UniSea

Executive Summary

Industry

- Manufacturing

Environment

- 1,000 full-time and seasonal workers
- 3 locations

Technology Needs

- Technology able to withstand extreme temperatures
- Insights into the network

Extreme Solution Components

- ExtremeCloud™ IQ
- ExtremeWireless™

Results

- Increased security and safety in the warehouses
- Flexible network even with extreme temperatures
- Complete control and visibility of the network

Seafood Producer Upgrades Mission-Critical Network in the Most Difficult of Environments

Over 40 years ago, UniSea® started processing King and Tanner crab in Dutch Harbor, Alaska. They now process King and Tanner crab, Alaskan Pollock, Pacific Cod, Black Cod, Halibut and a variety of other species. All of the fish come from the cold, deep waters of the Bering Sea. For decades, Alaska's world-class fisheries have been managed sustainably by the State of Alaska and the North Pacific Fishery Management Council. This approach to fishery management has made UniSea among the largest seafood producers. UniSea currently employs over 1,000 full time and seasonal workers.

The Challenge

UniSea is spread across three locations. They have the Dutch Harbor fishery in Alaska, and a cold storage facility in Redmond, Washington, along with their corporate offices. Prior to deploying Extreme SD-LAN, they had an old legacy system. While they knew the access points weren't the latest technology, the real issues were with the reliability of the gear and lack of insights into what was happening on the network, with some industries, Wi-Fi might be a convenience/value-add for guest networking. With UniSea, Wi-Fi is mission critical. Without reliable Wi-Fi, UniSea's operations are dramatically affected. While fishing might seem like an offline activity to some people, with UniSea, it's anything but. With their legacy system, access points constantly required rebooting. This began to dramatically affect business operations on the island.

Unlike a lot of the developed world, access to fast internet isn't something UniSea has at its Dutch Harbor location. Because it's on an island, they rely on satellite internet that tops out at six Mbps. They pay $10,000 per month for this service. They also lacked insights into what was happening on the network. Stuart Damron, UniSea's network administrator, had difficulty understanding why the network would slow down at peak times. Was it a Wi-Fi issue or were employees using streaming movie sites? At the cold storage facility in Redmond, the environment posed a very difficult problem. How do you deploy extremely reliable wireless in a building that is 20 degrees below Fahrenheit? On top of the extreme temperatures, forklifts operate in an area filled with blocks of ice. Large quantities of water will cause attenuation of radio frequency signals (Wi-Fi). Without reliable wireless connections to the forklifts (that use computers Windows 7), orders have to be processed manually.

The Solution

Beginning in the Dutch Harbor location, UniSea began deploying Extreme AP230s for their indoor locations and Extreme AP1130s for outdoor locations. Thanks to the flexibility of Extreme's cloud-managed networking, UniSea went with ExtremeCloud IQ on premises. Unlike some companies, Extreme's network management system can be deployed locally or as a hosted version. Due to the limited internet bandwidth on the island, UniSea preferred the onsite option. Another issue that UniSea faced at the Dutch Harbor location was with authentication. With their previous solution, they'd change the PSK, and they'd watch it spread around like a virus around the island. With Extreme, they rolled out a mixture of Radius (for corporate users) and PPSK (for corporate devices). Now, they have complete control over which devices can connect to the network. For guest access, they also leverage Extreme's Private Pre-Shared Key (PPSK), and these credentials expire after a week. After leaving their legacy deployment behind, UniSea felt in complete control of the network. Before, if the network was slow and a senior executive complained, ending the problem was difficult to diagnose. With ExtremeCloud IQ, they can identify which user (and which device) is using more bandwidth than they should. They can also relocate offenders to a lower quality of service tier as to not affect mission-critical devices. UniSea has also used ExtremeCloud IQ and the location information from the access points to determine where lost devices were, and when employees were leaving work before their scheduled shift ends. The Extreme access points have performed as expected even in a difficult environment. Despite below freezing temperatures, 50 MPH wind, and sideways precipitation, the Extreme 1130s have never needed a reboot or gone offline. After a successful deployment at Dutch Harbor, UniSea deployed Extreme AP230s and AP1130s at their cold storage facility in Redmond, Washington. One of their previous issues was managing what was happening on the WLAN. At UniSea, safety is of the upmost concern. Since the forklifts are running a low-end version of Windows 7, the risk of running unauthorized websites or applications was very high. With Extreme's application and visibility control, locking down apps and services on the WLAN is built right into each AP. With a stateful rewall inside all Extreme access points, IT managers can monitor and block any non-corporate applications they need to. One of the difficulties in deploying enterprise-grade Wi-Fi in the cold storage facility is the combination of the difficult environment along with low-end client devices. These industrial Windows 7 devices that are attached to the forklifts are not high-end devices, and the temperature makes it an even more difficult environment to cover. Extreme also offered additional expertise to optimize the APs for the environment. "Extreme went above and beyond helping us deploy Wi-Fi in this extremely diffi-cult environment," said Steve Nuss, the IT manager of UniSea. Now that the two difficult tasks have been completed, UniSea will begin rolling out Extreme AP230s at their corporate office. Leveraging ExtremeCloud IQ online, UniSea is excited about the future of cloud-managed Wi-Fi powering their operations. For them, Wi-Fi is essential to their business operations. The next time you eat King crab, Tanner crab, Alaskan Pollock, Pacific Cod, Black Cod, or Halibut, it likely has come from UniSea, and Extreme will have played a key role in bringing it to your plate.

Why UniSea Selected Extreme

Extreme Durability

Outdoor access points able to withstand freezing temperatures, 50 MPH wind, and sideways precipitation

ExtremeCloud IQ

Full insight into what's happening on network to manage limited satellite internet bandwidth

Authentication

Complete control of the network, with a mixture of Radius (Corporate Users) and PPSK (Corporate Devices)