Telecommuting: Implementation for Success

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Abstract

Telecommuting as an alternative to conventional arrangements by which employees perform their job functions has experienced tremendous growth in recent years. While such practice is rooted in the premise that telecommuting is beneficial to both the workers and the corporations alike, in a surprising number of instances it has failed to deliver its initial promises. Based on a synthesis of prior research and published industry best practices, this article identifies and discusses a number of critical success factors that a company must consider when implementing a telecommuting program and expecting a reasonable chance of success.

Keywords: Telecommuting, Telecommuting Program Implementation, Remote Worker Management, Telecommuting Rules and Policies

1. Introduction

Telecommuting, also known as telework, is the use of telecommunication technologies to allow employees to perform their job duties remotely, away from their central workplace, in accordance with work agreements. The remote work locations may range from a coffee shop, a park, or even the beach, although it is typically conducted from an employee's home. Since the 1990s, telecommuting as a business practice has grown significantly due to the increasing pressure on companies to cut costs and to increase employee productivity. Companies are now challenged to initiate more flexible thinking for the new "corporate office." In addition, the expansion of broadband Internet services to employee's homes and the convergence of voice, data and video over a common IP framework have made telecommuting a viable option – and sometimes a requirement – for medium to large-sized businesses in today's marketplace.

The benefits of telecommuting, both actual and perceived, are well-documented: increased employee productivity, increased quality contact with customers, better work-life balance for employees, reductions in corporate real estate expenses, and reductions in traffic congestion and air pollution. In addition, the ability to telecommute is also considered an attraction to job candidates. In the meantime, companies implementing telecommuting programs may also face significant challenges. Most frequently cited problems include: difficulties in supervising and managing remote workers, feelings of isolation on the part of the employees, collaboration inefficiencies due to a lack of proximity among workers, and increased security risks.

This article is intended for those organizations that have either an existing telecommuting program or are planning to launch such a program. Based on a synthesis of prior research and published industry best practices, the paper discusses a number of critical success factors that an organization must consider when deploying a telecommuting program. Companies that plan and execute carefully around these factors often reap the benefits of a smoother telecommuting program implementation, while those that fail to consider these issues adequately are more likely to be disappointed.

2. Success Factors

Deploying a successful telecommuting program requires much more than simply providing a high-speed Internet connection and a computer. A substantial amount of planning must take place to accommodate specific policies and procedures, technology selection, training, technical support, cost and budget management, and user satisfaction. Companies must begin by carefully planning and documenting the key phases of the implementation.

What follows is a list of primary concerns or factors that must be handled appropriately. The rest of the article presents a detailed discussion of these factors.

- Eligibility – Selection criteria and requirements for participation
- Technological infrastructure support
- Telecommuting worker training and help desk support
- Remote worker management and performance evaluations
- Telecommuting rules and policies
- Telecommuter agreement & contract

3. Eligibility

Telecommuting is not for everyone. It entails working in a location that is physically isolated from coworkers. It should not be assumed that an employee with a history of excellent performance in the office would be able to replicate his/her results at home. Personal and work-related factors exist that may very well affect the performance of a telecommuter.

3.1 Personal Factors

In general, telecommuters should possess certain personality traits for them to be effective when telecommuting. In addition to direct supervision, there are many tools that can help assess the personality traits of the employees. It is recommended that managers use personality tests that assess these different traits. Many of these tests are readily available online. A good candidate for telecommuting should be professional, dependable, resourceful, and self-reliant. S/he is a team player, communicates well, and should have a reasonable amount of knowledge of the technologies used for telecommuting.

Professionalism: A good candidate should have demonstrated that past assignments have been completed with professionalism. Professionalism is indicative of the candidate being mature, responsible, and business-like. As an employer, this should be one of the criteria to decide whether an employee can be trusted with work while outside of the office.

Dependability: The candidate must also have demonstrated that s/he can be depended upon. Dependability can be assessed by evaluating the punctuality of the candidate and how promptly e-mails or calls are replied. Most importantly, the candidate should have demonstrated that s/he can be relied upon by having successfully completed prior assignments. This evaluation would serve as a great predictor of whether assigned work will be performed in a timely manner.

Resourcefulness: Working at home also requires that the employee be resourceful while performing his/her job functions. A good candidate should be able to handle any challenges that come up. Manager or supervisors may not always be available all the time to answer questions, and the telecommuter will be expected to resolve these challenges independently. Resourcefulness could be evaluated by how the telecommuting candidate has handled project-related issues in the past. The ability to find feasible solutions to prior challenges demonstrates problem-solving skills required while working alone.

