City of Edmonton G Suite - Marketplace Apps Integration
Standards and Guidelines

These standards provide requirements for Marketplace Apps Integration with G Suite for the City of Edmonton (CoE) domain. Questions regarding these standards should be directed to the IT Google support team.

These standards apply to all Business areas planning to integrate a third-party app available in the G Suite Marketplace and through the Admin console with the CoE domain.

1. Integration Points

1.1. Support for Marketplace apps integration

The two types of Independent Software Vendor (ISV)-created Marketplace apps that integrate with G Suite are supported and unsupported.

1.1.1. Supported

Supported apps are recommended as they use Google's publicly published APIs for their intended purpose which are supported and serviced by Google through their G Suite APIs Terms of Service.

1.1.2. Unsupported

Marketplace apps that use elements or attributes seen in various HTML pages, Cookies, Javascript, HTTP/S URIs, etc. are not supported by the G Suite APIs Terms of Service.

Innovation and integration with G Suite services are welcomed. But, it's important to note, Marketplace apps which use these implementation types may not always work.

Google needs to maintain the flexibility to dynamically change their products to provide service, scale, availability, and innovation that their customers expect. If substantive changes to a product are made, Google strives to make the capabilities available that best allow integration with their services.

1.2. Mail integration

Apps that integrate with mail have access to users' Gmail data.

There are two common methods of mail integration: sidebar gadgets and contextual gadgets.
Sidebar gadgets are simple HTML and JavaScript web applications that can be embedded in the left-hand pane of Gmail. These gadgets can extend Gmail with additional functionality and content-rich data displays.

Contextual gadgets draw information from the web based on the contents of an email message. For example, contextual gadgets can display content previews based on links in a message.

Contextual gadgets make use of the following APIs:

1.2.1. Extractor APIs

Contextual gadgets use this API to detect contextual clues in email, determine which types of content trigger the gadget, and pass the triggering content to the gadget.

1.2.2. IMAP over OAuth API

Gmail supports the IMAP protocol for accessing and sending messages. This API lets the gadget have IMAP access to Gmail via OAuth.

1.2.3. GMAIL Atom Feeds API

Contextual gadgets use this API to feed updates from websites, blogs, and Gmail.

If an application that uses contextual gadgets is installed, the recommendation from Google is that users are alerted to the possibility that the gadgets can respond to the content of their email messages.

Gadgets should be evaluated carefully before they are installed by domain administrators.

1.3. Calendar integration

Third-party apps that integrate with Google Calendar should have access to users' Google Calendar data, including invitations and events.

The Google Calendar DATA API allows apps to edit calendars, create and delete calendar events, send invitations and more.

1.4. Drive

Apps should be able to programmatically access and manipulate user data stored with Google Drive files, including Google Docs, Sheets, and Slides. Integration is provided via the Google Drive SDK. Some examples of what apps can do when integrated with Google Drive are as follows:
- Retrieve documents that match specific keywords, categories, or metadata
- Modify the sharing permissions of documents and folders
- Review, download, or publish a document's revision history
- Export documents
- Create online backups of local documents, spreadsheets, presentations, and PDFs
- Create folders, and move documents and folders in and out of folders

1.5. Contacts

Third-party apps must use the Contacts Data API to access, edit, and properly integrate with Gmail Contacts.

1.6. Google+ integration

If apps claim to have Google+ integration, they should have access to users Google+ data, including posts, comments, and circles.

The Google+ API allows apps to write posts to the stream and read public posts, domain-restricted posts, posts limited to circles, comments on a post, names of a user's circles and the membership of each circle, and a merged list of the members of the user's circles with no circle information.

1.7. Single Sign-On

The City of Edmonton uses Single Sign-On with a third party identity provider when accessing G Suite. Therefore, the preference is for apps to integrate with Single Sign-On in order to allow users to securely sign in to the apps using their G Suite credentials. This can be done in one of the following ways:

- OAuth2 is an open protocol that allows secure authorization in a simple and standard method. All new apps available through the admin console are expected to use Oauth2 for Single Sign-On.
- OpenID Federated Login Service for G Suite allows users to securely sign in to third-party websites using their G Suite user account.
- SAML Single Sign-On allows secure web domains to exchange user-authentication and user-authorization data. Using SAML, an online service provider can contact a separate online identity provider to authenticate users who are trying to access secure content.

1.8. Google app launcher

Apps that integrate with the Google app launcher are listed on the **More** menu in G Suite.