Information Technology Planning Board

Cloud Email and Collaboration Services

November 22, 2013
Cloud Email and Collaboration Services

- We are deploying cloud services for email and collaboration – Google Apps for Education, Microsoft Office 365 and Box
- These services provide improved capabilities, convenience, efficiency, flexibility and scalability over existing solutions
- Overtime, they will also allow us to reduce the infrastructure and support costs for these services
- As we’ve planned for the deployment of these services, a task force has also been evaluating if they would adequately meet our business, legal, regulatory, intellectual property, privacy and security requirements
- This evaluation is important as the answer will vary depending on who is using the service, for what purpose and what types of data may be stored in the cloud

- We’ll first review the roadmap for the cloud services deployment and then discuss the risk assessment and mitigation guidelines that have been developed
Cloud Email and Collaboration Services Roadmap

Gmail for students approved
Nov 2011

Google Apps available for all students
Sep 2012

Google Apps available for all faculty and staff *
Feb 2014

Student deadline to migrate from BOL *
Jun 2014

Faculty and staff deadline to migrate from BOL *
Sep 2014

Decommission Bruin Online (BOL) email *
Nov 2014

Office 365 evaluation
Oct 2012

Office 365 pilot
Jan 2014

Office 365 available for all campus departments *
May 2014

Box evaluation
Nov 2012

Box pilot
Oct 2013

Box available for all campus departments *
Jan 2014

* Proposed next step, pending endorsement
Google Apps for Education (GAE) includes Gmail (1GB -> 15GB mailbox), Calendar, Contacts, Drive, Docs, Sheets, Slides, Sites and over 60 other applications.

UC-wide agreement signed June 2011; Business Associate Agreement has been announced but not reviewed; services are free for higher education.

As of October 2013, there were 37,901 UCLA Gmail accounts:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>26,364</td>
</tr>
<tr>
<td>Alumni</td>
<td>11,364</td>
</tr>
<tr>
<td>Retirees</td>
<td>173</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>37,901</strong></td>
</tr>
</tbody>
</table>

**UCLA Google Apps** [http://g.ucla.edu/](http://g.ucla.edu/)


<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>November 2011</strong></td>
<td>Email task force recommends Gmail as a replacement for Bruin OnLine (BOL) student email</td>
</tr>
<tr>
<td><strong>March 2012</strong></td>
<td>Google Apps provisioned for new undergraduate students</td>
</tr>
<tr>
<td><strong>September 2012</strong></td>
<td>Google Apps opt-in available for all undergraduate / graduate students, alumni and retirees</td>
</tr>
<tr>
<td><strong>January 2014</strong></td>
<td>BOL email to Gmail migration utility will be available</td>
</tr>
<tr>
<td><strong>February 2014</strong></td>
<td>Google Apps opt-in available for employees (faculty and staff) *</td>
</tr>
<tr>
<td><strong>June 2014</strong></td>
<td>Students, alumni and retiree deadline to migrate from BOL to Gmail *</td>
</tr>
<tr>
<td><strong>September 2014</strong></td>
<td>Faculty and staff deadline to migrate from BOL to Gmail *</td>
</tr>
</tbody>
</table>

* Proposed next step, pending endorsement
Enterprise productivity and collaboration tools

- O365 includes Exchange (email (2GB -> 50GB mailbox), calendar and contacts), Lync (instant messaging) Office Web Apps, SkyDrive Pro and SharePoint
- UC-wide agreement including a Business Associate Agreement (BAA) signed December 2011; basic services are free for higher education
- About 80% of campus departmental email accounts currently reside on Enterprise Messaging (EM)

<table>
<thead>
<tr>
<th>Departmental Email</th>
<th># of Depts.</th>
<th># of Accounts</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Messaging (EM)</td>
<td>64</td>
<td>19,500</td>
<td>80%</td>
</tr>
<tr>
<td>Non-Enterprise Messaging</td>
<td>10</td>
<td>5,000</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Total Departmental Email</strong></td>
<td><strong>74</strong></td>
<td><strong>24,500</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

