

Google Apps integration with External Systems

Below is a list of integration solutions for common integration needs with external systems. Please check out the [Google Apps Marketplace](#) for access to other tools that can easily be integrated with Google Apps. Check out [Google Apps for Edu - Integration & Customization](#) for more information on how you can integrate Google Apps with legacy IT systems.

Single Sign-On (SSO)

Need: Organizations that use several systems beside Google Apps require an SSO server to allow users to sign in to all internal tools with a single user/password. We need to be able to connect Google Apps with SSO Servers using SAML for user provisioning and secure Single Sign On.

Integration links and tools: In the Google Apps Marketplace there are several SSO servers that can be used to authenticate Google Apps. These services should be configured in the Google Apps Admin Console:

- [Single Sign-on](#)
- [SSO Application for Google Apps](#)
- [Open Source SSO Services](#)

Email Migration

Need: Schools that are migrating from other email systems to Google Apps, will require to migrate old emails, calendar resources, contacts, etc.

Integration links and tools: Google has several tools to migrate:

- [Lotus](#)
- [Outlook](#)
- [Exchange](#)
- IMAP
 - [Cyrus, Dovecote, Courier](#)
 - [Groupwise servers](#)

User Directory Sync

Need: Some universities and schools use MSFT Active Directory (or other directories) for user management. When we need deploy Google Apps in a schools that uses Active Directory, we need to integrate it with Active Directory to be able to sync the user database.

Integration links and tools: [Directory Sync](#) (supports MSFT Active Directory, Lotus Domino, Open LDAP, Any LDAP standards compliant server)

Blackboard®

Need: Most private universities use Blackboard® to manage and present content in the classroom. Teachers often want to integrate with Google Apps, so they can share files from Google Drive and present them in Blackboard. A more complex integration consists in allowing students to “attach”

Google Drive files (links) to assignments in blackboard for grading.

Integration links and tools:

- [Bboogle](#) is an open source connector that allows instructors to integrate:
 - Google Sites
 - Google Calendars
 - Files from Google Drivein their Blackboard courses.
- [Turnitin®](#) grading tool integrates with Blackboard to grade assignments, and allow students to submit assignments directly from Google Drive.

Moodle

Need:: Moodle is an open source Course Management System (CMS) used by many schools and universities. Moodle works on premise and some integration is required to enable SSO, and to enable Google Drive document sharing to Moodle.

Integration links and tools:

- There's a [connector](#) to enable Moodle login with Google Apps credentials, and to allow the admin to set up automated role-based user account provisioning mapped to Google Apps organizational units and roles.
- Adding Google Drive content to Moodle courses comes out of the box. No integration is needed.

Configuration details

To restrict to just the schools domain the following changes have to be made:

So the fix was limiting the domain to hd=gfunze.com in the /theme/splash/layout/login.php , i.e change from

```
<a href="https://accounts.google.com/o/oauth2/auth?client_id=<?php echo get_config('auth/googleoauth2',
```

TO

```
<a href="https://accounts.google.com/o/oauth2/auth?hd=gfunze.com&client_id=<?php echo get_config"
```

Professor dashboard

Need: Some professors often need a dashboard to access easily to the student assignments and keep them organized. They often need full control over the students' devices and accounts.

Integration links and tools: There's a company, Hapara, that developed some integrations on top of Google Apps:

Google for Education

- [Teacher dashboard](#)
- [Device remote control](#)
- [Parent portal](#) (to engage family with student's work)