

# Google Apps Technical Transition Guide

## For Business, Education, and Government

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# Introduction

## Who is this guide for?

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This guide is for you if any of the following applies:

- You'll be helping your company transition to Google Apps from another messaging platform (such as Microsoft® Exchange).
- You're curious about making the switch to Google Apps and want to learn more about the transition process before deciding.

This guide is *most* applicable to Google Apps transitions for companies of 50 or more employees.

If your company has fewer than 50 employees, be sure to read the **Small Business Resources** provided in the Google Apps Deployment Resource Center. Your transition may be simple enough that you can complete it with the **Google Apps setup wizard**.

## What does this guide cover?

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The amount of time and effort required to transition your company to a new enterprise solution can seem stressfully unclear. This guide seeks to eliminate that stress by explicitly outlining the Google Apps transition process, which typically uses a simple, three-phase approach.

You'll understand the major steps for migrating each of the components of your legacy system, including user accounts, mail, calendar data, and mobile devices. You'll also learn the approximate level of effort—low, moderate, or high—required for each step. Links to the definitive documentation resources for each step are included, so you'll know exactly what to do when the time comes.

## Should I work with a Google Apps partner?

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In short, yes. Google Apps partners are experts in all aspects of a Google Apps transition, and working with one will ensure that your transition is smooth and speedy. Working with a partner is particularly valuable if your legacy system includes complex configurations that this guide doesn't account for.

## Additional resources and support

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The latest version of this guide is available here: [http://www.google.com/support/enterprise/static/gapps/docs/admin/en/gapps\\_transition/gapps\\_transition\\_guide.pdf](http://www.google.com/support/enterprise/static/gapps/docs/admin/en/gapps_transition/gapps_transition_guide.pdf)

Visit the **Google Apps Deployment Resource Center** (<http://deployment.googleapps.com>) for more information on everything related to your Google Apps transition.

To contact Google Apps support via phone or email, visit the **Enterprise Support** page in the Google Apps Admin Help Center.

## Provide feedback for this guide

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Google values your feedback; if you have comments about this guide, we'd love to read them. Please provide them in our **feedback form**.

## Disclaimer for third-party product configurations

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Parts of this guide describe how Google products work with Microsoft® Exchange and the configurations that Google recommends. These instructions are designed to work with the most common Microsoft® Exchange scenarios. Any changes to Microsoft® Exchange configuration should be made at the discretion of your Microsoft® Exchange administrator.

Google does not provide technical support for configuring mail servers or other third-party products. In the event of a Microsoft® Exchange issue, you should consult your Microsoft® Exchange administrator. **GOOGLE ACCEPTS NO RESPONSIBILITY FOR THIRD-PARTY PRODUCTS.** Please consult the product's Web site for the latest configuration and support information. You may also contact Google Solutions Providers for consulting services.



## Transition Overview

Each task associated with your Google Apps transition corresponds to one of three categories: technical configuration, change management, or project management. Before you begin your Google Apps transition, you should designate an appropriate individual in your organization to lead each of these three initiatives.

- **Technical configuration** encompasses the technical tasks required to migrate your users and data from your legacy system to Google Apps. Your IT team is primarily responsible for this initiative.
- **Change management** consists of corporate communication and user education for your transition. Change management coordinators post company announcements, distribute user documentation, and organize training courses for users.
- **Project management** consists of coordinating and communicating the progress of the other teams responsible for your transition. Project managers interface with Google Apps partners, the IT team, change management coordinators, and executives to ensure that everything is running smoothly and on schedule.

This guide focuses primarily on the technical configuration portion of your Google Apps transition, although it does touch on the other two as well. For more in-depth information on change management and project management, consult the resources on the [Google Apps Deployment Resource Center](#).

### Transitioning a company of 250+ employees

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For a company of 250 or more employees, a standard Google Apps transition is divided into three phases of roughly equal length:



Each phase is usually four weeks long, although this varies somewhat with the size of your company and the specifics of your legacy system. The transition is usually complete within 90 days.

During each of the three phases, you configure more Google Apps features, migrate more data from your legacy system, and move more of your users to Google Apps.

## The Core IT phase

Only members of your IT team begin using Google Apps during the Core IT phase. This gives your IT team the opportunity to familiarize themselves with Google Apps and plan the next two phases. Your IT team begins receiving their mail in Google Apps, but no migration of legacy data occurs.

During this phase, change management coordinators send out communications to inform the company of your upcoming transition. They also select 5 to 10 percent of your employees to serve as Google Apps early adopters for the next phase. Your users don't experience any changes to their workflow yet.

## The Early Adopters phase

5 to 10 percent of your company begins using Google Apps during the Early Adopters phase. These early adopters are a cross section of your company that includes representatives of as many roles and office locations as possible. You begin migrating data from your legacy system, including user accounts, mail, and calendar data, during this phase.

The purpose of this phase is for you to perform a full Google Apps transition for a comparatively small number of users, as a proof of concept. The Early Adopters phase is not a watered-down test drive; with the exception of a few services that you don't enable until the final phase, the Google Apps experience for your early adopters is complete.

Change management coordinators begin sending out user documentation and running training sessions during this phase. You should familiarize as many employees as possible with Google Apps before the Global Go Live phase.

## The Global Go Live phase

By the end of the Global Go Live phase, your entire company is living on Google Apps. The primary task during this phase is to troubleshoot issues that arise while the rest of your users acclimate to their new workflow. To help ease the transition, your IT team holds open office hours, and your early adopters can serve as Google Guides, answering basic questions from their peers and directing more advanced questions to your IT team.

Moving forward after this phase is complete, you should continue to improve the Google Apps experience for your users by teaching them advanced features and staying informed about the latest updates.