UCLA Enterprise Messaging (EM) [http://www.em.ucla.edu/](http://www.em.ucla.edu/)

<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>Initial Enterprise Messaging (EM) deployment</td>
</tr>
<tr>
<td>July 2012</td>
<td>O365 product evaluation completed</td>
</tr>
<tr>
<td>October 2012</td>
<td>Proof of concept for hybrid on-premise / cloud services completed</td>
</tr>
<tr>
<td>August 2013</td>
<td>Architecture and design for production environment completed</td>
</tr>
<tr>
<td>December 2013</td>
<td>IT Services pilot migration to Office 365 *</td>
</tr>
<tr>
<td>January 2014</td>
<td>IT Services full migration to Office 365 *</td>
</tr>
<tr>
<td>May 2014</td>
<td>Office 365 available to other campus departments on an opt-out basis; hybrid architecture will allow departments to remain on-premise if there is a need to do so *</td>
</tr>
</tbody>
</table>

* Proposed next step, pending endorsement
Enterprise Messaging Departments

- Academic Technology Services
- Associated Students UCLA (ASUCLA)
- Administrative Vice Chancellor’s Office (AVC)
- Anderson School of Management
- Atmospheric & Oceanic Sciences (PS)
- Audit & Advisory Services
- Biomathematics (SOM)
- California NanoSystems Institute (CNSI)
- Campus Human Resources (AVC)
- Campus Service Enterprises (AVC)
- Capital Programs
- Center Health Policy Research (SPH)
- Center for Research in Engineering, Media, and Performance (REMAP)
- Central Ticket Office (AVC)
- Chancellor’s Organization
- College Letters & Science Dean’s Office
- College Undergraduate Education Division
- Corporate Financial Services (AVC)
- Department of Intercollegiate Athletics
- Department of Psychology (LS)
- Early Care and Education (AVC)
- Earth & Space Sciences (PS)
- Environmental Health & Safety (AVC)
- Environmental Health Sciences (SPH)
- Events & Transportation (AVC)
- Executive Management Public Health (SPH)

Enterprise Messaging Departments

- External Affairs
- Facilities Management (AVC)
- Financial & Administrative Services (AVC)
- Film & Television Archives
- Global Bio Lab (CNSI)
- Graduate Division
- Housing & Hospitality Services (AVC)
- Humanities
- Information Technology Services (AVC)
- Institute of American Cultures:
  - American Indian Studies Center
  - Asian American Studies Center
  - Bunche Center African American Studies
  - Chicano Studies Research Center
- Institute of the Environment & Sustainability
- Institute for Pure & Applied Mathematics
- Insurance & Risk Management (AVC)
- Joint Institute for Regional Earth System Science & Engineering (PS)
- Life Science South Administration (LS)
- Mathematics (PS)
- Mail & Document Services (AVC)
- Microbiology, Immunology & Molecular Genetics (LS)
- Office of Information Technology
- Office of Intellectual Property
- Office of Instructional Development

Enterprise Messaging Departments

- Office of Research Administration
- Office of Residential Life
- Real Estate (AVC)
- Registrar’s Office
- School of Arts and Architecture
- School of Dentistry
- School of Nursing
- School of Public Affairs
- School of Theater, Film and Television
- Student Affairs
- Summer Sessions
- UCLA Library
- University of California Police Department
- University Extension

Non-Enterprise Messaging Departments

- Ashe Health Center
- Graduate School of Education & Information Studies
- Institute for Geophysics & Planetary Physics (PS)
- International Institute (SS)
- Life Sciences Division (LS)
- School of Engineering & Applied Science
- School of Law
- Social Sciences Division (SS)
- Graduate Students (across disciplines)
Enterprise storage and collaboration services

- Box provides secure cloud storage that allows students, faculty and staff to access, manage and share information anytime, with anyone, from anywhere and on any device for coursework, online learning, research, projects, meetings and other uses.

- Box is a more secure solution than commercial alternatives such as Dropbox; delegated administration features also provide better support for data management and retention needs.

- Internet2 agreement signed March 2012; Business Associate Agreement (BAA) under UC review; subscription fees are reduced for higher education.

