



Penn State University

Smeal College of Business

Laboratory for Economic Management and Auctions (LEMA)

“In general, the main benefit is time.

With NetSupport, one person can run a study that would take 2 or 3 people without NetSupport.

The preparation time in the lab is cut down to about 10 minutes from around 30.

NetSupport makes us much more flexible.”

- Elena Katok,
Associate professor,
Department of SC&IS,
Penn State

University Background:

The Laboratory for Economics Management and Auctions (LEMA) provides researchers in economics and management with laboratory environment in which the object of study can be manipulated in a controlled way (much as lab techniques are used in natural sciences). The lab houses a computer network designed to simulate business activities such as markets and negotiations. Ongoing areas of inquiry include auctions, bargaining and dispute resolution, electronic markets, mechanism design, and decision support systems. In addition to research, LEMA produces classroom software, providing students with hands-on demonstrations of market principles and of decision-making behavior. LEMA was made possible through grants from IBM, the Pennsylvania Department of Education, and the Smeal College of Business.

IT Challenge:

LEMA needed a way to manage their 30 station research lab that allowed them to quickly and easily control the client computers, shut them on and off, transfer files, and run applications.

Situation:

Their research involves economics experiments that put participants (typically students) in economic situations described as games. Participants interact in these simulated markets and this helps LEMA researchers understand how economic institutions work with real human participants. The games they use are played in the lab. LEMA implements them on the computer and deploys them using NetSupport.

NetSupport Solution:

“NetSupport allows us to start up all the client computers remotely, even before we come to the lab to start setting up the experiment. It allows us to create groups of clients in any configuration we want, so that depending on the number of participants, we are not restricted to their location. The game software we use can be distributed to our client machines through NetSupport, and it takes only a few

seconds to do so. The software can be started with a click of a button in NetSupport.

Additionally, when we explain the rules of the game to our participants, we often use slide shows to illustrate important points. We use the Show feature of NetSupport to show the slides to the participants so that they can see everything on the screen in front of them and don't have to stand up to try to see the screen at the front of the room. We also use the Lock feature to disable the clients when we do not want the participants to start playing the game, but do want them to see the interface on their screen as we are explaining the rules to them.

As we conduct the study if we ever run into problem, we can remotely manipulate the affected client which allows us to fix the problem quickly without disturbing the rest of the group.

When the game is over and we pay our participants we can see their earnings on their screens by scanning the clients. After the session is over we use NetSupport to shut off the computers. Overall, NetSupport saves us a good deal of time in running our experiments."

Benefits:

"In general, the main benefit is time. With NetSupport, one person can run a study that would take 2 or 3 people without NetSupport. The preparation time in the lab is cut down to about 10 minutes from around 30. Also errors are avoided because everything is automated.

Of course transferring files would take much longer without NetSupport because we would either have to transfer files individually to each machine, or burn and dispatch a new image. So NetSupport makes us much more flexible."