UC Santa Cruz Transforms with Google
Offering new Communication and Collaboration Tools to Faculty, Staff, and Students

Submitter's Information

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Summary

Collaboration: UC Santa Cruz worked with leaders and team members at UC Davis, Lawrence Berkeley National Laboratory, and UC Berkeley to plan replacements for our legacy email and calendar systems. In the process we learned from one another, collaborated in many ways, shared costs and expertise.

Delivery: At UC Santa Cruz, the Information Technology Services (ITS) Division delivered next-generation email and calendar systems by implementing the entire Google Apps for Education suite of services to all faculty, staff, and students in one UCSC domain. The project timeline was September 2011 to September 2012.

Adoption: Once Google Apps were fully installed, the adoption rate across campus was astonishing! It is clear that the campus community quickly integrating Google into their day-to-day working, learning, and teaching. In addition, we have streamlined technical operations as now-obsolete services and hardware have been shut down.

Project participants:

Project Leadership
- Stephen Kennedy, ITS Service Manager and Google Apps Project Lead
- Lisa Bono, ITS Communication Manager, Project Training and Communication Lead

Technical Leadership
- Carol Jordan, ITS Manager Systems Administration
- Josh Homan, UNIX System Administrator
- Troy Wright, UNIX System Administrator
- Jane Nyberg, Email Service Manager

Training and Communications Leadership
- Lisa Bono, ITS Communication Manager
- Jane Nyberg, ITS Service Manager
- Amy Hyler-Essig, Support Team Lead

Executive Sponsors
- Calendar, Email and Infrastructure: Mary Doyle, Vice Chancellor and CIO, UCSC
- Student Email: Doug Hartline, Senior Director, UCSC

Collaborators within UC System
- LBNL: Charles Verboom, Julie Peterson (advisors - calendar)
- UCB: Alex Walton, Mimi Muglar (implementation collaborators - calendar)
- UCD: Joshua Van Horn, Jatinder Singh (advisors - email)
Google Proliferates throughout the Campus

How Google has changed our work/learn-life at UCSC is transformative. We knew that Google services, especially Email and Calendar, would positively impact our campus, but we didn’t know how much. Once Google Apps were fully installed, the adoption rate across campus was astonishing! It is clear that the campus quickly integrating Google into their day-to-day working, learning, and teaching.

This story isn’t about how UCSC successfully migrated all campus email and calendar data to Google within twelve months, it’s about what happened after we launched Google Apps. Sure, we achieved the expected benefits of better and more reliable email and calendar services, but the campus exceeded our expectations in rapidly adopting the entire suite of Google Apps services.

These new services have enabled faculty, staff, and students to communicate, connect, and contribute in ways that were not available before Google Apps. Since going live, many people have expanded their basic knowledge beyond using Email and Calendar to extend into Docs, Drive, Groups, Sites, Chat, Blogger, YouTube, Google+, and Hangouts - just to name a few. We often hear, “Can that be done with Google?”

For example, as UCSC adopted Google Sites, our campus Infrastructure and Tools team moved their Plone-based web hosting service to Google. As a result, two servers were retired, staff were freed up to work on other projects, and the campus benefits from a richer and more integrated web-hosting service.

With faculty and staff on one system, departments found new uses for Google Calendar, such as shared campuswide calendars for planned IT maintenance, academic and commencement schedules, campus holidays, student services, and sports and recreational schedules. Even our campus plumbers use a shared Google Calendar for their employees’ work schedule instead of posting a paper copy on a bulletin board.

Students and faculty are building websites for classes and projects using Google Sites, and there is a rapidly growing use of Google Hangouts for (free) face-to-face video conferencing. Faculty can bring in a special guest to their classroom to speak to their students from anywhere in the World using Hangouts.

With Google Drive, project documents, like this one, are written collaboratively because people are sharing and updating in real-time. No more emailing attachments of a draft for back-and-forth review that can take an enormous amount of time and effort.

Just last month we experienced a city power outage that temporarily disrupted our network services across campus. Using Google Chat, Email, and Groups, ITS staff were able to communicate to each other and the entire campus about vital outage information. As a result, our Emergency Management (fire and police) will be using Google for their emergency alert notices to campus in addition to our CruzAlert system.

