ECAT Host-Based Services Subcommittee
Final Report
4/3/2001

Approved by ECAT on April 3, 2001.

The subcommittee on Host-Based services met numerous times throughout the fall 2000 semester to study and make both specific and broad recommendations regarding campus services—many of which are contained within Computer Infrastructure Support Services of CTSG. Members included ECAT members Jim Cunningham (chair, Milner), Jim Carter (Geology), Kate Plantholt (CAST), Steve Bell (Administrative Computing), Bill Blomgren (TNSS) and David Greenfield (CISS). Staff members Scott Genung (TNSS), Eric Hodges (Administrative Computing), and Rudy Radosevich (CISS) also participated.

Based on an initial list of topics generated by CISS staff and ECAT at-large, the committee divided the topics into three areas which to work; from those expecting specific recommendations to those with broader implications. Those topics were selected for the following document in two parts: those with short term (one year implementation timeline) recommendations and those with longer recommendations (two to three year implementation timelines).

Note: It was recognized that Windows 2000 (both Active Directory and desktop implementation) will play an important role in many of these topics (especially architectural issues). The work of the established campus Windows2000 Implementation Team needs to be considered and incorporated into any actions.

Part 1: Short Term Items (One Year Implementation Timeline)

General Central Services Directions
Currently all campus users receive an amount of disk space which is allocated to various functions. Referred to as Datastore, this disk space is considered "personal" space with only the user having access. Some space is allocated to automated web space. Two limits are imposed: a soft limit that means a user will receive occasional emails that the limit has been exceeded and a "hard" limit which is a defined maximum.

1. We recommend that space for email, providing disk space allows, be increased to 15Mb soft and 25Mb hard for Spring 2001. Then staff should look at the possibility of further expanding disk space to 20Mb soft and 30Mb hard over the summer for the Fall 2001 semester.

2. We recommend that an unlimited amount of space be available in a course web section for faculty and instructors. We suggest that a directory of some sorts be created. Possibly utilizing a search engine with specifications. We also suggest that the secure nature of this central site continue to be developed including SSL, password logons, etc. The capability to tap into course data (found on the university mainframe computer, etc) through course web pages should also be explored for implementation.

3. We recommend that web space be set aside for registered student organizations. Procedures should be worked out in conjunction with IWSS, CISS, and student affairs for the distribution and continual monitoring of this space.

4. We recommend that both Internet Explorer and Netscape Communicator be supported on-campus.

5. We recommend that FrontPage Extension functionality for specialized projects be studied and then made available.

6. We recommend that remote access to central space from non-ISU domains be reviewed and if a solution can be found, put into place. (Currently a share must be established through ISU authentication before files can be

exchanged.) An example of this would be a secure FTP access to faculty web space. A web-based file management interface (like Yahoo Briefcase) would permit such access to Datastore space without the need for an FTP client.

Naming Conventions and Standards

How users are identified on central systems is an issue that warrants a review. Many external services allow users extreme flexibility in logons and identification. At the same time, the notion of single sign-on requires a "lowest common denominator" approach to insure all systems are accessible.

1. We recommend that the current ULID format of 7 characters remain. Expanding this to 8 characters was preferred, but due to at least one system unable to recognize 8 characters, 7 should be the standard in light of single-sign on preferences. We also recommend that all ULID's should be pre-determined on the existing FMLLLLL (F-First initial, M-Middle initial, LLLLL-first 5 of last name) basis. CISS stated that for new faculty/staff, some leniency is given on ULID selection upon asking. The committee endorsed this as long as the ULID is still based upon the user's name.

2. We recommend that a subcommittee of ECAT be formed, to include technical staff outside of ECAT as necessary and appropriate, to develop guidelines and procedures for implementing aliases for campus email accounts. The work of this body would be done in one year, with an implementation timeline of one to two years to follow, depending on the technology and policy issues at hand.

3. We recommend that further study be held in addressing the need for multiple users to access a single mailbox for committees, student groups, department offices, class/instructor groups. Implications of Appropriate Use need to be examined. Features which are possible through current List Serv software could aid in this area.

4. We recommend that the University state that each individual is responsible for their ULID@ilstu.edu account as widely as possible. If a user wants to forward mail to an alternative provider, then it is up to the user to place the proper forward in place (can easily be done at www.ilstu.edu/ulid). Note: some faculty require students to use their ULID@ilstu.edu account for class communications – as always this right remains with the faculty member.

Single Sign On

The concept of having one username and password for all Illinois State systems is a trend that was started several years ago with the introduction of the ULID. To date, the campus email system, Traveler, Webmail, Datastore, the dial-in system, ULID services, most Milner Library databases, numerous "trusted" local NT domains, and many FTSS training accesses all are authenticated off the central LDAP directory. The ULID is also being used in some administrative applications to authenticate, usually with the student's PIN number.

1. We recommend that exploration of existing systems take place to see if it can be incorporated into the current single sign-on model. Among those which were mentioned (but not limited to) the mainframe, Datatel, meeting maker, webboard, mallard, and webct.