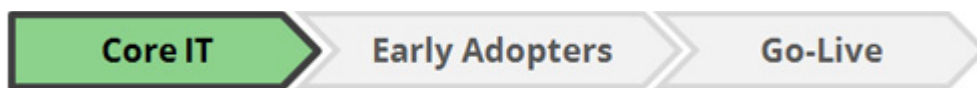
- See [Post-Transition Topics \(p. 55\)](#) for useful post-transition resources.

## Recommended order of tasks per phase

The outline below shows the recommended order of tasks to perform during each phase of your Google Apps transition. The remaining chapters of this guide describe these tasks in further detail, and provide links to the primary documentation resources for them.

These tasks should be completed by your IT team, with the exception of tasks under the Change Management topic, which should be completed by your change management team.

Click any task below to navigate to its discussion.

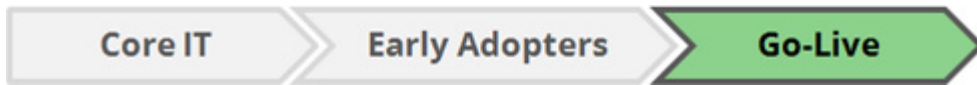


Task	Topic
1 <a href="#">Verify your primary domain with Google Apps (p. 25)</a>	Domain Management
2 <a href="#">Verify additional domains with Google Apps (optional) (p. 25)</a>	Domain Management
3 <a href="#">Add your IT team to Google Apps manually (p. 27)</a>	User Account Migration
4 <a href="#">Set up a subdomain for mail routing (p. 25)</a>	Domain Management
5 <a href="#">Set up dual delivery (p. 35)</a>	Mail Routing
6 <a href="#">Determine a web browser policy (p. 51)</a>	User Policies
7 <a href="#">Designate a change management coordinator (p. 21)</a>	Change Management
8 <a href="#">Educate employees about your Google Apps transition (p. 21)</a>	Change Management
9 <a href="#">Select your early adopters (p. 23)</a>	Change Management
10 <a href="#">Identify change impacts (p. 22)</a>	Change Management
11 <a href="#">Determine your company's mobile IT strategy (p. 45)</a>	Mobile Configuration
12 <a href="#">Test basic mobile connectivity to Google Apps (p. 45)</a>	Mobile Configuration

Task	Topic
13 Set up standalone Google Message Security (optional) (p. 37)	Mail Routing
14 Determine your final mail routing design (p. 36)	Mail Routing
15 Determine which mail migration tool to use (p. 31)	Mail Data Migration
16 Decide whether to migrate user calendar data (p. 41)	Calendar Migration
17 Set up YouTube for Schools (optional) (p. 51)	User Policies
18 Decide whether to add auth services (p. 53)	Authentication and Authorization
19 Decide whether to enable 2-step verification (p. 53)	Authentication and Authorization



Task	Topic
1 Begin provisioning users (p. 28)	User Account Migration
2 Set up split delivery (p. 37)	Mail Routing
3 Begin migrating user mail data (p. 32)	Mail Data Migration
4 Begin migrating user calendar data (optional) (p. 42)	Calendar Migration
5 Begin provisioning calendar resources (recommended) (p. 41)	Calendar Migration
6 Share free/busy information across systems (optional) (p. 42)	Calendar Migration
7 Decide on a go-live date and inform your employees (p. 23)	Change Management
8 Continue educating employees about your transition (p. 24)	Change Management
9 Plan your go-live help desk operations (p. 24)	Change Management
10 Schedule a mobile deployment day (p. 48)	Mobile Configuration
11 Configure BlackBerry support (BlackBerry) (p. 46)	Mobile Configuration
12 Configure Android devices (Android) (p. 46)	Mobile Configuration
13 Configure iOS devices (iOS) (p. 47)	Mobile Configuration
14 Enforce device policy (all devices) (p. 48)	Mobile Configuration
15 Integrate mobile security apps (all devices) (p. 48)	Mobile Configuration
16 Test auth services (optional) (p. 54)	Authentication and Authorization



Task	Topic
1 Finish provisioning users (p. 29)	User Account Migration
2 Finish migrating user mail data (p. 33)	Mail Data Migration
3 Finish migrating user calendar data (optional) (p. 43)	Calendar Migration
4 Provision remaining calendar resources (p. 43)	Calendar Migration
5 Launch auth services (optional) (p. 54)	Authentication and Authorization
6 Finalize your mail routing solution (p. 38)	Mail Routing
7 Run your go-live help desk (p. 24)	Change Management
8 Staff your mobile deployment day (p. 49)	Mobile Configuration
9 Continue maintaining user accounts (p. 29)	User Migration

## Transitioning a company of fewer than 250 employees

If your company has fewer than 250 employees, you may be able to complete your transition within 30 days instead of 90. In order for this fast-track transition to be feasible, **none** of the following should apply to you:

- You are migrating more than one domain to Google Apps.
- You are adding OpenID and OAuth auth services to your system.
- You are setting up single sign-on.
- You have an on-premise BlackBerry Enterprise Server that you want to maintain after your transition.

If any of the above **does** apply to you, you should proceed with the three-phase deployment described in [Transitioning a company of 250+ employees \(p. 9\)](#).