Communication: Since the telecommuter will be isolated from his/her manager and co-workers on a regular basis, it is also important to stay in contact frequently. This includes not only being able to answer email and return phone calls quickly, but also being proactive by asking questions and otherwise making it known that the telecommuter is involved and committed to the work. In situations where the telecommuter is assigned to a project team, communicating effectively with team members becomes crucial when collaborating in the assigned project.

Other Personality traits that should also be considered include:

- Strong job skills and high level of job knowledge
- Has volunteered for telecommuting
- Demonstrates high productivity
- Is well organized and has good time management skills
- Is achievement-oriented and has high standards in job performance

- Requires minimal supervision and is capable of assessing own performance
- Desires to master new skills and continue learning

Overall, good telecommuting candidate look for interesting work, increased responsibility, and personal growth. They value recognition for achievement. Telecommuting demands a certain level of independence of the telecommuter. An employee who is highly experienced in his or her field and has had a period of adjustment in the organization is more likely to adapt easily to the independent nature of telecommuting. Breadth of job experience enables the telecommuter to handle work-related issues independently rather than relying on the supervisor to provide guidance or resolution. A primary objective of the initial screening process, therefore, must be the identifications of those employees who are already working successfully in their given occupation by demonstrating such qualities as independence, organization and concentrated effort that are conducive to telecommuting.

3.2 Work-Related Factors

In addition to an employee's personal characteristics, it is important to consider the nature of his/her job responsibilities. On a case-by-case basis, managers should look at the job description of the employee. The manager should assess whether the employee's responsibilities are suitable to be performed independently, and at an off-site location. For example, job functions that involve mostly indirect customer services are more suitable for telecommuting, while jobs that require special tools or equipment are not.

Many companies have in their possession confidential and possibly trade secret data. The existence of such data may potentially render telecommuting impractical due to obvious security concerns. While technological solutions such as virtual private networks (VPNs), firewalls, and Secure Socket Layer (SSL) can mitigate some of the risks, companies should, and many of them do, have specific policies on remote access to corporate systems and databases. Full-time telecommuters, for example, should generally be given the remote access rights provided that adequate security procedures are strictly followed. Part-time telecommuters, on the other hand, might be given off-site job assignments that do not require access to corporate databases. Finally, employees who handle classified data might be considered ineligible for telecommuting altogehter.

4. Technological Infrastructure Support

A comprehensive telecommuting program strategy includes a technical architecture that is well planned and evaluated within the context of a company's existing local area network (LAN) and wide area network (WAN) environment. The goal is to create an optimal support environment that:

- Leverages the existing network infrastructure to create a seamless "extension of the LAN" to telecommuters
- Minimizes security risks
- Establishes a framework for adding additional services such as voice over IP (VoIP) and video
- Maximizes supportability via use of industry standards

4.1 Network Infrastructure

One of the first considerations is to select the type of remote access technology. The choices range from slow, cumbersome dial-up to expensive, dedicated private circuits. For most telecommuting programs however, the best choice is the use of virtual private network (VPN) technologies over an inexpensive, broadband public Internet access service. Depending on whether the telecommuter is stationary or on the move, such services can be digital subscriber lines (DSL), cable modems, public Wi-Fi hotspots, 3G/4G cellular networks.

Alternatively, for extremely sensitive data, a network provider that can offer a "private" IP environment may be considered. Typically these providers have interconnected their backbone circuits privately with "last mile" broadband providers and can keep the telecommuting traffic off the public Internet and on their private links. This is generally more expensive than using VPNs and the public Internet for transport.

Regardless of whether the public Internet or a private transport is used for connectivity, for telecommuters there are two main VPN technology models to choose from: Secure Socket Layer (SSL), and IP-Security (IPSec).

In either model, the telecommuter's data transmission traffic is "encrypted and tunneled" to a corporate security device (VPN gateway) where it is validated and "decrypted" through the corporate firewall into the corporate network.

In an SSL model, an encrypted data exchange called a session is established between a Web browser application, such as Internet Explorer, Firefox, or Safari, and a Web server application. Therefore SSL-based VPNs typically only provide security to Web-enabled applications such as email or Web portals. Applications that require client software, such as ERP or CRM systems, are therefore relegated to IPSec VPNs. In recent years, however, some vendors have released client-based versions of their SSL VPN offering, in which users launch an "application window" to run non-web-enabled applications.

