



## CHAPTER ONE

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# CRITICAL SUCCESS FACTORS FOR VIRTUAL TEAMS

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In today's business environment, organizations must adapt quickly or die. Gaining competitive advantage in a global environment means continually reshaping the organization to maximize strengths, address threats, and increase speed.<sup>1</sup> The use of virtual teams has become a common way of doing this.<sup>2</sup> The formation of virtual teams allows organizations to draw talent quickly from different functions, locations, and organizations. The goal is to leverage intellectual capital and apply it as quickly as possible. The methods that organizations use to manage this process can mean the difference between success and failure.

Consider the example of a team in a global consumer products firm. This product development team, with members from around the world, had just completed the development of a new product. When the team unveiled the product to the senior staff of the organization, it included a description of the way the team worked. The presentation showed an icon of an airplane, with the entire team of twenty-two people traveling from country to country. The team members had continually moved from site to site for activities such as status reviews, design meetings, and prototyping sessions. The cost of the travel was tremendous, not only for hotels and airline tickets but also in terms of the human costs of being away from home and lost work time and productivity. In addition, talent from other parts of the organization was not leveraged in this effort—if you were not “on the plane,” your ideas were not heard.

Contrast this with most other organizations that form world-class teams, with membership from many different locations and functions, to quickly address customer

problems, develop products, and deliver services. These teams often operate virtually, without the physical limitations of distance, time, and organizational boundaries. They use electronic collaboration technology and other techniques to leverage the best talent where they might reside, lower travel and facility costs, reduce project schedules, and improve decision-making time and communication.

Organizations that do not use virtual teams effectively may be fighting an uphill battle in a global, competitive, and rapidly changing environment. Organizations that will succeed in today's business environment have found new ways of working across boundaries through systems, processes, technology, and people. They will make technology a valued partner in developing and delivering competitive solutions.

Understanding how to work in or lead a virtual team is now a fundamental requirement for people in many organizations. Many who began their career leading teams in a face-to-face environment find themselves leading teams virtually, sometimes not seeing team members face to face more than once or twice a year. This presents the challenge of translating what worked in an in-person environment to a virtual one.

It is also now increasingly common to encounter people who lead or work on virtual teams who do not have a great deal of experience working on teams face to face. Most of today's large consulting firms do a large majority of their work virtually. Consultants who join these firms may never have the opportunity to work on or lead a traditional team in a face-to-face environment. They are immediately placed in situations that are more virtual than traditional. In this case, these individuals may not even have baseline experience to draw from—and on the other hand, they also may not have bad habits to unlearn.

The fact is that leading a virtual team is not like leading a traditional team. People who lead and work on virtual teams need to have special skills, including an understanding of human dynamics and performance without the benefit of normal social cues, knowledge of how to manage across functional areas and national cultures, skill in managing their careers and others without the benefit of face-to-face interaction, and the ability to use leverage and electronic communication technology as their primary means of communicating and collaborating.

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## Types of Virtual Teams

There are many different configurations of virtual teams. One of the central themes of this book is that the task affects how a virtual team is managed. Although virtual teams can undertake almost any kind of assignment, team leaders and members need to have a solid understanding of the type of virtual team they work on and the special challenges each type presents. What these teams have in common with all teams is that team members must communicate and collaborate to get work done or to produce a product. Virtual teams, unlike traditional ones, however, must accomplish this by working

across distance, time, and organizational boundaries and by using technology to facilitate as their primary means of communication and collaboration. There are seven basic types of virtual teams.<sup>3</sup>

- Networked teams
- Parallel teams
- Project or product development teams
- Work, functional, or production teams
- Service teams
- Management teams
- Action teams

### **Networked Teams**

A networked virtual team consists of individuals who collaborate to achieve a common goal or purpose. Such teams frequently cross time, distance, and organizational boundaries. Typically, there is a lack of clear definition between a network team and the organization, in that membership is frequently diffuse and fluid, with team members rotating on and off the team as their expertise is needed. Team members may not even be aware of all the individuals, work teams, or organizations in the network.

Examples of this type of virtual team are often found in consulting firms and in high-technology organizations. For example, one virtual team received a request from a client to quickly research and identify a set of best practices for managing the implementation of a large supply chain project. Although the consultants did not have all the answers themselves, they were able to tap into their network of external partners and internal and external databases and provide a set of best practices for the client within a few days.

