FACULTY & STAFF IT ADVISORY COMMITTEE

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Final Report: Electronic Signatures (E-Signatures)

Team Members:

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1) Problem Statement

The University of South Carolina generally uses traditional paper-based documents to drive business processes. These documents often require signatures to be collected from people across the world, including faculty, staff, students, affiliates, and other external parties. As a result, stakeholders demand innovative solutions to reduce lengthy processing times and to avoid unnecessary costs.

The use of electronic signature (e-signature) technology, in combination with document digitization, is broadly acknowledged as being effective in improving efficiency and reducing the cost of business processes. E-signature technology encompasses a broad category of methods that can be applied to an electronic document to capture intent to sign, consent, and, in varying degrees, provide document authenticity, integrity and nonrepudiation. An e-signature can have the same legal status as a handwritten, wet-ink signature on a paper document when implemented in compliance with the laws or regulations applicable to the university.

Therefore, the University should consider a strategic initiative to leverage e-signature technology to help achieve process improvements and reduce operating costs.

2) Executive Summary

An investment in e-signature technology and supporting policy structures will provide a significant return on investment for the university.

Return on Investment (ROI) can be realized in the following opportunities:

- Streamlined operations – eliminate document scanning, re-keying of data, and errors
- Reduce costs – avoid printing, scanning, mailing, faxing, storing and disposal costs
- Interacting with stakeholders in the way they want – digitally, from anywhere, with any device
- Improved quality, timeliness, and accuracy of documents

3) Investigations, Data, and Conclusions

Investigation #1 - Academic Unit Context - College of Information and Communications

Methods:

Faculty, administrators, and staff of the College of Information and Communications (n=30) were emailed and asked to provide a list of items they wished could be handled with e-signature rather than a physical one. They were also asked for open input about their experience and concerns with e-signature.

Results:

10 respondents shared their opinions on e-signature via email or face-to-face conversation. Several respondents are already using e-signature for electronic student recommendations, references, and letters of support (using Adobe Acrobat, jpg signatures, and unnamed other tools). In general, e-signature is already being adopted, used, and enjoyed in many situations on campus from the point of view of members of an academic unit. They named the following items/forms that they wished could be signed electronically and accepted by other units on campus when necessary. They also shared comments and concerns summarized below.

Forms/Items

- Print requests (departmental signature required)
- Bulk mail requests (departmental signature required)
- Request for services such as AV services for events, lectures (departmental signature required)
- Inventory Form 7
- Travel authorizations
- TRVs
- Grant documents (multiple signatures required)
- Reference letters
- Programs of Study for Students (multiple departmental signatures required)
- Incomplete forms (multiple departmental signatures required)
- Independent Study forms (multiple departmental signatures required)
- Internship contracts
- Registration exception forms
- Grade change forms
- Numerous doctoral student forms
- Graduate student forms that must go to the graduate school.
- Course advisement forms
- Employment forms for adjunct faculty
- Any daily internal documents that need departmental director's signature (from the director's standpoint)
- Training and development attendee signatures for all sessions at OPD and across campus
- PAL and ELP applications
- Membership and donor forms could be signed electronically (United Way, Annual Giving, AEC, etc.)
- Large forums and events that require signature could sign-in electronically
- Student Health Center (Sign in electronically, health forms)
- Travel request forms, reimbursements, purchase orders
- Carolina Card from desks/during orientation and sent by inner campus mail
- Parking pass from our desks/during orientation and sent by inner campus mail.

- Performance Management: EPMS, Position Description
- Personnel Change Forms: PBP 4/5, Bonus Forms, PFP Forms
- Policy acknowledgements
- Benefits forms: Enrollment, Changes
- Academic Position Request/FTE Form
- Payroll: Deduction forms, ITams Approver, VIP Student Hire System, User Responsibility form
- Affiliate Appointment Forms
- Telecommuting Request Forms and Agreements
- FMLA paperwork, approvals and letters
- Signatures for training certificates

Open comments (summarized):

- E-signatures allow quicker responses.
- E-signatures save College print resources.
- E-signatures are widely used across campus already with a few exceptions.
- It can be difficult to determine whether something is officially e-signed when using Adobe or a picture of a signature embedded in a document.
- Student services forms would benefit from e-signature, but the graduate school does not always accept e-signed documents.

Investigation #2 - Auxiliary Unit Context - Department of Athletics

The USC Department of Athletics' Compliance Office has successfully used electronic signature technology (e.g. DocuSign) for several years.