In an IPSec model, a secure, encrypted data path is established between the user's computer and the host server, typically a VPN gateway. For IPSec VPNs, the next decision is to determine how the VPN sessions will originate. Specifically, the decision must be made between software-based VPN technology and a hardware-based VPN appliance. In the software-based model, only the traffic coming to and from the telecommuter's PC is encrypted in VPN tunnels, while in the hardware-based model all traffic going through the appliance is encrypted. An important factor in determining the best model is understanding and accommodating other Internet traffic from inside the telecommuter's residence. If the telecommuter has other PCs that access the Internet from the broadband connection or lives with another telecommuter working for a different company, then the best course is to utilize a software-based VPN installed on the telecommuter's business PC. While hardware VPN appliances can be configured to only tunnel traffic originating from specific PCs on the telecommuter's home network and user authentication is required to access corporate resources, many companies feel more comfortable establishing the VPN session directly from the telecommuter's PC.

4.2 Hardware Management

In addition to the desktop or laptop computers, there must be Customer Premise Equipment (CPE) to terminate the DSL, cable, or other broadband connections. In some cases, this is simply a modem that connects the broadband service to the telecommuter's PC, while in other cases it could be a combination of equipment including a router, switch, wireless access point, firewall, or VPN appliance. As is the case with most large scale technology deployments, standardization is critical to maintaining adequate support levels. Because the disparate broadband Internet service providers are likely to have their own CPE standards that may or may not match those of others, driving standardization becomes a difficult challenge. From a support perspective, managing all the different CPE devices and understanding their configuration utilities to set up filters, firewalls, access lists and provide upgrades can be a major undertaking. Moreover, if VPN appliances, wireless access points, or switches/routers to connect multiple PCs are deployed, the telecommuter can quickly amass a stack of equipment complete with patch cords, power supplies, etc. that could result in an unsafe, unreliable, or overheated environment.

4.3 Value-added Applications

When deploying a telecommuting program it is important to plan ahead and attempt to "future-proof" the investment. Standards-based technologies and an open framework should be selected to support additional IP services and tools as they become relevant. An inexpensive dial-up backup strategy might be considered for those rare times when the broadband connection is unavailable. This could be an automated "dial failover" that initiates a dial VPN session from the CPE if the primary link goes down, or it could be a simple process of training users to use their manual dial-up VPN capabilities if the broadband service becomes unavailable.

To improve communications with other telecommuters and employees in traditional offices, the use of online collaboration tools, web-based "presentation rooms," and desktop video conferencing should be considered. IP Telephony can be an extremely effective means of eliminating long distance phone calls between the telecommuter and headquarters. High-speed broadband connections and secure VPNs make the use of Web-cameras and online meetings a viable option. Telecommuters are going to request these value-added applications, so CIOs must think ahead and communicate a technology roadmap. By articulating the plans for improved and expanded services, telecommuters will be less inclined to "do it themselves" and thus an increase in demand for support. Moreover, a well articulated plan will make for more satisfied telecommuters and create volunteers to help develop and champion innovations.

Managers should also be familiar with the current technology available to telecommuters. Telecommuters should be given the right tools so that they can better perform their work. Telecommuters that work independently from other employees should have access to the systems and applications that allow them to complete their tasks. Telecommuters who work in teams should have sufficient communication tools to facilitate collaboration among team members as well as to communicate with their supervisors. Based on the technology available, managers should decide whether the infrastructure is fitted to accommodate the job requirements of the telecommuter.

5. Training

The success of a telecommuting program can to a large extent hinge on the adequacy of training. The issue of training is two-fold. First, users (telecommuting workers) must be trained to use the technologies necessary to perform their job functions from home or a remote location. Second, IT personnel must be trained to provide the users with the technical support (help desk) services whenever and wherever needed.

It is important that all employees participating in a telecommuting program have a basic level of knowledge in the operation of computer and network applications. It is advisable that each participant be given a proficiency examination before starting the program. The result of the exam can then be used to screen those users who need additional training. It is also important that all telecommuters attend a security awareness training program, perhaps once a year. Such programs will allow employees to receive continuous education on the latest security threats and the corresponding countermeasures relevant to the telecommuting setting.

With few exceptions, the job of help desk representatives is one of the most challenging in today's technology driven work environment. Those who seek expert help by phone or email are often perplexed, stressed out, or downright angry. They want answers, results, solutions — and they want them *now*.

