

## Managing Multiple Domains with Google Apps

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# About This Document

The recommendations and information in this document were gathered through our work with a variety of clients and environments in the field. We thank our customers and partners for sharing their experiences and insights.

<b>What's covered</b>	This document details the various options available to organizations that use Google Apps and manage multiple Internet domains, including the advantages and limitations of each option.
<b>Primary audience</b>	Google Apps Administrators, Mail Administrators, Security Experts
<b>IT environment</b>	Mail, Security, Collaboration and Platform Management
<b>Deployment phases</b>	Pre-deployment - Design Phase
<b>Takeaways</b>	<ul style="list-style-type: none"><li>• An understanding of the approaches available on the Google Apps platform for managing multiple Internet domains</li><li>• An understanding of the implications of each approach</li></ul>
<b>Feedback</b>	Google values your feedback. If you have comments or suggestions email <a href="mailto:enterprise-assets-feedback@google.com">enterprise-assets-feedback@google.com</a> with: <ul style="list-style-type: none"><li>• The specific section</li><li>• Any comments for a given section</li></ul>

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# Introduction

Your Google Apps customer account uses your organization's Internet domain. Users get access to Google Apps by signing in to their user accounts on your domain.

Many organizations own multiple Internet domains. The domains might represent distinct business units, brands, or geographies. For example, Google owns the domain names google.com, adwords.com, youtube.com, google.co.uk, and google.de, among many others. Similarly, a state university system might have separate .edu domains for each campus. Users with accounts on any of these domains need access to the same shared set of Google Apps, and they need to be able to work with users in other domains that are part of the larger organization.

The Google Apps platform offers a number of approaches for managing multiple domains. Deciding on the best approach for your organization is a critical activity for both your Google Apps deployment and business operations. This document highlights the options and identifies the factors you need to consider in order to choose the appropriate one.

## Key Terms and Concepts

The key concepts that factor into the decision-making process are *domains*, *accounts*, and *aliases*. Different configuration options have different relationships between these three elements.

### Domains

Your organization's Internet *domain* is the unique name that appears in the URLs for your web sites and after the @ sign in your users' email addresses. It often takes the form of your organization's name and a standard Internet suffix, such as google.com or stateuniversity.edu.

When you sign up for Google Apps, you give the name of the Internet domain for your organization. This domain name becomes the *primary domain* associated with your Google Apps account. If you own multiple domain names, you can add the other domain names as *non-primary domains*.

When your organization owns multiple domain names, you need to choose which one will be your primary domain. Choose carefully, because it is not possible to change or rename your primary domain once your account is established. We recommend that you choose the domain that serves as your primary business identity for messaging and collaboration. In most cases, this domain is the domain for the parent corporate business unit or top-level organization.

### Accounts

Your *Google Apps account* is a unified sign-in system that provides access to the Google Apps products that your organization manages. You manage the account using the Google administrator control panel.

Within your Google Apps account, you provision *user accounts* to give individuals access to applications within the Google Apps suite. Each user receives a *primary email address* consisting of the user name you

assign @ your (primary or non-primary) domain. The user signs in to Google Apps using his or her primary email address.

## Aliases

Your Google Apps account is primarily identified by its primary domain, and a user's account by his or her primary email address. *Aliases* are alternate names for your domain or a user's primary email address.

A *domain alias* is an alternate name for an Internet domain. By adding a domain alias, you give every user in your domain a second email address (with the alias after the @). For example, if your domain is solarmora.com and you add solarmora.net as a domain alias, every user@solarmora.com will also receive mail addressed to user@solarmora.net.

An *email alias* (sometimes also called a *nickname*) is an alternate name for a user's account. For example, the user bill@subsidiary.com might also want to receive email addressed to william@subsidiary.com. If you create william@subsidiary.com as an email alias for bill@subsidiary.com, Google Apps will deliver email for both of these addresses to the same Gmail inbox. Users can also configure their accounts to [send mail using email alias addresses](#).