Organizations that develop technological products can also use networked virtual teams. Many research and development organizations use networked teams for many activities because the specialized expertise to solve new problems or engage in complex discovery processes usually never resides in a single organization or location. Team members for these types of teams are often drawn from many different nations, think tanks, universities, corporations, and nonprofit organizations. Team members from different organizations come in and out of the network as their expertise is needed to make recommendations.

### **Parallel Teams**

Parallel virtual teams carry out special assignments, tasks, or functions that the regular organization does not want to or is not equipped to perform. Parallel teams are also used when expertise does not reside in one location or in one organization. Such

teams frequently cross time, distance, and organizational boundaries. A parallel team is different from a networked team in that it has a distinct membership that sets it apart from the rest of the organization. It is clear who is on the team and who is not. The members of a parallel team typically work together on a short-term basis to make recommendations for improvements in organizational processes or to address specific business issues. Virtual parallel teams are becoming a fairly common way for multinational and global organizations to make recommendations about worldwide processes and systems that take a global perspective.

One consumer goods company used a virtual parallel team to make specific recommendations for a global customer loyalty system. Team members came from around the world and were supplemented by participants from an external consulting organization. After its recommendations were made to the CEO, the team dissolved. Much of the work of this team involved data collection and analysis by individual team members. The collaborative work was often accomplished in audioconferences at 7:00 A.M. Eastern Standard Time (to accommodate people from all time zones) by using e-mail to communicate and pass on “static” information, a team Web site for documenting progress, and instant messaging for real-time communication. Like many people who work on parallel teams, the team members had other projects and accountabilities.

### **Project or Product Development Teams**

Virtual project teams and product development teams can also cross time, distance, and organizational boundaries. Team members conduct projects for users or customers for a defined but extended period of time. A typical result is a new product, information system, or organizational process. The difference between a project team and a parallel team is that a project team usually exists for a longer period of time and has a charter to make decisions, not just recommendations. A project team is similar to a networked team in that team members may move on and off the project as their expertise is needed. It is different from a networked team in that membership is more clearly delineated from the rest of the organization, and a final product is clearly defined.

Most product-focused technology and scientific organizations are well versed in the use of project or product development teams. The use of virtual teams expands the opportunities to leverage expertise from wherever it resides to develop products and services that have competitive advantage.

### **Work, Functional, or Production Teams**

Virtual work, functional, and production teams perform regular and ongoing work. Such teams usually exist in one function, such as accounting, finance, training, or research and development. They have clearly defined membership and can be distinguished from

other parts of the organization. Many work or production teams are now beginning to operate virtually and to cross time and distance boundaries. Many organizations now have business centers that operate globally around the clock, and work teams that service customers may exist in most time zones around the world.

It has become commonplace for people on virtual work teams to telecommute from home. They have access to workflow processes over the firm's intranet, which allows them to work as a group on development activities. Team members usually meet face to face once or twice each year for a conference.

### **Service Teams**

Service and technical help teams are now usually distributed across distance and time. Network and technical support are usually continuous operations, with technicians and call center personnel located around the world taking turns dealing with network problems and upgrades. The staff "follow the sun" and are situated so that one team is operational at all times. Each team works during its members' daylight hours and transitions work and problems to the next designated time zone at the end of the day.

### **Management Teams**

Management teams can be separated by distance and time. Today, many management teams are dispersed across a country or around the world but work collaboratively on a daily basis. Many companies have executive team members who hold a number of different passports and live in many parts of the world and collaborate on a regular basis by means of audioconferences or videoconferences focused on the achievement of corporate goals and objectives. The United States Army's chief of staff operates his staff as a virtual team. Staff members communicate regularly via e-mail and use a chat room on an Internet Web-based network to discuss important issues as they arise.

### **Action Teams**

Action teams can also work virtually. Such teams offer immediate responses, often to emergency situations. They cross distance and organizational boundaries. A weather team at a television station is a good example of a virtual action team. During a weather emergency, action team members are distributed in the field. The meteorologist at the television station uses radar and satellite information to tell where tornadoes may be forming and directs field crew movement toward those locations. The meteorologist analyzes the data that the crews send back and communicates the results and possible implications immediately to viewers.

The way in which NASA works during a mission is an excellent example of a virtual action team. During a flight, mission operations, usually located in Houston, collaborates with the astronauts, with tracking stations around the globe, and with experts, such as engineers and scientists, in different locations, in order to ensure that the mission proceeds as planned.