Therefore, help desk personnel must be provided with training for effective listening, questioning, and problem-solving, as well as how to write clear, accurate email responses and follow-up reports that will answer users' requests and satisfy their managers' expectations. They should also be given "life-preserving" techniques to help reduce stress and maintain enthusiasm and productivity while dealing with even the most difficult clients.

The Help Desk personnel should be trained on at least the following issues.

- Identify the users, positions and location professionally for security reasons.
- Identify the types of requests they most frequently receive while operating the help desk.
- Understand users' individual communication styles for the purpose of making adjustments to best handle their problems.
- Cite responses they should provide and those they should avoid when trying to resolve users' issues.
- Comprehend the importance of keeping emotions in check when dealing with difficult people.
- Practice stress-reduction techniques to minimize the possibility of anxiety, anger, and job burnout.
- Recognize the components of clearly written email solutions for users, knowledge-base entries for coworkers, and incident reports for their supervisors.

6. Telecommuter Management and Performance Evaluation

Managing on-site employees can be difficult, but it is even more challenging to manage employees at a remote location. Telecommuting raises numerous management issues as it creates an environment in which very little or no supervision exists. Companies should assess their existing management policy so that any weaknesses can be addressed before telecommuting is implemented.

Managers of telecommuting must sharpen their basic skills, including performance measurement by results, effective interpersonal communications, mastery of electronic tools, and leadership and team building. A successful management approach to telecommuting requires a blend of soft skills, performance-tracking software, and the use of technology as a telecommuting enabler and a medium for communication. The following are general rules a manager should follow when managing telecommuters.

a. **Identify tasks suitable for remote work:** Managers will tend to decide which job positions may or may not be suitable for telecommuting. Instead, managers should focus on which tasks can be performed in a telecommuting environment. A focus on the nature of tasks rather than the title of a job position makes it easier to identify the right candidates for telecommuting, and whether these employees will be able to telecommute on a full- or part-time basis.

b. **Establish the ground rules:** The only way telecommuting relationships will be successful is if all participants use the same rulebook. Uniform telecommuting policies and Procedures should be developed and made available to telecommuters and managers, who can then be expected to harmoniously interact and avoid misunderstandings.

c. **Practice effective meeting management:** Meetings are a necessary part of any organizational process. This becomes more important for employees who collaborate on the same projects while telecommuting. Managers should schedule in-person meetings often enough to warrant the cohesiveness of the team. It is recommended that meetings be held on a weekly basis, but this may vary depending on the team cohesiveness, and the nature of the work being performed.

d. **Provide effective support:** A telecommuter with broken or unreliable equipment is the equivalent of not working at all. A manager's duty is to ensure that the telecommuters are provided with adequate equipment, contingency options, documentation for troubleshooting, and around-the-clock help desk support.

e. **Manage all direct reports by results:** Effective management for telecommuters shall be based on work achieved. By managing the work output, managers will be able to keep performance at acceptable levels regardless of the amount of supervision. Using the work output as measurement for performance also makes keeping track of telecommuters more effective.

f. **Communicate:** Communication is an important role that all managers must perform well. Consistently utilizing communications technologies and periodically holding face-to-face meetings can overcome most of the issues a company would face otherwise.

g. **Use appropriate performance metrics:** An effective telecommuters' manager should break employee work into objectives, projects, tasks, and action items. Assigning, tracking, evaluating, and rewarding work output using these specifics dramatically improves a manager's knowledge of work activities, consistency in establishing expectations, and ability to objectively determine whether those expectations are being met. Managers can use the current project management software to measure the performance of telecommuters. Project management software provides tools for reporting the progress made in a project by every team member, as well as time-recording tools for each individual.

h. **Coach Telecommuters:** Managers need to deal with employees' problems by coaching them. Telecommuters, just like in-office employees, need guidance while performing their jobs. It is important for a manager to detect any issues through behavioral changes. By being proactive, managers will be able to avoid having larger issues in the future.

i. **Facilitate group collaboration:** The use of collaborative software systems or group support systems (GSS) and shared workspace software allows telecommuter teams to collaborate on project management, customer relations management, report writing, product development, problem solving, and decision making activities. There are GSS programs that facilitate all these activities.

7. *Rules and Policies for Telecommuting*

Before an employee starts the program, s/he must be made aware of all the rules and policies specifically designed for the telecommuting environment. These rules and policies are typically divided into three categories: employees, equipment and security. The employees' aspect of the rules refers to the requirements for the physical space employees should have in place when telecommuting. These rules will allow employees to have the proper environment when it comes to working from home in order for them to complete their tasks safely and successfully. The equipment aspect of the rules refers to the requirements for taking care of the equipment used while telecommuting, such as computers, printers, and other networking equipment.

