

Google Apps + Google API = Your New Best Friend

Brian Patrick Lawlor
Legal Services of Northern California
blawlor@lsnc.net | Webdogs 3.0

Non-technical presentation

Want technical?

Go to **NTEN conference** in April

MIC+A

Truth-in-Presenting



APRIL 3-5, 2012 * UNION SQUARE HILTON * SAN FRANCISCO

NTC SESSION PROPOSAL

Leveraging the Google API to Integrate Your Systems

Over the past several years, nonprofits have migrated to Google Apps to provide staff with a core set of low-cost, web-based applications. At the same time, nonprofits often continue to utilize highly-specialized, industry-specific applications necessary to meet their mission.

In the legal aid world, almost every field office uses a case management system (CMS - essentially a relational database with a graphical interface) to collect information about clients, check for conflicts, manage pro bono attorneys, and generate reports. Since many of these offices have adopted Google Apps, the need for robust integration between case management systems and Google's tools has become clear.

This session will focus on how one nonprofit leveraged various Google API options to create practical solutions for integrating select content elements of Gmail, Google Calendar, Google Docs and Google Groups into its case management system. The integration utilized open source design and coding techniques readily adaptable by others.

Takeaways

1. The knowledge management benefits of connecting Google Apps to other key systems
2. A technical overview of the Google API
3. Our take on using the Google Cloud, even in a fairly regulated industry like the legal profession

TRACK

[IT Staff](#)

GUIDING THEME

[Infrastructure Technology](#)

LEVEL

[Apprentice](#)

TAGS

[Infrastructure](#)

[Integration / APIs](#)

[Open Source](#)

STYLE

[Workshop](#)

[Voting Guide](#)

[Return to search results](#)

Guided search

Click a term to initiate a search.

Track

[Communications \(167\)](#)

[Fundraising \(81\)](#)

[IT Staff \(51\)](#)

[Leadership \(104\)](#)

[Program \(52\)](#)

Guiding theme

[Communication: Build Relationships \(69\)](#)

[Communication: Tell Your Story \(56\)](#)

[Leadership: Implementing Change \(35\)](#)

[Fundraising: Emerging Trends in Fundraising Technologies \(32\)](#)

[Fundraising: Connecting with Donors \(29\)](#)

[Leadership: Emerging Trends in Technology \(24\)](#)

[Program: Emerging Trends in Technology \(20\)](#)

LSNC Google API Project

[blawlor@lsnc.net](#) ▾ | [My favorites](#) ▾ | [Profile](#) | [Sign out](#)

{3} lsnc-google-api

Code models for integrating core Google Apps with the Pika case management system.

[Project Home](#) | [Downloads](#) | [Wiki](#) | [Issues](#) | [Source](#) | [Administer](#)

[Summary](#) | [Updates](#) | [People](#)

Project Information

★ Starred by 2 users
[Activity](#) ■ Medium
[Project feeds](#)

Code license
[GNU GPL v3](#)

Labels
[Apps](#), [PHP](#), [API](#), [Prototype](#), [Demo](#)

Members
[blawlor@lsnc.net](#),
[msawyer@lsnc.net](#),
[michael.cizmar@mcplusa.com](#),
[john.cizmar@mcplusa.com](#),
[john.cizmar](#)
[1 committer](#)

Your role
[Owner](#)

Featured

Downloads
[lsnc-google-api.4.0.zip](#)
[pika_google_v2.1.zip](#)
[Show all »](#)


Wiki pages
[ScreenShots_of_Integrations](#)
[Show all »](#)

LSNC Google API Project

The LSNC Google API Project is a national demonstration project funded by the LSC [Technology Initiative Grants Program](#). This project is maintained by [Legal Services of Northern California](#) (LSNC), a ten-office legal aid program serving low-income clients in 23 counties in the upper third of California.

The project will demonstrate how open source Google APIs can be used for practical integration of the Google Apps platform with open source case management systems used by legal service programs. The practical goal of the project is to overcome the lack of integration between LSNC's domain-specific Google Apps platform and the [Pika CMS](#), an open source PHP-based application. Specific objectives of the project include creation of practical solutions for integrating select content elements of Gmail, Google Calendar, Google Docs and Google Groups into Pika.

LSNC's development partner on this project is [MC+A](#), headquartered in Chicago. Since 2002, MC+A has provided integration solutions for managing business intelligence and assisting clients to find, manage and share information more efficiently. MC+A was one of the first [Google Enterprise Partners](#) and is also on the Board of Advisors to [Open Pipeline](#).