If you believe your company's infrastructure is lightweight enough for a fast-track transition, your week-by-week breakdown of tasks should closely resemble the following:

## Week 1

Task	Topic
1 Verify your primary domain with Google Apps (p. 25)	Domain Management
2 Add your IT team to Google Apps manually (p. 27)	User Account Migration
3 Set up a subdomain for mail routing (p. 25)	Domain Management
4 Set up dual delivery (p. 35)	Mail Routing
5 Educate employees about your Google Apps transition (p. 21)	Change Management
6 Begin provisioning users (p. 28)	User Account Migration
7 Determine which mail migration tool to use (p. 31)	Mail Data Migration
8 Begin migrating user mail data (p. 32)	Mail Data Migration
9 Begin migrating user calendar data (optional) (p. 42)	Calendar Migration
10 Begin provisioning calendar resources (recommended) (p. 41)	Calendar Migration
11 Determine a web browser policy (p. 51)	User Policies
12 Determine your company's mobile IT strategy (p. 45)	Mobile Configuration
13 Test basic mobile connectivity to Google Apps (p. 45)	Mobile Configuration
14 Decide whether to enable 2-step verification (p. 53)	Authentication and Authorization

## Week 2

Task	Topic
1 Finish provisioning users (p. 29)	User Account Migration
2 Finish migrating user mail data (p. 33)	Mail Data Migration
3 Finish migrating user calendar data (optional) (p. 43)	Calendar Migration
4 Provision remaining calendar resources (p. 43)	Calendar Migration
5 Set up YouTube for Schools (optional) (p. 51)	User Policies

<b>Task</b>	<b>Topic</b>
6 Decide on a go-live date and inform your employees (p. 23)	Change Management
7 Plan your go-live help desk operations (p. 24)	Change Management
8 Schedule a mobile deployment day (p. 48)	Mobile Configuration

## Week 3

<b>Task</b>	<b>Topic</b>
1 Finalize your mail routing solution (p. 38)	Mail Routing
2 Configure BlackBerry support (BlackBerry) (p. 46)	Mobile Configuration
3 Configure Android devices (Android) (p. 46)	Mobile Configuration
4 Configure iOS devices (iOS) (p. 47)	Mobile Configuration
5 Enforce device policy (all devices) (p. 48)	Mobile Configuration
6 Integrate mobile security apps (all devices) (p. 48)	Mobile Configuration
7 Run your go-live help desk (p. 24)	Change Management

## Week 4

<b>Task</b>	<b>Topic</b>
1 Run your go-live help desk (p. 24)	Change Management
2 Staff your mobile deployment day (p. 49)	Mobile Configuration
3 Complete any remaining tasks from previous weeks	



**Note:** The remaining chapters of this guide describe the tasks associated with each aspect of your technical transition, organized by phase. If you are performing a 30-day transition, the organization by phase does not apply to you, but the description of each task is equally valid.







# Change Management

Change management is all about ensuring that your Google Apps transition is a smooth process for your users. This element of your transition is just as critical as ensuring that your legacy data migrates properly; be sure to dedicate sufficient resources to it.

This guide is not intended as the definitive resource for change management during your Google Apps transition. Be sure to visit the [Google Apps Deployment Resource Center](#) for more resources on change management strategies during your transition.

## Core IT

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### Designate a change management coordinator

**Level of Effort:** Low

Ensure the success of your change management efforts by selecting a member of your team to coordinate the process through all three phases. Change management coordinators post company announcements, distribute user documentation, and organize training courses for users who are new to Google Apps.

### Educate employees about your Google Apps transition

**Level of Effort:** Moderate

You should make sure your entire company is aware of the changes that are coming to their workflow in the coming weeks. You can begin educating your users with the following resources:

- Send an announcement email to your company with the [transition announcement template](#).
- Customize posters with the [Going Google poster templates](#) and hang them around your office as your go-live date approaches.
- The [Google Apps Learning Center site template](#) contains links to numerous helpful resources for new users, including training videos. You can customize the appearance of this template with your own company logo and a message from an executive to improve the user experience. Setting up the template also helps familiarize you and your users with Google Sites.

In addition to linking your users to the Google Apps Learning Center, you should send out the guides it contains on a regular basis leading up to your go-live date. Structuring your users' learning process will help ensure that they're ready for the transition.

- Many more user resources, such as email templates and user guides that you can send to your employees during your transition, are available at the [Google Apps Deployment Resource Center](#).

## Identify change impacts

**Level of Effort:** Moderate

You can reduce stress for your users by proactively identifying impacts to your company's existing processes. Work with your IT team to determine a course of action for each of these impacts, and devise a strategy for communicating them to your company.

## Determine a web browser policy

**Level of Effort:** Low

Because Google Apps services are accessed primarily from a browser, you should establish a policy regarding the browser(s) that your IT team supports. Google Chrome provides the best Google Apps experience for both admins and users, with additional features that include the following:

- Desktop notifications
- Offline Gmail, along with other extensions available in the [Chrome web store](#)
- Advanced organization-wide policy controls, as described at <http://www.chromium.org/administrators>

If your legacy system includes web applications that run only on older browsers, you should continue to support an older browser for those applications, along with Google Chrome for Google Apps.

- Read [Supported browsers](#) for information on your browser options.

## Select your early adopters

**Level of Effort:** Low

Five to ten percent of your users transition to Google Apps before the rest of your users do. This intermediate phase lets your IT team test your anticipated transition process on a smaller, more flexible group of users. When selecting early adopters for your transition, keep the following criteria in mind:

- Your early adopters should represent as many of your company's roles and office locations as possible.
- If any of your executives are early adopters, their administrative assistants and direct reports should also be early adopters, if possible.
- If your company is sufficiently large (250+ employees), early adopters should be willing to act as Google Guides during the Global Go Live phase. Google Guides champion Google Apps to your company and help their coworkers get up to speed quickly.
  - Learn more about the [Google Guides program](#).
- Early adopters should feel comfortable coexisting on two communication platforms. They should also be comfortable with the occasional hiccup that may occur while you're migrating data and configuring Google Apps.
- Ideally, early adopters have prior experience with Google products.