This will help keep the equipment safe and in working order. The Security aspect refers to the requirements that the confidentiality, integrity, and availability of data must be maintained at all times whiles the employees are telecommuting.

A Rules and Policies for Telecommuting document will state the definition of telecommuting and it will also define all criteria for eligibility and approval, as discussed in the Eligibility section above. The document will also include the following specific rules and policies:

- Telecommuting is voluntary. If employees wish to stop telecommuting, they are allowed to stop at any time by notifying their managers.
- The company may change the terms or conditions by which the employee is allowed to telecommute, or even terminate the permission to telecommute at any time if the company believes his/her performance or conduct does not meet expectations of managers.
- Telecommuting hours should be agreed upon between the telecommuter and his/her manager in advance. The required number of hours will not change unless it is approved; any overtime would have to be approved by manager.
- Travel time and sick days will be treated the same ways as for non-telecommuting employees.
- Employees are responsible for adhering to proper safety practices at all times, which include maintaining a safe work environment, using appropriate security measures, and protecting all company's assets including data and equipment.
- Employees should have a separate space at home that will be used for work purposes. The ideal place should be a separate room in the house to avoid any distractions (i.e. chores, people) and it should be safe and secure.
- Equipment provided by the company to its employees should only be used for work related purposes.
- Sensitive data should not be stored on local media at any time. This includes any internal or external hard drives, or any other external storage media, such as a USB flash drive or a CD-ROM.
- The telecommuter should adhere to the company's confidentiality policy when handling printed documents. All work created while telecommuting is the company's property.
- All office supplies for telecommuting will be provided by the company.
- While telecommuting, the employee is covered by the same Worker's Compensation Insurance currently in place at the company for non-telecommuting employees. The employee should immediately inform the manager in the case of an injury or accident at the telecommuting site.
- The company will not be responsible for expenses related to operating costs (i.e. utilities, home insurance and maintenance) when employee is telecommuting.
- The company will not be liable for any property damages to the employee, whether real or personal, when the employee is using his/her property for telecommuting.

In addition to the rules and policies mentioned above, it is important that employees sign a Telecommuting Agreement before they start a telecommuting program. The agreement will ensure that they have read and understood the rules and policies. Shown in the appendix of this paper is a sample template of such an agreement.

8. Conclusion

The core requirements of a successful telecommuting program implementation remain the same, regardless of the type of industry or the nature of business. Careful screening of candidates, adequate and reliable technological support, clear communication and training, well-defined rules and procedures, and appropriate management philosophy and practice are paramount to achieving the mission. With the right planning and consideration of the issues outlined above, companies can expect a much smoother process of telecommuting program implementation with sustainable long-term returns.

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Appendix: Sample Telecommuting Agreement

XYZ Comany Telecommuting Agreement

I have read and understand the attached Rules and Policies for Telecommuting at XYZ. I agree to comply with all telecommuting duties, obligations, and responsibilities described in the Rules and Policies for Telecommuting at XYZ.

1. **Telecommuting will begin on _____**
2. **The official duty station for the employee is _____**
3. **Location for Telecommuting**

Address:

_____
_____

Description of place used (i.e. Room, Studio, etc) and surrounding environment:

_____
_____

4. **Telecommuting Schedule and Hours for the employee are as follows** (i.e. Telecommuting weekly, the following days and times)

   _____
   _____
   _____
   _____

The employee has a non-regular schedule with permission from Manager for the following specific day(s) and time(s):

_____
_____

5. **Description of Equipments to be used while Telecommuting (Equipment in Kit and Part Numbers)**
   1. Name: _____, Part No. _____
   2. Name: _____, Part No. _____
   3. Name: _____, Part No. _____
   4. Name: _____, Part No. _____
   5. Name: _____, Part No. _____
   6. Name: _____, Part No. _____
   7. Name: _____, Part No. _____
   8. Name: _____, Part No. _____

XYZ Comany Telecommuting Agreement (Page 2)

6. Access is granted to the following systems at XYZ while telecommuting:

_____

_____

7. Other

_____

_____

_____

_____

_____

8. **Additional Comments:**

_____

_____

_____

_____

_____

Requested by

Employee Name: _____

Employee Signature: _____

Date of Request: _____

Approved by

Manager Name: _____

Manager Signature: _____

Date of Approval: _____