Virtual Projects, Real Results

Long-distance collaboration can generate big savings -- or big problems. Here's how to get the best from virtual project management.

by Fred Bayles
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Make no mistake about it: Mark Treiber, the senior project manager for the Madison, Wis.-based Inacom Information Systems, values his ability to work remotely on projects with team members who, at times, have been scattered from Wisconsin to England.

But despite all the technical advances -- from e-mails and instant messages to sophisticated file-sharing systems -- that have allowed Treiber to tap the expertise of IT professionals oceans away, he still believes a virtual project team's success ultimately depends on a less high-tech element: a dollop of the human touch.

"For the initial kickoff of a project, we like to do face-to-face meetings," says Treiber, whose IT consulting company is a Microsoft Gold Certified Partner. He acknowledges that it's costly to bring far-flung team members together in person, but adds that doing so is important for making sure that all involved understand their roles and responsibilities. And he cites another justification, one that's based less on organizational strategy than on human nature: "I believe that you can never give the person on the phone the same benefit of the doubt you can give someone you've met face-to-face."

Such sage advice from Treiber and other project managers comes at a critical moment in the globalization of corporations and economies. Today, more than ever, teams of IT consultants, software engineers, managers and troubleshooters are working together on projects despite being widely separated by time and distance.

Actual Advantages

Virtual project teams can provide savings in multiple areas. Obviously, there are the financial benefits of being able to include participants regardless of where they're based. But there are also time savings for project managers like Treiber, whose team members are typically closer to home, working with customers remotely rather than driving long distances to serve them. That approach generates savings for clients as well.

For instance, Treiber says, "if you can help a customer with a SQL Server issue by just tapping right into his system, giving him some suggestions and getting everything done in an hour, you've saved that customer a full day's worth of [costs for] travel three hours there and three hours back."

There are benefits of a different type for smaller companies such as Schumaker & Co., a business and IT consulting firm and Microsoft Certified Partner based in Ann Arbor, Mich. Company President Patricia Schumaker says the virtual option allows her to supplement her 10-person staff with experts who happen to be based many time zones away. "That works out very well because you couldn't bring them in as regular team members," she says.
For example, rather than physically importing a software expert from California at the beginning of a project, then organizing the entire effort around his schedule, Schumaker would touch base with the expert along the way, bringing him in virtually when it's time for him to participate.

As another example, Schumaker cites a project that her company did for a state utility commission, an effort involving representatives from a private utility, state officials and consultants scattered across four states. The project's success hinged on "interacting before we began the actual interacting," she says. That meant allowing for plenty of discussion beforehand about what information would be needed when, as well as providing the right amount of handholding for each player. "You get all people with all different agendas," Schumaker notes. "That's going to take some additional management."

In fact, virtual teams require a more thoughtful style of management than do their in-person counterparts in almost every aspect. Despite the rush to embrace the technologies enabling new options for project management, the one constant from both practitioners and experts is this piece of advice: Don't overlook the human element.

"You can't just have a simple [virtual] project without dealing with a whole lot of different issues, including language, culture and human nature," says Edwin Andrews, manager of research for the Project Management Institute.

The Newtown Square, Pa.-based institute, which serves 217,000 members in 157 countries, offers training and certification for project managers. Faced with an increasing move to virtual teams, the organization published a book last year that offers both an academic study and a how-to tome on virtual project management.

The book, Patterns of Effective Management of Virtual Projects: An Exploratory Study, by University of Nebraska professors Ilze Zigurs and Deepak Khazanchi, grew out of extensive research into virtual projects. Five companies aided the effort by gathering in -- what else -- a virtual focus group that offered insights into the best practices for such initiatives.

The main thread running through the pair's findings: Successful virtual projects require clear and constant communication. "Everything in a virtual project has to be much more explicit," Zigurs says. "There are complexities created at each layer that you didn't have before."

**Virtual Challenges**

Project teams have always had a bit of a "virtual" tint. First, there were the conference calls requiring team members to lean over meeting tables to hear far-away colleagues over the speakerphone, followed by e-mail and instant messaging.

It's bloomed from there: Zigurs and Khazanchi identify 32 tools that can now be used for virtual project management. Options range from IM to videoconferencing set-ups to file-sharing systems that give team members across the globe the opportunity to look at the same documentation at the same time -- or to access those same files at their leisure in time zones 13 hours apart.

Such tools have created new opportunities for collaboration, says Jim Highsmith, director of the Agile Project Management Practice at the Cutter Consortium, an Arlington, Mass.-based research and consulting firm. "You have the ability to send a lot more stuff, like computer-assisted design files and computer code. You can share things you couldn't share before," Highsmith says. At the same time, these tools can create new problems. "People tend to depend too much on documentation and not enough on conversation," he says. "Just exchanging reams of documents doesn't work very well. Talking about complex things is very important."

Of course, technology allows for talk, too. But the result -- the virtual meeting -- is much more complex than the old-fashioned kind of gathering where everyone sat around the table, adding important nuances to the discussion with a wink, a yawn or a shrug of the shoulder.
"There are a lot of gaps that you can forgive in a face-to-face meeting because you have the head nods and other body language," says Zigurs. "A lot of that has to be handled in other ways in virtual meetings."

Of course, some technology options help replicate those nuances, such as the sophisticated -- and expensive -- videoconferencing systems that allow participants to see each other in real time. But for many projects, such large-scale productions probably qualify as overkill; a telephone conference call will do the job just as well for less cost and effort. Highsmith is particularly fond of "stand-up" calls, in which participants stand rather than sit for the entire session. That provides strong incentive for keeping meetings as short as 15 or 20 minutes.