If your Google Apps account has multiple domain names associated with it, a user's email aliases can include email addresses in other domains that are part of your account. For example, bill@subsidiary.com could have the email alias bill@parent.com — as long as someone else does not already have that email address.

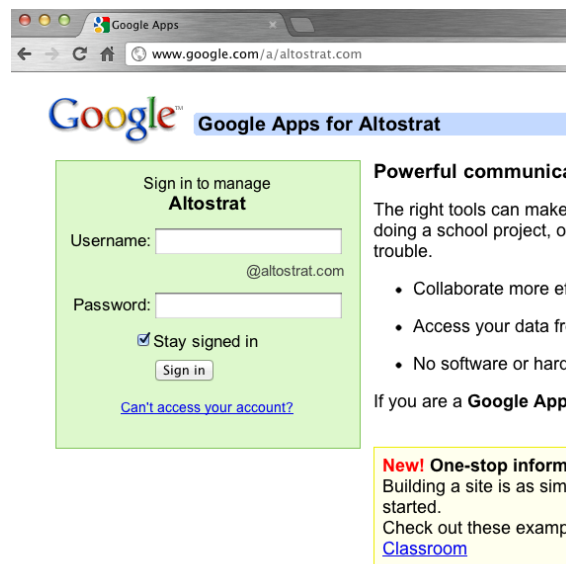
**NOTE:** A user's primary email address has special status: it is the address the user enters to log into Google Apps, to send and receive calendar invitations, to sync with his or her mobile device, and to share Google Docs and Sites.

# Registering Domains for Google Apps

Before you deploy Google Apps and provision users, we recommend that you follow these key steps:

- Conduct an inventory of the domain names you own. Identify which ones you want to add to your Google Apps account.
- [Choose your primary domain name](#). Choose carefully, because you can't change it once your account is established. We recommend that you sign up for Google Apps with this primary domain rather than a temporary or test domain, even if you plan to run a pilot program before rolling out Google Apps. You can [add an additional domain](#) to your Google Apps account for use during testing or a pilot.
- Confirm that none of your domains — including non-primary domains, domain aliases, and any test domains — are already using Google Apps.

To confirm this, go to the URL [www.google.com/a/domain\\_name](http://www.google.com/a/domain_name), where *domain\_name* is the domain you want to check. If a Google sign-in page like the one below appears, it means the domain is already registered with Google. You will need to [delete Google Apps from the domain](#) before you can use the domain with your new account.



- [Add your domain name\(s\)](#) to your Google Apps account using the administrator control panel.
- [Verify that you own the domain\(s\)](#). For non-primary domains, you can verify them manually or use the [Verification API](#).

# Domain Configuration Options

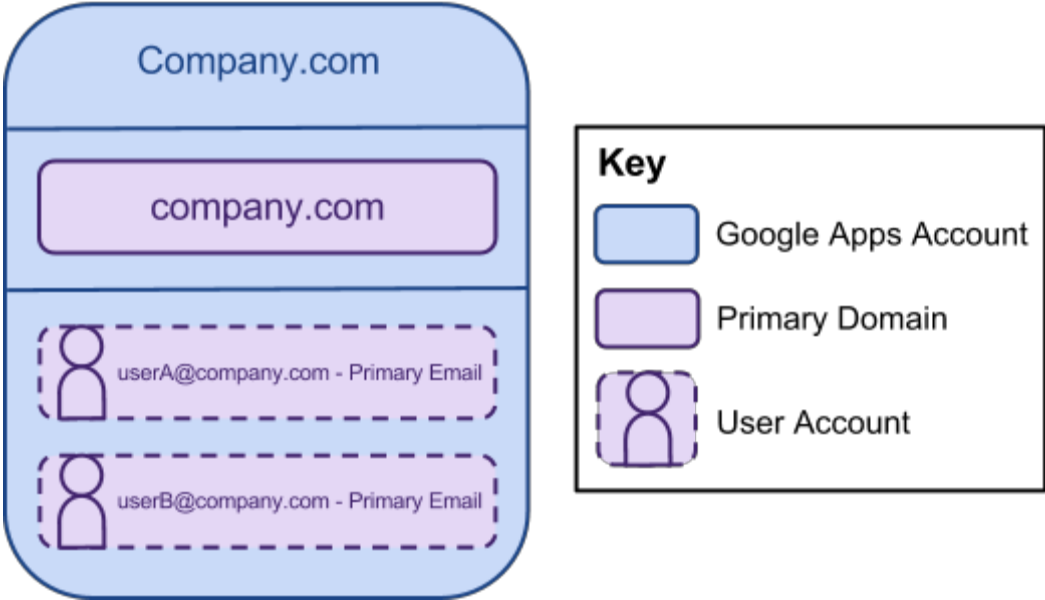
You have three major configuration options for managing Internet domains with Google Apps:

- A single domain managed in a single Google Apps account
- Multiple domains managed in a single Google Apps account
- Multiple domains managed in multiple Google Apps accounts

This section describes the considerations that go into deciding which configuration option is appropriate for your organization.

## Single Domain Google Apps Account

The simplest configuration, and also the default for Google Apps, is when you have a single domain and all of your users have email addresses using the name of that domain. The single domain is your primary domain.



With this configuration, each user can have email aliases with different user names, but all email addresses are @ the primary domain. For example, bill@company.com can have the alias william@company.com. A user can have up to 30 email aliases.

This option is appropriate for organizations that use a single domain name for collaboration and branding purposes.

## Multiple Domain Google Apps Account

You have three configuration options for managing multiple domains in a single account:

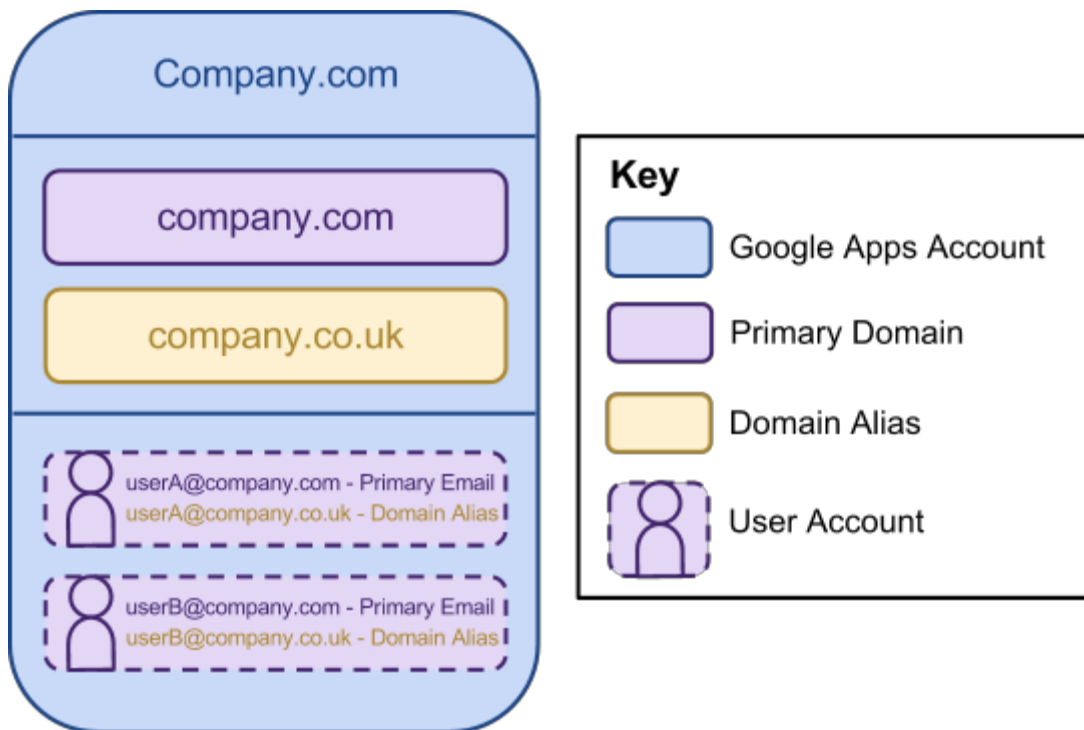
	Primary Domain	Non-Primary Domain(s)	Domain Alias(es)
Option One	✓		✓
Option Two	✓	✓	
Option Three	✓	✓	✓