Forms/Items

- Game contracts
- Facility use agreements

Investigation #3 – Administrative Unit Context – Office of the Provost and sample of reporting units

Methods:

Administrators and staff members within the Provost Office and a sample of reporting units were surveyed in person and via email about potential use cases for electronic signatures.
Results:
The following use cases were identified for using e-signatures. Many respondents noted that a policy change would be required to facilitate consistent acceptance/use across campus.

- Clear protocol needed on the use of signatures for student forms such as program of study, graduation clearance, doctoral committee, doctoral defense
- Late additions to courses for students registering after deadlines
- Course audit forms
- Workflow capabilities would be helpful
- Hiring documents for adjunct faculty
- Faculty needing to change letter grades or grade type in banner

4) Recommendation(s) & Action Items

The University of South Carolina should consider a strategic initiative to leverage e-signature technology to help achieve process improvements and reduce operating costs. The members of this task force, The Faculty/Staff IT Advisory Committee Electronic Signatures Task Force, offers the following suggested action items and recommendations.

1. We recommend that the Chief Operating Officer (or their designee) establish a system-wide task force, composed of key stakeholders and broad representation, charged with the responsibility for initiating, planning, executing, and closing a project to establish a university electronic signature capability.

2. We recommend that the task force, recommended above, be charged with the following responsibilities:
   a. Develop an appropriate policy that establishes official support for the use of electronic signature technology in university processes and outlines specific electronic signature standards required for compliance with applicable laws and regulations.
   b. Evaluate alternatives and make formal recommendation to the COO for assigning organizational responsibility for managing and maintaining the electronic signature capability, including policies, procedures, and personnel.
   c. Assemble a comprehensive set of functional and technical requirements, formally evaluate potential technology solutions, and select a preferred technology vendor(s) for implementation.
   d. Prepare a formal funding proposal that outlines the required recurring and one-time investment required to procure, implement, and maintain an enterprise-wide electronic signature capability (including all costs - i.e. staffing, hardware & software, operating expenses, etc.).
   e. Establish a plan for broadly communicating the need for and value of an electronic signature capability to university stakeholders; and, to educate them on the use of the new capability.
   f. Review the potential list of forms and/or processes that would benefit from electronic signature capabilities and prioritize them to provide a recommended order for implementation.
   g. Run a pilot test of any solution and get end-user feedback on the technology selected

3. At the very least, in the absence of an enterprise level initiative, we implore university leadership to officially support the use of electronic signature technology as an acceptable business practice and communicate to university departments that electronic signatures can be successfully used in lieu of wet signatures. We recommend that multiple solutions across campus be used with caution – duplication of system solutions may result in paying for the same product multiple times.

5) Resource Requirements and Strategies
The necessary resources required to implement an electronic signature capability will vary significantly depending the selected project scope and staffing/support strategy. The recommended project task force, above, should develop a formal resource plan. Nevertheless, below is a rough order of magnitude software cost estimate to help inform an initial investment decision.

Rough Order of Magnitude Software Costs
According to Gartner's research note "Market Guide for Electronic Signature", published January 16, 2017 (ID# G00308575), there are numerous vendors that provide solutions in the e-signature technology market. Gartner reports that 85% of their clients choose a Software as a Service (Saas) deployment model (i.e. Cloud hosted), and, that Adobe Sign and DocuSign are by far the two market share leaders.

The University of South Carolina is a member of Internet2. Thus, the university can purchase certain software applications and services through the Internet2 NET+ program at a heavily discounted price specific to higher education institutions.

The annual price of the Internet2 NET+ DocuSign for Higher Education service is based on the size of the institution grouped into one of 6 pricing tiers. The tier is determined by the total number of faculty and staff (see below).

DocuSign Enterprise Subscription Pricing

	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Tier 6
Actual Campus Size (i.e., Faculty and Staff only)	1-250	251-1,000	1,001-2,500	2,501-5,000	5,001-10,000	10,001-35,000
Annual Fee for the Services for Internet2 Members	$12,100.00	$24,200.00	$41,800.00	$60,500.00	$71,500.00	$83,600.00
One-Time Startup Fee for Internet2 Members	$2,500.00	$3,500.00	$5,000.00	$7,500.00	$10,000.00	$12,000.00
Support (10%)	$1,210.00	$2,420.00	$4,180.00	$6,050.00	$7,150.00	$8,360.00
Expected Usage (Number of Envelopes Sent by Authorized Users)	2,700	5,500	10,500	16,000	19,000	23,000