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Offshoring and QA

Somewhere in my CD stash, I have a copy of the Dead Milkmen's song "You'll Dance To Anything." The key lyric is, "You'll dance to anything by any bunch of stupid Europeans who come over here with their big hairdos intent on taking our money instead of giving your cash, where it belongs, to a decent American artist *like myself!*"



Esther Schindler

Let's get the flame bait out of the way. Some companies have developers and QA staff working elsewhere. They just *do*, OK? The marketing side of the company might be in San Francisco, but the programmers live and work in China, or Israel or Russia.

This piece isn't about whether a company should outsource, or if some of its staff should be in a place with an interesting cuisine, or if your job is going away (including to people with big hairdos). My focus here is about working with offshore teams to create the best software possible.

One set of people has a long history of doing so: software vendors with offices in North America, and with at least some development staff in another geography. They learned their lessons the hard way, so they can offer advice about how other companies can work efficiently with teams from afar, and to create software that exceeds quality expectations.

Build Communication Skills

Any workable team must communicate well, but when the participants are spread across 10 time zones, the need becomes paramount. "This ranges from a commitment to open, honest communications to learning what business communications are all about," explains Philippe Cohen, vice president of product development at Mainsoft, which has offices in the San Francisco Bay Area and in Israel. "It even encompasses when to use e-mail versus instant messaging versus the phone. It may sound

basic, but you lose time if you get it wrong. With e-mail, for example, you've typically got only one shot at reaching your teammate a day. E-mail is best when you have a lot of technical contact to share prior to a teleconference."

This is one time when technology can come to the rescue. According to

Sriramadesikan Santhanam, senior director for Quality Engineering COE at Symphony Services (www.symphonysv.com), it's helpful to use collaborative tools, such as IM, intranets and video conferencing. The company's reporting processes centralize project status on a daily, weekly and monthly basis, so everyone knows where the project stands; they also employ tools like scheduled calls, common templates, alerts and operations dashboards.

However, says Alexei Miller, executive vice president of project management at DataArt, which has offices in New York and Russia, technology alone doesn't do the trick. Each project at DataArt has a separate communication plan. This schedule, Miller says, defines how information will be exchanged. It is created based on the specific situation: "available client resources, time difference, type of project and so on." In some joint-development projects, DataArt has found, daily conference calls are a must; for others, in which responsibilities are better separated, biweekly conference calls suffice.

The best way to build communication skills is to ensure that the team members meet in person, at least on an occasional basis. Encourage travel, exhort all of these experienced managers, to benefit customers as well as the teams. For example, Mainsoft sent a field engineer to Israel to spend three weeks working side by side with the lead support engineer, to gain a firsthand understanding of what it takes to develop changes without hav-

ing direct access to the customer. "We also encouraged the Israeli engineer to get directly involved with our customers, along with the field engineering team, and we saw a dramatic change. Suddenly, it wasn't just about getting the bits and bytes to work together. He's become an advocate for his customers' needs, and he'll push the product development team to get customers' needs met quickly," says Cohen.

Integrate Cultures

One major sticking point in offshore teams is the difference between cultures. Everyone I spoke with brought up this point, in one form or another, because cultural differences lead to miscommunications and misunderstandings, which undermine trust and mutual esteem.

For example, American engineers and businessmen don't like to use the word *no*, Cohen says; instead, they say, "I see your point, but..." or "I'll call you." Yet, Cohen says, "The word *no* is often negotiable for an Israeli. He tends to be quick to raise objections, and he is comfortable participating in 'heated discussions' that many Westerners find offensive."

Cultural differences don't have to be a negative. Says Cohen: "Our U.S. and Israeli engineers have vastly different skill sets. Whereas our U.S.-based field engineers can quickly assess customers' business requirements and focus on what it will take to resolve their issues, the Israeli team has a limited understanding of corporate communications and what it takes to work with enterprise customers. Their strength lies in their enthusiasm for technical innovation. Israeli engineers love to be inventors, and they're constantly learning and applying new technologies."

This contributing editor has entirely too many albums from obscure but wonderful bands. Fans of Lou & Peter Berryman, David Peel & the Lower East Side, and Boiled in Lead are welcome to reach her at esther@bitranch.com.



Software quality is greatly improved when onshore and offshore teams are treated as one development organization. The camaraderie will form, but, Santhanam cautions, it doesn't happen overnight. You may have to fight inertia due to culture, expectations and time difference. "If it becomes an us-versus-them environment, you're doomed," he says. To combat that risk, Symphony conducts cross-culture training to help the teams better understand one another, to share information beyond business, and to form personal relationships. "Over a period of time, the bond between the teams can increase to the point that they jointly celebrate holidays, birthdays and joint cultural events," he says.

Use time zones to your advantage. At Mainsoft, which has a 10-hour difference between offices, it's not unusual for the U.S. field engineers to record a time-sensitive, business-critical issue at a customer site late on a Friday afternoon. "In these cases," says Cohen, "our field engineers document the issues, and sync up

with the Israeli team at the end of their day. The Israeli team works on the issue on Sunday and Monday...and syncs up with the U.S. team on Monday morning, Pacific time."

Evolve Testing Responsibilities

In most cases, software testing roles have evolved due to business requirements. For example, when Mainsoft's employee retention suffered from the Silicon Valley dot-com boom, they relocated to Israel all aspects of product R&D. In addition to a full suite of software testing, Cohen says, "to ensure the QA process is also grounded in the demands of real-world deployments, periodically we send the director of [QA] to participate in customer engagements."

A few types of testing are typically good candidates to be done offshore, says Miller, even early in the relationship: test automation based on formal specifications, and stress and volume testing. A Web-based bug-tracking tool

must be in place for the client to keep a close eye on the QA progress, he advises, and formal acceptance metrics are helpful to ensure that the end result meets quality standards.

At Symphony, it is common for QA plans to be jointly developed and approved by both onshore and offshore teams, according to Santhanam. QA plans are often developed by the offshore team and reviewed by the client onshore, including developing metrics to track progress.

Some of the differences stemming from working with remote teams in remote places can teach your company lessons that have nothing to do with geography. According to Santhanam, "One benefit of moving a portion of the work offshore is that it forces the combined development organization to standardize practices to make the coordination between the various teams easier. The outcome is often a process with more rigor that improves overall quality." ✕

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