Where am I going with this?

1. The **value of integration**.
2. Practical **solutions** for integration of Pika CMS with Google Apps.
3. **Project design** principles.
4. Overview of **Google APIs**.
5. **How to replicate** the LSNC Google API Project.

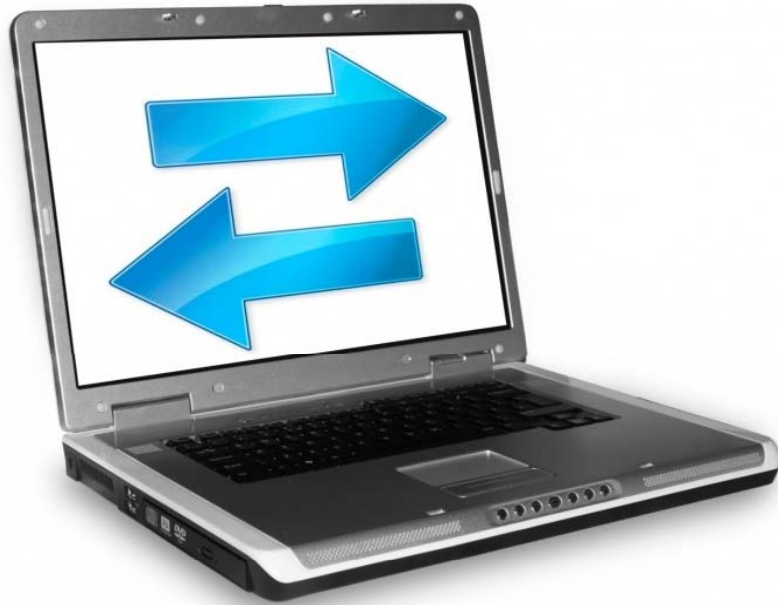
What's the value of integration?

Pika CMS

+

Google Apps

What's the problem?



“What we’ve got here is...
failure to communicate.”

The shift in the work paradigm

Practical, reasonable expectations among users about now common technologies working **the way they need them to work.**

Imagine these solutions...

- ✓ Pika CMS ticklers ... automatically posted to Google Calendar.
- ✓ Pika CMS case documents ... automatically synchronized to Google Docs.
- ✓ Gmail option ... to post messages to Pika CMS case notes.
- ✓ Google Groups option ... to post discussions to Pika CMS case notes.

Google Calendar integration

Tickler Item

Case	<input type="text" value="Doe, John - 80-11-00001 - 08 - 1000"/>	Date	<input type="text" value="01/25/2012"/>
Subject	<input type="text" value="Pre-trial conference"/>	Start Time	<input type="text" value="10:00 AM"/>
Description	<input type="text" value="Discovery schedules"/>	End Time	<input type="text" value="2:00 PM"/>
Where	<input type="text" value="720 9th Street, Sacramento, CA 95814"/>	<input type="checkbox"/>	Completed

Google Calendar integration

Tickler Item

Case	<input type="text" value="Doe, John - 80-11-00001 - 08 - 1000"/>	Date	<input type="text" value="01/25/2012"/>
Subject	<input type="text" value="Pre-trial conference"/>	Start Time	<input type="text" value="10:00 AM"/>
Description	<input type="text" value="Discovery schedules"/>	End Time	<input type="text" value="2:00 PM"/>
Where	<input type="text" value="720 9th Street, Sacramento, CA 95814"/>	<input type="checkbox"/>	Completed

Google Calendar integration

Mail Calendar Documents Sites Groups More ▾ blawlor@ [profile] [gear]

Google Search Calendar [magnifying glass]

Calendar Today < > Jan 24 – 27, 2012 Day Week Month **4 Days** Agenda More ▾ [gear]

CREATE ▾

▼ January 2012 < >
S M T W T F S
25 26 27 28 29 30 31
1 2 3 4 **5** 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31 1 2 3 4

▶ My calendars ▾
▶ Other calendars ▾

GMT-08	Tue 1/24	Wed 1/25	Thu 1/26	Fri 1/27
5am				
6am				
7am				
8am				
9am				
10am		10 – 2p Pre-trial conference		
11am				
12pm				
1pm				
2pm				
3pm				
4pm				
5pm				

.tklapp.com ... [close]
MC+A
Click on and view event to see Pika extended properties

Google Calendar integration

Mail Calendar Documents Sites Groups More ▾ blawlor@ ⚙

Google Search Calendar 🔍

Calendar Today < > Jan 24 – 27, 2012 Day Week Month 4 Days Agenda More ▾ ⚙

CREATE ▾

▼ January 2012 < >
S M T W T F S
25 26 27 28 29 30 31
1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31 1 2 3 4

