



RED HAT DIRECTORY SERVER

GIVES DARTMOUTH AN IVY LEAGUE-WORTHY IDENTITY MANAGEMENT SOLUTION

FAST FACTS

Industry	Higher Education
Geography	New Hampshire
Opportunity	Experiencing major issues and frustration with password replication that caused headaches for end users and IT staff
Migration Path	Sun ONE Directory Server to Red Hat Directory Server
Software	Red Hat Enterprise Linux and Red Hat Directory Server
Benefits	Eliminated replication issues and increased security in seamless transition



BACKGROUND

Dartmouth College is a private, liberal arts university located in Hanover, New Hampshire. A member of the prestigious Ivy League and one of the nation's oldest universities, Dartmouth has nearly 6,000 undergraduate and graduate students in 29 academic departments, 3 graduate schools and 19 graduate programs. Dartmouth employs close to 600 tenured and tenure-track faculty members and is known for its highly selective and rigorous academic program. In 2007 U.S. News & World Report ranked Dartmouth eleventh among undergraduate programs at national universities.

Technology is an important part of Dartmouth's academic and residential life, and the school has been ranked as one of the most technologically-advanced colleges in the world by Newsweek and Yahoo!. The entire campus is covered by a wireless network with more than 1,400 access points, while the campus network uses software phones and VoIP technology for local and long-distance calls. Dartmouth's BlitzMail, the campus e-mail network, is widely used for both academic and social purposes. About 100 public computer terminals around campus are dedicated to BlitzMail use.

OPPORTUNITY

Dartmouth College was previously using Sun ONE Directory Server for identity management across the university but was having problems with multi-master replication. Students would often change their passwords on one computer, only to discover that the change was not enacted on another computer running on a different server. For example, if a student changed their password—as they are instructed to do regularly—on their computer in their residence and then went to a school computer terminal to print a document, the student would discover that the new password would not work on the second computer. The result was confusion and frustration, both for Dartmouth's students and its IT staff, which had to quickly identify and correct the problem. Michael Pettinicchio, systems administrator at Dartmouth, estimates that the replication issues each took between 15 minutes and one hour of the IT department's time to solve.

In addition to the time-consuming and frustrating issue of replication for both IT staff and end users, Pettinicchio and his staff were also concerned with disaster recovery and security, two identity management issues that could have a great impact on the large university community and its academic success.



SOLUTION

As the replication issues continued and end users grew more frustrated, Dartmouth's IT department knew it needed an identity management solution that could centralize user profiles and application settings while maintaining strict security policies. Already using the latest version of Red Hat Enterprise Linux, Pettinicchio and the IT staff at Dartmouth turned to Red Hat Directory Server to address their identity management challenges. Red Hat Directory Server's competitive pricing and easy-to-use open source technology made the decision a simple one for Dartmouth's IT department.

Pettinicchio and his colleagues were impressed by the ease and speed of deployment for Red Hat Directory Server and noted that full deployment took just a few hours. "The migration from Sun ONE to Red Hat Directory Server was seamless, and the deployment was simple and straight forward," said Pettinicchio. Quick deployment was particularly important to Dartmouth as the college works on a year-round quarterly schedule with many students, faculty and staff on campus even during summer. The Dartmouth IT team made a few customizations while deploying and has enjoyed tremendous success since, placing just one support call in more than a year.

BENEFITS

Since the Red Hat Directory Server deployment, Dartmouth has solved its replication issue. "To my knowledge, we have not had a single instance where a change failed to replicate since deploying Red Hat Directory Server," said Pettinicchio. "The multi-master replication was a huge issue for us previously. Red Hat Directory Server has solved that completely. Students, faculty and staff are our end users and this solution gives them the ability to make password changes effectively and securely so they can focus on their work."

The change has helped not only with user passwords, but also with essential campus tasks like user authentication, printing and data maintenance. A web interface tool

allows the IT staff to detect a problem so that IT professionals don't need to check each system independently, allowing them to spot any problems easily. An internal website also allows staff members to quickly replicate any changes made, eliminating confusion resulting from having disparate information. Pettinicchio also noted that disaster recovery with Red Hat Directory Server seems easy because an administrator can run another system online, maintaining the status quo for end users.

The security features of Red Hat Directory Server have given Dartmouth the confidence that the appropriate people are accessing the appropriate information. "The security features of Red Hat Directory Server are strong," said Pettinicchio. Users can access what they need to and no more. We don't worry about students seeing faculty-only materials or vice versa because we know the identity management system is secure."

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**—Michael Pettinicchio,
Systems Administrator, Dartmouth College**