Give your employees plenty of opportunity to volunteer to be an early adopter. The employees that are most excited about your upcoming transition typically make the best early adopters.

## Early Adopters

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### Decide on a go-live date and inform your employees

**Level of Effort:** Low

Be sure to let your company know your Google Apps go-live date well ahead of time. This is the date during the Global Go-Live phase when all of your users must switch over to Google Apps. Users need plenty of advance notice of this date to help prevent bottlenecks at your help desk when the day arrives.

## Plan your go-live help desk operations

**Level of Effort:** Moderate

You may see an increase in help desk requests in the days surrounding your go-live date. Make sure you coordinate with your entire IT staff and any Google Guides to ensure that you'll have sufficient coverage and proper issue triage in place for all teams and locations.

- Read the resources on the [Helpdesk training](#) page of the Google Apps Deployment Resource Center for more information on setting up your help desk.

## Continue educating employees about your transition

**Level of Effort:** Moderate

Make sure your employees continue to stay informed about the timeline for your transition, and are accessing the training content listed in [Educate employees about your Google Apps transition](#) (p. 21).

## Global Go Live

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### Run your go-live help desk

**Level of Effort:** High

Your IT team—along with any Google Guides—is out in full force during this phase, assisting your employees with their transition to Google Apps. Google Guides answer as many basic questions as possible while directing more complex issues to your IT team.



# Domain Management

## Core IT

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### Verify your primary domain with Google Apps

**Level of Effort:** Low

You can't activate any Google Apps services for your domain until you verify your domain ownership, so you should complete this step as soon as possible. You have several easy options for verifying your domain.

- Read [Verify domain ownership](#) to learn how to verify your domain with Google Apps.

### Verify additional domains with Google Apps (optional)

**Level of Effort:** Low

If your company includes users across multiple domains, and you plan to maintain your multiple-domain structure after your transition, you should verify your additional domains as well.

- Read [Manage multiple domains with Google Apps](#) for an overview of multiple domain management in Google Apps.
- Read [Limitations for multiple domains](#) to learn about what isn't supported for multiple domains in Google Apps.

### Set up a subdomain for mail routing

**Level of Effort:** Low

The mail routing configurations you'll set up during your transition require a subdomain to route email from your legacy system to Google Apps. You typically add a subdomain as a **domain alias** to the primary domain of your Google Apps account. For example, the domain alias for the primary domain `domain.com` could be `apps.domain.com`.

- Read [Add domains and domain aliases](#) to learn how to set up a subdomain in Google Apps.

## Global Go Live

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### Remove the mail routing subdomain

**Level of Effort:** LOW

Now that all of your employees are living on Google Apps, you don't need a subdomain to route mail from your legacy system.

- Read [Remove a domain or domain alias](#) to learn how to remove your mail routing subdomain.

# User Account Migration

## Core IT

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### Add your IT team to Google Apps manually

**Level of Effort:** LOW

Your administrator manually creates Google Apps accounts for your IT team during the Core IT phase. No user account data is migrated from your legacy system yet. Depending on the number of users you're planning to add during this phase, you can choose to add users one at a time or in bulk.

- Read [Add a new user](#) to learn how to add Google Apps users one at a time.
- Read [Upload many users at once](#) to learn how to add Google Apps users in bulk with a CSV file.

After you've created user accounts for your IT team, you'll want to make some or all of them administrators to help distribute administrative responsibilities. You have fine-grained control over the administrator privileges you grant each team member.

- Read [Give a user administrator privileges](#) to learn how to create additional administrator accounts:

## Early Adopters

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### Begin provisioning users

You begin provisioning user accounts for your entire company during this phase, even though only your early adopters begin living on Google Apps. Provisioning the majority of your users during this phase has the following advantages:

- Employees have an opportunity to familiarize themselves with Google Apps before they begin living on it.
- In larger companies, provisioning users early helps prevent bottlenecks later on.

The recommended process for provisioning Google Apps users depends on your legacy system.

#### Provisioning users from an LDAP server

**Level of Effort:** Moderate

If your legacy system stores user data on an LDAP server, such as Microsoft Active Directory or Lotus Domino, you can automatically provision users, groups, and non-employee contacts in Google Apps from that data with the **Google Apps Directory Sync (GADS)** tool. GADS dynamically adds and deletes user accounts in Google Apps to match your legacy system's organizational schema.

- Read [Google Apps Directory Sync](#), along with the [GADS Administration Guide](#), to learn about installing and using GADS.

**Note:** It is strongly recommended that you use GADS to provision your users in Google Apps if your company uses a compatible LDAP server.

#### Provisioning users from other sources

**Level of Effort:** High

If your user data is not stored in an LDAP server that is compatible with GADS, you can provision users from your user store with the **Google Apps provisioning API**. This is the same API that GADS uses behind the scenes to provision Google Apps users. The provisioning API is provided as a RESTful web service with convenient wrappers for several languages, including Java and Python.

- Read the [Google Apps Provisioning API Developer's Guide](#) to learn about using the provisioning API.

## Migrate shared contacts

**Level of Effort:** LOW

You should migrate shared contact information for any users and distribution lists that you aren't fully activating in Google Apps during this phase. Doing so allows your early adopters to see the shared contact information for all users and distribution lists from within Google Apps.

**Note:** During the Global Go Live phase, you'll migrate your distribution lists into Google Groups; for now, you'll simply migrate their shared contact information.

- Consult the documentation for your chosen user provisioning tool to learn more about migrating contacts.