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## The Complexity of the Virtual Environment

It is easy to characterize virtual teams using the same categories as traditional teams. However, virtual teams can be much more complex. There are two primary reasons why virtual teams are more complex: (1) they cross boundaries related to time, distance (geography), and organization, and (2) they use electronic technological means to communicate (share information) and collaborate (work together to produce a product).

As the longitudinal distance between team members increases, so do differences in time zones. This makes communicating and collaborating at the same time problematic. Working across national boundaries complicates the situation because differences in language, culture, and access to technology impede effective communication and collaboration.

As members from different organizations join a virtual team, integration of work methods, organizational cultures, technology, and goals make communication and collaboration more difficult. Partners and suppliers often have conflicting goals and organizational cultures. This holds true even when team members come from different functional areas within the same organization. For example, people from marketing and human resources frequently use a different set of work processes than those from more technical areas such as engineering and information systems.

Finally, complexity is increased by the number of different choices for team interaction. Traditional teams typically interact face to face, at least some of the time. Virtual team interactions, however, are almost always mediated by electronic communication and collaboration technology. Interactions fall into four categories: (1) same time, same place (like face-to-face meetings); (2) same time, different place (such as an audioconference or videoconference); (3) different time, same place (such as using a chat room or a shared file on a network); and (4) different time, different place (such as exchanges of e-mail or voice mail messages and podcasting). The selection of technology and choice of interaction vary according to factors such as the type of team, the nature of its task, and the members' access to technology.

Checklist 1.1 provides a way to categorize your virtual team and to determine the number of factors that affect complexity. Understanding the type of team you work on and its complexity will help you get the most out of the remaining chapters of this book.

### CHECKLIST 1.1. TYPE OF VIRTUAL TEAM.

#### Part 1. Team Description

*Instructions:* Check the description that best matches your team.

Type of Team	Description
<input type="checkbox"/> Network	Team membership is diffuse and fluid; members come and go as needed. Team lacks clear boundaries with the organization.
<input type="checkbox"/> Parallel	Team has clear boundaries and distinct membership. Team works in short term to develop recommendations for an improvement in a process or system.
<input type="checkbox"/> Project or Product Development	Team has fluid membership, clear boundaries, and a defined customer, technical requirement, and output. Longer-term team task is nonroutine, and team has decision-making authority.
<input type="checkbox"/> Work, Functional, or Production	Team has distinct membership and clear boundaries. Members perform regular and ongoing work, usually in one functional area.
<input type="checkbox"/> Service	Team has distinct membership and supports ongoing customer, network activity.
<input type="checkbox"/> Management	Team has distinct membership and works on a regular basis to lead corporate activities.
<input type="checkbox"/> Action	Team deals with immediate action, usually in an emergency situation. Membership may be fluid or distinct.

#### Part 2. Team Complexity

*Instructions:* Check as many as apply.

My team . . .

- |  |                          |
|--|--------------------------|
| 1. Has members from more than one organization   | <input type="checkbox"/> |
| 2. Has members from more than one function   | <input type="checkbox"/> |
| 3. Has members who transition on and off the team  | <input type="checkbox"/> |
| 4. Is geographically dispersed over more than three contiguous time zones                            | <input type="checkbox"/> |
| 5. Is geographically dispersed so that some team members are 8–12 hours apart                        | <input type="checkbox"/> |
| 6. Has members from more than two national cultures  | <input type="checkbox"/> |
| 7. Has members whose native language is different from the majority of other team members            | <input type="checkbox"/> |
| 8. Has members who do not have equal access to electronic communication and collaboration technology | <input type="checkbox"/> |
| 9. Has members who are not formally assigned to the team.  | <input type="checkbox"/> |
| Total number of categories checked:  | <input type="checkbox"/> |

Complexity Index: 1–2 = some complexity; 3–5 = moderate complexity; 6–8 = high complexity

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## Critical Success Factors for Virtual Teams

The business justification for virtual teams is strong. They increase speed and agility and leverage expertise and vertical integration between organizations to make resources readily available. Virtual teams also lessen the disruption of people's lives because the people do not have to travel to meet. Team members can broaden their careers and perspectives by working across organizations and cultures and on a variety of projects and tasks.