<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 2012</td>
<td>Six departments collaborate on an evaluation of Box capabilities</td>
</tr>
<tr>
<td>September 2013</td>
<td>UCLA adopts Internet2 agreement for Net+ Box services</td>
</tr>
<tr>
<td>October 2013</td>
<td>Box pilot is underway for twelve campus departments:</td>
</tr>
<tr>
<td></td>
<td>• Anderson School of Management</td>
</tr>
<tr>
<td></td>
<td>• California Center for Population Research (CCPR)</td>
</tr>
<tr>
<td></td>
<td>• Graduate School of Education &amp; Information Sciences (GSEIS)</td>
</tr>
<tr>
<td></td>
<td>• Housing &amp; Hospitality Services (H&amp;HS),</td>
</tr>
<tr>
<td></td>
<td>• Center for Digital Humanities (CDH),</td>
</tr>
<tr>
<td></td>
<td>• Information Technology Services (IT Services)</td>
</tr>
<tr>
<td></td>
<td>• Library / Digital Initiatives and Information Technology (DIIT)</td>
</tr>
<tr>
<td></td>
<td>• School of Nursing</td>
</tr>
<tr>
<td></td>
<td>• Office of Information Technology (OIT)</td>
</tr>
<tr>
<td></td>
<td>• Social Sciences Computing (SSC)</td>
</tr>
<tr>
<td></td>
<td>• Transportation Services</td>
</tr>
<tr>
<td></td>
<td>• University Extension (UNEX)</td>
</tr>
<tr>
<td>January 2014</td>
<td>Box service available for all campus departments *</td>
</tr>
</tbody>
</table>

*Proposed next step, pending endorsement.*
Bruin Online Email includes email, calendar, address books, tasks, file manager, and anti-spam / anti-virus.

Bruin Online email storage has decreased about 30% with the Gmail for students deployment.

There are currently about 33,110 active BOL email accounts:

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>16,460</td>
<td>49.7%</td>
</tr>
<tr>
<td>Staff</td>
<td>12,275</td>
<td>37.1%</td>
</tr>
<tr>
<td>Faculty</td>
<td>3,475</td>
<td>10.5%</td>
</tr>
<tr>
<td>Departmental, affiliates, other</td>
<td>900</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>33,110</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Date Milestone

- **1995**: Initial BOL email deployment
- **April 2013**: Mail Delivery application added so that users may direct mail delivery to an e-mail address of their choice (BOL and Gmail may be bypassed if the user so chooses)
- **January 2014**: BOL email migration to Gmail will be available
- **June 2014**: Students, alumni and retiree deadline to migrate from BOL to Gmail *
- **September 2014**: Faculty and staff deadline to migrate accounts from BOL to Gmail *
- **November 2014**: BOL email decommissioned *

* Proposed next step, pending endorsement
# UCLA Risk Assessment and Implementation Planning Teams

## Student Email 2009 - 2011
- Eugene Acosta – IT Services
- Julie Austin – School of Engineering
- Stacey Rosborough – Office of Residential Life
- Annelie Rugg – Humanities
- Mike Schilling – Communication Technology Services
- Michael Shane – School of Medicine
- Mike Van Norman – IT Services
- Kent Wada – Office of Information Technology
- Alexis Craig - Student
- Corey Epstein - Student
- Abigail Faelnar – Student
- Jason Kwok - Student
- Daniel Quach - Student
- Cesar Romero – Student
- Kristina Sidrak - Student
- Neil Tilley - Student
- Marc Uy - Student
- Debbie Weissman – Student

## Faculty and Staff Email 2012 - 2013
- Kelly Arruda – Office of Information Technology
- Marti Arvin – Health System
- Julie Austin – School of Engineering
- Amy Blum – Campus Council
- Ross Bollens – IT Services
- Mark Bower – IT Services
- Greg Hachigian – Health System
- S. Kumar – Anderson School of Management
- Michelle Lew – Office of Instructional Development
- Tom Trappler – Office of Information Technology
- Kent Wada – Office of Information Technology
- Mary Watkins – Graduate Division
- Andrew Wissmiller – IT Services
- James Zack – UCLA Extension