## Global Go Live

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### Finish provisioning users

**Level of Effort:** Moderate

During the Global Go Live phase, you'll provision user accounts for any employees that haven't been provisioned yet, using the same method you used during the Early Adopters phase.

### Migrate distribution lists into Google Groups

**Level of Effort:** LOW

Use your provisioning tool to migrate your legacy system's distribution lists into Google Groups. Google Groups lets users communicate and control access to documents more easily.

- Read [Get Started with Google Groups](#) to learn more about the features it provides.

### Continue maintaining user accounts

**Level of Effort:** LOW

You'll continue adding and removing user accounts through your transition and beyond, as employees come and go.

- If your system will continue to use an LDAP server after your transition is complete, you should use Google Apps Directory Sync (GADS) to keep your user information up to date.
- Otherwise, you can manage your users from the Google Apps admin control panel.

# Mail Data Migration

## Core IT

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You don't migrate any mail data from your legacy system to Google Apps during this phase. Your company (with the exception of your IT team) continues accessing their mail exclusively from your legacy mail system.

### Determine which mail migration tool to use

**Level of Effort:** Low

You should take time during this phase to determine the best mail migration tool for your transition.

Your recommended migration tool depends on your legacy system. These recommended tools are server-side applications that require no action from anyone outside your IT team.

Legacy System	Recommended Tool	Download Page	Documentation
Microsoft Exchange or an IMAP server (e.g., Gmail or Novell GroupWise)	Google Apps Migration for Microsoft Exchange (GAMME)	<a href="#">GAMME Download Page</a>	<a href="#">GAMME Admin Guide</a>
Lotus Notes	Google Apps Migration for Lotus Notes (GAMLN)	<a href="#">GAMLN Download Page</a>	<a href="#">GAMLN Admin Guide</a>

If neither of the recommended tools is suitable for your transition, use one of the following alternatives, according to your needs:

Tool	Caveats	Learn More
Google Apps Migration for Microsoft Outlook (GAMMO)	Requires user action	<a href="#">Learn More</a>
Google Apps Sync for Microsoft Outlook (GASMO)	Users continue using Outlook instead of the Gmail web interface	<a href="#">Learn More</a>
Google Apps Email Migration API	Requires programming	<a href="#">Learn More</a>
Google Mail Fetcher (POP download)	Requires POP server, requires user action	<a href="#">Learn More</a>

## Early Adopters

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### Begin migrating user mail data

**Level of Effort:** Moderate to High (depending on tool used)

You should migrate mail data for your IT team, your early adopters, and as many additional users as possible during this phase. Most of the migration tools provided by Google allow you to migrate calendars and contacts at the same time you migrate mail.

At first, you should migrate mail in batches of five to seven users. Timing these batches helps you get a sense of how long it will take to migrate mail for all of your users.

- Consult the documentation for the email migration tool you selected during the Core IT phase for more information on migrating your mail.

### Migrate shared contacts

**Level of Effort:** LOW



You should migrate shared contact information for any users and distribution lists that you aren't fully activating in Google Apps during this phase. Doing so allows your early adopters to see the shared contact information for all users and distribution lists from within Google Apps.

**Note:** During the Global Go Live phase, you'll migrate your distribution lists as Google Groups; for now, you'll simply migrate their shared contact information.

- Consult the documentation for the email migration tool you selected during the Core IT phase for more information on migrating shared contacts.

## Global Go Live

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### Finish migrating user mail data

**Level of Effort:** Moderate to High (depending on tool used)

During this phase, you'll migrate all mail data you didn't migrate during the Early Adopters phase. Continue to use the same mail migration tool that you've used up to this point.



# Mail Routing

## Core IT

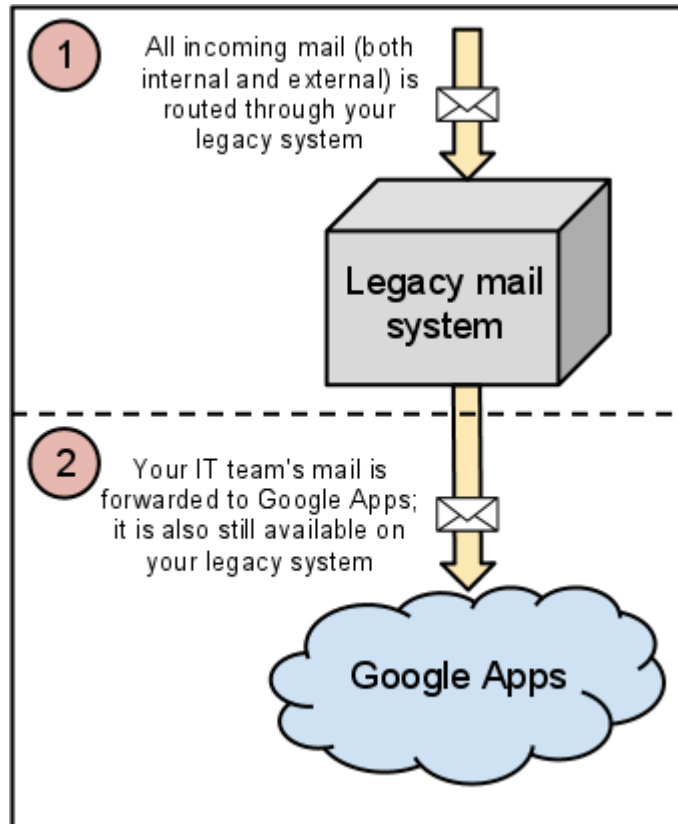
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### Set up dual delivery

**Level of Effort:** Low

Your IT team should use Gmail instead of their legacy mail client as much as possible during this phase, which means they need to begin receiving messages in Gmail. To accomplish this, you configure **dual delivery** on your legacy system. With dual delivery, incoming messages are delivered to your legacy mail server, which in turn forwards a copy of each message to Gmail. Setting up dual delivery has no impact on your other users.

