Success Story:
Government

Department of Fisheries and Oceans Canada
Serving the Large Maritimes Fleet

Canada’s Maritimes region is one of the largest and most diverse of the six Department of Fisheries and Oceans (DFO) administrative regions. The area includes the Scotia-Fundy portions of the provinces of Nova Scotia and New Brunswick.

From its headquarters in Dartmouth, Nova Scotia, the Maritimes DFO is responsible for developing and implementing policies and programs in support of Canada’s economic, ecological and scientific interests in oceans and inland waters.

The Maritimes fleet is an important contributor to Canada’s CDN $5 billion a year commercial fishing industry, which provides 130,000 Canadian jobs. The region is home to nearly 13,000 full — and part-time licensed “fish harvesters” and more than 4,700 fishing vessels.

Need to Track Information for Every Departing Vessel

Keeping track of hundreds of fishing vessel “hail outs” — departures from port — each day is a major responsibility for Canada’s regional DFO offices. Hail out information, such as vessel identification number, fish harvester license number, time of departure, estimated date of landing, and species and areas to be fished is essential to ensure safety, revenue tracking, and quota compliance. This monitoring tool has enabled C & P to target enforcement efforts and realize operating efficiencies.

For decades, hail out information has been phoned in to one or more Dockside Monitoring Companies (DMCs) prior to departure. Often, fish harvesters also had to call an Observer Company who would dispatch a registered observer to accompany them on the voyage. If the DMC office was closed, the fish harvester would leave the information on an answering machine.

Hail out information was then entered by the DMC into the DFO database. However, the timeliness and accuracy of this information was often questionable and the manual hail out process had other drawbacks as well, notes Rick Young, DFO Assistant Regional Director of Fisheries and Aquaculture Management for the Maritimes region.

Inaccurate Information Drove up Investigative Time

“Our Fishery Officers had serious doubts about the validity of a lot of the hail out information we received,” explains Young, a 28-year DFO veteran. “In many cases, officers in surveillance planes would spot fishing vessels in areas where they were not supposed to be. They would have to come back in and make five or six phone calls to determine if a hail had been logged for that vessel. That could take up to 45 minutes in many cases.”

DFO Fishery Officers, in the Maritimes Region alone, investigate more than 2,000 suspected violations or anomalies each year. The lack of accurate and timely hail out information also hinders search and rescue efforts when a vessel is reported overdue.
GVP and Nuance to provide both voice recognition and touch-tone control to assist fish harvesters in entering the correct hail out information.

Smooth Sailing with Genesys Voice Platform

Genesys Voice Platform is a software-only solution that runs on off-the-shelf hardware and software and interoperates with voice applications written to the VoiceXML standard. “Our informatics folks weren’t familiar with GVP at the time,” Young notes. “There were whoops of glee from the computer center when they saw how well it worked and the level of support we received.”

The GVP system is integrated with DFO’s Nuance speech-recognition engine and provides both speech control and touch-tone backup commands. “The fish harvester starts by entering their identification number and license number,” Young explains. “The system does a database lookup and verifies the information and then finds any recent hail outs the fish harvester may have logged. It brings back that information, which can speed the process if they are going to the same fishing grounds and leaving from the same port and so forth. It really saves them time and accurately records everything we want to know.”

Improved Accuracy, Reduced Costs

While there continues to be some resistance among a minority of fish harvesters to the new, IVR-based hail out system, most seem to appreciate the convenience. “This may not have been the ideal application to pick for our first IVR system simply
because it is an activity that they really don’t want to do — hailing out,” Young muses. “However, it was an operational imperative for us to improve the accuracy of the information we collect, and we’ve accomplished that.”

The benefits that Young attributes to the new IVR hail out system include:

> Improved information quality and a sound evidentiary record
> Reduced time required to make hail outs
> 24x7 hail out availability
> Positive precedent for future IVR applications (e.g., nationwide deployment to serve 50,000 fish harvesters, catch reporting, marine recreational licenses, quota transfers, electronic log entry, and voice biometrics for fishery officer information line

> Saving more than 18 weeks annually in Fishery Officer investigation time
> Strengthens relationships with industry and third-party service providers
> Provides automatic e-mail notification to Observer Companies
> Reduces time required to manage hail out process

“We have not yet quantified it, but we believe this system is reducing our prosecution costs significantly,” Young notes. “Not only does it take less time and effort to gather evidence, but when faced with the improved body of evidence, most fish harvesters facing a charge of failing to hail out choose to plead guilty rather than go to trial.”