Although the effective use of electronic communication and collaboration technology is fundamental to the success of a virtual team, virtual teams entail much more than technology and computers. When virtual teams and their leaders are asked about successes and failures, they rarely mention technology as a primary reason for either. Bill Davidow, a former executive with Intel and Hewlett-Packard, comments: "Information and communication technology provides an infrastructure for the corporation to communicate with customers and deliver information necessary for decision making. . . . If management insists on maintaining a purely functional organization or does not empower workers, information systems will add little value."<sup>4</sup>

There are seven critical success factors for virtual teams, of which technology is only one. The others are human resource policies, training and development for team leaders and team members, standard organizational and team processes, organizational culture, leadership, and leader and member competencies. These are discussed in more detail later in this chapter.

Of course, all the critical success factors do not have to be in place for virtual teams to succeed. The mere implementation of virtual teams can actually put an organization on the road toward success. Because successful virtual teams require certain conditions, the existence of the teams will, over time, help bring about the infrastructure conditions that make them work.

Teams usually recognize that they need certain things to succeed, such as high levels of autonomy to do their jobs, standard team initiation processes, structured communication plans, and appropriate electronic communication and collaboration technology for all team members. Organizations that are most successful recognize that while all the factors do not need to be in place at once, there needs to be a plan to ensure that factors are systematically addressed. Many of the processes that organizations formally institutionalize get their start through the "bootstrap" approach of their first virtual teams.

This book is not specifically about preparing the organization for virtual teams. Its focus is on tools and techniques for team leaders and team members. However, team leaders and members influence the implementation of critical success factors that are associated with team success.

Let's take a look at the critical success factors for organizations. First, complete the diagnostic tool in Checklist 1.2. Your results can direct your attention to the categories of success factors that affect your situation. Although you may not be able to influence all of them, the results can serve to direct your actions when it is possible or help you develop a case to present to management for virtual team resources.

Seven factors affect the probability of a virtual team's success:

- Human resource policies
- Training and on-the-job education and development
- Standard organizational and team processes
- Use of electronic collaboration and communication technology
- Organizational culture
- Leadership support of virtual teams
- Team leader and team member competencies

## Human Resource Policies

Human resource policies should support working virtually. Systems must be integrated and aligned to recognize, support, and reward the people who work on and lead virtual teams.

**Career Development Systems.** Team leaders can help support virtual team members by providing career opportunities and assignments that are comparable to those in traditional team settings. Applying promotion and career development policies and actions fairly to people who work in virtual settings helps reinforce the perception that working virtually is an accepted career option. Virtual team members often mention the fear that they will be overlooked for promotional opportunities because they are not seen every day. This fear is not unfounded. Managers who lose visual and verbal proximity to their employees often put up the strongest resistance to alternative work and team arrangements.<sup>5</sup> Virtual team leaders must ensure that the members of virtual teams have the same career development opportunities as the members of traditional teams.

**Rewarding Cross-Boundary Work and Results.** Organizational reward and recognition systems often favor individual and functional work. Virtual team members, however, frequently operate in a cross-functional or cross-organizational environment. Changes must be made in the ways in which people are recognized and rewarded. Leaders must develop performance objectives for team members that include working across boundaries and sharing information to support virtual teamwork.

In addition, performance measures must be adapted to reward results. In a traditional office environment, where people are seen putting in effort every day, it is relatively

## CHECKLIST 1.2. ASSESSING CRITICAL SUCCESS FACTORS.

*Instructions:* Check the response that best matches your organization on each item.

<b>Section One: Human Resource Policies</b>	<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Neither Agree nor Disagree 3</b>	<b>Agree 4</b>	<b>Strongly Agree 5</b>
1. Career development systems address the needs of virtual team members.					
2. Reward systems reward/recognize working across boundaries and working virtually.					
3. Results are what is rewarded.					
4. Nontraditional work arrangements, such as telecommuting, are actively supported.					
<b>Section Two: Training and Development</b>	<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Neither Agree nor Disagree 3</b>	<b>Agree 4</b>	<b>Strongly Agree 5</b>
5. There is good access to technical training.					
6. There is access to training in working across cultures.					
7. There are methods available for continual and just-in-time learning, such as Web-based training.					
8. There are mechanisms, such as lessons-learned databases, for sharing across boundaries.					

