PROPOSAL
Going Google at UH

Summary of Proposal

UH Information Technology Services (ITS) is recommending moving all @hawaii.edu email to Google, referred to as Google@UH. The purposes of this proposal are:

1) To provide students, faculty and staff with vastly improved email, calendar and collaboration services.
2) Since the Google Apps for Education service is completely free to universities, this will provide cost savings over continuing to run email in-house.

The Google Apps for Education platform currently hosts over 10 million education users. It provides a superior suite of services as compared to what UH can afford to provide today or is likely to be able to offer in the foreseeable future. And this gap is widening as Google continues to roll out new services to improve collaboration and UH continues to face budget stresses. Since Google Apps for Education is free, this will provide a partial strategy for UH to absorb a portion of the continuing cut in the budget for information technology services.

The UH Systemwide Student Caucus has indicated support and the migration of students began on February 1, 2011. Information about Google@UH is available at http://www.hawaii.edu/google.

Description of the Google@UH Service

Google@UH will become an alternate home for @hawaii.edu email services. Users will keep their current @hawaii.edu email addresses and passwords. Email will be migrated from the current service to Google@UH, including all IMAP folders. Ads will not be shown for anyone using an @hawaii.edu email address.

While the Google Gmail webmail tool available for Google@UH is considered one of the best in the industry, individuals who prefer to use dedicated email clients such as Thunderbird, Macintosh Mail or Outlook can continue to do so. The ITS Help Desk will continue to provide full support for @hawaii.edu email provisioned using Google Apps for Education, including support for the migration process. Instructions will be provided for export/import of calendars and contacts from other common services as well.

Individuals who prefer to use a departmental email system (e.g., @dept.hawaii.edu) or other 3rd-party email (e.g. Yahoo) will be able to forward their email as they do now. The @hawaii.edu account within Google@UH will be completely distinct from any personal Gmail accounts held by members of the UH community.

Some of the service improvements over the current legacy @hawaii.edu email include:

• 7540 MB (7.54 GB) of mail storage for everyone, as compared to the current 500MB for faculty/staff and 250MB for students.
• State-of-the-art webmail tool, as compared the current webmail tool that is no longer upgraded by the vendor.
• Full-featured standards-based calendaring system and contact management, as compared to the primitive tools that were provided with our current webmail.
• Full support for mobile device synchronization of email, calendar and contacts, as compared to current support of mobile email only.
• Enhanced communications and collaboration capabilities through integration of email communications with IM/Chat and deployment of Google Docs, Sites, Groups, Video, and Chat.
• Simple future deployment to Google@UH of new and emerging Google services.

A full description of the Google Apps for Education service is available at:  

Resource Savings

The savings achieved by this service improvement will include repurposing of the current email servers and storage to other high-priority needs for which funding is limited, elimination of the future requirement to replace the current servers and storage when they reach end-of-life, reallocation of staff who currently support the email servers and storage, and limited cash savings. More specifically, the resource savings will include:

• Approximately 15TB of storage, which will be redeployed to other applications currently starved for capacity and/or stored on disks that are no longer appropriate/serviceable.
• Multiple email servers, which will be redeployed to other applications currently starved for capacity and/or hosted on servers that are reaching end-of-life.
• Approximately 1 FTE of system administrator time, which will be available to assist with other projects that have been constrained by the reduced staffing resulting from budget reductions. In addition, universities that have moved to Google have reported a decrease in email-related calls to their Help Desk. ITS Help Desk staff will be able to better support the improved application capabilities (calendar, Google docs…) that UH does not currently support.
• In addition to the immediate opportunity to conserve resources, migrating to Google will allow UH to avoid major future investments of financial and human resources that would be needed in the future to maintain the current limited service offering when the current hardware and software reach end-of-life. These represent significant unbudgeted future expenses.
• Approximately $55K/yr for commercial spam/virus filter software.

The current email hardware represents a hardware investment of over $250,000 with annual recurring costs of about $200,000 not including power consumption. This is consistent with other universities near UH’s size and complexity that have adopted Google Apps for Education and have estimated total savings in the hundreds of thousands of dollars per year and more.

There will also be savings to departments that currently administer their own email systems to overcome the limitations of the current UH service that have indicated their intent to move to Google@UH to obtain the increased quotas, integrated calendaring, mobile syncing and
improved webmail client. These distributed savings have not been estimated.

**Concerns**

**Change**

Change in any IT service or environment is seldom welcomed. UH Webmail users will find that Google’s Gmail web client is different than the current UH webmail client and the MyUH web client. It has many more features, but it definitely represents a change. Google@UH also introduces “labels” as an alternative to email folders. In general, the move to Google@UH will be less disruptive than a version upgrade to Windows, Office or MacOS. In this case, the service advantages associated with change are quite compelling.