Time differences present another challenge. If a team is scattered across multiple continents, someone may have to get up early or stay by the phone or online late into the evening to attend sessions. Language differences can also create problems, especially if you're relying on the lower fidelity of a regular phone line. Without the right visual cues, participants can wind up all talking at once or drifting off into individual distractions.

"If you get up to a group of 10 or so in a virtual environment, the logistics can get difficult," Highsmith says. "You only have a couple hours a day when time zones overlap. Then you have the problem of people talking over one another. Some people may feel they can't speak up when they want to." To keep the stronger personalities from dominating the others, Highsmith advocates keeping the meetings to "a very rigorous forum" in which each participant gets a turn to talk.

"They come on and say, 'This is what I did yesterday, this is what I am doing today and this is what's impeding my progress,'" Highsmith says in describing such a scenario. "The whole impetus is to keep the meetings very short so people will attend and get what they need."

Finally, virtual project management can raise legitimate security concerns, especially for clients who fear that providing access to team members based thousands of miles away will expose their systems to potential tampering. "They're reluctant to open [their networks] up to strangers," Treiber says. "It works better if the person coming in remotely is a trusted person, someone they've met or worked with before."

**The Key: Planning + Preparation**

All those issues circle back to a larger issue addressed by the Project Management Institute's book and echoed by seasoned team leaders: Any successful virtual project requires a great deal of forethought and planning.

The list of details to be considered up front is lengthy. First, there's the obvious consideration of making sure all parties share compatible technologies. Beyond that, you'll need to address cultural issues as complex as different attitudes about staying within a contract's dictates to acceptable ways of giving and accepting criticism. You must even be aware of national holidays in the countries where your team members work.

"We've learned to understand the cultural differences and anticipate the problems," says Schumaker, the Ann Arbor-based consultant. "You can't do enough upfront to make it successful on the back end."

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**7 Tips for Virtual Project Management**

The Project Management Institute is a terrific source for information on managing group projects. Last year it published *Patterns of Effective Management of Virtual Projects: An Exploratory Study*, based on research by University of Nebraska professors Deepak Khazanchi and Ilze Zigurs. The following combines some of their findings with recommendations from top project managers:
Many project managers resolve some of these human factors by biting the bullet and paying travel costs to bring in participants for initial orientation sessions so they can work together in person (and sometimes with the client as well). Highsmith recalls a project team in Phoenix that brought four engineers over from India for several months to work with their American colleagues. "When they went back to India, they were much more tied into the project than they would have been remotely," Highsmith says.

Such measures are often well worth the investment, says Jay Fields, who has been schooling companies in project management for 25 years. Ultimately, according to Fields, nothing beats relationships developed through direct, personal contact.

"Just having individual conversations when the team walks to the coffee shop transcends the business relationship," says Fields, president of J.B. Fields & Associates LLC, a Microsoft Registered Member based in Takoma Park, Md. "Once the conversation is more informal, you start seeing each other as human beings. That helps bring the team together. People work a little harder; they trust a little more and can better communicate problems to other team members."

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**Don't eliminate the travel budget.** Sure, the object of creating virtual project teams is tapping far-away talent without paying travel expenses. But avoiding all such costs may ultimately qualify as pennywise and pound-foolish. Having at least one in-person meeting can create deeper connections between team members and strengthen everyone's sense of ownership in the project.

**Become familiar with colleagues' customs.** This can be as simple as identifying your overseas teammates' national or religious holidays to avoid scheduling conflicts. But you may need to explore more subtle issues. For instance, does your teammates' culture frown on direct confrontation? Do certain members need encouragement to speak their minds?

**Become familiar with colleagues' legal issues.** It's particularly important to understand applicable government regulations and contract law in your teammates' and clients' home nations.

**Consider technology purchases carefully.** Don't rush to invest in the latest underpinnings for the project before determining whether you have an existing option in-house or can lease a cheaper, simpler solution for the duration of the project.

**Define, define, define.** Set limits for the project's scope, cost and timeframe. With teammates scattered around the world, it's especially important to have a mutually recognizable set of road signs to warn you when you're nearing a cliff.

**Keep meetings focused.** Daily virtual gatherings are a good idea if you've got a strong meeting leader and a set agenda. The main purpose of these sessions should be determining what's been accomplished and who's assigned to do what next.

**Anticipate what can go wrong.** The Project Management Institute's guidebook contains a whole section on risk management. You can't always predict everything that might go wrong, but identifying potential traps is a way of avoiding at least some of them. -- F.B.
Andrews, the manager of research at the Project Management Institute, emphasizes the need to assess the kind of risks you face before beginning to work with a virtual project team. An Institute guidebook lists nine categories to consider in launching a virtual project. They include:

- Project scope
- Cost controls
- Data sharing
- Communications
- Performance reporting
- Risk management
- Information distribution
- Political considerations
- Regulatory issues

Each issue that you work out before sending the first project-related e-mail or gathering the team for that inaugural teleconference means that much less of a headache once the project is underway. "Inadequate planning is why a lot of projects fail," Andrews says. "Teams get too far down the road and realize they have to backtrack."

Zigurs, the University of Nebraska professor, says the success or failure of preparation efforts rests largely on the team leader's shoulders. In her research, Zigurs found that successful project managers tend to be flexible, adapting quickly to change. Even more important, however, is their ability to remain vigilant for indications that such changes are coming. Finally, she says: "They must be constantly reinforcing the goals with frequent communication."

That level of communication can be accomplished in much the same way that managers have ridden hard on project teams in the past: with a series of simple phone calls. It may not be high-tech, but it will have to do for now.

"Someone the other day was saying that holograms like the ones in Star Wars will be the way you can have face time in the future," says Inacom's Treiber. "It might be nice, but we're a long way away from that."

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