**Note:** Make sure you've completed [Set up a subdomain for mail routing \(p. 25\)](#) before continuing with this step.



- Read [Configure dual delivery](#) to learn more about setting up dual delivery in your environment.

## Determine your final mail routing design

**Level of Effort:** Moderate

After you set up basic dual delivery for your IT team, you should figure out what kind of mail routing design you want in place when your transition is complete. In the simplest and most common case, you transition your mail to Google Apps entirely, and no mail is routed through your legacy system. However, you may need to continue routing some or all mail through your legacy system for one of the following reasons:

- Your legacy system includes journaling or compliance systems that interact with your legacy mail solution that must remain in place.
- One or more organizations in your company are not transitioning to Google Apps.

When you decide on a mail routing design, follow the mail routing steps for the remaining phases *only* if you have not yet reached the design you plan to stick with.

- Read [Mail delivery options](#) to determine which mail routing design is appropriate for your company.

## Early Adopters

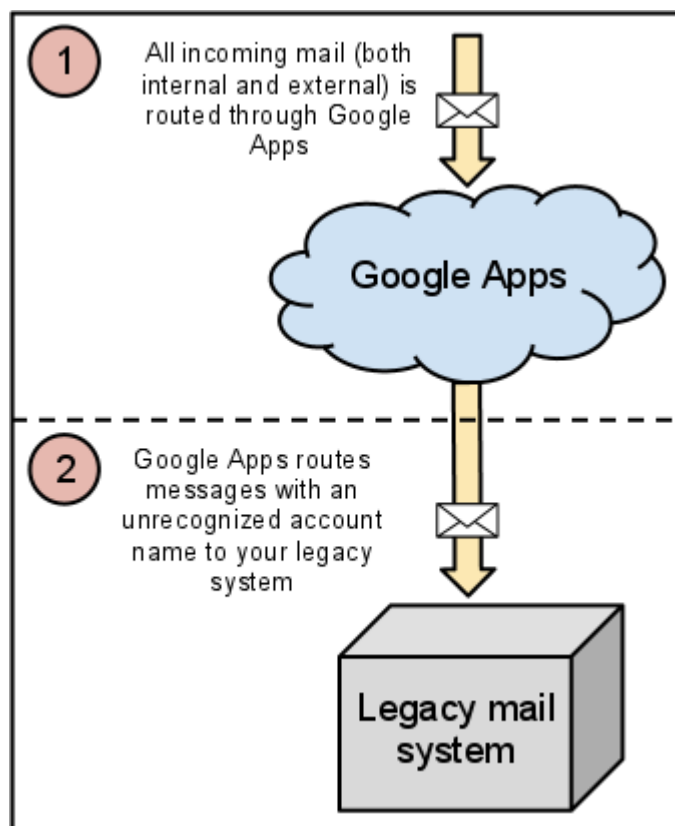
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### Set up split delivery

**Level of Effort:** Moderate

Now that your IT team has been living on Gmail and has had an opportunity to identify and resolve any issues with Gmail in your environment, you can switch your mail routing strategy from dual delivery to **split delivery**. With split delivery, incoming messages are delivered either to a user's Gmail account or to their legacy mail account, depending on the user. This allows your IT team and early adopters to live on Gmail exclusively, without affecting the rest of your users.

Read [Mail delivery options - split delivery](#) to learn how to set up split delivery.



## Finalize your mail routing solution

**Level of Effort:** LOW

Now that your company is living entirely on Google Apps, you can forego split delivery and update your domain's MX records to route all incoming mail, both internal and external, directly to Google Apps.

Read [Configure email delivery](#) to learn how to update your domain's MX records.







# Calendar Migration

## Core IT

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### Decide whether to migrate user calendar data

**Level of Effort:** Low

You should decide during this phase whether you plan to migrate your users' legacy calendar data to Google Apps. Legacy calendar data is often less critical for users than legacy mail, and you can help simplify your transition by starting fresh with Google Calendar.

If you decide to migrate user calendar data, you'll do so while you're migrating mail during the next two phases.

### Early Adopters

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Your early adopters should live on Google Calendar as much as they can during this phase. Calendar resources that have not been provisioned in Google Calendar must continue to be booked from your legacy system. Keep in mind that Google Calendar free/busy information is not visible from your legacy calendar without additional work. If it's critical to your early adopters that they see free/busy information in your legacy system, read [Share free/busy information across systems \(optional\)](#) (p. 42) for more information.

### Begin provisioning calendar resources (recommended)

**Level of Effort:** Low

You may choose to provision certain calendar resources (meeting rooms, projectors, and so on) in Google Apps during this phase. If you do, make sure you disable those resources in your legacy system to prevent double bookings. Resources that you provision during this phase should be resources that are used primarily by your early adopters. Users that don't yet have a Google Apps account need to reserve these resources through a user that does.

- Read [Create and name resources](#) to learn how to provision resources from your admin control panel.

**Note:** If you are migrating from Lotus Notes:

- The Google Apps Migration for Lotus Notes tool (GAMLN) can automatically provision resources in Google Apps based on the resources on your Domino server. See the [GAMLN administrator guide](#) for more information.
- You can connect your Google Apps resources to Lotus notes for the duration of your migration. Read [Booking Lotus Notes resources from Google Calendar](#) to learn how.

## Begin migrating user calendar data (optional)

**Level of Effort:** Moderate

If you've decided to migrate your users' calendar data, you should begin doing so at the same time you begin migrating your mail. See "Determine which mail migration tool to use" to determine which tool you should use to migrate your mail and calendar data.

