

Pennsylvania State University

TOP-RANKED UNIVERSITY IMPROVES STUDENT AND ALUMNI SERVICES WITH CERTIFIED DOCUMENT SERVICES

CUSTOMER:

Pennsylvania State University
www.psu.edu

INDUSTRY:

Education

CHALLENGES:

- Ensure validity of student transcripts
- Provide open, standards-based service for delivering electronic transcripts
- Track delivery and receipt of transcripts

SOLUTION:

Penn State is providing an online certified transcript service to alumni worldwide via:

- Digital Signature Technology
- Document Generation
- Process Management

RESULTS:

- Accelerated production and delivery of transcripts by more than 99%
- Reallocated administrative time to other student services
- Improved integrity and reliability of transcripts
- Anticipated full ROI within one year of deployment

IN PARTNERSHIP WITH:

- Adobe®
- SafeNet
- Four Point Solutions

Making the Grade

The undergraduate and graduate programs at Pennsylvania State University (Penn State) are respected worldwide. From renowned medical and science programs to distinguished liberal arts and engineering studies, the university attracts students and faculty from around the globe. Each year, Penn State serves more than 80,000 students at its main and satellite campuses, awarding over 16,000 degrees annually.

Given the scope of its programs and the size of the school, Penn State realized early on that web technologies could greatly improve student services and streamline its operations. Today, potential and current Penn State students can perform many tasks electronically, including applying to any one of the school's 23 campuses, registering for classes, and paying tuition.

"We're a pioneer in integrating technology into coursework and into our administrative processes," says J. James Wager, assistant vice president for undergraduate education and university registrar. "When we looked at offering electronic transcript services to alumni, we wanted to deploy a proven solution that adhered to the highest standards for document authenticity and integrity."

To meet its stringent requirements, the university adopted Certified Document Services (CDS), built around GeoTrust (a VeriSign company) digital signature technology, Adobe LiveCycle Document Security software and a Hardware Security Module (HSM) from SafeNet.

Reliable, Authenticated Digital Documents

More than 120,000 transcript requests are received annually by the university registrar's office. Requests come in by mail, by fax, or through a web portal submission system. Approximately 25% of the requests are urgent, with alumni needing transcripts sent by overnight mail for a job interview or to meet a graduate school application deadline. "We have a team of employees that continually responds to transcript requests," says Wager. "We knew that we could achieve tremendous efficiencies for the university and cost savings for alumni if we could overcome the security challenges to providing this service online."

One issue of critical concern to Penn State officials was the proliferation of fake diplomas and falsified transcripts—annual sales of which total more than \$100 million worldwide. The falsified transcripts have become so advanced that they include watermarks, metallic strips, and other identifiers typically associated with helping to prevent fraud. With the prevalence of fraudulent transcripts on the rise, Penn State needed a reliable way to validate that transcripts came from the school's secure system and were not tampered with by anyone; otherwise, Penn State could not provide electronic transcript services.

Standardizing on Industry Leaders

Wager's group worked with Four Point Solutions, an Adobe Solution Partner, to devise and deploy the best technologies to more securely generate certified digital documents. The group decided that CDS from GeoTrust and Adobe provided the requisite capabilities.

"GeoTrust and Adobe have solid histories of delivering proven technologies," says Barrie Ellis, president of Four Point Solutions. "Plus, we knew that document recipients did not need to purchase or install any specialized software to open certified transcripts in Adobe Portable Document Format (PDF)."

For GeoTrust and Adobe, delivering certified electronic transcripts was a logical extension of the CDS solution, which is used by organizations worldwide to electronically publish financial information, invoices, architectural drawings and other communications that certify to recipients the authenticity of the document and its author.



Document Delivery in Seconds, Not Days

CDS is the first ubiquitous implementation of public-key document validation technology; and, because it is embedded within existing Adobe applications, it is truly seamless and ease to use. Authors or organizations interested in creating certified documents will register with GeoTrust, have their identification information verified and be provided with a CDS Digital Certificate that can be used to sign PDF documents. A CDS Digital Certificate is signed by the GeoTrust for Adobe Certificate Authority that has been issued by the Adobe trusted root and embedded in Adobe Reader and Acrobat, versions 6.0 and higher.

To order transcripts online, Penn State students and alumni log onto the school's extranet using their assigned passwords and enter the mailing or e-mail addresses of the people to receive the transcripts. The system pulls student information from the school's mainframe applications and places it in the transcript template. Adobe LiveCycle Forms then automatically generates a transcript in Adobe PDF that is certified by Adobe LiveCycle Document Security software using the GeoTrust CDS Digital Certificate stored on a SafeNet HSM. The file is placed on an FTP server for downloading by specified recipients. As transcripts are downloaded, the student or alumnus making the request is notified by email.

"This process addresses many important steps," says Wager. "We know the PDF files are secure and authenticated, and that recipients can easily open the files using the free Adobe Reader® software. At the same time, built-in tracking and notification in our web portal eliminate questions about when transcripts were sent and if they were received. It's a terrific solution."

When recipients open a certified PDF transcript in either Adobe Reader or Adobe Acrobat® software, a validation message is displayed. If the document was signed using a valid CDS Digital Certificate from GeoTrust, the message provides assurance that the transcript came from Penn State and that its contents have not been changed unscrupulously. This offers peace of mind for the alumnus, administrators, and the recipient. If a transcript was altered, an error or warning message appears as soon as the file is opened.

Reallocating Valuable Resources

In higher education as in corporations—where organizations often face decreasing budgets and tighter control over spending—the efficiencies provided by the online services have important impacts. Staff once dedicated to printing and mailing transcripts can now focus on other student services such as handling student payments and issues with class schedules. At the same time, the university's printing and mailing costs can be decreased by tens of thousands of dollars annually.

Alumni benefit with near-instant delivery of transcripts to intended recipients. "With the GeoTrust and Adobe solutions, transcripts can be generated and securely delivered in minutes anywhere in the world," says Wager. Previously, the fastest the school could deliver a transcript was 24 hours—and that required requests to be received early in the day and not on weekends or holidays. Because certified digital transcripts can instantly be delivered electronically, students also avoid paying an additional \$14 delivery charge per recipient to express mail transcripts on paper.

Full ROI Within a Year

Currently, approximately 20% of transcript requests are made via the online system, a percentage that Wager expects to increase considerably as more alumni learn about the service. "Students have easy access to authentic, digital transcripts, and the university is saving valuable employee time and resources," he says. "Within a year, we expect to fully recoup our investment in the service. It's a winning situation for everyone."

When recipients open a certified PDF transcript, a validation message is displayed indicating that it came from Penn State and that its contents have not been changed. If a transcript has been altered, an error or warning message appears as soon as the file is opened.