▶ My calendars ▾
▶ Other calendars ▾

GMT-08	Tue 1/24	Wed 1/25	Thu 1/26	Fri 1/27
5am				
6am				
7am				
8am				
9am				
10am				
11am				
12pm				
1pm				
2pm				
3pm				
4pm				
5pm				

Pre-trial conference ✕

Wed, January 25, 10am – 2pm

Where 720 9th Street, Sacramento CA 95914 [map](#)

Calendar blawlor@

Created by mcizmar@

[Delete](#) [Edit event »](#)

..tklapp.com ... ☒

MC+A

CASE

Number: [80-11-00001](#)

Type: 08 - Unfair and Deceptive Sales Practices

Notes: Test Client

CLIENT

John Doe
4438 N. Malden, 2N
Chicago, IL 60640
[\(111\) 111-1111](#)

[Edit Tickler](#) [Add Tickler](#)

Google Calendar integration

Mail **Calendar** Documents Sites Groups More ▾ blawlor@ ⚙

Google 🔍

Calendar Today < > Jan 24 – 27, 2012 Day Week Month **4 Days** Agenda More ▾ ⚙

CREATE ▾

▼ January 2012 < >
S M T W T F S
25 26 27 28 29 30 31
1 2 3 4 **5** 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31 1 2 3 4

▶ My calendars ▾
▶ Other calendars ▾

GMT-08	Tue 1/24	Wed 1/25	Thu 1/26	Fri 1/27
5am				
6am				
7am				
8am				
9am				
10am				
11am				
12pm				
1pm				
2pm				
3pm				
4pm				
5pm				

Pre-trial conference ✕

Wed, January 25, 10am – 2pm

Where 720 9th Street, Sacramento CA 95914 [map](#)

Calendar blawlor@

Created by mcizmar@

[Delete](#) [Edit event »](#)

.tklapp.com ... ✕

MC+A

CASE

Number: [80-11-00001](#)

Type: 08 - Unfair and Deceptive Sales Practices

Notes: Test Client

CLIENT

John Doe
4438 N. Malden, 2N
Chicago, IL 60640
[\(111\) 111-1111](#)

[Edit Tickler](#) [Add Tickler](#)

Google Calendar integration

Mail **Calendar** Documents Sites Groups More ▾ blawlor@ ⚙

Google 🔍

Calendar Today < > Jan 24 – 27, 2012 Day Week Month **4 Days** Agenda More ▾ ⚙

CREATE ▾

▼ January 2012 < >
S M T W T F S
25 26 27 28 29 30 31
1 2 3 4 **5** 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31 1 2 3 4

▶ My calendars ▾
▶ Other calendars ▾

GMT-08	Tue 1/24	Wed 1/25	Thu 1/26	Fri 1/27
5am				
6am				
7am				
8am				
9am				
10am				
11am				
12pm				
1pm				
2pm				
3pm				
4pm				
5pm				

Pre-trial conference ✕

Wed, January 25, 10am – 2pm

Where 720 9th Street, Sacramento CA 95914 [map](#)

Calendar blawlor@

Created by mcizmar@

[Delete](#) [Edit event »](#)

.tklapp.com ... ✕

MC+A

CASE

Number: [80-11-00001](#)

Type: 08 - Unfair and Deceptive Sales Practices

Notes: Test Client

CLIENT

John Doe
4438 N. Malden, 2N
Chicago, IL 60640
[\(111\) 111-1111](#)

[Edit Tickler](#) [Add Tickler](#)

Google Docs integration

Document Storage

- Form.pdf ▶
- spring 07 OSNC RCFE Fieldguide INSIDE.pub ▶
- 07 L&M Tentative Rulings.pdf ▶
- American Airlines, Inc. v. Superior Court.doc ▶
- CCP 377.html ▶
- Third DCA motion to extend stay (02-28-07).wpd ▶
- Placer+County+Local+Rules+(effective+01-01-07)-1.pdf ▶

Upload a File

Select a File to Add

No file chosen

Google Docs integration





The screenshot displays the Google Docs interface. At the top, there is a navigation bar with links for Mail, Calendar, Documents, Sites, Groups, and More. Below this is the Google logo and a search bar containing the text 'Doe - 80-11-00001'. A search button is located to the right of the search bar.


