

University of Colorado at Boulder

Meeting the Needs of Higher Education

“WE PROJECT A 50-PERCENT OR MORE REDUCTION IN STAFF NEEDED TO MAINTAIN THE NEW MIRAPOINT APPLIANCE SOLUTION, DROPPING FROM FOUR FULL-TIME EQUIVALENT TECHNICIANS TO TWO OR LESS.”

Jon Giltner, Director of IT Architecture, University of Colorado

CASE STUDY | EDUCATION



BUSINESS NEED

Cost effective solution that's easy to manage and maintain with high levels of reliability

SOLUTION

Mirapoint Message Servers and Mirapoint RazorGates

BOTTOM LINE

Better service for users with lower maintenance costs and half the support staff, plus virtually unlimited scalability

Background

The University of Colorado at Boulder was founded in 1876 with 44 students. Today it serves over 29,000 students with nearly 7,000 faculty and staff, and is recognized as a national leader in teaching and research excellence. As an official medium for communication, email is a mission-critical application at CU-Boulder. Every new student is assigned an email account before they arrive on campus and orientation activities ensure they activate and use the service.

The Business Need

CU-Boulder's decade-old email infrastructure was a maze of hardware platforms and software applications that made managing and maintaining the system complicated and costly. Two large Sun Microsystems clusters consisting of multiple servers ran Sun Solaris, the open-source Sendmail email transport agent, and University of Washington IMAP server. To provide a webmail interface, a separate array of Sun servers ran IMP, a web-based IMAP client on top of the Horde/PHP framework. Yet another server supported the University's calendaring application running Sun JE Calendar. The University also relied upon an obscure application called Hesiod to route incoming email, rather than the more common Lightweight Directory Access Protocol (LDAP).

Any time one piece of software had to be updated, the IT staff had to analyze and test to ensure the change did not negatively impact some other aspect of the environment. And there was continual tinkering needed to coax an acceptable level of performance out of the system. Webmail, which 96 percent of the students used exclusively for access, suffered periodic slowdowns due to the peculiar IMAP connection scheme. Performance also declined because of limited I/O related to the way Sendmail structured mailbox files. If this wasn't enough to aggravate users, students also had to use one password to login to the University's CUConnect web portal and a second password for their email login.



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In addition, the lack of scalability concerned the IT staff. "The way the system was architected with the Sun clusters, we couldn't just add another blade," says Jon Giltner, director of IT architecture at CU. "The next step would be a new cluster costing \$100,000 or more by the time it was implemented."

By the summer of 2005, high hardware/software maintenance costs, labor-intensive administrative demands, concerns over performance, and lack of scalability convinced the University that something had to be done.

The Mirapoint Solution

In considering a replacement of its current email infrastructure, Colorado's primary goal was to find a solution that would simplify management, enabling it to reduce the number of full-time equivalent (FTE) personnel required to maintain the system. Colorado considered a number of alternatives. As a Sun user, the University evaluated Sun's Collaboration Suite. "It didn't represent anything different from what we had in terms of infrastructure," says Giltner. "And we were still faced with significant software on Sun clusters." Giltner and his staff had much the same objection to Oracle Collaboration Suite and an open-source system called Cyrus developed by Carnegie Mellon University.

The University also considered Microsoft Exchange but, according to Giltner, "At 40,000 mailboxes, that wouldn't be cost effective for the type of scale we needed."

In contrast, an evaluation of Mirapoint's appliance-based solution demonstrated a dramatic shift from complexity to simplification. "We were managing the Sun clusters, Solaris, the Sendmail package, the IMP framework, PHP, and Horde," says Giltner. "In contrast, here's the Mirapoint appliance with Mirapoint OS on it. If there needs to be an upgrade, we don't have to worry about applying patches or trying to determine whether this version will affect some other component. With Mirapoint we get a more robust and complete infrastructure."

The phased migration to Mirapoint will begin in late summer 2006. By December, all users will be migrated. To support its Mirapoint user population, Colorado will install eight Mirapoint RazorGate appliances as access proxies and seven Mirapoint Message Server appliances to support the 40,000 mailboxes. The Message Servers provide IMAP, Webmail, personal and group calendar, and address book features.

The Bottom Line

"With the old system, we spent a lot of time keeping the web interface up to date. With Mirapoint, users will get a better web interface that will be updated on a regular basis-and it won't take a lot of effort on our part to make that happen. Better service and less effort. With Mirapoint we expect to drastically reduce costs due to the simplified nature of an appliance infrastructure. We project a 50-percent or more reduction in staff needed to maintain the new Mirapoint appliance solution, dropping from four full-time equivalent technicians to two or less. Mirapoint helps us take FTE out of the equation. We'll be able to redeploy those resources somewhere else."

Mirapoint also eliminates any concern over performance, and Giltner can also stop living in fear of growth. Mirapoint allows scalability to millions of users-simply add another Mirapoint Message Server. Added good news for students is that Mirapoint will support single sign-on between the University's web portal and the messaging system.

About Mirapoint

Mirapoint® is the market leader in appliance-based solutions for secure message networks in enterprise, service provider, and education organizations, with more than 115 million mailboxes served and secured worldwide. Customers use Mirapoint appliances including the Message Server mail appliance and RazorGate mail security appliance to build the messaging infrastructure that intelligently serves, secures and manages email. Mirapoint is headquartered in Sunnyvale, California, with offices throughout North America, Europe and Asia. For more information on Mirapoint, visit its Website at www.mirapoint.com.

Configuration

- Eight Mirapoint RazorGate Appliances
- Seven Mirapoint Message Server M5000 Appliances