MEMORANDUM

DATE: Thursday, 26 September 2013

TO: Dr. Pierce Cantrell
   Vice President and Associate Provost for Information Technology

FROM: Mr. David Sweeney
   Chair, Information Technology Advisory Committee

SUBJECT: Email Subcommittee Recommendations

An email survey conducted by ITAC in October 2012 indicated that Texas A&M University was currently spending over $1.5 million annually to provide email to staff and faculty alone (not including costs for student mail). These mail services were provided by over 40 separate application servers, represented an average cost of $125 per mailbox per year. In addition to the high direct costs, because of the isolated nature of the services, there are indirect costs associated with the lost efficiencies that would be present in a unified system.

When these costs are combined with the annual costs to CIS to provide email to students and their own hosted Exchange solution, the university is currently spending over $2 million annually on email services. While email is a critical service, and necessary to conduct the normal business functions of the university, email is no longer a unique service, and service requirements for all users on campus are fundamentally the same. In other words, email has become a computing commodity.

Given these facts, it is clear that there are financial and functional benefits to moving toward a consolidated email service for the university. Economies of scale can significantly reduce per-user costs, and unit-level resources that are currently encumbered toward providing this commodity service can be repurposed for services and applications that provide innovation in areas that are truly unique to the unit. Additionally, these services offer new functionality (e.g., collaboration tools) that are not currently available to the university.

Further significant cost savings can be realized by adopting an externally-hosted messaging solution, such as the enterprise-grade email solutions offered by Google and Microsoft that are specifically targeted at institutions of higher education. These services are provided for students at zero cost to the university, and at a very low per-user cost for staff and faculty.
It is the recommendation of the ITAC email services subcommittee that:

1. The university should move all student email accounts—and most staff and faculty email accounts—onto a single, cloud-based, hosted email service such as Google Apps for Education or Microsoft Office 365 Education. This utility service should be centrally funded, rather than passing on the costs to individual units.

2. The university should continue to run its centrally-hosted Exchange service at exchange.tamu.edu for email accounts that cannot be provisioned off-premise for legal or security reasons (typically related to grant-funded research conditions). This service should be provided to any qualifying university employee or research affiliate at no cost.

3. The hosted service should be selected by a representative group of faculty, students, support staff, and IT. This group should be formed immediately, and meet several times through September and October. A choice between the two services should be recommended to the VPAPIT by November 30, 2013. Included in this recommendation should be a suggestion for governance and management of this service (Deloitte's Comprehensive IT Assessment released in July 2013 recommends a robust IT governance framework that would satisfy this need if adopted).

4. The selected platform should be made available for a beta period starting Feb 1, 2014. This beta test should include a limited number of faculty, staff, graduate, and undergraduate students using real data (that is, a production @tamu.edu mailbox). Assuming problems that arise during the beta test are solvable, the service should be made generally available starting in May 2014, with a target toward all students using the service by the fall semester of 2014.

While it is the opinion of ITAC that either the Google Apps or the Microsoft Office 365 solutions would meet the minimum requirements of a university-wide groupware solution, there are differences between the two platforms. Based on these differences, it is the opinion of ITAC that the Google Apps platform is a superior solution for Texas A&M University for the following reasons:

1. **COST.** For both of these platforms, there is a cost that is tied to FTE count. The cost per mailbox for the Google service is $10 per year, compared to $54 for the Microsoft offering. This creates an annual cost difference of $528,000 for the university in favor of Google Apps. Additionally, more on-premise infrastructure is required to support the Office 365 solution, from adding new, complex services to enhancing existing services to support high-availability. Finally, the account provisioning model for Google Apps is simpler, which leads to reduced staffing costs over time for CIS. See the attached summary of the Office 365 service solution for additional details.
2. **INTEGRATION.** The Google service offers a cleaner and simpler integration path with existing university mail services. The Microsoft solution requires more complexity in the backend infrastructure, leading to greater costs and reduced reliability. Desktop integration is also more complex with the Office 365 solution, once again leading to increased costs, this time borne by the units with regard to more complex transition paths.

3. **COLLABORATION.** The Google Apps service includes productivity tools that are frequently requested by faculty and students to enhance collaboration in the classroom and among research groups. While the Microsoft service offers a similar set of tools, the functionality of these apps is limited in comparison to the Google apps, and the real-time collaboration functionality is significantly less mature than Google’s.

4. **RELIABILITY.** Google has a proven track record of providing web-based, large-scale services (“cloud services”) for over a decade. Google reported a 99.983% uptime for Gmail in 2012\(^1\). Microsoft does not publish similar statistics for its cloud platform, and in reality, the Office 365 service is still too young to have enough data to make a reasonable comparison. Data that is available indicates that Microsoft’s service is currently less reliable by over two orders of magnitude\(^2\). While anecdotal evidence suggests that Microsoft is quickly improving the overall reliability of the Office 365 service, Microsoft is a relative newcomer at providing internet-scale cloud services, and most evidence indicates that developing such a competency takes time.

By eliminating the existing costs for student email, and consolidating the majority of staff and faculty onto a hosted solution from Google, the overall cost for email to the university would reduce from over $2 million to under $350,000 (see Fig. 1). This represents a direct cost reduction to the university of greater than 80%. Assuming that email costs are absorbed at the university level, most of these cost savings will remain in the local units, where they can be applied to functions that directly impact the research and teaching mission of the university.

**Figure 1:** Example cost structure for university-provided email service using Google Apps for Education

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<tbody>
<tr>
<td>Google Apps license</td>
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<tr>
<td>Google Apps local management costs</td>
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</tr>
<tr>
<td>On-premise Exchange solution</td>
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<tr>
<td><strong>Annual email costs</strong></td>
<td><strong>$350,000</strong></td>
</tr>
</tbody>
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\(^1\) [http://googleenterprise.blogspot.com/2013/04/pure-and-proven-cloud-gmail.html](http://googleenterprise.blogspot.com/2013/04/pure-and-proven-cloud-gmail.html)