**Data ownership, security and privacy**

This is the area that raises the greatest concern, especially among faculty and sometimes with institutional counsel. The UH Office of General Counsel was an active participant in the negotiation of UH’s agreement.

Some of the key elements of UH’s agreement with Google are:

- Google uses the same security for customer data that it uses for its internal data. Google has achieved an independent SAS 70 Type II attestation (industry standard for security) and of has a far larger security staff than UH.

- Google complies with applicable U.S. privacy laws, and the UH agreement provides for compliance with FERPA (Family Educational Rights and Privacy Act) regulations.

- Google asserts no ownership over any UH or customer information or communication.

- Google does not share information with 3rd-parties without consent.

- User content is only scanned or indexed in the following cases to provide specific services:
  - Some user data, such as email messages and documents, are scanned and indexed to enable fast search for information by an individual within their own Google Apps accounts. (Most users find that lightening fast searching of large email archives is immensely useful.)
  - Email is scanned to perform spam filtering and virus detection, as UH does now.
  - Google does not scan or index data for any other purposes.

All scanning and indexing procedures are automated and involve no human interaction.

Much more information about Google’s security and privacy policies and practices is available at:


**Suspicion over business model**
Some people suspect that Google’s business model for this free service must involve harvesting of information. Google asserts that by providing Google Apps for Education for free to educational institutions they are able to build out their network of users who will eventually become tomorrow’s business leaders. The Google Apps for Business product generates revenue for the company, and they assert that they see Education as a long-term investment to growing in the Business market. Microsoft now has a similar free offering for education, so Google is clearly not alone in the marketplace of providing free email and related services to education. In fact, this provides UH with additional protection against Google trying to charge Google Apps for Education customers after the initial contract period.

Higher Education Trends

Outsourcing of email is now a common practice. According to the most recent (2010) Campus Computing Survey, about 58% of campuses are outsourcing student email with another 27% reviewing it. About 15% also outsource faculty email with 23% reviewing this. Google is the most common choice.

Some universities that initially migrated only student email subsequently migrated faculty and staff. This has sometimes occurred when faculty found they wanted to take advantage of the improved email/calendar service as well as opportunities for collaboration, including with their students, using Google Docs and other new services.

This proposal to migrate all members of the UH community to Google@UH would achieve the highest level of savings since UH would be able to shut down the current email environment entirely. Migrating students only would also create more complexities associated with a structurally mixed email environment.

This approach also maximizes service improvements. If only students were migrated, faculty would endure notably inferior service as compared to students and UH would not achieve the full benefits integrating student-faculty communication and collaboration to advance learning, scholarship and service.

More broadly, this would be UH's first major foray into “cloud computing,” which has emerged as an important trend that is transforming the deployment of IT services worldwide. Email / calendaring is already one of the most mature and widely adopted “cloud” applications in higher education and other sectors but there are many others. For example, UC Davis, one of the more widely publicized institutions that chose not to outsource faculty and staff email, outsources its Sakai online learning platform to a commercial operator. Increasingly, large and small enterprises are using services such as salesforce.com and Google enterprise apps to manage their organizations. In addition to Google, other major IT service providers such as Amazon, Microsoft and IBM are all looking at ways to leverage their extensive global infrastructures as platforms to provide cloud services. NSF is beginning to invest heavily in cloud computing programs, and U.S. Government IT leadership has also indicated their intent to migrate to commercial cloud services.

Risk Mitigation

Thousands of @hawaii.edu email users already forward their UH email to personal Gmail addresses and large numbers of UH people and projects utilize the Google Docs and related
collaboration tools for personal and professional activities. The Google Apps environment is widely accepted and proven at UH and nationally.

Feedback from schools that have already “gone Google” is almost universally positive. No school has yet gone back.

If Google proposes to change the terms of the agreement in a manner not acceptable to UH (e.g. displaying ads, charging for the service), the UH agreement with Google gives ample time for UH to migrate to a new platform. Given the tremendous change in the technology environment, there will be a number of options for either in-house hosting of email or outsourcing to another vendor. Whatever direction is chosen, it is certain that UH would not deploy the same software and hardware that has been used for @hawaii.edu email since 2002. The current email software has not been upgraded with any regularity and was recently purchased by a new vendor (Oracle), so its future is completely unknown. UH would maintain all @hawaii.edu addresses in any new approach, and because the Google Apps environment is standards-based, UH would be able to migrate all users’ email and other data.