The main content area is titled 'Docs' and features a '+ ' button for creating new documents. On the left side, there is a sidebar with navigation options: CREATE, Home, Starred, Owned by me, All items, Trash, My collections, Collections shared with me, and My Cases. Under 'My Cases', there are three sub-collections: Cizmar - X-11-0000, Clause - 10-11-0000, and Doe - 80-11-0000 (which is currently selected).


The main list of documents is as follows:




<input type="checkbox"/>	<input type="checkbox"/>	TITLE	
<input type="checkbox"/>	<input type="checkbox"/>	Placer+County+Local+Rules+(effective+01-01-07)-1.pdf	Shared
<input type="checkbox"/>	<input type="checkbox"/>	Third DCA motion to extend stay (02-28-07).wpd	Shared
<input type="checkbox"/>	<input type="checkbox"/>	CCP 377.html	Shared
<input type="checkbox"/>	<input type="checkbox"/>	American Airlines, Inc. v. Superior Court.doc	Shared
<input type="checkbox"/>	<input type="checkbox"/>	07 L&M Tentative Rulings.pdf	Shared
<input type="checkbox"/>	<input type="checkbox"/>	spring 07 OSNC RCFE Fieldguide INSIDE.pub	Shared
<input type="checkbox"/>	<input type="checkbox"/>	State Ombudsman Declaration Form.pdf	Shared
<input type="checkbox"/>	<input type="checkbox"/>	PDFRequestRouter.pdf	Shared
<input type="checkbox"/>	<input type="checkbox"/>	reimbursement_request.pdf	Shared

Gmail integration

Message with file attachment  Inbox x   


 **Brian Lawlor | LSNC** 12/28/11 (8 days ago) ☆
Denise Hardy, of our Butte office, recently got a conditional withdrawal (the...)

 **Brian Lawlor** 12/28/11 (8 days ago) ☆
Although the client lost at the EDD level, the CUIAB reversed, finding that t...

 **Brian Lawlor | LSNC** blawlor@lsnc.net 12/28/11 (8 days ago) ☆  
to me ▾

Asa Marie Standfeldt, Redding, jumped in when the client brought in a notice reducing IHSS hours from 200 to 14, by eliminating any protective supervision hours. The Social Worker, based on her observations and family interview, concluded that the client wouldn't hurt himself. The evidence? the provider's verification of "minimal self control" and had severely impaired judgment, and remained at risk of personal injury, and the Regional Center's social worker stating that without protective supervision, he would require a Level 4 institutionalization (the most restrictive environment). The final outcome? The client got over 211 hours authorized!

...

 **Samsung HW-C450 - User Manual.pdf**
4094K [View](#) [Download](#)

Pika Mail Gadget - Handle cases info working with mails
▶ **TKLAPP STAGING PIKA - ATTACH TO CASE NOTES**

Gmail integration

Pika Mail Gadget - Handle cases info working with mails

▼ **TKLAPP STAGING PIKA - ATTACH TO CASE NOTES**

My Active Cases **All Active Cases**

Select a case ▲
80-11-00001-Doe, John
80-11-00002-Simpson, Darla
X-11-00008-Cizmar, John
10-11-00009-Clause, Santa ▼

Save Attachments to Case Copy Entire Conversation

MC+A

Gmail integration

The screenshot shows a Gmail document editor interface. At the top, there are navigation tabs for Mail, Calendar, Documents (selected), Sites, Groups, and More. The user's email address, blawlor@, is visible in the top right corner. The document title is "test.txt" with a star icon. Below the title is a menu bar with options: File, Edit, View, Insert, Format, Tools, Table, Help, and a status indicator "All changes saved". To the right of the menu bar are buttons for "Comments" and "Share".

The main editing area features a rich text toolbar with various icons for text formatting (bold, italic, underline, text color, background color), alignment, and list creation. Below the toolbar is a ruler showing line numbers 1 through 7. The text area contains the following content:

Asa Marie Standfeldt, Redding, jumped in when the client brought in a notice reducing IHSS hours from 200 to 14, by eliminating any protective supervision hours. The Social Worker, based on her observations and family interview, concluded that the client wouldn't hurt himself. The eviden? the provider's verification of "minimal self control" and had severely impaired judgment, and remained at risk of personal injury, and the Regional Center's social worker stating that without protective supervision, he would require a Level 4 institutionalization (the most restrictive environment). The final outcome? The client got over 211 hours authorized!

On Wed, Dec 28, 2011 at 2:00 PM, Brian Lawlor <blawlor@hrh.org> wrote:

> Although the client lost at the EDD level, the CUIAB reversed, finding

At the bottom of the editor, there are two buttons: "Attach to Case" and "Cancel". On the far right, there is a checkbox labeled "Save Attachments to Case" which is currently unchecked.

