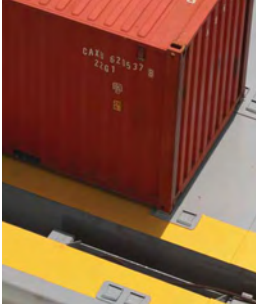




TRANSPORTATION EXPERT LYNDEN SHIPS VOICE OVER IP



Lynden Inc. has moved billions of tons of freight over land and sea since 1954, but transporting voice over traditional telephony—even when it just has to go across the street—is a different matter. With voice communications so critical to logistics, the Anchorage, Alaska-based enterprise was feeling the constraints of its aging telephony network and looking for a better solution. Traditional voice platforms could not unify Lynden’s far-flung business under a single voice system and dialing plan, at least not in any cost-effective way.

Lynden’s 1,500 employees span a dozen operating companies and 70 sites, with a given facility serving anywhere from 8 to 110 people. A big chunk of this workforce is in the technology-rich Seattle/Tacoma area, but other locations range from Russia and South America to towns in the relative wilds of Alaska. Traditional dial tone isn’t always available, and one site never got phone service at all because it didn’t even have a line of sight to a wireless relay.

In 1990, Lynden implemented a phone system that was then quite radical, if still TDM-based: An SRX (now Teltronics) platform that could offer network-wide dialing, voicemail, and remote management across leased circuits. There were even phones with ID chips that employees who roamed among offices could carry.

Switches were purchased for eight of the company’s major offices, and an umbrella of 4-digit dialing and shared voicemail soon covered the seven scattered across Seattle/Tacoma. However, the SRX in the Anchorage headquarters could not be included, because a dedicated T-1 between Seattle and Anchorage was just too expensive. The remaining 60-odd Lynden offices were served by a multi-vendor stew of PBXs and key systems.

By 2002, the president of Lynden operating company Alaska Marine Lines was tired of all the limitations and became a convergence evangelist. After all, wasn’t the global IP infrastructure melting the distance between locations like snow in the spring thaw? Other Lynden executives were also eyeing their aging phone equipment with concern, and telecommunications manager Ed Johnson and a group representing the other operating companies were charged with identifying an IP-based solution that would meet current and future needs.

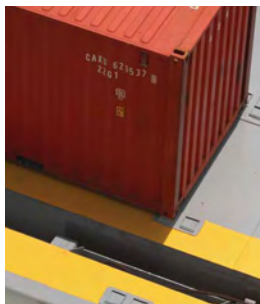
The list of requirements was fairly ambitious:

- Network-wide call routing and 4-digit dialing
- Platform support for every size office, from the largest to the smallest
- Scalability for future expansion
- Incremental migration and legacy integration
- Remote management

VoIP platforms from Avaya and a host of smaller vendors were considered and ultimately rejected as too expensive, too complicated or too hard to manage. Some were clearly solutions that had been “kludged” together from a variety of sources.

Cisco had its advocates within Lynden, but they didn’t prevail. “I had been hearing stories that you needed an advanced degree in Cisco just to do moves, adds, and changes, and that was definitely not what we wanted,” states Johnson.

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The search was still on when ShoreTel came calling. ShoreTel offered all the features that made the SRX platform so special in its day, but delivered them in a much more user-friendly way, and exploited the IP data infrastructure into the bargain.

EASY INSTALLATION

The first sites targeted for migration were an Alaska Marine Lines (AML) cluster in Seattle, housing some 100 employees. Two T-1 lines connected the corporate office to a maintenance facility and shipping and receiving operation on the other side of the street. The installation went smoothly, but it soon became apparent the ShoreGear-24 switch in the maintenance office was overkill for its 11 employees.

"I arranged to meet AML's IT guy there on a Saturday morning to swap the switch out for a ShoreGear-12," recalls Johnson. "It turns out, he had another appointment and tossed me the keys before he took off. So I put my grandkids to work plugging in patch cords. We finished the job in a couple of hours, and still had most of our Saturday left to enjoy. I was still learning ShoreTel on the fly at this point, with no formal training. That's real do-it-yourself capability!"

Legacy integration can raise problems during incremental migrations, but Johnson found that it was very easy to retain the same office extensions and incorporate the new ShoreTel sites into the SRX-based 4-digit dialing plan. "I just did the programming once and used a cookie-cutter approach. I didn't have to do any revisions."

Next on the ShoreTel conversion list was AML's office in Ketchikan, Alaska, which is in a time zone, one hour behind Seattle. After returning home from the installation, Johnson called across town to the AML Seattle office right at 5 p.m. one day, and was surprised to find himself talking to someone in Ketchikan. Wanting to exploit the time zone difference, non-technical users at AML had figured out how to set up the Seattle auto-attendant to roll calls over to the Ketchikan office for the first hour after closing, so a warm body would continue to answer.

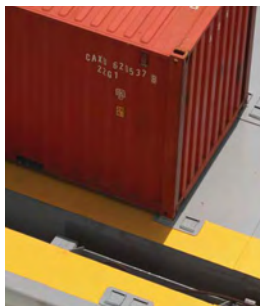
This location transparency was soon used to help AML expand some of its operations from its normal stomping grounds among the ports of southeast Alaska into the central part of the state. When an opportunity presented itself, AML's president asked Johnson for 800 numbers that would ring in the offices of other Lynden companies in Fairbanks and Anchorage.

"In an hour and a half, I established a presence for AML in central Alaska by simply renting a couple of phone numbers, terminating them on a couple of DID numbers, and building an auto-attendant that made it look like AML had people in both Fairbanks and Anchorage."