## Box 2013
- Vartan Adamian – UCLA Extension
- Kelly Arruda – Office of Information Technology
- Ross Bollens – IT Services
- Alex Park – IT Services
- Gerard Au – School of Nursing
- S. Kumar – Anderson School of Management
- Annelie Rugg – Humanities
- Tom Trappler – Office of Information Technology
- Andrew Wissmiller – IT Services
- Albert Wu – IT Services
Areas of risk that have been examined

- **Data Ownership** – intellectual property rights
- **Acceptable Use Policies** – subsidiary terms and monitoring
- **Termination of Service** – data portability and migration
- **Availability and Service Levels** – reliability and lack of performance
- **Compliance with Breach Laws** – responsibilities and cost of notification
- **International Storage** – export control regulations
- **International Storage** – exposure to foreign governments
- **Law Enforcement Requests** – subpoenas and other lawful intercepts
- **eDiscovery** – data retrieval and preservation
- **Compliance with FERPA** – school official designation
- **Compliance with HIPAA** – Business Associates Agreement (BAA)
- **End User Privacy** – confidentiality of university data
- **General Security** – SAS70 and ISO 27001 certification
- **Phishing and Credential Protection** – visibility and responsibilities
- **Countervailing Risks** – risk of not adopting cloud services (absence of mitigating contract terms, inability to leverage the enhanced capabilities offered by cloud services, and costs associated with future infrastructure investments and support

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**Recommendations**

- UCLA should proceed with outsourcing student, alumni and retiree email to Google
- UCLA should develop a policy for faculty and staff regarding appropriate use of cloud email and collaboration tools; UCLA should also evaluate acceptable solutions for faculty and staff use of cloud email and collaboration tools and then enable utilization of acceptable / sanctioned solutions
- UCLA faculty and staff accounts for cloud email and collaboration should not be provisioned until an acceptable use policy has been completed and acceptable solutions have been sanctioned
- UCLA should further assess and better understand the collaboration needs of students, faculty and staff as a means to inform development of the policy noted above and evolve a strategy for effective use of cloud collaboration technologies
After an extended risk assessment related to student Gmail, the task force also looked at risks related to faculty and staff use of GAE, O365 and Box cloud services; contractual risks have also been evaluated by UC procurement and legal representatives.

<table>
<thead>
<tr>
<th>Cloud Service</th>
<th>Designated “School Official” to satisfy FERPA requirements for protection of student records</th>
<th>Data encrypted in transit and at rest to satisfy SB1386 requirements for protection of personally identifying information (PII)</th>
<th>Business Associate Agreement (BAA) in place to satisfy HIPAA requirements for protection of personal health information (PHI)</th>
<th>Stored data will remain in the United State to satisfy export control regulations for protection of sensitive national security or trade data</th>
<th>Risk Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Apps for Education (GAE)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Solution is adequate for non-sensitive academic or individual use but is not recommended for University business purposes</td>
</tr>
<tr>
<td>Microsoft Office 365 (O365)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Solution is generally secure and provides enterprise data management capabilities that are suitable for University business purposes</td>
</tr>
<tr>
<td>Box.com (Box)</td>
<td>Yes</td>
<td>Yes</td>
<td>UC review in progress</td>
<td>Yes</td>
<td>Solution is generally secure and provides enterprise data management capabilities that are suitable for University business purposes</td>
</tr>
</tbody>
</table>

The task force concluded that development of a UCLA data classification standard and guidelines would be a proper avenue to increase awareness related to the data security, privacy and compliance risks and appropriate use of these and future cloud services.
Cloud Email and Collaboration Services Roadmap

- **Gmail for students approved**: Nov 2011
- **Google Apps available for all students**: Sep 2012
- **Google Apps available for all faculty and staff**: Feb 2014
- **Student deadline to migrate from BOL**: Jun 2014
- **Faculty and staff deadline to migrate from BOL**: Sep 2014
- **Decommission Bruin Online (BOL) email**: Nov 2014
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*Proposed next step, pending endorsement*