*(continued)*

**CHECKLIST 1.2. (CONTINUED).**

<b>Section Three: Standard Organizational Processes</b>	<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Neither Agree nor Disagree 3</b>	<b>Agree 4</b>	<b>Strongly Agree 5</b>
9. There are standard and agreed-on technical team processes used throughout the organization and with partners.					
10. There are standard and agreed-on "soft" team processes used throughout the organization and with partners.					
11. Adaptation of processes is encouraged when necessary.					
12. The culture supports shared ways of doing business across teams and partners.					
<b>Section Four: Electronic Communication and Collaboration Technology</b>	<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Neither Agree nor Disagree 3</b>	<b>Agree 4</b>	<b>Strongly Agree 5</b>
13. There are consistent standards for electronic communication and collaboration tools across the organization.					
14. There are ample resources to buy and support state-of-the-art electronic communication and collaboration technology.					
15. People from all functional areas have equal access to, and are skilled in using, electronic communication and collaboration technology.					
16. People from all geographic areas have equal access to, and are skilled in using, electronic communication and collaboration technology.					

*(continued)*

**CHECKLIST 1.2. (CONTINUED).**

<b>Section Five: Organizational Culture</b>	<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Neither Agree nor Disagree 3</b>	<b>Agree 4</b>	<b>Strongly Agree 5</b>
17. The culture can be described as "high trust."					
18. There is high trust between this organization and its suppliers and partners.					
19. Teamwork and collaboration are the norm.					
20. People from different cultures are valued here.					
<b>Section Six: Leadership</b>	<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Neither Agree nor Disagree 3</b>	<b>Agree 4</b>	<b>Strongly Agree 5</b>
21. Leaders set high expectations for virtual team performance.					
22. Leaders help gain the support of customers and other stakeholders.					
23. Leaders allocate resources for the training and technology associated with virtual teams.					
24. Leaders model behaviors such as working across boundaries and using technology effectively.					

*(continued)*

**CHECKLIST 1.2. (CONTINUED).**

<b>Section Seven: Competence</b>	<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Neither Agree nor Disagree 3</b>	<b>Agree 4</b>	<b>Strongly Agree 5</b>
25. Team leaders are experienced in working in virtual environments.					
26. Team members are experienced in working in virtual environments.					
27. Team leaders are experienced in working across organizational and cultural boundaries.					
28. Team members are experienced in working across organizational and cultural boundaries.					
<b>Analyzing Your Results</b>					
Average your scores in each of the seven areas:					
<b>Critical Success Category</b>	Average Score in this category (add total and divide by 4):				
Human Resource Policies					
Training and Development					
Standard Organizational Processes					
Electronic Communication and Collaboration Technology					
Organizational Culture					
Leadership					
Competence					
Overall average (total divided by 28):					

An overall score of 4.0 to 5.0 in any one category and as an average of all categories is excellent.

Moderate scores are in the 2.5 to 3.99 range, and low scores fall between 0 and 2.49.

Low scores in specific areas may indicate some of the challenges you face as a virtual team leader. Scoring low in technology, for example, may tell you that all your team members may not have equal access to electronic collaboration technology. In this case, you may need to make a case for funding for groupware. The text provides an explanation of each category and actions to attain success criteria.

easy to at least partially reward people for effort as well as for results. In a virtual environment, effort is more difficult to discern. When IBM went to a virtual environment, a shift to a reward structure that was based more on results than on effort was a major part of the transition.<sup>6</sup> Translating measures of performance from a face-to-face environment into ones that work in a virtual environment involves working to make all performance measures focused on outcomes. It is important to note that when measures are changed for virtual team members, they must also be changed for in-house team members.

The use of formal and informal recognition of virtual teamwork through “on the spot” awards, bonuses, and other mechanisms can also reinforce the perception that working virtually is valued. You can use Web-based technology, such as setting up a site for virtual team “best practices” and advertising team successes and performance, as a way to publicly recognize people in a virtual setting. You also can use examples of your virtual team’s success in speeches, presentations, and discussions with other team leaders and with management.

***Providing Resources and Support for Working Virtually.*** Create and support policies that provide your team with technical support for working remotely. All team members should have equal and immediate access to electronic communication and collaboration technology, training, and technical support. Many virtual team leaders set a standard for technology and make certain that everyone has access to the same hardware, intranet and Internet connections, and applications. They ask the information systems group to assist in the implementation. Many organizations now have “virtual SWAT teams” that help virtual team members set up their systems to ensure that they have access to the best and latest technology.

## **Training and On-the-Job Education and Development**

Formal training in using technology is vital for success. For example, team leaders at the World Bank believed that underfunded technological training for team leaders and team members was one reason that their efforts to implement groupware did not fully succeed the first time. Money was spent on the technology—machines, applications, and compatibility—but not on teaching people how to effectively use it.<sup>7</sup>

Learning how to use technology is not enough to guarantee success. Team leaders should make certain that they get the training and support they need to be adept at facilitating meetings using technical and nontechnical methods. Training in facilitation skills should also be an integral part of a development curriculum for team leaders and team members.

