

e-Forms: Utilizing technology to improve Purchasing Card application and limit increase requests

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Abstract

If a document requires a signature of approval, most people would automatically assume that a hard-copy document is necessary. How else might they imprint their identity without a pen and paper? With the new technology available, we have come up with another way: an electronic signature provided by using an email account.

With the Purchasing Card program instituted at the University of Virginia, there are two key forms requiring a supervisor signature of approval. The first is an application requesting that an individual receive a credit card in their name for University purchases. The second is to request an increase in the monthly limit for a cardholder.

Our forms were previously designed to be printed by the department and forwarded for approval signatures. After approval, the forms were sent to the Procurement Services department for final review and processing. This process worked well, but it added time delays for each step and the forms were not always completed in full. In addition, some of the forms would be hand written in lieu of being typed, which at times caused legibility questions.

The key to placing these forms online was the realization that an electronic signature is just as viable as a written signature for our purposes. An email account hosted by the University of Virginia always has a security feature of a password that must be used in order to send or receive mail. This ensures that the person who forwards the email is actually the one approving the document.

By using an online form for the applicant to enter their request, the information submitted could be sent via email to the supervisor noted by the applicant. Once the supervisor reviewed the information, he would have the same options to approve, reject, or change the application as written. To approve the request, he could simply forward the email as received, or as changed, to the Procurement Services department for review and processing.

This new process saves time, ensures all of the necessary fields are entered completely without any handwriting, and it allows for a tracking of the progress of each submittal.

Our online Application can be found at:

<https://www.procurement.virginia.edu/forms/AmexApplication.html>

Our online Monthly Limit Increase form can be found at:

<https://www.procurement.virginia.edu/forms/MonthlyLimitExemption.html>

Our old version of the application can be found at:

http://www.procurement.virginia.edu/insidePS/web_imp/AmexApplication.doc

Our old version of the Monthly Limit Increase form can be found at:

http://www.procurement.virginia.edu/insidePS/web_imp/PcardExemptionRequest.doc

Introduction of the Organization

The University of Virginia is distinctive among institutions of higher education. Founded by Thomas Jefferson in 1819, the University sustains the ideal of utilizing education to develop leaders who are well prepared to help shape the future of the nation. The University of Virginia (U.Va.) remains public, supported by both the Commonwealth of Virginia and the generosity of its alumni.

The University of Virginia has ranked number 2 (in a tie with the University of Michigan) among public universities, according to the 2005 *U.S. News & World Report*. Since *U.S. News* began ranking public schools in 1998, U.Va. has never been lower than No. 2. In its 2005 edition of "America's Best Colleges," *U.S. News* also ranked U.Va. as No. 22 in its Top National Universities category, which includes public and private institutions.

Enrollment for the 2003-04 school year showed 19,643 students, comprised as 65 percent undergraduate, 24 percent graduate, 8 percent as first-professional (law and medicine), and 3 percent on-grounds continuing education. The University offers forty-eight bachelor's degrees in forty-six fields, ninety-four master's degrees in sixty-four fields, six educational specialist degrees, two first-professional degrees (law and medicine), and fifty-five doctoral degrees in fifty-four fields.

As a member of the highly competitive Atlantic Coast Conference, U.Va. fields twelve intercollegiate sports for men and thirteen for women. The intercollegiate athletic program ranked 30th in the final 2003-04 Division I United States Sports Academy Directors' Cup standings. U.Va. had 224 student-athletes named to the 2003-04 Atlantic Coast Conference Honor Roll, which is comprised of student-athletes who participated in a varsity-level sport and registered a grade point average of 3.0 or better for the full academic year.

The mission of our Procurement Services Department is to support the purpose and goals of the University of Virginia -- its educational, research, patient care, and public service missions -- by purchasing and providing quality goods and services at competitive prices, proper financial stewardship for payments, and providing responsive and responsible service to all University departments.

We achieve our mission by dedication to excellence in customer service, providing avenues of access to businesses, processing orders in a timely manner, streamlining operations, pursuing cost savings, identifying new sources of supply, developing relationships with small, minority, and women-owned vendors, and complying with all laws of the Commonwealth of Virginia.

Statement of the Initiative

Our main goal was to continue to improve our basic processes. One idea was to change our Purchasing Card application and monthly limit increase forms from paper-based into electronic versions available from our online website. We would only move forward with that initiative if the department was not required to print the form in order to receive the supervisor signature of approval.

Design

In order to put all the pieces of the puzzle together, our first step was to have a meeting with the members of the Procurement Services Information Technology (IT) group and the Purchasing Card team. During this meeting, we came up with the requirements needed for the website and the basics of the process as a whole.

We realized that our IT group could program a website that included all of the information currently requested on our paper form, and that the fields could be pre-filled with

common data such as the city and state, or even just the ending to the email address of “@virginia.edu.” We also discussed the idea of using the electronic signature from email for approval purposes, and decided we should speak with our Internal Audit department to ensure they agree with our methodology before moving forward.

Once we had the approval of our Audit department, our IT team started developing the programming effort for our Purchasing Card Application. We also began work on the email that would be automatically sent to the supervisor when an applicant submitted the information online.

Developing the terminology for the email was a bit challenging, only because there are certain terms and conditions, as well as a policy regarding the use of the card, that the supervisor must understand prior to approving the issuance of the card to any individual. Our challenge was keeping the document from being too wordy, but informative and complete in the information provided. Our solution was using hyperlinks to the policy and terms and conditions. That way if the supervisor already understood them, there was no need to visit those links; but if the supervisor was unsure as to their content, they could review the information.

After our email was developed and the web form created, we needed to meet again with our IT group to determine the placement of information in the email to the supervisor. This became an important point since we were taking this information and entering it into two separate systems: our Oracle database, and the American Express website. Once we had the order corrected and the website tweaked to our specifications, we were ready to implement the new site.

After we had our application completed and operating, we went back and worked on the monthly limit increase form. We repeated as much programming as possible in this new form, and modified the email only as needed for the notification to the supervisor.

Implementation

Our implementation efforts revolved around the activity of our IT team. The online application was taken from our test website into general viewing for entry and listed under our “Recently Changed Pages” section of our website for our users to reference.

We also announced our new form by demonstrating it at the monthly all-department fiscal meeting, sent an email throughout the University community, and wrote an article for it in our quarterly newsletter.

After we placed our monthly limit increase form on the website, we repeated this process.

Benefits

We have found numerous benefits to this new system. For our Purchasing Card team, it has improved the quality of the forms received: there is no need to decipher questionable handwriting; the necessary fields must be entered, which raised the likelihood that the form will be completed correctly; there are not as many delays related to transporting the paper from place to place; and it is easier to track the progress of all submitted forms.

Cardholders and supervisors have also commented on the ease of use for the online forms. One of the reasons noted has been the next step in the process is always mentioned. Also the elimination of a paper document reduces the likelihood of a misplaced page. In addition, if

the document has been accidentally deleted, we do have a copy of the original submission we can resend to the supervisor.

The online capability for these two forms has streamlined the processes at both the department and Procurement Services levels.

Retrospect

Since our implementation of these tools, we have made two helpful adjustments. The first was to include a field for “Social Security Number” if the applicant is not a current employee of the University. This change required the IT group to place the site on a secure server to help protect the information.

The second change we implemented was to provide a recap of the information to the submitter of the form after they’ve pressed the “submit” button. This gives the individual a chance to print off their submitted entry to every field, along with the date completed, just in case a hard copy is preferred for their records.

These minor adjustments have improved our forms, and since these adjustments have been completed, we have not heard any additional suggestions from cardholders, supervisors, or even our own Purchasing Card team.