Table 1 - Account Configuration Options

Option One	A primary domain with up to 20 domain aliases
Option Two	A primary domain with up to 599 non-primary domains
Option Three	A primary domain with both non-primary domains and domain aliases

The following sections detail the considerations and limitations in each of these configuration options. This information will help you to understand the various domain and user account management options currently available within the Google Apps platform.

### Option 1: Primary Domain and Domain Alias(es)



With this configuration, you provision all user accounts in the primary domain. You add additional domain names to your Google Apps account as domain aliases. All user accounts have a primary email address in the primary domain and an alternate email address in each alias domain; every user can receive email addressed to their address in the alias domain. Any groups you create in the primary domain also inherit an email alias in the alias domains.

### Considerations

- The primary domain and each domain alias contain *the same set of user accounts*.
- A domain alias is a domain name just like any other. You must own the domain name and verify your ownership before you can add it as an alias.
- With a domain alias, the same username in both domains must refer to the same user; for example, `george@company.co.uk` is and must be an email alias for `george@company.com`.
- All users sign in to their account using their email address in the primary domain.
- You can add up to 20 domain aliases.

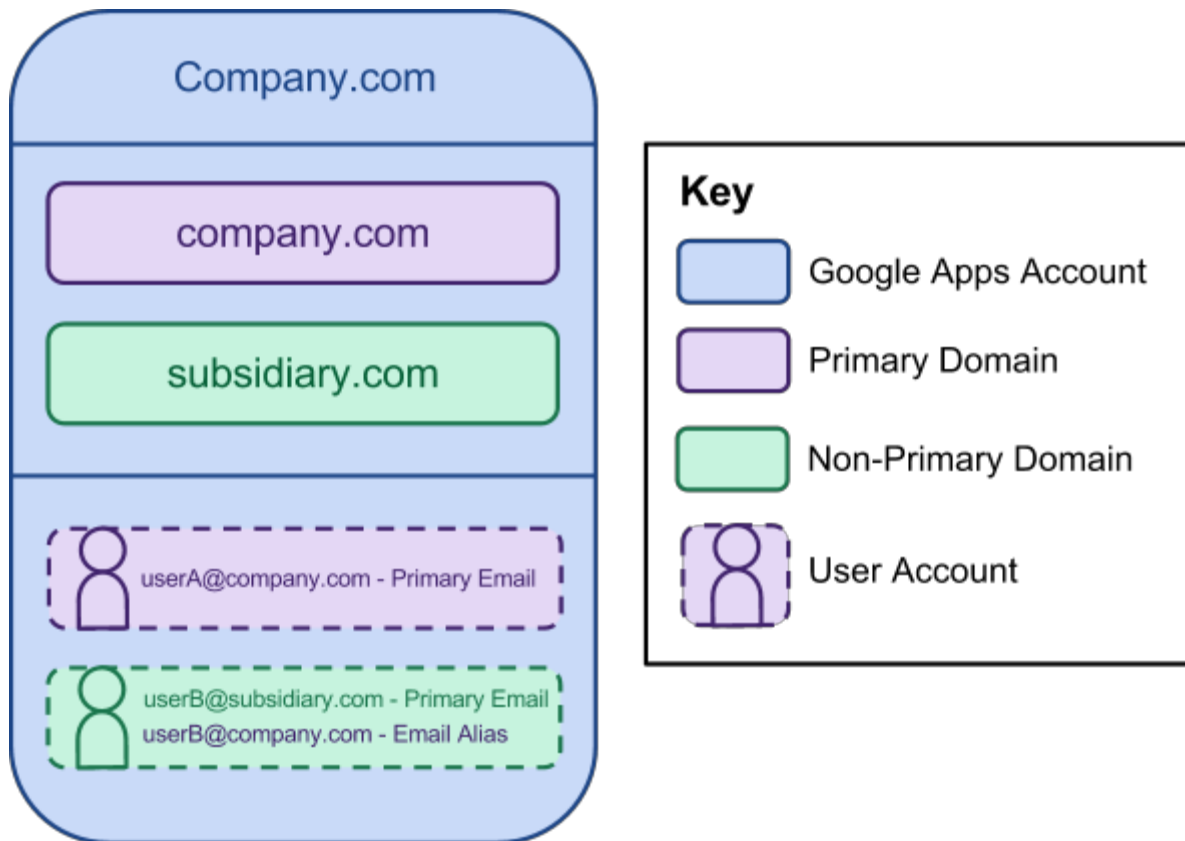
### Configuration steps

To set up this configuration:

1. [Add all users](#) to the primary domain.
2. [Add additional domain names](#) to your Google Apps account as domain aliases, and verify that you own the domain names.
3. To enable users to *send* mail from an alias address, [configure custom from addresses](#). (Users can *receive* mail at their alias addresses automatically.) You can use the [Email Settings API](#) to configure this setting programmatically.



## Option 2: Primary Domain and Non-Primary Domain(s)



With this configuration, you have two separate domains, each with a unique set of user accounts. The same username can refer to different users in different domains; for example, mary@subsidiary.com and mary@company.com can be different users. Users don't automatically receive alias addresses in other domains, although you can manually add an alias for selected users (as shown for userB in the illustration above).