Gmail integration

Case Note

Case Record
Doe, John - 80-11-00001 - 08 - 1000

Staff
Lawlor, Brian

Summary | Title
Re: Message with file attachment

Date
01/05/2012

Notes
Asa Marie Standfeldt, Redding, jumped in when the client brought in a notice reducing IHSS hours from 200 to 14, by eliminating any protective supervision hours. The Social Worker, based on her observations and family interview, concluded that the client wouldn't hurt himself. The evidence? the provider's verification of "minimal self control" and had severely impaired judgment, and remained at

Hours Worked


Start Time
2:56 PM

- [Delete this record](#)

Google Groups integration

Mail Calendar Documents Sites **Groups** More ▾

Google groups for
[« Groups Home](#)

 **Cases**

Example of Google Groups message [Options](#)

★ 1 message - [Collapse all](#)

Brian Lawlor [View profile](#) [More options](#) Jan 5, 3:07 pm

OSNC is partnering with the Ventura County Ombudsman Program, San Mateo County Ombudsman Program and CANHR to change the attitudes and practices of California's nursing homes to stop using chemical restraints of residents. Just as physical restraints were curtailed chemical restraints can and will be a thing of the past. The recent United States Senate Special Committee on Aging testimony on the misuse of anti psychotics in nursing homes and acute care hospitals confirms that there is widespread interest to stop the unnecessary drugging of elderly dementia patients.

[Reply](#) [Reply to author](#) [Forward](#)

End of messages

[« Back to Discussions](#) [« Newer topic](#) [Older topic »](#)

Google Groups integration

The screenshot shows a Google Groups interface. At the top, there is a navigation bar with links for Mail, Calendar, Documents, Sites, Groups, and More. Below this, the page title is "Google groups for" with a link to "Groups Home". The main content area is titled "Cases" and contains a message from Brian Lawlor. A modal dialog box is overlaid on the message, displaying a search form with a text input containing "DOE", a "Search" button, a dropdown menu with "80-11-00001-Doe, John" selected, and "Save", "Edit and Save", and "Cancel" buttons. The background message text is partially obscured by the dialog box.

Mail Calendar Documents Sites **Groups** More ▾

Google groups for
« Groups Home

Cases

Example of Google Groups message

★ 1 message - [Collapse all](#)

Brian Lawlor [View profile](#)

OSNC is partnering with the Ventura County Ombudsman Program and CANHP practices of California's nursing homes to stop using physical restraints of residents. Just as physical restraints, chemical restraints can and will be a thing of the United States Senate Special Committee on Aging misuse of anti psychotics in nursing homes and confirms that there is widespread interest to stop drugging of elderly dementia patients.

[Reply](#) [Reply to author](#) [Forward](#)

End of messages

« [Back to Discussions](#) [Newer topic](#) [Older topic](#) »

Options

an 5, 3:07 pm

https://hrh.tklapp.com/pika/pikaGoogle...
~~https://~~ .tklapp.com/ GoogleGroupsSync.php?sui

DOE Search

Select a case
80-11-00001-Doe, John

Save Edit and Save Cancel

Project design principles

Need

Practicality

Simplicity

Usability

Does the UX design
compromise usability?

Availability

- ✓ Puts the data where it needs to be.
- ✓ Data gets to everyone who needs it.
- ✓ Provides shared ... share-able ...
points of access.

Again... What's the value of integration?

Google Calendar integration:

- Advocates associated with a Pika case record get **automatic notifications** of tickled events in their Google Calendars.
- Individual advocates can **personalize reminders** and **add others** to those calendar events.
- Tickled events now include **all the other Google Calendar features**, including location and Google mapping information.
- **Ease of access** from Google Calendar to the related case record.

Again... What's the value of integration?

Google Docs integration:

- **Seamless synchronization** of case-related files to the Google Docs accounts of all advocates associated with the case.
- Advocates can do **full text searches** and **downloads** of synchronized case files from within the Google Docs without opening Pika.
- Integration enables advocates to use Google Docs to **share, view, edit and/or convert** case-related files.
- **Editing option** for Gmail + Groups integrations.

Again... What's the value of integration?

Gmail + Groups integrations:

- **Ease of posting** Gmail + Google Groups messages directly to specific client case record without opening Pika.
- Option to post **single message or entire conversation** in Gmail directly to Pika case record.
- Option to **edit** Gmail + Google Groups messages before posting.
- Seamless posting of Gmail **file attachments** to Pika client case record.