In addition to a formal training curriculum in using technology and facilitation, make certain that the team members have access to continual online training and

technical support on other relevant topics such as working collaboratively and working across organizational boundaries. Ask your training department about the feasibility of creating and implementing these types programs for virtual team members. Most organizations who use virtual teams effectively now provide many of their technical and leadership classes through their intranet, so people can select when and where they want to learn. In addition, training, tools, and support are upgraded on a regular basis to ensure that they are state-of-the-art.

Create and implement systems for sharing knowledge across functions, projects, and organizations. Shared lessons, databases, knowledge repositories, and chat rooms are used in organizations that embrace virtual teamwork. Some company Web sites contain places where “lessons learned” are stored. They also have bulletin boards where team leaders can ask questions and receive suggestions from other team leads.

### **Standard Organizational and Team Processes**

Consider developing and implementing standard team processes. The use of standard processes reduces the time needed for team startup and may eliminate the need for unnecessary reinvention of operating practices each time a team is chartered. Practices need to be flexible, however, to promote adaptation to a particular virtual team’s situation. Common standard technical processes, especially for parallel, project, or network teams, might include the following:

- Definitions of requirements
- Estimates of costs
- Procurement
- Team charters
- Project planning
- Documentation and document sharing
- Reporting
- Controlling

It also is a good idea to define the preferred software for each of these major processes. Many organizations use standard project management software packages so that any team, virtual or face-to-face, is familiar with and trained in using that package.

All successful virtual teams have agreed team processes in “soft” areas such as the establishment of team norms, conflict resolution procedures, and communication protocols. Experienced virtual teams also prepare team charters that delineate suggested team norms and communication standards. They use these as starting points to come

up with processes suitable for their unique situations. Reinforce and expect the use of both technical and soft processes from the team.

## Electronic Collaboration and Communication Technology

As a virtual team leader, you will need to select electronic collaboration and communication technology that meets the needs of your team and the situation. You also will need to ensure that the organization is ready to support your technical needs. Introducing the electronic communication and collaboration technology needed for virtual teamwork, such as desktop videoconferencing, team Web sites, or groupware, requires that four primary organizational conditions be in place:<sup>8</sup>

1. The organization has a well-funded, respected, and established information systems staff whose members are experienced in installing and supporting electronic collaboration technology in many different locations.
2. There is commitment by the organization to keep personal computer systems as up-to-date as possible, regardless of a person's title or duties. When systems fall behind, the costs of upgrades and the time to introduce them mounts quickly. Productivity may also fall as people spend time attempting to fix their equipment or work around it.
3. The organization has a well-maintained corporate network that has room to expand to meet the needs of more complex systems and users.
4. The organization has a set of leaders who are willing to model the use of advanced forms of electronic collaboration and communication technology.

If your organization is lacking in any of these four areas, you might consider adopting a less complex technology suite. In either case, it is important to select a reasonable set of standards for your team in electronic communication and collaboration technology. Standards should meet the business needs of the team and match its mission and strategy.<sup>9</sup> A team that needs to communicate and work collaboratively, for example, must have a minimum set of standards for technology. For communication, this includes phones, audioconferencing equipment, voice mail, fax capability, and access to a common e-mail system that allows people to send messages and exchange files and access to the company's intranet or the Internet. Videoconferencing, calendar scheduling, real-time data conferencing, electronic meeting systems, collaborative writing tools, personal computing devices, team Web sites, instant messaging, and whiteboards can be added if the strategy calls for intensive collaborative work or if sufficient information systems resources exist to make the technology work reliably. Make certain that external partners and suppliers have access to compatible communication and collaboration technology if they are considered part of the team.

Ensure that skill in using the electronic communication and collaboration technology is equally distributed among team members from different functional areas, geographical locations, and partner organizations. Often skill and use of electronic communication and collaboration technology is more prevalent in technical functions, such as engineering and information systems, than in less technical areas, such as marketing, human resources, and finance. If this is the case, there is a risk that team members from less technical areas may be perceived by other teammates as having less status.