## Share free/busy information across systems (optional)

**Level of Effort:** Moderate

Google Apps provides calendar connector tools that enable you to share free/busy information between Google Calendar and your legacy calendar. However, setting up a calendar connector can prolong the duration of your Google Apps transition, and you should set one up only if your users are inconvenienced significantly without it.

The calendar connector tool you use depends on your legacy system.

- If you're migrating from Microsoft Exchange, download and install the [Google Calendar connector kit](#).

- If you're migrating from Lotus Notes, download and install **Google Calendar Connector for Lotus Notes**.

**Note:** These calendar connectors are *not* intended as a permanent solution for maintaining two coexisting calendar systems. As soon as all of your users are living on Google Calendar, they should stop using your legacy calendar system.

## Global Go Live

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### Provision remaining calendar resources

**Level of Effort:** Moderate

Now that all of your employees are beginning to live on Google Apps, you should provision all calendar resources in Google Apps that you didn't provision during the Early Adopters phase.

### Finish migrating user calendar data (optional)

**Level of Effort:** Moderate

If you've decided to migrate your users' calendar data, you should finish migrating any calendar data that you didn't migrate during the Early Adopters phase.



# Mobile Configuration

## Core IT

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When connecting to Google Apps, many organizations use Android devices, which sync natively to Google Apps. Other mobile devices connect to Google Apps with **Google Sync**. Google Sync uses Microsoft® Exchange ActiveSync® to let your users synchronize their Google Apps mail, contacts, and calendars to their mobile devices. For more information, see **Google Sync Setup Instructions**.

### Determine your company's mobile IT strategy

**Level of Effort:** Moderate

You should decide which types of mobile devices you plan to support in your organization. Android devices are easy to connect to Google Apps, whereas iOS devices and BlackBerry devices require additional work.

- Consult the **Mobile Support** section of the **Google Apps Deployment Checklist** to learn about the mobile configuration options you have for non-Android devices.
- Read **Mobile Management** to learn about the device policies you can enforce over your mobile fleet.
- Read **Mobile Apps for Enterprise** for details on configuring different mobile devices for use with Google Apps.

### Test basic mobile connectivity to Google Apps

**Level of Effort:** Low

Your IT team should test mobile configuration with Google Apps on their mobile devices. During this phase, no additional connectors are needed to access Google Apps mail and calendar through these devices.



## Android

Set up your Gmail and Calendar apps to sync with your Android device. You can download these apps from Android Market. Android provides the best user experience with Google Apps because its apps sync natively with Google Apps. For more information, see the [Google Apps Learning Center](#).



## BlackBerry

Use the BlackBerry's native web browser to sign in to your Google Apps mail. You might decide to set up Google Apps Connector for BlackBerry Enterprise Server during the next phase, but don't set it up at this point, because it requires a high level of effort.



## iOS

Use [Google Sync](#) to view Google Apps mail and calendar in native iPhone and iPad mail and calendar apps. See [Setting up Google Sync with your iOS device](#) for more information.

## Early Adopters

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Complete the following tasks for the types of mobile devices currently supported by your organization. You have the following three options:



### Configure Android devices (Android)

**Level of Effort:** Low

Your early adopters should configure their Android devices the same way your IT team did in the previous phase.



### Configure BlackBerry support (BlackBerry)

Your BlackBerry configuration strategy depends on your legacy system and your organization's needs.

## Transitioning off of BlackBerry (recommended)

**Level of Effort:** Moderate

If BlackBerry support is not critical in your organization, transition your BlackBerry users to Android, or to devices that can sync with Google Apps through ActiveSync, like iPhone.

## Configuring BlackBerry support without BlackBerry Enterprise Server

**Level of Effort:** Low

If your company does not have an on-premise BlackBerry Enterprise Server, your BlackBerry users have the following options for accessing Google Apps:

- Users can set up their device using BlackBerry Internet Service (BIS), which is part of the standard BlackBerry service plan. BIS works with the Email, Calendar, and Contacts apps on BlackBerry, and syncs with Google Apps email, calendar, and contacts. BlackBerry Internet Service is provided by RIM and mobile carriers. For information and support, please contact RIM.
- Users can access Gmail and many other Google products from a mobile browser. In most cases, users can go to **m.google.com** in their phone's browser, select the product they want to use, and sign in to their Google Apps account.

For more information, see [Use Google Apps on BlackBerry](#).

## Configuring BlackBerry support with BlackBerry Enterprise Server

**Level of Effort:** High

If your company has an existing on-premise BlackBerry Enterprise Server solution and you plan to maintain one after your transition, you'll need to set up new BES servers with **Google Apps Connector for BlackBerry Enterprise Server** and migrate your BlackBerry users to them.

If you decide to proceed with this strategy, you should use your BES servers to give your users the native BlackBerry experience, instead of having them access mail through their browser in Google Apps mail.

- Read [Overview of Google Apps Connector](#) to learn more about integrating BES with Google Apps, including system and hardware requirements.



## Configure iOS devices (iOS)

**Level of Effort:** Low

Your early adopters should use Google Sync to view Google Apps mail and calendar in native iPhone and iPad mail and calendar apps.

- For more information, read [Setting up Google Sync with your iOS device](#).

If your users only want access to their email from their iOS device, they can instead download and install the [Gmail app for iOS](#).

## Enforce device policy (all devices)

**Level of Effort:** Moderate

Decide what mobile policies you want to deploy for your organization, and enforce these policies with the **Mobile Settings** page in the Google Apps control panel. See [Google Apps Mobile Management](#) for more information.