Again... What's the value of integration?

The genius of the Google Apps platform is not that it is free or \$50/user/year.

The genius of Google Apps is ...

- It is **easy to scale**
- The apps are **consumer friendly**
- The apps share a **unified interface**
- And **everything is connected**

What are APIs?

API = Application
Programming
Interfaces

What are APIs?

“Do me a solid.”

What are APIs?

Standardized requests made by one software component to another software component to do something for it.

Each program has standardized ways of doing that. Those standardized requests are “application program interfaces” or APIs.

What are APIs?

APIs dictate the proper way for a developer to request services from a particular program.

Google APIs enable developers to properly request data from and sync data with a Google application.

What are APIs?

Building an application with **no APIs...**

“is basically like building a house with no doors. The API for all computing purposes is how you open the blinds and the doors and exchange information.”

Josh Walker, Forrester Research Inc.

Google APIs

blawlor@lsnc.net | [My favorites](#) | [English](#) | [Sign out](#)

Google code Search
e.g. "adwords" or "open source"

Site Directory

Products

[All](#)
[Ads](#)
[Browser](#)
[Geo](#)
[Mobile](#)
[Search](#)
[Social](#)

Resources

[All](#)
[Open Source](#)
[Education](#)
[Events](#)
[Tools & Tips](#)



[Google+ Platform](#)

Access Google+ activity streams and user profiles, build apps for Google+ Hangouts, and more.



[Google Account Authentication](#)

Get access into desktop or mobile applications.
[Group](#)



[Google AdSense Host API](#)

Generate revenue for you and your users by placing ads on your website.
[Documentation](#) - [Blog](#) - [Group](#)



[Google AdSense Management API](#)

Get reports on your AdSense earnings and manage your AdSense inventory.
[Documentation](#) - [Blog](#) - [Group](#)



[Google AdWords API](#)

Automate and streamline your campaign management activities.
[Documentation](#) - [Blog](#) - [Group](#)



[Google Feed API](#)

Easily mash up public feeds using JavaScript.
[Documentation](#) - [Group](#)



[Google Analytics](#)

Track your site traffic, and write your own client applications that use Analytics data in the form of Google Data API feeds.
[Documentation](#) - [Blog](#) - [Group](#)



[Google Analytics for Mobile](#)



[Google Apps](#)

Extend Google Apps, integrate with other systems, or build new apps.
[Documentation](#) - [Blog](#) - [Group](#)



[Google TV Developers](#)

Build Android, Web, and Remote Apps for Google TV.
[Blog](#) - [Group](#)



[Google Health API](#)

Manage your personal health information with Google.
[Documentation](#) - [Group](#)



[Google Identity Toolkit API](#)

Support federated login on your site using OpenID/OAuth standards.
[Documentation](#)



[iGoogle Developer Home](#)

Build and test your gadget in the new sandbox for iGoogle.
[Documentation](#) - [Blog](#) - [Group](#)



[Google Interactive Media Ads](#)

Google Interactive Media Ads enable publishers to request and display ads into video, audio and game content.
[Documentation](#)



[Google In-App Payments API for the Web](#)

Sell digital and virtual goods in your web app.
[Documentation](#) - [Blog](#) - [Group](#)



[Google Java Developer Tools](#)

Using the Eclipse IDE, quickly build and test Java GUIs and

Google Apps APIs

[blawlor@lsnc.net](#) ▼ | [My favorites](#) ▼ | [English](#) ▼ | [Sign out](#)

Google code
e.g. "templates" or "datastore"

★ Google Apps

[Home](#) [Docs](#) [FAQ](#) [Articles](#) [Blog](#) [Twitter](#) [Support](#) [Terms](#) [+1](#)

[Google Apps Marketplace Home >](#)

About Google Apps APIs

[Overview](#)

Apps APIs & Tools

- [Application APIs](#)
- [Auth APIs](#)
- [Google Apps Marketplace](#)
- [Domain Info & Management](#)
- [Resources](#)

Google Apps APIs Overview



Google Apps provides powerful communication, collaboration, and productivity tools right from the browser. More than 3 million businesses are using Google Apps and 3,000 more sign up each day. With Google's platform, you can extend the functionality of Google Apps, integrate with other systems, or build new applications for your company and other businesses.

Most Google Apps APIs fit into three general categories: [Google Data APIs](#), [Gadgets APIs](#), and [Google Apps Script](#) services.