Ensure that the technology used by each virtual team is available to all team members, wherever they are located. One team leader ran into trouble when some of her team members in a partner organization in a developing country did not have access to the same type and level of technology as the team leader. Some organizations and national cultures use technology to signify status or just have trouble affording new technology. Of course, this puts the team members at a disadvantage relative to their teammates and decreases productivity.

Finally, factor electronic collaboration hardware and software directly into the team's budget. It is important to recognize that the benefits of technology grow over time. Virtual teams do reduce costs, but often there is an up-front and long-term investment for technology and training to make them work effectively. The more people and teams work virtually, the more quickly these business practices will translate into savings.

## Organizational Culture

Organizational culture includes norms regarding the free flow of information, shared leadership, and cross-boundary collaboration. Help create organizational norms and values that focus on collaboration, respecting and working with people from all cultures, keeping criticism constructive, and sharing information. The organization's culture sets the standard for how virtual team members work together. An adaptive, technologically advanced, and nonhierarchical organization is more likely to succeed with virtual teams than a highly structured, control-oriented organization.<sup>10</sup>

The success of virtual teams is related to how the organization fosters or impedes trust between itself and its external partners. Treating partners as less than equal, hoarding information, forgetting to share data or results in a timely manner, and using competitive or proprietary information inappropriately can erode trust quickly.

If the organization is multinational or global, norms must honor different ways of doing business if they are to be effective. Devise policies for doing business in different cultures. Be aware that legal issues, such as who owns the copyrights on designs, can become murky when teams are working across national boundaries.<sup>11</sup>

Many virtual team leaders cannot affect organizational culture with the same clout as senior managers can. It is possible, however, to create a "microclimate" that supports

effective norms and values. Team leaders who act in a conscious manner to build trust across boundaries and to share information and power create environments in which this type of culture can grow from the ground up.

## Leadership

For virtual teams to succeed, the organization's leadership must establish a culture that values teamwork, communication, learning, outcome-based performance, and capitalizing on diversity. The key to establishing an organizational culture that promotes virtual teamwork is that managers and virtual team leaders at all levels must be open to change and must support virtual teamwork (see Table 1.1).

Virtual team leaders and members can help managers develop supportive behaviors. They can offer specific suggestions to management regarding the four categories of leadership behaviors that encourage virtual team performance: communicating, establishing expectations, allocating resources, and modeling desired behaviors.

First, it is critically important to communicate throughout the organization that working across time and distance and with organizational partners is not just a temporary fad but a new way of doing business, one that leverages knowledge and skills and capitalizes on diversity. This includes assigning virtual teams important and high-visibility tasks and projects and reporting the benefits and results of their work so that virtual teamwork is respected in the organization.

**TABLE 1.1. LEADERSHIP BEHAVIORS THAT SUPPORT VIRTUAL TEAM SUCCESS.**

<b>Communicating</b>	<b>Establishing Expectations</b>	<b>Allocating Resources</b>	<b>Modeling Behaviors</b>
<ul style="list-style-type: none"> <li>• Communicate the business necessity of virtual teams.</li> <li>• Communicate that virtual teamwork is respected.</li> <li>• Discuss the value of diversity and of leveraging skills.</li> <li>• Communicate the benefits and results of working virtually.</li> </ul>	<ul style="list-style-type: none"> <li>• Define how virtual teams work and set clear procedures and goals.</li> <li>• Set high standards for virtual team performance.</li> <li>• Establish expectations of customers and other important stakeholders.</li> <li>• Factor in startup costs and times.</li> </ul>	<ul style="list-style-type: none"> <li>• Allocate time and money for training for virtual team leaders and members.</li> <li>• Allocate time and money for travel for team leaders for face-to-face meetings.</li> <li>• Dedicate resources for technology.</li> </ul>	<ul style="list-style-type: none"> <li>• Align cross-functional and regional goals and objectives.</li> <li>• Work together on management team across geographic and cultural boundaries.</li> <li>• Solicit input from and display trust in team members.</li> <li>• Show flexibility.</li> </ul>

Second, it is important to establish clear expectations about how virtual teams work. Procedures and goals must be clear so that virtual team members know how they are to work and what their objectives are. With all the new things they must learn about operating in a virtual team, the team members need clear guidelines and objectives to steer by. The other members of the organization also need to understand how virtual teams operate and that the teams' end goals are aligned with organizational objectives and are in effect the same as those of traditional teams. Setting high expectations for performance also strengthens the perception that virtual teams deliver results.

