Employer Telework Case Study

Employer

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About Noblis

Noblis is a nonprofit science, technology and strategy organization that helps clients solve complex systems, process and infrastructure problems in ways that benefit the public.

Our unique impartial, independent stance—free of any ties to commercial or sponsor interests—assures clients that our counsel and implementation support is offered purely in their best interest.

Noblis is renowned for its work with numerous government agencies, as well as private and nonprofit clients. We bring the best of scientific thought and engineering know-how to find solutions that are practical, efficient and effective. You will find Noblis at work in many fields, including national and homeland security; transportation; healthcare; criminal justice; energy and the environment; oceans, atmosphere and space; and public safety.

The Telework Experience

In 1999, shortly after corporate decision makers conceived the program; they assembled a multidisciplinary design team of managers, information technologists, financial staff, legal counsel, human resources staff, and training experts and met to establish expectations.

At the forefront of those expectations were the program's stated goals (to attract and retain staff and be cost neutral), but the team also expected environmental benefits, such as reduced gasoline consumption and increased productivity from telecommuters. However, the team saw neither of these as key to the decision to implement telecommuting and therefore did not see a compelling reason to set up measurement systems to quantify benefits.

In 2000, Noblis established a telecommuting program that would allow eligible employees to work up to three days a week from home or from a designated telecommuting site. The program goals were to increase employees' schedule flexibility and work-life balance and to attract and retain information technology (IT) staff, many of whom were restive at the peak of the Internet boom. The telecommuting program was to be cost-neutral—no additional cost to either Noblis or the employees electing to telecommute.

Nine years later, the program has not only met and continues to meet its stated goals, but has also reaped the benefit of steadily reducing annual carbon dioxide (CO_2) output. In 2008, the reduction was nearly 4 percent and the program is expanding. Organizations that expand their telework programs are taking advantage of an opportunity to make an environmentally responsible decision.

However, no organization exists in a vacuum. Over the years, both the technology and corporate culture have changed, and the Noblis program has had to adapt to remain effective. Telecommuting has undeniable benefits for the environment, but any organization considering a program must recognize its flexible and dynamic nature. Noblis found that program success depends critically on fostering telecommuters' relationships with their immediate managers and on staying current with communication technologies.

Challenges and Program Implementation

The team identified three risks in implementing telecommuting: decreased staff collaboration because of decreased face-to-face time, less responsiveness to clients, and decreased employee morale either from telecommuters because they felt like outsiders or from those who wanted to participate in the plan but were not eligible. To mitigate these risks, Noblis relied on organizational and cultural approaches, as well as some IT that was novel for its time.

Survey data in 1999 showed that all aspects of successful companies depend on the close relationship between employees and their first-level manager. Exploiting that idea, Noblis implemented formalisms that were based on a voluntary agreement between the employee and the company. These mechanisms are still in effect. Each employee who volunteers for telecommuting goes through the three phases in Table 1. In the application phase, employees volunteer and are accepted if they meet certain criteria, such as job description and alternative work site. Certain jobs, such as physical security, simply cannot be performed from home and are not compatible with the program. The

alternative site does not need to be the home, but it does have to be safe and provide adequate space—a regional telecommuting site is appropriate, but a local Starbucks is not. To formalize acceptance, the employee signs a telecommuting agreement and goes over a checklist as part of the implementation phase. Finally, in the ongoing phase, the telecommuter and manager review the telecommuting decision as part of the normal annual performance review.

Believing that telecommuting decisions are best made directly by those affected, the program allows the employee and first-level manager to make specific decisions about who can telecommute. To ensure continued success, the telecommuter and the supervisor discuss performance at the end of the first and third months and then again as part of the employee's normal annual performance review.   Each telecommuting phase is supported with assessment tools to guide the applicant and manager. The tools are designed to facilitate structured discussion between the employee and manager at established milestones.

The program emphasized the need for telecommuters to continue to maintain professional communication. Neither clients nor colleagues should be able to see a difference in the telecommuter's accessibility. As Table 2 illustrates, connectivity issues were vastly different a decade ago. When the program was conceived in 1999, pagers were often required for the employee to maintain

immediate access, and rules had to be put in place to prevent family members from answering the telephone. Now with call forwarding and cell phones, employees have far less difficulty remaining accessible.

It is important for any organization to keep up with technologies that enable mobility and flexibility, such as laptops and collaboration tools. Employees are generally willing to meet the organization halfway in upgrading personal technology to meet communication and collaboration requirements. For example, Noblis provides a laptop or personal digital assistant to telecommuters, but the telecommuter is responsible for providing the required level of connectivity.

Moreover, telecommuting can often serve as a test-bed for new technologies. Several communication tools, such as instant messaging—first used in the telecommuting program—are now supported enterprise-wide.

Table 1. Tools to support the three phases of telecommuting participation.

Phase	Tool	Purpose
Application	Telecommuter self-assessment	Review and assess • nature of the job responsibilities, • employee's work characteristics, • alternative work site, and • equipment and telecommunications.
Implementation	Telecommuting agreement	Document expectations between corporation, manager, telecommuter, and work colleagues
	Telecommuting implementation final checklist	Review details of the individual telecommuting implementation.
Ongoing	Performance reviews	Review and assess telecommuter's performance • initially at months 1 and 3 and • as part of normal annual performance review.
	Noblis Intranet	Enable posting of telecommuter schedules.

