State of Minnesota
Interconnects Court System Using Citrix NetScaler Application Delivery

Swift justice is taking on a 21st century meaning in Minnesota as a new data-rich judicial information system begins to roll out across the state's 87 counties. Replacing a 20-year-old mainframe system, the Minnesota Courts Information System (MNCIS) leverages the latest advances in secure application networking without requiring an upgraded physical network, thanks to the Citrix® NetScaler® application delivery system.

The Challenge: Updated Information Sharing Over an Existing Physical Network

The state of Minnesota's drive for its new information system began after high-profile crimes in the late 1990s spotlighted the need to integrate information about criminal cases and defendants that resides in different courthouses across the state, as well as provide courthouse officials and employees easier and more efficient access to consolidated information. Although initially conceived as an information system for criminal courts, the state went one step further — making the system available to all courts, including juvenile, civil, family, small claims, mental health, probate and traffic courts.

"The new MNCIS system will help us better protect the people of Minnesota and their interests in the judicial system," said Bob Hanson, the state's chief information officer. "Plus, we anticipate that the single view into all court-related information across the state will create efficiencies by making court documents, schedules and dispositions available to judges and their clerks, county attorney's offices, and law enforcement and correctional agencies."

The amount of data being exchanged, however, also created an architectural and technical challenge: how do you run MNCIS across an existing physical network that was shared by all other state agencies?

"In the past, the mainframe sent small packets of information to the green screens in each county," said Shawn Weishalla, the lead technical architect on the MNCIS project. "MNCIS, however, is browser-based, which gives users a much richer set of graphical features but also generates more traffic and larger XML and HTML data

"Without the NetScaler application acceleration capability, we wouldn't have been able to run the system without upgrading the pipes, which would have cost millions of dollars. And even if the state later upgrades the physical network, we will remain an efficient user of bandwidth."

BOB HANSON

CIO, State of Minnesota

Key Benefits

- Saved millions of dollars in network upgrades
- Reduced bandwidth requirements by 80 percent
- Improved access to information throughout the statewide judicial system

CITRIX®

packets. If we wanted to run the new system over existing pipes, then we knew that highly efficient bandwidth compression would be a key success factor."

A Citrix Access Platform for Application Delivery

Recognizing the importance of reduced bandwidth, the MNCIS team began a paper review of all available compression and application delivery products. Many of the initial products required a compression appliance at each end of the transmission, an approach that would require a substantial investment in appliances for each county.

Ultimately, the MNCIS team's homework led to two products — NetScaler and a competitor — that could provide compression without having to purchase individual appliances for each site. After a careful evaluation of product features, service reputation and references, the MNCIS team selected the Citrix NetScaler application delivery system in large part because it reduces bandwidth requirements by 80 percent, according to Weishalla.

As important in the decision, Weishalla said, was the team's discovery that the NetScaler system had additional capabilities that would avoid additional equipment and software costs down the road, including load balancing, TCP offloading and SSL acceleration, as well as management features such as consolidated Web logging and server health checks.

Now, the MNCIS — a browser-based information system based on an off-the-shelf software application — is centrally hosted in St. Paul, Minnesota, on a combination of Microsoft® Web and database servers, which are fronted by Citrix® NetScaler® Application Switches. The MNCIS system interconnects the 87 county courthouses across a high-speed and redundant network run by the state's Intertech agency in the Department of Administration. Intertech also provides networking to other state and county agencies, so acceleration of network traffic is an important consideration.

Increased Efficiency and Cost Savings

Since its initial purchase, the MNCIS team has purchased additional NetScaler Application Switches to front the production system.

"With the help of NetScaler technology, the new MNCIS system will improve our ability to better protect the people of Minnesota and their interests in the judicial system," explained CIO Hanson. "Plus, we anticipate that the single, secure view into all court-related information across the state will create efficiencies by making court documents, schedules, and dispositions available to judges and their clerks, county attorney's offices, and law enforcement and correctional agencies."

"As a state agency, we have to be very careful about how we spend the public's money," said Hanson. "Without NetScaler's application acceleration capability, we wouldn't have been able to run the system without upgrading the pipes, which would have cost millions of dollars. And even if the state later upgrades the physical network, we will remain an efficient user of bandwidth."

The additional capabilities of the multifunctional NetScaler system is an added bonus that is helping MNCIS avoid significant costs. "We don't have to purchase separate load-balancing software, and the TCP offloading and SSL features will result in us not having to purchase and manage additional servers for some time to come," Hanson said.

Product Used

- Citrix® NetScaler® Application Switch

Applications Deployed

- MNCIS — browser-based information system based on an off-the-shelf software application

About Citrix® NetScaler® Application Delivery Solutions:
Citrix® NetScaler® application delivery solutions combine the features and functions of traditional datacenter point products — load balancing, caching, compression, SSL acceleration, attack defense, SSL VPN — into a single network appliance, built from the ground up to optimize delivery of Web applications. The Citrix® NetScaler® Application Switch is a comprehensive network system that combines state-of-the-art application acceleration, layer 4-7 traffic management, SSL acceleration, and robust application security into a single, tightly integrated solution for optimization, considered the best delivery method for browser-based applications. The Citrix® NetScaler® Application Accelerator is an integrated network appliance that delivers industry-leading application acceleration, SSL acceleration, and network-layer denial of service (DoS) attack protection.