2. We recommend that any future service be evaluated to see if it can be incorporated into the single sign-on model.

3. We recommend that a common campus directory be further developed.

4. We recommend that emphasis be put on several technologies which could help the single sign-on process: Windows 2000 with its active directory structure, Windows 2000 with it ability to incorporate Kerberos for secure logons, a common web portal environment for the front end with SSL applications.

Backup of Distributed Servers
Several routes have been available for LAN Coordinators to backup servers and workstations through CISS or Administrative Computing. Each has resource or current technology limitations. Critical University data resides on these distributed servers and workstations however.

1. We recommend that a campus-wide strategy be developed for backup services. The economies of such are strong with high density drives, tapes, etc in a shared environment. Network impact should be minor.

2. We recommend that firm procedures be developed and then communicated with support and help available.

Part 2: Establishing Overall Directions (Two to Three Year Implementation Timeline)

General Central Services Directions
Numerous topics dealt with by the committee relate to specific services but have longer term implications.

1. We recommend that further education efforts be employed to inform our user community of the services available to them. Many times it was stated that faculty members do not realize the website space available to them. Students sometimes feel the necessity to find external resources when University ones are available assisting both them and their instructors.

2. We recommend that current backup strategies be evaluated and any changes made from a "best practices" perspective.

3. We recommend that a more feature-laden campus web email client be implemented. Specific features to look at include address books, spell checking, filtering, a better integrated directory tool.

4. We recommend that security issues continue to receive a high priority on campus. Current initiatives such as providing anti-virus tools and utilizing SSL web technologies should not be lessened. New initiatives such as secure email (PGP, Entrust, PKI) and Kerberos should be explored. User education should always continue in as many ways as possible.

5. We recommend the development of a central database of links to all University course web page materials for any given class whether those materials were custom designed by a faculty member, designed in WebCT, or designed in Mallard. There is a strong need for the ability to find all campus web-based instructional materials in one place.

Calendaring
The advent of a common calendar system for personal schedules on campus warranted much discussion. While the campus as a whole currently utilizes several products (Meeting Maker, GroupWise, Outlook) the true benefits of a calendar—no matter the software—is when everyone is on a common system. Further, industry trends such as those presented by Microsoft with Exchange or Sun/Netscape with iPlanet provide for workgroup processing with calendar, email, document flow, and directory service all provided by one interface should be examined. The Host based services group was not able to arrive at specific architectural/product recommendations due to the complexity of the topic. However we are able to suggest overall tasks.

1. We recommend that a further study group be created (potentially from the newly created TSAC) to examine this issue. Specifically the technologies and products available.

2. We would suggest to this study group the following features which would be important in a campus calendar: proxies, "free busy check", PDA syncing, web accessibility (but not at the expense of full featured native client), ability to schedule resources, flexible in address books, and ability to work with the single sign-on model.

3. We recommend to the study group that specific attention be paid to the Windows2000 and web portal initiatives to see what features can be utilized with calendaring. Further, we believe the group should explore a solution for faculty/staff rather than campus-wide.

Future Technologies
Several new technologies are gaining industry momentum which we as a University should be on top of.

1. We recommend a campus initiative exist to develop broad-band services. The higher education environment is making use of various conferencing and long distance learning technologies. This effort would coordinate campus use of streaming technologies (audio, video), networking standards. Particular attention should be paid to the student population.

2. We recommend that a pilot of thin based clients take place. The application for such technologies might be best made in low-end labs such as walk up stations where security is a major concern.

3. We defer to the Windows2000 committee for information and advice on future Active Directory and Win2k at the desktop initiatives. However, we raise the issue here for further awareness of the importance of these coming technologies.

4. We recommend that a central server with common procedures be setup for Internet credit card transactions on campus. Various campus groups already allow credit card payments through a variety of methods. Many more departments have expressed interest. Due to bank issues and the importance of security, it is recommended a common solution be found for all of campus.

General directions
The following issues were discussed and asked for inclusion in the document.

1. We examined the cost/benefits of the University providing email services to various groups in light of numerous third-party sources. We affirmed that the University should offer email for all those engaged in campus life (mainly students, faculty, staff, and annuitants as well as others such as visiting lecturers, etc.). We were not inclined to support alumni accounts at this time. Additional planning needs to study the issue of student accounts for life (ilstu.edu), student use of multiple email accounts from on- and off-campus, greater end-user education on managing multiple accounts and forwarding email, and related issues.

2. We recommend that attention be given to hiring and retaining skilled staff in the host based services area. A competent staff is crucial to the success of offering reliable services and addressing new features and initiatives as suggested in this document.

3. We suggest that both UNIX and NT-based Operating Systems will further propagate and the integration of each will become more and more important. Services should be deployed with redundancy and survivability. With increasing importance being placed on centralized computing systems for everything from course web pages required for classes to papers and assignments delivered via email, and the uninterrupted availability of all these systems is increasingly crucial. We therefore recommend that university host based systems be given redundancy to ensure availability.

4. We recommend that such planning efforts like these continue to take place, many times at a more detailed, technical level (as suggested several times throughout the document with specific items). Overall we need to be more proactive than reactive in our service offerings.

5. We recognize that university-wide host based services may not meet some faculty or operational needs. To address this we recommend that host-based services be developed as common solutions but that they should be customizable as much as possible by campus units in order to meet their individual needs.