

## Fish Farm Upgrades Communications to Provide Critical Information

Cisco Unified Communications system proves a prize catch for Cooke Aquaculture

EXECUTIVE SUMMARY
<p><b>COOKE AQUACULTURE</b></p> <ul style="list-style-type: none"> <li>• Unified Communications</li> <li>• Black Harbour, NB</li> <li>• 1300 employees in Newfoundland, New Brunswick, Prince Edward Island and Maine</li> </ul>
<p><b>BUSINESS CHALLENGE</b></p> <ul style="list-style-type: none"> <li>• Access real-time information to improve business efficiencies</li> <li>• Accurately and safely track water temperatures without disturbing or harming the fish</li> <li>• Find a flexible technology solution that can manage long-term business growth</li> </ul>
<p><b>SOLUTION</b></p> <ul style="list-style-type: none"> <li>• Cisco Unified IP Phones display real-time information and water temperatures to alert staff to hazardous weather conditions</li> <li>• Cisco Unified Communications is used to measure, relay and track water temperatures from inside the farms</li> </ul>
<p><b>BUSINESS RESULTS</b></p> <ul style="list-style-type: none"> <li>• Increased employee efficiency through access to real-time data</li> <li>• Improved hazardous weather condition accuracy and fish safety</li> </ul>

### Business Challenge

Cooke Aquaculture Inc. is a privately held, family-run salmon farming enterprise based in Black's Harbour, New Brunswick. Cooke began operations in 1985 with one marine cage site containing 5000 salmon. Today, the company has operations in Newfoundland, New Brunswick, Prince Edward Island and Maine. Cooke is also in the process of expanding beyond North America, and recently signed a Letter of Intent to purchase an aquaculture company in Chile.

Cooke is a fully integrated corporation, employing approximately 1300 people and operating more than 100 ocean-based salmon farms, 11 freshwater hatcheries, three processing plants, as well as feed, equipment manufacturing and transportation divisions.

To run their operation efficiently, Cooke staff need access to a variety of real-time information, including salmon market pricing indexes, international currency exchange rates and air and water temperatures in the salmon pens.

Tracking the temperature is particularly important, because when the water temperature drops below 0 degrees Celsius, a condition known as "superchill" puts the fish in severe

jeopardy. If the fish are disturbed during superchill, even slightly, they perish – a reaction that has mystified scientists and has caused losses of millions of dollars for fish farmers across the East Coast.

When temperatures at Cooke's fish pens fall low enough to cause superchill, managers cease all regular activities, such as feeding the fish and sending divers into the cages for maintenance work until the temperature returns to a safe level.

Cooke tracks temperatures in its salmon pens using weather stations. The weather stations are located in the pens and are partially submerged in the water. The stations record both air and water temperature and relay that information through a wireless network back to data collection terminals on land.

## Network Solution

In 2006, Cooke began installing a Cisco® Unified Communications system including Cisco Unified IP Phones. The project started with a pilot using only executives' phones. The pilot proved so successful that the Cisco Unified IP Phones were then rolled out to the rest of the company.

"IT in our company has always been seen as part of our business strategy," says Nitin Soni, Cooke's chief information officer (CIO). "We've always focused on streamlining our business processes, making them more efficient and providing more visibility into our operations. Unified communications (UC) meshes perfectly with that philosophy. It gives managers one central point to collect and view important information at their fingertips, which allows them to make informed business decisions."

When Cooke's IT solutions provider and Cisco Premier Certified Partner, Bulletproof Solutions Inc., began examining Cooke's business processes to identify areas where unified communications could provide new efficiencies, the water temperature application immediately took prominence. Before Cooke implemented unified communications, managers were getting temperature data only once a day.

"We didn't think that was as effective as it could be, given how sensitive the fish are to temperature conditions," says Bob Buchanan, Bulletproof's chief operations officer (COO). "We realized we could put that information on the Cisco Unified IP Phones to allow for more timely and accurate decisions to be made."

Nitin says of Bulletproof's work on this implementation, "Bulletproof provides value at a business and operational level—something that their competitors don't do. They are a trusted advisor to us, and their partnership with Cisco means we have access to a leader in unified communications solutions."

"The Cisco Unified IP Phones have become much more than communication devices for us. They allow us to make business-critical decisions based on current data that positively affects our company, enabling us to continue our strong growth and success in the industry."

— Nitin Soni, Chief Information Officer, Cooke Aquaculture

## Business Results

After setting up Cooke's Cisco Unified Communications system, which encompasses 12 sites, 350 Cisco Unified IP Phones, including 7940 and 7960 models, and a Cisco Unified Communications Manager, Bulletproof created an application that pushes temperature data out to the phones. Data from the weather stations now gets fed from the collection points at Cooke's various sites into a server at the head office.

"In the past, we'd look at the temperature on the previous day and use that to guide our feed practices," Nitin says. "Now we can look at the information in real time – refreshed every three minutes. The health of our salmon stock is the foundation of our business and livelihood. Having this kind of data makes a huge difference to the business' profitability."

Cooke has two other real-time feeds published on its phones. One lists the daily market pricing, so sales staff can accurately quote customers. The other feed provides currency

exchange rates, an important feature, because more than 50 percent of the company's business is in the United States.

Cooke plans to roll out more applications in the future that would display key performance indicators for the company's various divisions, including those in Maine and Chile.

"We need to know how one part of the value chain might affect another, and we need that information in real time," Nitin says. "The Cisco Unified IP Phones have become much more than communication devices for us. They allow us to make business-critical decisions based on current data that positively affects our company, enabling us to continue our strong growth and success in the industry."

### FOR MORE INFORMATION

To find out more about Cisco Unified Communications, go to:

<http://www.cisco.com/en/US/products/sw/voicesw/index.html>

For ongoing news, please go to <http://newsroom.cisco.com/canada/>



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