Empire 511:
Bernardino and Riverside Counties, California
Inland Empire 3T project overview

GOALS:

• Provide information to help motorists plan to avoid congestion: either by adjusting travel route, or by putting off an unnecessary trip.

• Reduce congestion: Shift drivealone travel to transit and
Geographic context

Map showing the counties of San Luis Obispo, Santa Barbara, Ventura, Kern, Los Angeles, Orange, San Bernardino, Riverside, San Diego, and Imperial. The counties of San Bernardino and Riverside are highlighted in blue with diagonal stripes.
Services included in Google Maps

- Corona Cruiser
- Palo Verde Valley Transit Authority
- SunLine Transit Agency (does not participate)
- Riverside Transit Agency
- San Bernardino County
  - Omnitrans
  - Barstow Area Transit
  - Mountain Area Regional Transit Authority
  - Morongo Basin Transit Authority
  - Needles Area Transit
- Victor Valley Transit Authority
<table>
<thead>
<tr>
<th>Service</th>
<th>Website (ie511.org)</th>
<th>Phone (511)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit trip planner</td>
<td>Google Transit</td>
<td>Calls are forwarded to individual operators.</td>
</tr>
<tr>
<td>Real-time traffic information</td>
<td>Yes</td>
<td>Yes: Personal response using interactive voice response.</td>
</tr>
<tr>
<td>(San Diego, Orange, L.A., Riverside, San Bernardino counties)</td>
<td></td>
<td>Calls are fielded.</td>
</tr>
</tbody>
</table>
Usage stats

• 50,000-70,000 calls per month
• 25,000 visitors to ie511.org per month
• Approximately 5,000 visitors are using mobile devices. They are presented with a mobile version of the website.
promoted?

Online banner adverts: Yahoo and Google

Search engine optimization

Radio

Print

Billboards (previously, but have been phased out)

All cities and transit agencies link to 511.org

6 freeway signs installed with Caltrans, inc.
How to participate?

Specifications for all providers

Making the best of Google Transit GTFS
Why Google Transit?

- Offered excellent value: trip planning functions at a fraction of the cost of alternatives
- Major providers already participated: Omnitrans, Riverside Transit Agency, Metrolink, L.A. Metro
- Coordinated travel information and itineraries without laborious integration
Google Transit? Participating in the most Google sit and maps are unfamiliar/hard-to-use

- Google Transit is a familiar format for public transportation information
- Most Americans on the web
- Plans inter-agency itineraries
- Shows transit as an alternative to driving
- Interface in 12 different languages
- Available on mobile devices like iPhones and BlackBerrys
step 1 (destination)

step 2 (my house)

step 3 (destination timing point)

step 4 (transfer timing point)

step 5 (transfer timing point)

step 6 (transfer timing point)

step 7 (destination timing point)
Almost half of participants were unable to correctly identify bus times using the tabular schedules.

Design Elements of Effective Transit Information Materials,
National Center for Transit Research at the University of South Florida
(http://www.nctr.usf.edu/pdf/527-12.pdf)
Google provides familiar search for public transportation information

The third most common internet activity for Americans is to “search for a map or driving directions,” (87%) behind only email and using search engines.

Source: Pew Internet & American Life Project, (http://www.pewinternet.org/pdfs/PIP_Internet_and_Life.pdf)
73% of all Americans are internet users
63% of people in rural areas
53% of < $30k/year income households
71% of 50-64 year olds
88% of 18-29 year olds

Source: Pew Internet & American Life Project, (http://www.pewinternet.org/pdfs/PIP_Internet_and_DLife.pdf)
Visit? Shows it as an alternative to travelers who think of it or visit website will have transit options.
Available mobile devices like iPod phones, iPhones and Blackberries
Transitation


2 min (0.1 mi) from the station

1. Head northeast on Thurloe Square SW7 5.

2. Arrives at 12:13pm

South Kensington (Stop S)

Get off and walk to Natural History Museum, Cromwell Road, London SW7 5, United Kingdom

Victoria and Albert Museum (Stop S)

Brompton Square (Stop KU)

Knightsbridge Station (Stop N)

Hyde Park Corner (Stop S)

10 min (1.1 mi) from the destination
Participating in the most
google
sit
participation from any route agency.