Our University Library is currently piloting Google Chromebooks as a replacement for their students’ computer laptop loaner program. Not having to replace expensive laptops and instead purchase very affordable Chromebooks preloaded with the Google products, is an extremely smart move.

Here are a few responses from faculty, staff, and students about how they are using Google Apps at UCSC.

“Wonderful --(Google Groups) just in time for my Spring undergraduate class! Many thanks! .....In my group we are using more and more the marvelous Google Drive, Docs, etc., to support our research work (and looking forward to using Google+ and Hangouts). Basically, since we have Google Apps, I have not once needed to log in in my “home directory” – my home is now Google Apps. This was a tremendous productivity boost.”

Luca De Alfaro, PhD, Associate Professor, Computer Science Department

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“I've used Google Docs (Google Drive) for work collaborations with other students, as well as the presenter tools for projects. Since I returned from study abroad, I've used the Google Translate to talk with my friends from Norway in their language, which has been really helpful. I also use Google Maps a great deal for finding my way to unknown locations in Santa Cruz.”

Danielle Lavy, Undergrad Student, Psychology Department

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“I'm using Google Drive to create and share spreadsheets for ordering guides and recipes.”

Bob Burns, Campus Senior Cook, Dining, Colleges & University Housing Services

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“In the Academic Senate Office (ASO), Google Apps has greatly enhanced our business processes and capabilities. As we work entirely by committee, Google Docs and group editing have presented a huge leap forward from attaching updated document versions to emails. Committees and subcommittees need to meet, and Google Calendar has made scheduling and sending meeting notifications a breeze. Also, as many great ideas occur outside of our physical meetings, Google Groups has created a space for ongoing conversations and issues. To give a specific example of ASO’s use of Google Apps, Google Forms has allowed us to develop a paperless travel grant application system, and the Google Script Gallery has enabled a fully automated grant notification database. What used to be a time consuming process for both applicants and our office staff is now nearly effortless.”

Matt Robinson, Committee Analyst, Academic Senate

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“We use Google Drive for shared review of materials for fellowship candidates. This allows committee members to review the materials and make decisions from remote areas, all looking at the same materials.”

Jim Moore, Assistant Dean, Graduate Studies Division

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“I am a grad student in the School of Engineering. We use Google Calendar for all our Lab events. We also use Google Chat to keep in touch with each other when not in the office.”

Dent Earl, Biomolecular Engineering Graduate Student

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“We use Google Docs (Drive) quite a bit in our unit--and plan to do more so soon. At this point if we were not able to use Google at UCSC--it would be a hardship to replace it with something else.”

Pat Kent, Faculty, California Teach Program

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“I am using Google Blogger as a project management tool, mainly as a communication tool for tasks assigned and completed by our Student assistant. Listed on the blog are all the process and procedures that we use in our department, so if we were to get a new student in the future, all documentation is available in the archive on the blog. I also have embedded a Google Calendar into the blog and use Google Drive for extra shared documents that the student needs access to complete assigned tasks. The student replies in the comment field that task are completed and adds any questions as well. It’s a great tool, especially if the student is working different days and hours.”

Linda Hunt, Library Development Assistant, University Library

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“Collaboration collaboration collaboration - we use shared Google documents, spreadsheets, and diagrams on a daily basis for everything we do. We have used Google Hangouts a couple of times for meetings.”

Mark Boolootian, Network Engineer, Information Technology Services

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“My entire Earth Science 65 class used Google Drive to create a collaborative study guide for our midterm!”

Elizabeth Howard-Gibbon, Undergrad Student

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“I have used Google Apps (mostly Docs) with my other colleagues who teach classes at Merrill College mainly as an administrative tool, to delegate responsibilities, compile projects and the like.”

Ari Feld, Lecturer, Merrill College

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“I use Google very much! I use the Google Forms to send out many types of things to my student organization members. I use the Google Calendar to post my organization events and also for my own scheduling. I use Google Drive to store important docs for my organization and a little for myself.”
Desmond Vehar, Undergrad Student, Student Organization Leader

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“My TAs and I use a shared Google Spreadsheet to keep track of students’ grades, so all of us have instant access to each student’s most recent grades. We used to do this by keeping separate grade rosters and mailing Excel spreadsheets back and forth, which led to a great deal of wasted time and miscommunication.”
Gerald Moulds, Faculty