It also is important to gain the support of customers and other major stakeholders by helping them see the benefits of virtual teamwork. This includes establishing expectations about the virtual work environment and how virtual teamwork is going to affect their contacts with team members. Leaders must stress the benefits, such as lower costs and what the stakeholders have to gain, and find ways to make customers part of the change. One best practice is to invite external customers who work with virtual teams to team kickoff sessions in which norms and communication plans are discussed. Customers and other stakeholders can also be offered training in team technology. Customers can be provided with software to "sit in" on team meetings. This helps customers who are unsure of the virtual team approach become more comfortable with it.

Leaders can also work with stakeholders such as leaders and managers from other functions or suppliers who interface with the teams, to help them understand and support the virtual team concept. They can make it clear to peers and to other managers in the organization that virtual teams work as hard and as productively as traditional teams. Leaders can become adept at providing evidence, including schedule and cost data, to sway more skeptical stakeholders. Finally, they can help establish reasonable expectations about the time it takes to realize a return on the investment. The paradox is that the complexities of working across time and distance can, in the short run, lead to increased costs and longer cycle times because of difficulties with operating procedures and startup issues.<sup>12</sup>

Third, leaders who allocate resources for training, technology, and travel send strong signals that bolster the message that virtual teams are important. Chartering virtual teams to work in an underfunded environment is a prescription for failure. Time and money must be allocated for training for virtual team members in areas such as cross-cultural work, project management, and technology. Time and money must be allocated for team leaders to travel for face-to-face meetings with team members at the beginning of the team's life and whenever necessary thereafter. Resources must also be dedicated to acquiring and maintaining the technology needed to facilitate the team's work.

Fourth and most important, effective leaders model the behaviors they expect. They align cross-functional and regional goals and objectives. They work with other

managers across geographical and cultural boundaries. They solicit team members' input and demonstrate trust in their judgment, particularly in the members' functional areas of expertise. Effective team leaders show flexibility, changing as business conditions dictate. They do not expect behaviors from others that they do not engage in themselves.

### **Team Leader Competencies**

The challenges that virtual team leaders face are immense. Many report that they feel as if they are the “glue” that holds their teams together. They have to establish trust in an environment with little or no face-to-face contact or feedback. These challenges necessitate the development of an additional set of competencies that complement the skills for leading traditional teams. These competencies are as follows:

1. Coaching and managing performance without traditional forms of feedback
2. Selecting and appropriately using electronic communication and collaboration technology
3. Leading in a cross-cultural environment
4. Managing the performance, development, and career development of team members
5. Building and maintaining trust
6. Networking across hierarchical and organizational boundaries
7. Developing and adapting organizational processes to meet the demands of the team

Team leaders can champion their own development by deliberately undertaking training and on-the-job assignments that build competence in these areas. Each area of competence is covered thoroughly in Chapter Four.

### **Team Member Competencies**

The people who work as virtual team members have to develop their own competencies. First, virtual teamwork is not for everyone. Serving on a virtual team may seem too transitory for some individuals who need face-to-face interaction and stability in a work environment. Without the structure of a real-world setting and day-to-day contact with team members, they may feel alone or adrift.

All members of traditional and virtual teams need solid grounding in their respective disciplines. However, virtual team members need new competencies. Team leaders can help facilitate competency development by working with team members to devise learning plans that use training and on-the-job assignments. The definitions

of team member competencies will vary, depending on the team's type, mission, and composition. There is, however, a relatively stable set of six critical competencies:

1. Project management techniques
2. Networking across functional, hierarchical, and organizational boundaries
3. Using electronic communication and collaboration technology effectively
4. Setting personal boundaries and being assertive about being included
5. Managing one's time and one's career
6. Working across cultural and functional boundaries
7. A high level of interpersonal awareness

Over time, most people can develop the competencies that are needed to work virtually. Adequate training, education, and leadership support and feedback can speed development. More detail about team member competencies is provided in Chapter Six.

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## Points to Remember

1. Virtual teams are more complex than traditional teams because of factors associated with working across time, distance, and organizational boundaries and the need to use technology to communicate and collaborate. Many employees now and in the future will never obtain the baseline set of skills associated with working on or leading a real-world team but will instead jump right into leading virtual teams.
2. There are many different types of virtual teams. In fact, most organizations use some aspects of virtual teaming—specifically, using electronic communication and collaboration technology to communicate even when team members work in the same building.
3. There are seven critical success factors associated with success, and organizational leaders, virtual team leaders, and members have an influence on them.