power outage at the farm.” “Given the dust, occasional high temperatures, and proximity to the sea of these fields, this unit has proven virtually indestructible!”

“ZyXEL products offer high reliability and low cost of ownership. I recommend them to all my clients.”

Overview

Customer Name

Mellano and Company

Customer Industry

Agro-Industries/Farms

Challenges

Reliable 24/7 secure, remote monitoring of the Smart irrigation system to conserve water

Solutions

ZyXEL ZyWALL 2WG firewall/VPN gateway with 3G connectivity

Benefits

- Reliable hardware – in operation, non-stop since 2008
- Cellular wireless support for “any time/ anywhere” connectivity
- Powerful firewall and VPN capability
- Easy management and reporting features

Challenges

In 2008, El Cajon-based Daniel Covell, founding president of the Covell Group, was tasked by Mellano and Company, which farms the flower fields, to enable them to remotely monitor the water level, alkalinity, and other vital information on the 54-acre field. This would optimally control irrigation of the farmland, saving precious water resources and minimize the cost of watering while maintaining a high-yield crop.

Soil monitoring sensors were run throughout the farm. The controller for the sensors and communication equipment was housed in a small metallic cabinet at the edge of the farm.

Background

At the time of this writing, California is experiencing its worst drought since 1977. The Governor of the state declared a drought State of Emergency in January 2014 and directed state officials to take all necessary actions to prepare for water shortages.

With water availability at its worst in decades, advanced monitoring and smart irrigation technology came to the rescue of one farmland developer: Mellano and Company of the world famous flower fields at Carlsbad Ranch®, thanks to the foresight and ingenuity of solution provider and ZyXEL solution partner Covell Group.

The Covell Group, based in El Cajon, California, provides IT outsourcing services to SMBs as large as 3,000 employees. For over 12 years, they have been serving customers throughout the Southwestern United States.



Solutions and Benefits

Covell installed ZyXEL's ZyWALL 2WG Firewall/VPN gateway in this cabinet that securely feeds all the sensor data to Mellano's data center. In addition to wired Internet access, the ZyWALL 2WG also offers 3G/4G Internet connection via a mobile data card providing Internet access in hard to wire areas the like middle of the farm. With this set-up, Mellano had access to all the critical soil data by remotely logging in to the ZyWALL 2WG any time from virtually anywhere.

The ZyXEL ZyWALL 2WG VPN-Firewall gateway that the Covell Group installed for the Mellano farm application in 2008 is still functional today connecting the smart irrigation sensors to the Mellano data center.

ZyXEL has since upgraded the ZyWALL 2WG with two new products – the USG20 and USG20W. These newer devices offer faster performance and more features but the same reliability of the ZyWALL 2WG.

Mellano and Company spends upward of a million dollars on farm irrigation alone. And the soil monitoring system, put in place since 2008 has resulted in over 10% water savings for Mellano and Company. The savings surpassed the investment in the monitoring equipment while simultaneously conserving water.

In addition to conserving water, a controlled irrigation system improves yields and maintains the quality of soil. In all, the smart irrigation system installed by the Covell Group continues to be a profitable investment for Mellano and Company and also the water-starved Southern California community.

Products Used



USG20/20W Unified Security Gateway

- 175 Mbps firewall throughput and 75 Mbps VPN throughput
- IPSec, SSL and L2TP VPN
- Superior reliability with multiple WAN and 3G support
- Content Filtering protects against malware and helps businesses increase productivity
- USG20W comes with 11n Wi-Fi

About ZyXEL Communications

ZyXEL Communications Corp., founded in 1989 and headquartered in Taiwan, is the leading provider of complete broadband access solutions. As one of the early modem manufacturers, ZyXEL has undergone many transformations in the fast-paced networking industry. Today, ZyXEL is one of the few companies in the world capable of offering complete networking solutions of Telco, SME/Enterprise, and Digital Home for a wide range of deployment scenarios. Telco solutions include wired and wireless access network equipments, networking customer premises equipments, and Carrier Switches. SME and Enterprise solutions include Unified Security Gateway, LAN Switches, WLAN, and IP telephony. Digital Home solutions include network connectivity devices and multimedia solutions.

The company has 1000 employees and distributors in 70 countries, reaching more than 150 regional markets. The ZyXEL Communications Corp. includes 35 subsidiaries and sales offices and two research and development centers worldwide. For more information, visit the company's Website, <http://www.zyxel.com>.

Copyright © 2014 ZyXEL Communications Corp. All rights reserved. ZyXEL, ZyXEL logo are registered trademarks of ZyXEL Communications Corp. All other brands, product names, or trademarks mentioned are the property of their respective owners. All specifications are subject to change without notice.