Table 2. Providing immediate access to clients and colleagues as designed in 1999 and as currently executed in 2009.

Requirement	Technologies	Approach When Telecommuting
Voice Communications **Company** **Employee**	**1999** Digital PBX with voice mail • Text message pager or cell phone	• All calls from office phone sent to voice mail • Telecommuter notified via pager of voice mail or missed call • Telecommuter immediately returns call
	2009 • Cell phone	• All calls from office phone forwarded to cell phone or • Cell phone used as normal business phone
Data Communications	**1999** • Laptop with email • Connectivity via dial-up access	• Document and message exchange via email • Text messaging via Instant Messaging
	2009 • Laptop • Connectivity via broadband access • Blackberries and similar devices (Company or employee provided)	• Document and message exchange via e-mail • Text messaging via Instant Messaging • WebEx and other collaboration tools • Web access

A "Technology for Telecommuting: A Checklist" was developed to provide some criteria for deciding which technology can best support a telecommuting program. Security is an aspect often overlooked.

Technology Checklist

Voice: How can I remain in verbal contact with staff, colleagues, and customers? How do they get in contact with me without having to know if I'm at the workplace?

Applications: How does my application performance vary when I'm not in the office? How does occasional offline access affect application performance?

Security: What would happen if my laptop or home PC was stolen or otherwise compromised? How do I set up my physical facilities to minimize security risks?

Collaboration: How important are those water-cooler discussions and other face-to-face formal and informal interactions? If they are important, what is the remote equivalent?

The telecommuting program continues to meet its operational goals and has had surprising results in satisfying its green objectives as well. The program, which began with 3 percent of the eligible population, grew to 25 percent—exceeding Governor Kaine's goal of 20 percent for government agencies within the Commonwealth of Virginia.

The program has successfully increased employee schedule flexibility and improved employee work-life balance. Telecommuters report decreased stress and increased productivity and quality of life, citing benefits such as "avoiding even one day a week of bumper-to-bumper congestion" and "the quiet time that I need to creatively think and keep pace with a long list of action items."

The program also met its goals of retaining staff and being cost neutral. Attrition remains approximately 24 percent below the professional services industry average, and employees continue to share costs.

For the productivity benefit, there is only anecdotal evidence, but it does show the expected increase. Indeed, most participants believe that telecommuting is the only way

to keep up with the pace of business in 2009. The detailed operational aspects became less important as the commercial technology improved, and that trend should repeat in future years. Also, both the telecommuter and the first-line manager need to be agile, skillful communicators focused on achieving results, rather than simply on putting in time.

The immediate reduction in commuting costs to the telecommuter was expected, but over the program's life had a more significant impact on the environment than designers had envisioned. In 1999, green awareness was only beginning, and few organizations were thinking about quantifying greenhouse gases or gasoline consumption. However, the program has accumulated enough data to determine the cumulative environmental benefit retrospectively. Averaging telecommuting days (1.2) and distance from 2000 to 2009 and using average fleet miles per gallon, the typical Noblis telecommuter has driven 3,400 fewer miles per year and saved $460 in fuel costs. Given the program growth, cumulatively telecommuters have driven more than two million fewer miles over the last nine years (based on data from the Energy Information Administration data for

the mid-Atlantic region over the program history).

Aside from gasoline consumption, employee commuting contributes significantly to the Noblis carbon footprint. Participating telecommuters decreased the total number of Noblis employee round trips by 8 percent— a much needed reduction in Northern Virginia, which is one of the regions challenged by pollution and traffic congestion.

Program Outlook

Although telecommuting reduced the corporate carbon footprint by nearly 4 percent in 2008, further reduction is clearly possible. Recognizing that telecommuting is not a viable option for every employee and that no one can telecommute every day, a reasonable maximum potential is 50 percent of eligible employees telecommuting 2 days per week. At this level of telecommuting, Noblis could realize a 12 percent reduction in its corporate carbon footprint. Clearly, from the current telecommuting level (25 percent telecommuting 1.2 days per week), significant green potential remains.

For Noblis, the telecommuting program began as an incubator for new corporate-wide technologies and operations. Now it is the backbone of business continuity; whether in response to unanticipated events or the typical winter snowstorms, the company relies on telecommuting laptops and ubiquitous broadband to keep responding to client needs. The program has grown steadily, yielding an unexpected benefit: Corporate carbon reduction from commuting was nearly 4 percent in 2008, and cumulatively, telecommuters drove more than 2 million fewer miles.

Success Tips

Support from management—from first line to corporate

• Agile first-line and upper managers able to function without employee collocation

• Participation by all management levels including corporate executives

Defined expectations

• Multi-disciplinary team to define objectives, policies, and agreements and to review periodically

• Policy manual and telecommuter's agreement define responsibilities

• Qualified participants screened through checklists

• Regular schedule with limited number of telecommuting days and regular office hours posted

Broad implementation

• Pilot program incorporates large cross-section of company

• Participants excluded only because of unique job requirements (for example, building security)

Appropriate infrastructure

• Safe and adequate home work space

• Adequate hardware equipment at home

• Network communications and applications available at home and at office

• Security and backup procedures in place regardless of location

• Technical support via help desk or on-line