

# Case Study:

## UPGRADE TO WINDOWS XP, SERVICE PACK 1

### Challenge:

Employees in the Investment Management and Private Banking divisions provide financial management for major clients, and use their workstations to transfer funds between accounts. These workstations were equipped with the original release of the Microsoft Windows XP Professional operating system. In the years since the operating system was released, the industry had observed that hackers had found and exploited a variety of security flaws in the operating system software. As a result, the original release was no longer secure, and users were vulnerable to email viruses, worms, intrusion, and other dangers. In addition, the original release of Windows XP was somewhat unstable.

The business threats posed by these security and stability issues included the potential for lost data, disclosure of trade secrets and confidential client information, and revenue losses due to user downtime. Since employees in the Investment Management and Private Banking divisions are highly compensated and productive, the cost of downtime was potentially very high.

In 2002, Microsoft issued a new release of the software – Service Pack 1 – that addressed both the security and stability issues of the original release. However, the software upgrade procedure was itself costly. “Hot fix” upgrades were made to individual workstations when necessary, but these ran the risk of destabilizing in-house applications. Clearly, a more systematic, fully tested upgrade process was required. But a complete upgrade would take between four and eight hours per workstation, potentially resulting in 2,500 to 5,000 lost days of user productivity.

### Objective:

The objective for the engagement was to protect more than 5,000 user workstations in three buildings from known security and stability threats by upgrading them to Service Pack 1 as quickly as possible, without causing user downtime.

### Solution:

Design Strategy proposed to upgrade and test all computers after working hours, and to provide next-day user support in order to make sure the upgraded workstations were available. We decided to download SP1 from the network; even though this method was slower than loading the service pack from CDs, it required less attention from the technician and was less prone to error.

A network-based application was used to record each event during the upgrade process and identify any problems. About 10 percent of the upgrades were expected to require manual intervention as a result of user-specific conditions. Managers could use the event records to track the progress of the project and estimate its probable completion date.

The key to the project’s success was thorough planning. Before beginning the upgrades, DSC conducted a user survey in each building to determine what dates and times were most convenient for the users and which applications were most critical to them. Users were also instructed to back up local files.

To minimize the impacts of any failures, each user group was divided into several subgroups whose upgrades were scheduled at intervals of at least a week. With this scheduling method, any user whose computer was unavailable on the day following the upgrade would have easy access to other similarly configured computers.

DSC worked closely with in-house personnel throughout the project. In-house personnel were assigned to reset passwords, move personal data, and fix problems with in-house applications that would not load or install after the upgrade.

### Result:

The project was completed successfully, on schedule, and without causing major user downtime during business hours. About one percent of users experienced any problems on the day following the upgrade. Most of those problems concerned printer installation and Internet Explorer favorites lists, and were solved in half an hour or less.

As a result, users in these two divisions are now better protected against many threats to their computers’ security and stability.

Because the SP1 upgrade was so successful, Design Strategy was asked to design and implement the next Windows XP upgrade – the considerably more complex installation of Service Pack 2.

COMPANY NAME:  
LARGE GLOBAL  
FINANCIAL INSTITUTION

LENGTH OF ENGAGEMENT:  
6 MONTHS

PROJECT COMPLETED BY:  
DECEMBER, 2005

### ENGAGEMENT:

*Design Strategy*

*Corporation upgraded*

*all user workstations*

*in a financial*

*institution’s Investment*

*Management and*

*Private Banking*

*divisions from*

*Windows XP*

*Professional to*

*Windows XP*

*Professional,*

*Service Pack 1.*