### Considerations

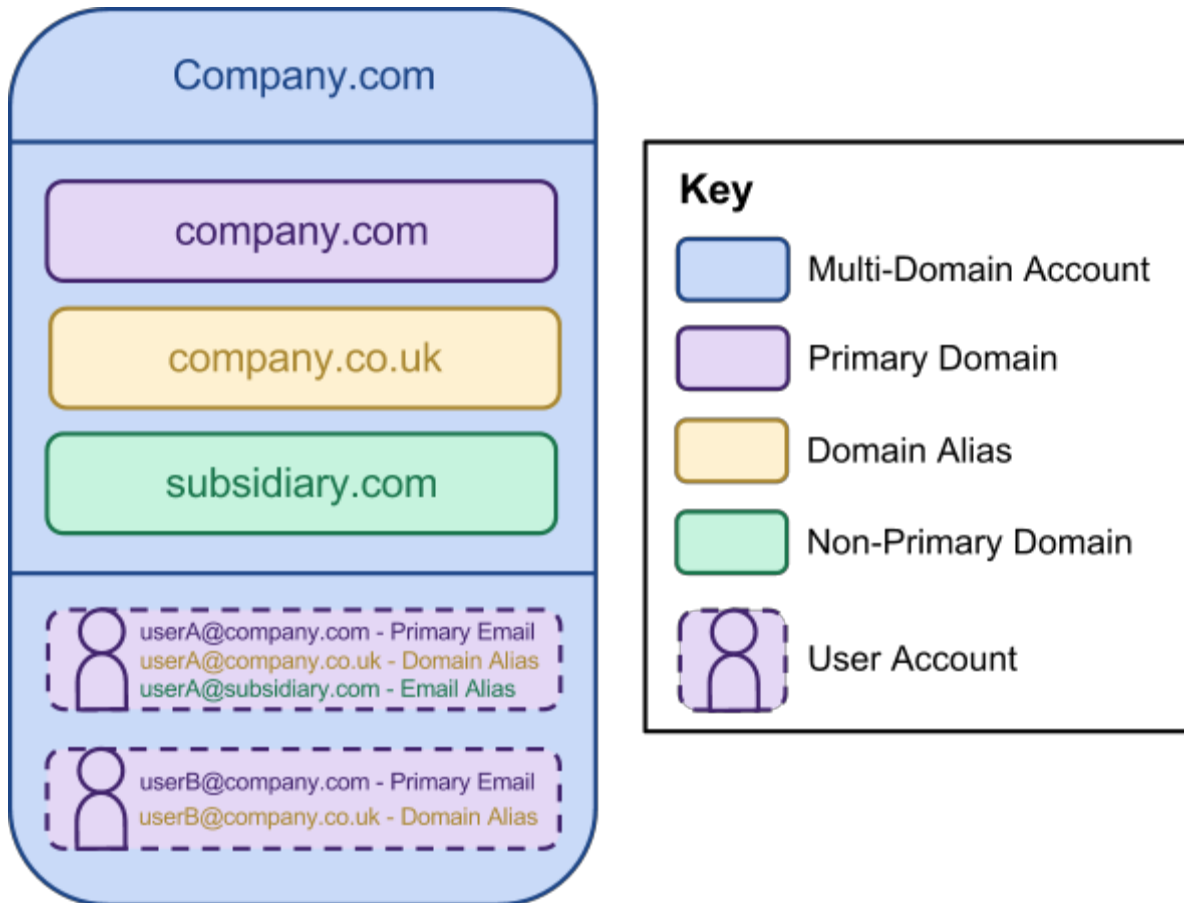
- User accounts provisioned in non-primary domains are subject to certain [limitations](#).
- The primary domain and each non-primary domain contain *different* user accounts.
- The same username can refer to different users in different domains.
- You can optionally add email aliases for users in other domains.
- Users sign in using their address in the domain where they were provisioned; for example, in the illustration above, the primary email address for userB is userB@subsidiary.com.
- You can add up to 599 non-primary domains, for a total of 600 domains per Google Apps account.

### Configuration steps

To set up this configuration:

1. [Add additional domains](#) to your Google Apps account as non-primary domains, and verify that you own the domain names.
2. Add users to each domain, based on which domain you want to be the user's primary email address.
3. Optionally create email aliases for users who should have addresses in multiple domains.

### Option 3: Multiple Domains and Domain Aliases



This configuration is a combination of the previous two options. As in Option 2, your Google Apps account has multiple domains with distinct sets of users provisioned in each one; and as in Option 1, all users and groups in the primary domain automatically receive an email alias in the alias domain.

#### Considerations

- You can add domain aliases for the primary domain only.
- The primary domain and each non-primary domain contain *different* user accounts; any domain names added as domain aliases contain the *same* user accounts as the primary domain..
- The same username can refer to different users in different domains.
- You can optionally add email aliases for users in other domains.

- Users sign in using their address in the domain where they were provisioned; for example, in the illustration above, the primary email address for userB is userB@subsidiary.com.
- You can add up to 599 non-primary domains, for a total of 600 domains per Google Apps account.

