GO-GLOBAL FOR UNIX PULLS
USDA FOREST SERVICE OUT OF THE WOODS.

GraphOn’s high-performance remote access solution speeds remote transactions, eases paperwork burden, and increases productivity.

Customer Solution at a Glance

Customer Profile: Established in 1905, the Forest Service manages national forests that encompass 191 million acres of land, an area equivalent in size to the entire state of Texas.

Business Need: The Forest Service needed a way to improve the efficiency and effectiveness of remote site access to its UNIX-based applications.

GraphOn Solution: Using powerful server-based computing technology and near-zero-footprint clients, GO-Global® for UNIX provides the agency with fast, simple, affordable access from any location and from any platform.

Results:
- Reduced download times of graphics-intensive forms from 40 minutes to less than one minute.
- Saved over 98,000 man-hours per year.
- Increased productivity by easing paperwork burden.

The Forest Service is an agency of the U.S. Department of Agriculture (USDA) that manages public lands in national forests and grasslands. The Forest Service is also the largest forestry research organization in the world, providing technical and financial assistance to state and private forestry agencies.

Like many other Federal Government agencies and departments, the Forest Service has deployed a GO-Global remote access solution from GraphOn. As a result, the agency has been able to greatly increase the speed of remote transactions from outlying Forest Service offices – while at the same time dramatically reducing the paperwork burden on its field staff.

As an example, graphics-intensive, UNIX-based forms that routinely required 40 minutes or more to transmit now download in less than one minute thanks to GO-Global’s exclusive RXP protocol.
The Forest Service’s main offices are all interconnected via a Local Area Network (LAN) or a Wide Area Network (WAN). However, the agency has hundreds of isolated sites outside the main network infrastructure. Remote stations operating via modem or 14.4-Kbps microwave links found using network services to be very slow.

Remote Logjams
In California, 150 small fire stations in wilderness areas operate outside of the WAN. At the Plumas National Forest in Quincy, California, for example, the Forest Service experienced extremely long delays when attempting to use its traditional X-Window implementation. Budget constraints had forced the Forest Service to use its X-Window system far longer than originally intended. Time sheet transactions caused especially severe logjams for the agency.

“It was taking way too long for each fire station to fill in their time sheets – 30 to 40 minutes just to fill out a simple form,” said Rick Becker, a Forest Service computer systems analyst. Similar delays were common with the agency’s server-based e-mail application.

In addition, the system could not produce printouts at remote sites, which the Forest Service needed.

When workers had to connect from the road, they were subjected to the same delays. For example, on a trip to San Diego, Becker saw delays of up to three minutes for the first page of an e-mail to appear.

Entering Time Sheet Data
In the Plumas National Forest, crews stationed in remote locations had to drive to a district office to gain access and enter time sheet information. Duty stations would maintain paper records for each two-week pay period.

At the end of each pay period, the entire team would spend a day driving to the district office and then another 45 minutes each entering the time sheet data.

“Due to a policy that existed until recently, we couldn’t just send one person to do it for everybody,” Becker explained. “They all had to go.”

GO-Global saves our 600 to 1,000 users a total of around 200 man-hours per two-week pay period, and that’s only one forest. With 19 forests here in California using the system, the savings are significant.”

Rick Becker
Computer Systems Analyst
USDA Forest Service

Pilot Project Leads to Full Deployment
To solve the problem, the agency ran a pilot of GraphOn’s remote access software at the Plumas facility. The pilot successfully demonstrated the performance advantages of the solution and provided the agency with the required printing functionality.

The pilot project was soon expanded to encompass 19 California forests.

According to Becker, GO-Global saves the Forest Service about 200 man-hours per two-week pay period per forest. For the 19 forests, that totals 98,800 man-hours per year.

Near-Zero-Footprint Clients
GO-Global provides the Forest Service with advanced, near-zero-footprint clients. Remote stations simply run a Java applet, a browser plug-in, or a small native client to access heavy-duty UNIX applications on any device – regardless of platform, location or operating system.

The Rapid X Protocol
The GO-Global solution uses GraphOn’s proprietary protocol – the Rapid X Protocol (RXP) – to speed up network traffic. RXP transmits only the application’s GUI across the network. Unlike traditional X-Windows implementations, GO-Global eliminates the need for local X Server software on the client side.

RXP saves time, money and IT resources. And as the Forest Service discovered, it greatly improves remote access performance and efficiency.

Adapted from an article originally appearing in the January 8, 2001 issue of Government Computer News.