At Jud Harper's request an electronic services (eServices) committee was constituted in the spring semester of 2000. The charge to the committee was to develop a plan to correspond via email with students, faculty and staff. The benefits of such a system are reduced printing and mailing costs and improved communication channels with individuals, especially for prospective, admitted and enrolled students. The committee formed two working groups, one dealing with policy and the other dealing with technical issues, with overlap of membership to provide communication between the two groups.

First, the committee decided that to receive electronic services, all on campus must have an electronic identity, or eID, that they could use to identify (authenticate) themselves upon accessing services electronically. Furthermore, the eID would also serve to authorize, subsequent to authentication, specific electronic services for the individual. Thus, much of the planning to date has been to define this basic service, upon which all other services will rely. However, the exception is prospective students, who do not need an eID, as all they will be receiving is electronic mail. Admissions is currently collecting email addresses of prospects. Therefore, a separate, straightforward technical solution for sending email to prospective students was defined.

The technical subcommittee has conducted a series of meetings to identify technical approaches to providing eServices. The technical subcommittee identified the following solutions and targeted timeframes for implementation:

1. **Electronic mail to prospective students** – A commercial software program was identified that sends electronic mail selectively to email addresses in a database. This software costs $200 per copy and is implemented individually on PC’s. The criteria for selection of recipients depends upon information extracted from ISIS. For example, fields in the database that may be used to determine selection could be state, gender, CCHE index, etc., either individually or in combination. The email address must be included as a field in the database. Admissions staff would require training on this package, and database queries would need to be developed and implemented. Time frame for implementation is spring 2001, dependent upon acquiring email addresses from prospects, developing the database and training Admissions staff on the new system.

2. **Electronic identity, eID** – In order to provide electronic services that are personalized and secure, all individuals will be required to have an electronic identity. The eID will be implemented over the next year, and is anticipated to be ready in October 2001. The committee recommends that an eID be required for all students prior to enrollment for spring 2002 registration, or in October 2001.

3. **In-house electronic mail system** – This initiative has various components, some of which need to be identified further depending upon the scope of the activity. Each component is identified separately below.
   a. **Non-selective email to all students** -
      - One component is a system to send email to all students. The system proposed for this is the *FYI* email system currently in place for faculty and staff, where electronic mailings to all students are “ganged up” once per day on a single web page. A single message that summarizes the emails with clickable links to the full email messages (see http://fyi.colostste.edu) is sent to all students once per day. It may be that two separate *FYI* systems for students would be implemented, one for graduate students and one for
undergraduate students. Since the software already exists and only requires to be modified for this application, this can be implemented as soon as a good database of student email addresses and the eID database are complete – Test in November 2001 and implement fully in January 2002. Messages sent to *FYI* might be moderated.

- A second system to send email to all students would be restricted to "vital" communications. Email would not be digested and “ganged up” as for *FYI*, but delivered as single separate messages. Messages would not be moderated. Restricted groups might initially include Enrollment Services, Admissions, CSU Police, University Relations, and others as approved by ITEC.

b. **Selective email to groups of students** – The subcommittee recommends that a Web-based solution be developed in-house. Here, one would access a web page with pull-down menus that define the specific selection criteria. Selection criteria for sending email to groups of faculty, staff and students will likely be different. Selection criteria for sending email to students might include the potential recipient’s major, class, gender, classes in which the student is or has been enrolled (this may in itself involve a complex set of criteria), clubs, financial aid status, etc. Time frame – TBD.

c. **Selective email to individual students** – This entails personalized electronic mailings to individuals. Examples might be

- “Jane Doe, you have $300 of financial aid loan eligibility left, please come to Room 220 Student Services Building at 2:00 PM Friday September 1 to discuss this with your financial aid advisor.”

- “John Smith, you have $100 of financial aid loan eligibility left, please come to Room 220 Student Services Building at 2:30 PM Friday September 1 to discuss this with your financial aid advisor.”

Two potential technical solutions, MailKing and Microsoft Word with mail merge, have been identified, but additional investigation needs to occur before a technical solution is selected. The technical sub committee will be doing further work on this project. Time frame – TBD.

4. **Portals and middleware** – It is essential that all new services be implemented in a fashion consistent with our effort to provide portals for the campus. Furthermore, all new services need to be implemented in such a manner that will integrate with emerging campus security standards, including authentication and authorization via middleware. Time frame for portals and middleware – to evolve over the next two years.

Requiring an eID and providing systems to send email as specified above require cultural shifts for the campus and raise policy and implementation issues as articulated below.

**EServices Policy Issues**

Policies must be defined to strike an appropriate balance between privacy and utility. If individuals get “bombarded” by gratuitous advertising facilitated by these systems, they will tend to ignore the messages, reducing the utility of the systems. The committee recommends for ITEC’s consideration:

- **Fall 01**: Faculty, staff and students be required to have an eID by October 2001 to get eServices. Students without eIDs will have a hold placed on Spring 02 registration.
• Associates are eligible for an eID, but must have a department sponsor. Department sponsors must have an eID. Associate eID's must be renewed annually.
• Systems be created to communicate with students via email. Five systems are proposed: 1) email to prospects and applicants, 2) moderated email to all students via FYI, 3) email of “vital” information by specific entities to students, 4) email to selected groups (open to all but from on campus only), and 5) email to selected individuals by specific entities.
• Access to the email systems would be as follows:
  o Admissions, Enrollment Services and University Relations can email to Prospects.
  o Faculty, staff and approved student associations can email to FYI for students. Messages will be moderated and digested into one mailing per day.
  o A restricted set of departments can email “vital” information to students. Messages will not be moderated or digested (Enrollment Services, Admissions, CSU Police, University Relations, and others as approved by ITEC).
  o Faculty and staff can email to selected groups and messages will not be moderated. There will be no limit of number of recipients placed on these mailings.
  o Access to the email systems will require an eID and all email must originate from on campus.
  o The total list of recipient addresses (To:) will be shielded for privacy and security.
• An eID office be identified. The committee recommends that the current "Accounts Management" function of ACNS be expanded to include support for eID.

Additional policy issues, for which we have not yet determined a stance, exist. These include:

• Should there be a nominal charge for any of the email services to encourage appropriate use? If so, for which services, at what scale?
  • Which office should to be responsible for moderating FYI?

EServices Implementation Issues

Implementation issues also exist.

1. What new hardware and software systems and staff will be required to implement these services?
2. Which units will implement, manage and operate these new hardware and software systems?
3. Who will be responsible for training and support of the new software systems?
4. Who will be responsible for user support, both support of those using the systems and support of those receiving information from these systems?

KS/IP 2.4 and 2.5 address some of these implementation issues, key among them are the need for ACNS central server upgrades, the need for deployment of the software to enhance the Web functionality of ISIS, and the need to upgrade to a new student information system. Further articulation of hardware and software cannot be done until prototyping for the systems is underway. For example, testing may identify response time issues for Delphi.