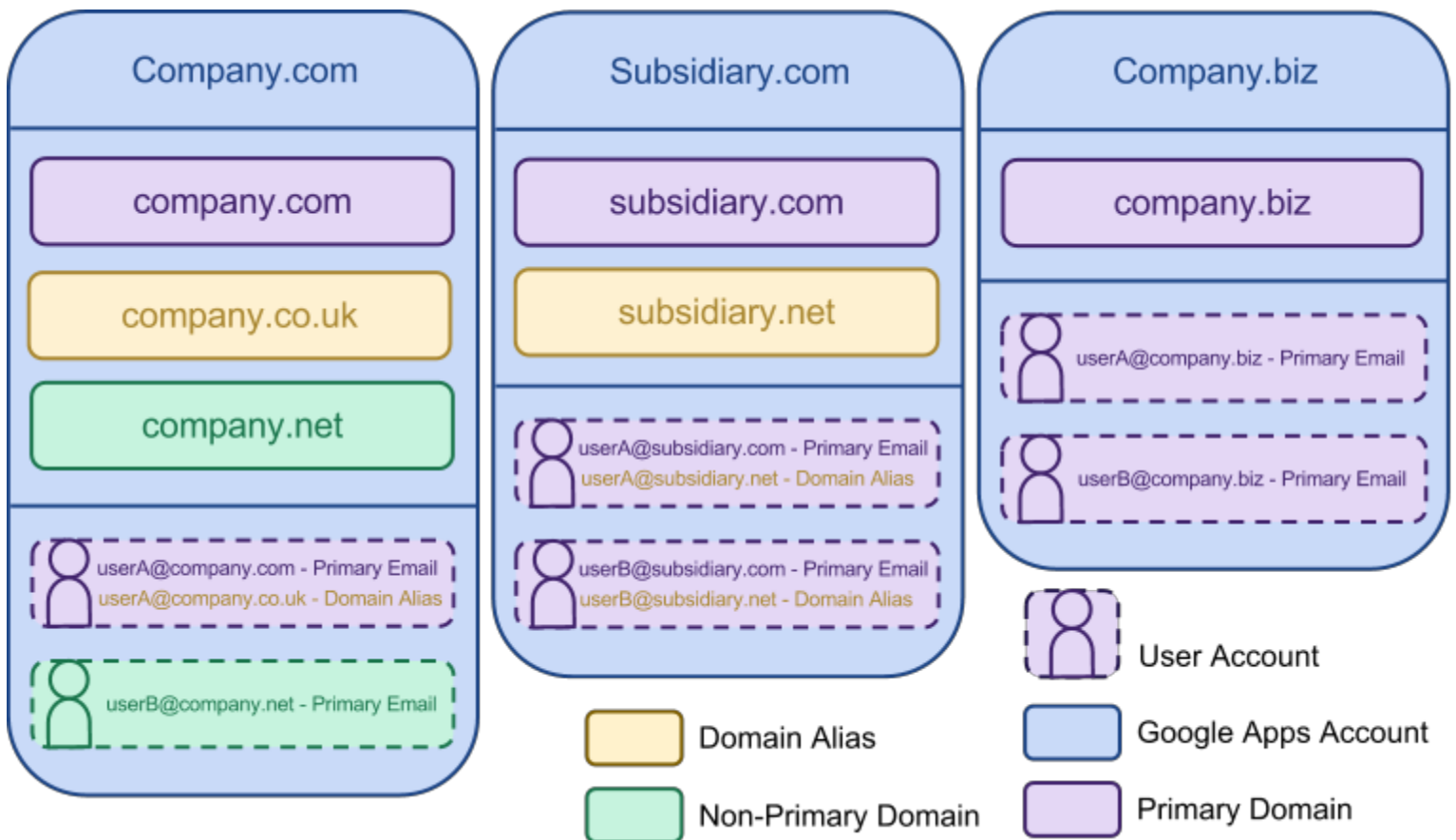
### Configuration steps

To set up this configuration:

1. [Add the additional domains](#) to your Google Apps account as non-primary domains and domain aliases, and verify that you own the domain names.
2. Add users to each domain, based on which domain you want to be the user's primary email address.

## Multiple Google Apps Accounts

The final, and most complex, option for managing multiple domains is to create multiple separate Google Apps accounts. This approach provides greater flexibility in some areas, but at the cost of increased management overhead and reduced integration between the domains.