- [Google Data APIs](#) are based on the Atom and RSS syndication formats and the Atom publishing protocol, and also include support for [authentication](#), [querying](#), and [version conflict detection](#). [Client libraries](#) are available in a variety of popular languages.
- [Gadgets APIs](#) are implementations as extensions to the [gadgets API](#), which work across many of the Google Apps products.
- [Google Apps Script](#) allows you to automate tasks across many of the Google Apps products.

Google Apps APIs



⊕ Application APIs

Google Application APIs allow developers to write applications that access Google Applications such as Gmail, Calendar, and many others using Google Data APIs, Gadgets, and Google Apps Script.



⊕ Auth APIs

Google Apps and its APIs support a number of methods for performing authentication and authorization of users.

Google Apps APIs

blawlor@lsnc.net ▾ | My favorites ▾ | English ▾ | Sign out

Google code Search
e.g. "adwords" or "open source"

★ **Google Data Protocol** [Home](#) [Docs](#) [FAQ](#) [Articles](#) [Blog](#) [+1](#)

Google Data APIs
[API Directory](#)
[Client Library Downloads](#)

Google Data Protocol
Developer's Guide
⊕ Version 2.0
⊕ Version 1.0
[JSON Alt Type](#)
[Batch Processing](#)

More Resources
⊕ Authentication
⊕ Client Library

Developer's Guide Overview

Google's mission is to organize the world's information and make it universally accessible and useful. This includes making information accessible in contexts other than a web browser and accessible to services outside of Google.

The Google Data Protocol provides a secure means for external developers to write new applications that let end users access and update the data stored by many Google products. External developers can use the Google Data Protocol directly, or they can use any of the supported programming languages provided by the client libraries.

Audience

This set of documents is intended for anyone who wants to understand Google Data Protocol. Even if you just want to write code that uses the language-specific client libraries, this document set can be helpful if you want to understand what's going on beneath the client-library abstraction layer.

“... use these APIs to write client applications that give end users new ways to access and manipulate the data they store in Google products.”

Google APIs – 3 Takeaways

- **What you can do** with one service may not be possible with another.
- APIs are **versioned**, so there may be limitations on upgrading.
- If a service works with an API, it **will continue to work**.

Replication – LSNC Google API Project

[blawlor@lsnc.net](#) ▾ | [My favorites](#) ▾ | [Profile](#) | [Sign out](#)

{3} lsnc-google-api

Code models for integrating core Google Apps with the Pika case management system.

[Project Home](#) | [Downloads](#) | [Wiki](#) | [Issues](#) | [Source](#) | [Administer](#)

[Summary](#) | [Updates](#) | [People](#)

Project Information

★ Starred by 2 users
[Activity](#) ■ Medium
[Project feeds](#)

Code license
[GNU GPL v3](#)

Labels
[Apps](#), [PHP](#), [API](#), [Prototype](#), [Demo](#)

Members
[blawlor@lsnc.net](#),
[msawyer@lsnc.net](#),
[michael.cizmar@mcplusa.com](#),
[john.cizmar@mcplusa.com](#),
[john.cizmar](#)
[1 committer](#)

Your role
[Owner](#)

Featured

Downloads
[lsnc-google-api.4.0.zip](#)
[pika_google_v2.1.zip](#)
[Show all »](#)


Wiki pages
[ScreenShots_of_Integrations](#)
[Show all »](#)

LSNC Google API Project

The LSNC Google API Project is a national demonstration project funded by the LSC [Technology Initiative Grants Program](#). This project is maintained by [Legal Services of Northern California](#) (LSNC), a ten-office legal aid program serving low-income clients in 23 counties in the upper third of California.

The project will demonstrate how open source Google APIs can be used for practical integration of the Google Apps platform with open source case management systems used by legal service programs. The practical goal of the project is to overcome the lack of integration between LSNC's domain-specific Google Apps platform and the [Pika CMS](#), an open source PHP-based application. Specific objectives of the project include creation of practical solutions for integrating select content elements of Gmail, Google Calendar, Google Docs and Google Groups into Pika.

LSNC's development partner on this project is [MC+A](#), headquartered in Chicago. Since 2002, MC+A has provided integration solutions for managing business intelligence and assisting clients to find, manage and share information more efficiently. MC+A was one of the first [Google Enterprise Partners](#) and is also on the Board of Advisors to [Open Pipeline](#).



Replication – Pika CMS

[blawlor@lsnc.net](#) ▼ | [My favorites](#) ▼ | [Profile](#) | [Sign out](#)

{3} lsnc-google-api

Code models for integrating core Google Apps with the Pika case management system.

