



InCommon Certificate Service: University of Rochester

July 12, 2016



THE PROBLEM

This university of 10,000 students includes five campuses, six schools (including the Eastman School of Music), the Laboratory for Laser Energetics, and the Rochester Medical Center, and ranks high among universities for its research spending.

The university was purchasing digital certificates (which are used to confirm that a website is legitimate and that its online transactions are secure) on an as-needed basis. This involved multiple vendors, so there was no uniformity to the certificates. Additionally, there are many enterprise applications, many websites, and yet little visibility as to what SSL certificates were actually in use. The university needed to be using standardized SSL certificates and the same encryption models for all of its environments.

The routine for cert purchasing was awkward and involved: visiting a vendor web page to provide personal ID and server information to an automated system, issuing a purchase order to the vendor, waiting for the vendor to call HR to verify identity and employment, and finally going through the technical steps of generating a certificate-signing request and downloading the signed certificate.

THE PROCESS OF REQUESTING AND RECEIVING CERTIFICATES NOW HAPPENS VERY QUICKLY, AND MOST OF THE PAPER HANDOFFS AND MANUAL INTERVENTIONS ARE GONE.

THE SOLUTION

The University of Rochester looked to the InCommon Certificate Service because it offers unlimited digital certificates for one annual fee. As a result, the university now provides such certificates to all departments free of charge. Certificates are made available to all university websites and web applications, including testing and development environments. In addition, the process of requesting and receiving certificates now happens very quickly, and most of the paper handoffs and manual interventions are gone. And compared to a direct vendor purchase, says Kevin Jesse, a solution architect for the university's Enterprise Architecture program, the cost is "nearly nothing."

SOLUTION SUMMARY

By subscribing to the InCommon Certificate Service, the University of Rochester found a secure and scalable digital certificate solution which saved the institution substantial resources, both time and money. The service provides a centralized framework for deploying a true site license with seamless provisioning to individual departments.

COLLABORATORS

- **The University of Rochester**
www.rochester.edu
- **Certificate Service User Group**
<https://spaces.internet2.edu/display/InCCollaborate/InCommon+Certificate+Service>

PRODUCTS & SERVICES:

- **InCommon Certificate Service**
certificates.incommon.org

THE RESULT

The university substantially lowered overall costs for issuing SSL certificates. They increased the visibility of SSL certificates in use, mainly through the use of InCommon's Certificate Manager utility, which is contracted through Comodo, a leading certificate provider. Departmental customers within the institution now receive certs at no cost, and usually within minutes.

In addition, the university creates reports from data center network security scans to see all expiring certificates and all deployed certificates. "We use that report against Certificate Manager reports to get an idea of what we've issued through InCommon and then what we actually have in our environment," Jesse says.

The university has created a virtual core team of all of their SSL certificate subject matter experts. They meet monthly, with an agenda "that's pretty wide, but we all collaborate on solutions to keep moving the service

forward,” says Jesse. “We use the Certificate Manager self-service portal across our whole organization, [which allows] anyone at the University of Rochester to request SSL certificates. It takes a lot of the burden off the central IT, other than the approving of the certificates.”

The Rochester team uses the “delegated access” feature of the InCommon Certificate Manager. “We’ve started opening up department levels to improve their speed of approval of certificates,” says Jesse. “We have two ‘sub organizations:’ the campus/educational side and then we have the Medical Center side. We’ve split the use of the Cert Manager to both sides. That way my associate Lisa Sprague and her team don’t have to manage all the certificates for the Medical Center, and we can focus primarily on the education side.”

Jesse sees department-level issuance as important for flexibility as well. “For instance, one of our IT experts—in this case the router load-sharing expert—might issue a certificate and get it approved and then find out we forgot, say, to put an extra alternative name [needed for load sharing] in the SAN (Subject Alternative Names) field in a certificate. If that happened under the old system, we had to go back through, revoke, request a new certificate, re-request then wait for approval. With the delegated access, those individuals now can do that within a couple of minutes, so the speed of provisioning and replacement of certificates has definitely helped us out in our current state.”



Jesse sees delegation as a major success. He says it allows access to the subject matter experts and to different departments, and thus improves the delivery speed for the certificates. For at least one department’s experience with the client certificates, “We were just there to support them on any questions they had,” he says. “It works very, very well. If you’re not using the self-service portal today, do so!”

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