

# CASE STUDY >>>

**UNITED STATES PATENT AND TRADEMARK OFFICE**

**Excellence in Telework IT**

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# Excellence in Telework IT

## Creating Opportunities and Innovating Through Telework »»

The United States Patent and Trademark Office (USPTO) is vital to the American innovator. At the cutting edge of innovation, the agency grants patents and registers trademarks throughout American industries, keeping up with an overwhelming demand of applications. In FY 2010, the Patent Business Unit examined 522,407 applications and the Trademark Business Unit processed 367,027 applications. As the agency strives to protect new ideas and investments, it also looks to drive innovation in the way its employees work.

Creating a workforce that can seamlessly perform work from remote locations, all agency business units now participate in the overall USPTO telework initiative. Telework at the USPTO is a corporate business strategy, which supports mission achievement and goal fulfillment via a distributed workforce.

Under the direction of Deborah Cohn, Commissioner for Trademarks, the USPTO started its telework programs more than 14 years ago with 18 trademark examining attorneys. Today, more than 6,300 employees (83 percent of the eligible workforce) agency-wide are working from home at least one day per week and more than 3,000 of these teleworkers have relinquished their office space on the USPTO campus to work from home four or five days per week.

“Telework expansion is inevitable and will continue to be a way that the agency conducts business,” said Danette Campbell, Senior Advisor, Telework, U.S. Patent and Trademark Office. “It is a seamless and transparent business strategy that will continue to position the USPTO as an employer of choice as we seek to hire the most highly qualified candidates.”

**“USPTO HAS LED THE WAY IN DEMONSTRATING HOW TELEWORK CAN BE IMPLEMENTED AS AN EFFECTIVE BUSINESS STRATEGY IN THE FEDERAL GOVERNMENT, AND HOW TELEWORK CAN RESULT IN GREATER EMPLOYEE PRODUCTIVITY, IMPROVED MORALE, AND INCREASED EFFICIENCIES.”**

– David Kappos  
*Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office, from 2010 Telework Annual Report*

## Modernizing the Workplace »»

The USPTO first began exploring telework in 1997 through a small pilot program, working with 18 examining attorneys. The agency's interest and the success of the program grew rapidly and expanded to a telework and associated hoteling program for a larger group of 110 examining attorneys by 2003. The telework program employees made up 44 percent of the USPTO examiners' core staff and this group worked remotely for more than 90 percent of the work week.

At the same time, the USPTO was preparing to relocate to Alexandria, Virginia. Moving an agency of that size requires a great deal of employee coordination, real estate assessment, and, of course, funding. The USPTO faced an aggressive goal to reduce costs and increase efficiency simultaneously – two results it had already realized from the telework pilot program. The agency's ultimate goal, therefore, was to develop a larger, stronger telework program to include a majority of its 10,000-strong workforce.

## Take IT Home »»

With set telework goals in mind, the USPTO focused heavily on technology – specifically bandwidth, security, and system stability. These three factors all currently play a critical role in the agency’s approach to technology for both in-office and remote workers. In fact, the agency replicates its in-office experience as closely as possible for teleworkers to ensure a seamless transition for the employee. The nature of the work of the individual position determines what hardware an individual teleworker receives. All teleworkers have access to the same tools at home as they do when they are working on campus.

The USPTO teleworkers are required to ensure a sufficient response time and therefore must have a high speed Internet service provider (ISP) connection through cable or fiber optic service (FiOS); the agency does not allow Digital Subscriber Line (DSL) or a satellite connection. Additionally, the agency complies with the requirements of the National Institutes of Standards and Technology and accommodates the Federal Information Processing Standard (FIPS) by using a FIPS compliant SSL-VPN solution by Juniper Networks to support and manage network access for remote workers.

The agency is currently transitioning to a Universal Laptop model, which works to refresh equipment yet prevent unnecessary duplication of materials. The program upgrades desktop computer systems to laptops and enables employees to freely transport their assigned laptop to and from their remote location and the office.