## Integrate mobile security apps (all devices)

**Level of Effort:** Moderate

Decide what mobile apps you need to have your users install on their devices. Many organizations use these two apps to enforce security:

### Google Authenticator

If your users are using 2-step verification for extra security when signing in, they need to download the Google Authenticator app on their Android, BlackBerry, or iOS device.

See [Decide whether to enable 2-step verification \(p. 53\)](#) for more information on 2-step verification.

### Google Apps Device Policy (Android)

The Google Apps Device Policy for Android application allows you to enforce mobile security policies on your users, like requiring your users to set a password on their device, and allowing your IT staff to remotely wipe the device.

- Learn more about [Device Policy Administration for Android](#).

## Global Go Live

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### Schedule a mobile deployment day

**Level of Effort:** LOW



To simplify the process of setting up the rest of your users' devices to sync with Google Apps, your IT team should schedule an official mobile deployment day. This allows them to help as many users as possible to configure mobile devices and make sure all necessary applications are installed. Setup instructions for Global Go Live are the same as during the Early Adopter phase.

## Staff your mobile deployment day

**Level of Effort:** Moderate

Your IT team can address the majority of your company's mobile transition issues during your mobile deployment day, which will cut down on mobile-related help desk issues following your transition.



# User Policies

## Core IT

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### Determine a web browser policy

**Level of Effort:** Low

Because Google Apps services are accessed primarily from a browser, you should establish a policy regarding the browser(s) that your IT team supports. Google Chrome provides the best Google Apps experience for both admins and users, with additional features that include the following:

- Desktop notifications
- Offline Gmail, along with other extensions available in the [Chrome web store](#)
- Advanced organization-wide policy controls, as described at <http://www.chromium.org/administrators>

If your legacy system includes web applications that run only on older browsers, you should continue to support an older browser for those applications, along with Google Chrome for Google Apps.

- Read [Supported browsers](#) for information on your browser options.

### Set up YouTube for Schools (optional)

**Level of Effort:** Low

If your organization is a school that blocks access to YouTube from students, consider setting up YouTube for Schools for your domain. YouTube for Schools enables your faculty to allow students access only to specific YouTube videos that are used in the classroom.

- See the [YouTube for Schools homepage](http://www.youtube.com/schools) (www.youtube.com/schools) for an overview of the YouTube for Schools program.
- Read [How to access YouTube in schools](#) for technical details on enabling YouTube for Schools for your domain.

# Authentication and Authorization

## Core IT

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### Decide whether to add auth services

**Level of Effort:** Moderate

Google Apps supports authentication and authorization (auth) for your third-party services via OpenID and OAuth. These protocols also enable your users to allow limited access to their data for certain purposes. You can configure your internal services to make use of these protocols with the APIs Google provides.

- Read [Authentication and Authorization for Google APIs](#) to learn more about using OpenID and OAuth in your domain.

Google Apps also supports SAML-based single sign-on (SSO), which you can integrate with your existing LDAP or other SSO system. Single sign-on greatly simplifies the login process for your users, who otherwise need to remember a different set of credentials for each of your internal services.

- Read [SSO \(Single Sign-On\)](#) to learn more about single sign-on.

You should decide by the end of the Core IT phase exactly which—if any—of these authentication and authorization services you want to implement in your system. Deciding to add one or more of these services later on will result in significant additional work.

### Decide whether to enable 2-step verification

**Level of Effort:** Low

If you enable 2-step verification in your domain, you and your users benefit from extra login security. Even if a user's password is cracked, guessed, or otherwise stolen, an attacker can't sign in without access to the user's verification codes, which only the user can obtain via their own mobile phone.

**Note:** Even if you enable 2-step verification for your domain, it is opt-in per user.

It is recommended that you enable 2-step verification for your domain.

- Read [Getting started with 2-step verification](#) for more information.

## Early Adopters

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### Test auth services (optional)

**Level of Effort:** Moderate to High

If you decided to implement one or more auth services during the Core IT phase, now is the time to do so in a limited scope. Walk your early adopters through any new processes and make sure they can access everything they should be able to (and make sure they *can't* access anything they shouldn't be able to). Based on your experience with your early adopters, draft documentation that will help the rest of your users make the transition to your new auth processes.

## Global Go Live

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### Launch auth services (optional)

**Level of Effort:** Moderate

Now that you've performed a dry run of any new auth services with your early adopters, you're ready to deploy them to your entire company. Do so alongside the rest of your go-live initiatives, and make sure to provide users with the information they need to access new services.

## Post-Transition Topics

After your Google Apps transition is complete, take a look at the following resources to learn more about what you and your users can do to get the most out of Google Apps.

### Keep up with what's new

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Google Apps is adding exciting new features all the time. Visit the [Google Apps What's New Page](#) to learn about upcoming releases, and register for live instructional webinars.

### Become a Google Apps expert

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Some of the advanced collaborative capabilities of Google Apps can fly under the radar. Delegated mailboxes, email aliases, and document collections are just a few of the features that set Google Apps apart.

- Read [Deployment Special Topics](#) for more information on advanced collaboration with Google Apps.
- Visit the [Google Apps Learning Center](#) for all kinds of great resources on getting the most out of Google Apps.

## Learn more about mobile configuration

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You may want to fine-tune your mobile configuration following your transition, or add support for another type of mobile device. Read [Set mobile device policies](#) to learn more about additional mobile configuration options:

## Consult the Google Apps Help Center

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If you encounter an issue with Google Apps after your transition, be sure to consult the [Google Apps Admin Help Center](#) for a resolution. The Help Center contains numerous troubleshooting articles, along with a support forum that lets you receive help from other Google Apps admins.