In this configuration, you have multiple Google Apps accounts, each of which uses one of the previously discussed configurations. Each account has its own primary domain. You have a separate Google

administrator control panel for each account, which enables you to configure certain account-wide settings differently for different domains.

## Considerations

When you manage multiple domains in the same Google Apps account (Options 1 through 3 above), all domains share certain account-wide configuration settings:

- All domains use the same [single sign-on \(SSO\)](#) system to authenticate users.
- You can move (rename) users from one domain to another without requiring data migration.
- You can provide a single [custom logo](#) for your Google Apps account.
- All users appear in a single Global Address List (GAL), based on your [contact sharing settings](#).
- You manage a centralized list of [Calendar resources](#) for all domains.
- You can configure the sharing settings for core Google Apps services [Calendar](#), [Drive](#), [Groups](#), and [Sites](#) to control whether users can share documents with users outside of your account.

When you manage multiple domains in separate Google Apps accounts, you can specify different values for these settings:

- Each account can use an independent [single sign-on \(SSO\)](#) system to authenticate users.
- You can't move users from one account to another without requiring data migration.
- You can provide separate [custom logos](#) for each Google Apps account.
- Each account has its own Global Address List (GAL) and list of [Calendar resources](#).
- You have to allow users to share with users outside of the organization if they need to collaborate with users provisioned in other Google Apps accounts.
- A user can't delegate access to their mail or contacts to users in other accounts.

# Recommendations

When possible, we recommend managing all of your domains in a single Google Apps account. You should choose to manage your domains in multiple Google Apps accounts if the [limitations on non-primary domains](#) prevent you from meeting your requirements, or if you need to configure an account-wide setting differently for different domain. Be aware that it is not possible to merge Google Apps accounts once you have created separate ones. In cases where the limitations affect your implementation, you should consider provisioning all user accounts in a single primary domain.

Answering the following questions will help towards understanding your organisation's requirements, to assist you in identifying the most suitable Google Apps domain management approach:

- How many Internet domains does your Organisation currently own/manage?
- How many business units exist within your Organisation?
- What are the collaboration requirements between the business units?
- How do you manage user identity within each domain?
- Which domains do your employees need to send/receive mail from?
- Are there internal or external branding requirements for each business unit/domain?

- What is your current domain administration model?

Armed with this information and a clear understanding of how you would like to address the key areas of administration, productivity, collaboration and support for each of your domains, you will be able to move forward with a successful Google Apps Deployment.

## Example Customer Deployments

### Media

A Media Company managing 150 domains, managed within one Google Apps account. All user accounts are provisioned in the primary domain, and all remaining domains are registered as non-primary domains. This approach gives them the ability to create email aliases for users in the non-primary domains as required; they did not need alias addresses for all users, like a domain alias would have created.

### Trade Union

A Trade Union managing 45 domains, managed within one Google Apps account. Each domain contains a unique set of user accounts. Provisioning user accounts in separate domains enabled them to maintain the identity of each of the member unions.

### Business Services

A Global Business Services Group managing numerous domains for its subsidiary companies in multiple Google Apps accounts. This approach enabled each subsidiary company to administer Google Apps independently and maintain distinctive branding.

### Airline

An Airline consisting of 60 group companies comprising local airlines, cargo, logistics, and a travel agency, manages domains in a single Google Apps account. In addition to the centralized administration, multi-domain management allows them to easily move employees from one company to another by just renaming the user accounts, with no need to rebalance licenses. Not long after deployment, they acquired another company. Creating the user accounts in Google Apps for the newly acquired employees was made simple by leveraging the multi-domain functionality.

### Manufacturing

A subsidiary manufacturing company deployed Google Apps, while their parent company remained on their legacy platform. The subsidiary company acquired a number of smaller companies whose domains were incorporated into their Google Apps Account as non-primary domains. This enabled the acquired companies to maintain their corporate identity while facilitating sharing between all the companies within the single Google Apps account.