It was a month before AML hired a local salesperson. Meanwhile, the auto-attendant offered callers customer service, sales, and dispatch, and the calls were routed accordingly to three separate numbers in Seattle.

"WE DON'T NEED FAX MACHINES"

In general, Lynden is very pragmatic about technology. An executive memo Johnson saved for posterity says, "If a letter needs to be in New York, on Monday, mail it today. We shouldn't need fax machines." It's an old memo, but an illustrative one: The connection between any IT investment and revenue has to be fairly clear.



The VoIP migration meets this criteria, and Lynden now has 11 sites and about 500 employees on the ShoreTel system, and Lynden Air Freight's Dallas office will soon make a 12th location. Alaska West Express in Anchorage took advantage of an office relocation to make the move to ShoreTel. Lynden Transport now has offices in Seattle, Kenai, Fairbanks, Anchorage, and Los Angeles on the ShoreTel system, and its Tacoma and Fife facilities in Washington have been scheduled for the migration.

"That's very significant, because the Lynden Transport president has been known to be conservative in adopting technologies" says Johnson. "The benefits of the ShoreTel system are that obvious." He is hoping this President's endorsement will convince Lynden Air Freight and Ed's Company, Lynden Inc., also located in the main Seattle building, to retire a 13-year-old SRX system and an equally old Executone system. But Johnson isn't the Lynden telecommunications manager for nothing. He tapped into the Lynden Transport ShoreTel system on the floor below by running a wire down to it and porting his DID number to a different carrier who could terminate it there. "It would have been hard for me to support the system if I wasn't using it, right?"

PRODUCTIVITY BENEFITS CONVERT THE ANTI-TECHNOLOGISTS

Lynden's user community, which consists primarily of truck drivers, dispatchers, and clerical workers, has taken enthusiastically to ShoreTel's Personal Call Manager interface, although the full significance of the move was lost on them at first.

"They didn't know they were using VoIP until I told them," Johnson says. "Once a little training got them past the paradigm shift of seeing their phone on their computer screen, all they noticed was the wonderful new features." Some had never had voicemail before, and seeing the messages in the same unified inbox with already familiar email helped ease the transition.

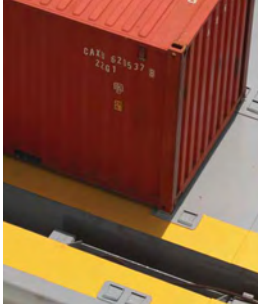
Many members of Lynden's highly distributed workforce wear more than one hat, so the ability to belong to more than one ShoreTel workgroup comes in very handy. And easily configured auto-attendant front ends can direct callers to the right person with greater accuracy, taking the load off of dispatchers who used to field all incoming calls and often ended up dealing with questions they weren't really qualified to answer.

ShoreTel's capabilities also ease mobility for employees who spend time in more than one office. The Anchorage-based president of Lynden Air Cargo had to spend three weeks in Seattle getting medical treatment, and wanted a temporary office while he was there. Once the executive was en route, Johnson remotely redirected his calls from Alaska to the temporary office, and there was voicemail waiting for him when he arrived.

Thanks to ShoreTel's AnyPhone feature, calls made to the executive's Anchorage number rang in Seattle. "And the treatment worked, too, which is even more important!" Johnson concluded.

The salespeople in the ShoreTel-equipped offices are the envy of colleagues elsewhere, thanks to the system's follow-me, find-me feature. They can be as available as they wish, and make sure important calls don't get missed.

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Perhaps most significant is the extent to which non-technical employees are figuring out how to use system features to improve business processes. "Even the anti-technologist types are now doing this," Johnson states. "They will not live with less than they want anymore, and with ShoreTel, they don't have to."

VERY EASY MANAGEMENT

The ShoreTel system is so easy to manage that Johnson can delegate responsibilities to non-technical office workers and truck drivers at the remote ShoreTel sites. These individuals double as system administrators, handing moves, and changes and other administrative tasks. "They aren't shy about calling me if they think they don't know how to do something, and we've had no incidents of them disrupting the programming," Johnson says.

Two of them even requested access to ShoreTel's reporting features. One is monitoring call records for suspected phone abuse, and the other is reviewing call volume and rollover patterns to streamline call handling.

Johnson does ShoreTel system upgrades in the evening from his home over a DSL line after sending CDs in the interoffice pouches to the remote offices.

"I wait until after hours and then tell the dispatchers on duty to stick the CD in the drive and go take a coffee break while I make any changes and reboot the system. That's how I can maintain a phone system with 11 sites, half of which are in Alaska. It's very easy management."

LOOKING AHEAD

Convergence enthusiasts at Lynden would like to facilitate collaboration with such ShoreTel options as the conference bridge and document sharing. First, Johnson would like to create more of a single distributed system, but WAN bandwidth is still a limiting factor.

Lynden has been taking some pressure off the WAN by putting DSL links in a lot of the smaller offices so they have direct Internet access. Their Web traffic no longer has to go through the main Seattle office via the WAN, freeing up bandwidth that may ultimately be used by the ShoreTel voice network.

When Johnson bought his first ShoreTel system two and a half years ago, it was with the knowledge that the platform could do far more than was currently being asked of it.

"I was buying time, because it would take awhile for me to replace the systems one by one, and for the users to get familiar with the Personal Call Manager interface and learn the niceties of call-handling modes—or even that they had call-handling modes. And while this went on, the cost of bandwidth would come down, and we could start doing more over the WAN instead of dialing around it.

"And that's pretty much what's happening."