[Project Home](#) [Downloads](#) [Wiki](#) [Issues](#) [Source](#) [Administer](#)

Search ▼ for

☆ [ProjectReadMe](#) Updated Oct 12, 2011 by [john.cizmar@mcplusa.com](#)

lsnc-google-api

Code models for integrating core Google Apps with the Pika case management system.

[Project Home](#) [Downloads](#) [Wiki](#) [Issues](#) [Source](#)

Google Apps API Readme

INSTALLATION INSTRUCTIONS

1. Create Google account with calendar read/write proxy access to all calendars. Login to your Google Apps admin page (<http://www.google.com/a/domainname.com>) and go to the Calendar settings page: <https://www.google.com/calendar/render?settings=0>. Click on "Calendars" tab and modify all the calendars you want to modify via proxy by clicking on "Shared: Edit settings."
2. Create RSA Certificate (with PEM format). The included sample script /keys/createcert.sh will work in a Linux or Cygwin environment. (<http://code.google.com/googleapps/domain/articles/sso-keygen.html#OpenSSL>)
3. Install RSA certificate on Google (<https://www.google.com/a/cpanel/yourdomainname.com/SetupOAuth>). Upload your PEM formatted certificate using the file browser next to "X.509 certificate."
4. Change the RSAKEY path in /pika/home/pika/app/lib/pikaGoogleSync.php to match your server configuration. (i.e. public \$RSAKEY = "var/www/keys/rsakey.pem";)

Replication – Other CMS applications

- LSNC project provides the **blueprint**.
- Work with a **developer**.
- **Google API** stuff is the same.
- Where is your data – calendar, documents, etc. - **stored?**
- **Synchronize** the data.

Replication – Do it better

“Not bad for a first effort, but I have a better idea...”

2012 TIG Conference

{webdogs 3.0}

site sentient since 2006

Search

home

projects

tags

browse

Tuesday
October 25
2011

HTML5. Get some. Free.

Generously, the full content of Jeremy Keith's **HTML5 for Web Designers** has been posted online. This was the first in a series of short, readable, nutrient-dense web design and development books published by **A Book Apart**.





I **referenced** the book a year ago when the current redesign of this site was in play, which included the incorporation of several of the new HTML structural, semantic elements. The book, only a year old, remains a worthy read. And now you can do it for free.

Tags: [a book apart](#), [html5](#), [jeremy keith](#)

Comments Off

Other posts of possible interest...

webdogs.org

-  Follow on Google+
-  Follow on Twitter
-  Most recent posts
-  Delicious bookmarks

Social Utility. +/- 25%

Fascinating, insightful post by Daniel Tunkelang (once at Endeca, then Google, and now LinkedIn) analyzing why it is the social utility of Google apps has faltered. Also, read-worthy comments.

Ahem! Are You Talking to Me? (Or Texting?)

David Carr's latest musings about the attractions and distractions of modern technology that make us so

don't get

Don't Call

A trenchant take on how shifts in technology, work



2012 TIG Conference

Google+ Search Google+ Sign in

JOIN GOOGLE+ Brian Lawlor is using Google+. Join Google+ to connect with the people who matter most.

Brian Lawlor
Just a guy doing a job for justice

Posts About Photos Videos

Brian Lawlor - Jan 1, 2012 - Public
Text Messaging Is in Decline in Some Countries
Perhaps to the chagrin of cellphone carriers, signs point to a continuing decline in text messaging in several parts of the world, including Finland, Hong Kong and Australia. Is the United States next...

Brian Lawlor - Jan 1, 2012 - Public
New ABA summary of technology's impact on legal ethics
On December 28, 2011, the American Bar Association's Commission on Ethics 20/20 released a broadly worded summary of how varied technologies impact the ethical practice of law. This report is a helpful distillation of several issues being thrashed out within the profession. The most prominent of these for legal services / legal aid attorneys is the discussion of how technology impacts the ethical duty of client confidentiality. Hopefully the ABA will follow the Commission's recommendation

webdogs.org/+

Q&A

Q&A

Please Submit Your Session Evaluation!

From your laptop, smartphone, or tablet, go to:

<http://svy.mk/TIGEval>

Session Title:

**Google Apps + Google API =
Your New Best Friend**

Or Enter This Session Code:

GAGA

(You can also submit a paper evaluation)

Google Apps + Google API = Your New Best Friend

Brian Patrick Lawlor
Legal Services of Northern California
blawlor@lsnc.net | Webdogs 3.0