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“We at UCSC Extension Silicon Valley use the Google Calendar daily for meetings and deadlines. I rely on Google Documents and Spreadsheets for tracking project status.”
Julia Jackson, UCSC Extension, Silicon Valley

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“I use Google Sites for general communications in my unit and project file sharing. Sites reduces the number of emails and documents we send to each other. We use also Google Drive for sharing documents, but I prefer Sites.”
Renee Mayne, Senior Manager, Employee & Labor Relations

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“I use Gmail for all my emails. My Lab uses Google Calendar in order to coordinate who has reserved space for running participants in our Lab. I also use Google Drive to house documents and other files relevant to a project that I am coordinating with research assistants. Google Scholar is my first step in finding articles and conducting literature reviews.”
Jackson Tolins, Graduate Student, Psychology Department

To keep up with campus demand for the latest and greatest Google products, we have created a cross-functional Google Service Team and support staff who have been charged with continual improvement, communication, support and advocacy for usage of the Google Apps suite of services across our entire campus.

We learned quickly that while we no longer control the pace of change with Google services, we could instead focus our efforts to prepare the campus for changes as they are announced and released by Google. This has been an intentional cultural transition, and not an entirely easy one for us and the campus.

Each time we enable a new Google feature, there is an immediate request for Google’s next, newest thing. It is clear to us that the campus has quickly integrating Google into their day-to-day working and teaching. We built a framework for vetting new Google services that includes Campus Counsel, the Information Security team, and our Vice Chancellor for IT. With their guidance, we have enabled most Google Consumer Apps for our campus.

Now that we are all Google all the time, we are busy integrating our legacy email functionality into the Google framework. The biggest integration was the Campus Broadcast system, which enables our University Public Information Office to send email quickly to campuswide groups (faculty, staff, students). This feature uses Google Groups that gets populated automatically several times daily from our Identity Management System. This was a substantial improvement in the usability and security of the Campus Broadcast messages.

We have also created a UCSC Google News blog (using Google Blogger) that provides ongoing updates and news about Google as it pertains to our campus. http://ucscgoogle.blogspot.com/
In-person Google training classes continue to be offered to faculty and staff for free, and campus Google forums are happening every quarter.
Sure, most people love Google at UCSC, but there are some concrete benefits too. Since Google Apps for Education is a free, cloud-based service, we have realized both financial and operational benefits from retiring our legacy in-house email system, Oracle calendar, and related services. By completing the tear down of the legacy email infrastructure, we have also reduced our costs for software licenses, server and storage costs.

The benefits were immediate and ongoing. We projected a five-year savings of about one million dollars in staff reassignments and system retirements. These will be achieved through the following:

**System stability and performance** - meeting the campus Service Level Agreement through improved uptime and better spam and malware filtering.

**Cost reduction**

- Communicate Pro License ($30,000/year)
- Oracle Calendar licensing and support ($66,000/year)
- Blacklist services ($1,800/year)
- Hardware support for email servers ($7,100/year)
- NetApp storage systems licensing and support ($36,300/year)
- Other savings:
  - A significant amount of hardware was retired, and no expensive hardware refresh was needed: nineteen physical servers, two storage devices, two dedicated load balancers and four dedicated switches. Limited data center resources can now be used to support other projects.
  - With the migration of the Plone CMS to Google Sites, two additional virtual servers were retired.
- Operational efficiency: since Google tools give us tighter integration with our campus Identity Management system, we were able to shut down an extremely complex stand-alone LDAP system dedicated to email account management.

From the moment UC Office of the President signed a contract with Google, we knew that working collaboratively with other UCs would be extremely beneficial. After many discussions with UC Davis and Lawrence Berkeley National Laboratory, we decided to follow their lead and implement Google for our campus.

After a few months of planning, UC Berkeley announced that they would also move their campus to Google - starting with Calendar. It was clear to us that if we partnered with UCB for the launch of Google Calendar, both campuses would share the cost of professional services and specialized software, collaborate on the technical work, and share communication and training plans. Although this collaboration required us to delay our implementation of Google Calendar by eight weeks, it was well worth it because we learned from one another, collaborated in many ways, shared costs and expertise, and made new friends!

This was an intense, technically challenging, but fun twelve-month transformation for UCSC that was brought to a successful conclusion in September 2012. We are happy that our campus continues to rejoice in the Google Apps services, and so proud of how they have embraced such change.