Participation is free.

However, agencies need to provide valid schedule in the Google Transit Format Specification (GTFS).

Agencies must agree to the
Google Transit
m's Schedule is available to publish maintain Hulle Transit Information

QuickTime™ and a Animation decompressor are needed to see this picture.
• No software or hardware to install or manage

• Software updates happen automatically

• Software is updated to take advantage of changes and additions to the General Transit Feed Specification (GTFS)

• Support technician can see the...
No service available message contains little useful information.

Sorry, we don't have transit schedule data for a trip from Redding, CA to Susanville, CA at the time and date you specified.

Get driving directions from Redding, CA to Susanville, CA.
Sorry, we don't have transit schedule data for a trip from Redding, CA to Susanville at the time and date you specified.

The Google Maps trip planner currently includes service schedules for these agencies in this area:

- Redding Area Bus Authority (website link), (530) 241-2877
- Sage Stage (website link), 530-233-641
- Plumas Transit (website link), 530-283

You can also try:

- Search businesses and organizations for "Transportation" in this area (http://maps.google.com/maps?f=q&source=s_l=en&geocode=&q=transport)
- Get driving directions from Redding, CA to Susanville, CA.
De-rated fixed routes/flex routes are not possible to include in Google Transit.

- Google Transit does not show flags such as “must phone agency” or “must coordinate with driver” in the planner for demand-response style service.
4 miles is the maximum walking distance for the Google Transit trip planners in rural areas, travelers walk drive farther than 4 miles access transit.
2. Alternatives exist and are being developed: an open-source...
California Trip Planner

10 Lemon St, Riverside, CA

Riverside County

- Banning
- Beaumont
- Corona
- Palo Verde Valley Transit Authority
- SunLine Transit Agency

San Bernardino County

- Barstow

Get door-to-door routing and travel times using our Bus/Rail Trip Planner powered by Google Transit.
Google transit as a tool to make transit a readily available option for someone planning a trip.

Example: [Google Transit]

Transportation

The airport is 6.5 miles from the Bahia Resort and accessible by taxi or other transportation shuttles. You can reserve a ride with Cloud 9 Super Shuttle by visiting www.supershuttle.com or you can reserve a town car by calling Unique Tours and Transportation at 800-316-4140.
Google Transit as a tool to make transit a readily available option for someone planning a trip.

Example:
North Coast Journal Best Of 2011
Fifty-one weeks a year, we at the North Coast Journal give you the lowdown on...

Whose Arcata?
From pot growers and transients to goats and the affluent, a city struggles to find its identity.

It’s one of those incredible late-summer days in Arcata when the air is so crisp and...
Tomorrow
8 p.m.
707-826-1195
Mosgo’s
The Delta Nationals

Free

transit directions

Your starting location

Catherine ave, Arcata CA

1234 G St, Arcata, CA

Scofield State University

8 p.m. on Sept. 19

Get directions by Google Transit

Ride by Green Wheels and...
Online event calendar has two clicks to transit directions for events, using Google Transit.
General transit feed specification, as a lightweight data standard for transit geographic and schedule data, has quickly become increasingly ubiquitous.

And you don’t have to be Google to use it.
Feed Specification

• A lightweight standard format for transit schedule, fare, stop location, and service calendar data
• Open license for the standard (not owned by Google)
• In 4 years, has become the most commonly-used format for transit data: +200 North American agencies, many European and Asian agencies
• More at GTFS: General Transit Feed Specification
List of GTFS Public Feeds

List of publicly-accessible transit data feeds

This is a list of transit schedule data published by transit agencies and operators in GTFS format for developers to use. They contain scheduled times, stop locations, route information and optionally fare information and detailed route shapes.

For details on the feed format, see the Google Transit Feed Specification document.