*Danette Campbell, Senior Advisor, Telework,  
U.S. Patent and Trademark Office*

In addition to the Universal Laptop model, the USPTO also utilizes Enterprise Remote Access (ERA) equipment for many teleworkers, which provides remote online access to all relevant agency patent business systems, job performance tools, patent information, and patent application documents. Several “flavors” of the ERA equipment are available to USPTO teleworkers to support a variety of telework arrangements. Teleworkers who work remotely one to three days a week receive the basics – a laptop, docking station, headset, router, cabling, and a headpiece for voiceover IP (VoIP). The USPTO outfits other teleworkers who work from home four to five days a week with the exact same equipment as their in-office workspace.

In 2009, the agency created the ERA Portal to enable telework deployment without incurring the expenses associated with the standard ERA suite of equipment, mentioned above. With the ERA Portal option, teleworkers rely on their own personal equipment, and simply need the proper authorization, training, and an agency-supplied FOB (secure ID token) to enable Virtual Private Network (VPN) access.

The ERA Portal uses a secure socket layer (SSL) solution with the VPN via a Web Portal to establish a secure connection, in which the agency checks the remote client for an up-to-date and current anti-virus program to ensure the safety and security of USPTO infrastructure and the integrity of USPTO data.

Each ERA Portal participant is required to attend a two hour training session where Information Technology Resource Personnel (ITRP) review key system features such as Remote Desktop Protocol (RDP), FOB check and VPN access test, Call Pilot Desktop Messenger (CPDM), and Multimedia Communication Server (MCS) to facilitate enhanced collaboration between co-workers.

The ERA Portal also enables participants to utilize the Multimedia Communications Server (MCS) Telephony Solution, providing them with collaborative voice, chat, whiteboard, and document sharing capabilities.

The combination of the ERA Portal and the Universal Laptop program is gradually enabling USPTO to eliminate a 2:1 ratio of computers to employee and will result in additional cost avoidance by reducing equipment expenses.

The USPTO requires IT training before an employee can telework to ensure that employees are capable of setting up equipment and troubleshooting common technological errors that may arise. Teleworkers must also endure non-IT training to learn about work output expectations and how to communicate in a remote environment.

**“Training is a critical piece of the success of our telework programs. Adherence to policies and procedures is the first step in ensuring safety and security.”**

– Danette Campbell

## **Results: Improving Efficiency and Avoiding Costs »»**

The full-time telework initiatives have enabled the USPTO to increase the number of total employees without securing additional office space or additional parking facilities. Employees who work from home four to five days per week relinquish their private office space on the Alexandria campus and reserve space in a shared, on-campus hoteling office when they work from the USPTO campus. The ability to recoup space from full-time telework employees has enabled the USPTO to avoid the acquisition of additional space to accommodate the new hires requiring office space each year. It is estimated that the agency has avoided securing \$19.8 million in additional office space as a direct result of all of the USPTO's hoteling programs.

As other business units within the USPTO have grown, telework programs have allowed for the consolidation of existing space. For example, when the USPTO Trademark Work At Home program was expanded to all teleworking attorneys, Trademarks was able to consolidate 46,800 square feet of space when relocating to the Alexandria campus.

Additionally, the USPTO has experienced agency-wide adoption of the ERA Portal. Since its inception in February 2009, the USPTO has trained and deployed more than 350 staff members to telework via the ERA Portal. As a result, the agency has realized a savings of approximately \$2,695 per user by transitioning from government-furnished equipment – which costs \$2,800 per user – to user-furnished equipment, costing \$105 per user.

The USPTO will continue to evaluate how to best enhance operations and improve efficiencies through its telework programs, while meeting the requirements of the *Telework Enhancement Act of 2010*.

**The United States Patent and Trademark Office issues a Telework Annual Report, documenting the results of the agency's telework program. To view the 2010 Telework Annual Report, visit [www.teleworkexchange.com](http://www.teleworkexchange.com)**