<table>
<thead>
<tr>
<th>Agency</th>
<th>Area</th>
<th>Feed Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TriMet</td>
<td>Portland, OR</td>
<td><a href="http://developer.trimet.org/schedule/GTFS/">http://developer.trimet.org/schedule/GTFS/</a></td>
<td>Use is subject to the terms of their developer license</td>
</tr>
</tbody>
</table>

GTFS can be used to create a transit point of interest for sight-impaired people with talking GPS.
South Florida pilot project utilizes GTFS and mobile phones to tell riders with special needs when to alight from the vehicle.
TimeTable Publisher: takes what was a multi-day process of proofreading schedules into a few hours process of automatically outputting schedules (see timetablepublisher.org).

<table>
<thead>
<tr>
<th>Route</th>
<th>Timepoint Diff</th>
<th>Stop Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>104-A Line (Weekday - Inbound)</td>
<td>no change in timepoints</td>
<td>no change</td>
</tr>
<tr>
<td>104-A Line (Weekday - Outbound)</td>
<td>no change in timepoints</td>
<td>no change</td>
</tr>
<tr>
<td>104-A Line (Saturday - Inbound)</td>
<td>no change in timepoints</td>
<td>no change</td>
</tr>
<tr>
<td>104-A Line (Saturday - Outbound)</td>
<td>no change in timepoints</td>
<td>no change</td>
</tr>
<tr>
<td>104-A Line (Sunday - Inbound)</td>
<td>no change in timepoints</td>
<td>no change</td>
</tr>
<tr>
<td>104-A Line (Sunday - Outbound)</td>
<td>no change in timepoints</td>
<td>no change</td>
</tr>
<tr>
<td>Station: Shattuck Avenue @ Evans Hall</td>
<td>Hearst Mining Circle Side Stop ID 2532</td>
<td>Strawberry Canyon Recreational Area Stop ID 2550</td>
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<tr>
<td>Inbound</td>
<td>Inbound</td>
<td>Inbound</td>
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<td>7:35</td>
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<td>7:45</td>
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<td>8:10</td>
<td>8:15</td>
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<td></td>
<td>4:40</td>
<td>4:45</td>
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<tr>
<td></td>
<td>5:40</td>
<td>5:45</td>
</tr>
<tr>
<td>Time</td>
<td>Warren Hall: West Crescent Side</td>
<td>Life Science Addition: West Circle Side</td>
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<tr>
<td>9:06pm</td>
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<tr>
<td>2:36am</td>
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</tr>
</tbody>
</table>
Get up with other graphic information

UC Berkeley Bear shuttle with parking lots and parking
Use of GTFS

Matter your investment:

advantage

other uses for

Google Transit data

walkscore.com

“transit shed”

uses open data
Real estate search site lets users search by proximity to transit. Estate.com obtains transit information from public Google Transit Feed data.
nects along trail and campground with sit (with to Google sit).
Applications

3rd party applications designed to consume GTFS

Multi-modal trip planning

Show all relevant options – including public transit, private employer shuttles, carpool, vanpool, biking, walking – through a single map

Show interagency transfers
Leverage your GTFS fare dataset:

Google Transit feed information in multimodal trip planning:

Start at W 29 ST

- Bike to BROADWAY
  - About 1 minute - 0.3 mi
  - 1. Bike northwest on W 29 ST (0.1 mi)
  - 2. Right at AV OF THE AMERICAS (0.2 mi)
  - 3. Left at W 34 ST (53 ft)
  - 4. Hard left at BROADWAY (104 ft)

- Subway Q
  - 9:36 AM Depart 34TH STREET - HERALD SQ (To STILLWELL AVE. C.I.)
  - 15 minutes
  - 9:51 AM Arrive DEKALB AVENUE

- Bike to FULTON ST & FULTON ST
  - About 1 minute - 0.4 mi
  - 1. Bike south on FLATBUSH AV EX (0.1 mi)
  - 2. Right at DE KALB AV (0.1 mi)
  - 3. Slight right at FULTON ST (0.2 mi)

End at FULTON ST & FULTON ST

Trip Details:
Travel: Tue, Aug 30th 9:34AM
Valid: August 30th, 2011 @ 9:34am
Time: 18 minutes
Bike: 0.7 mi