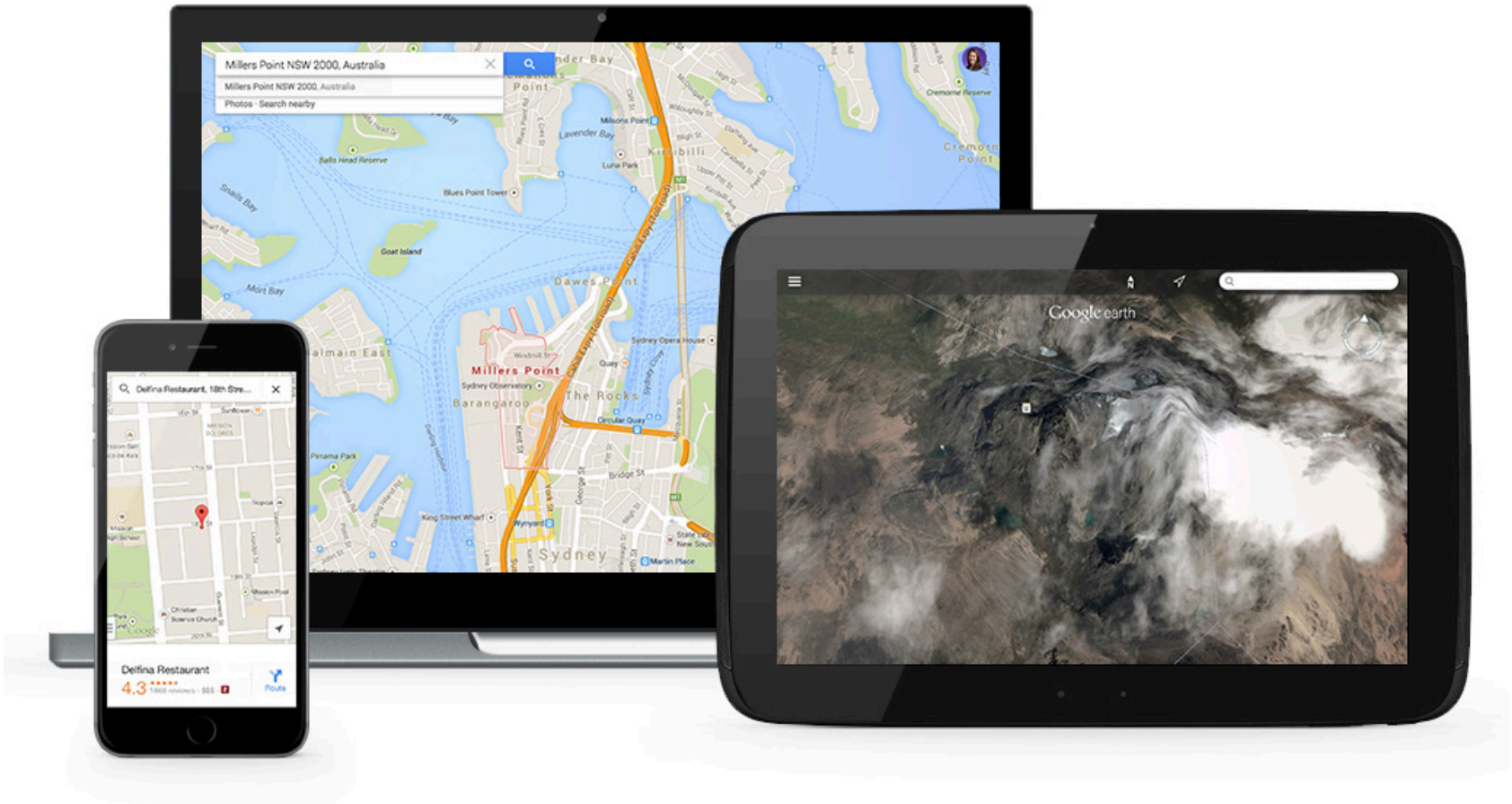
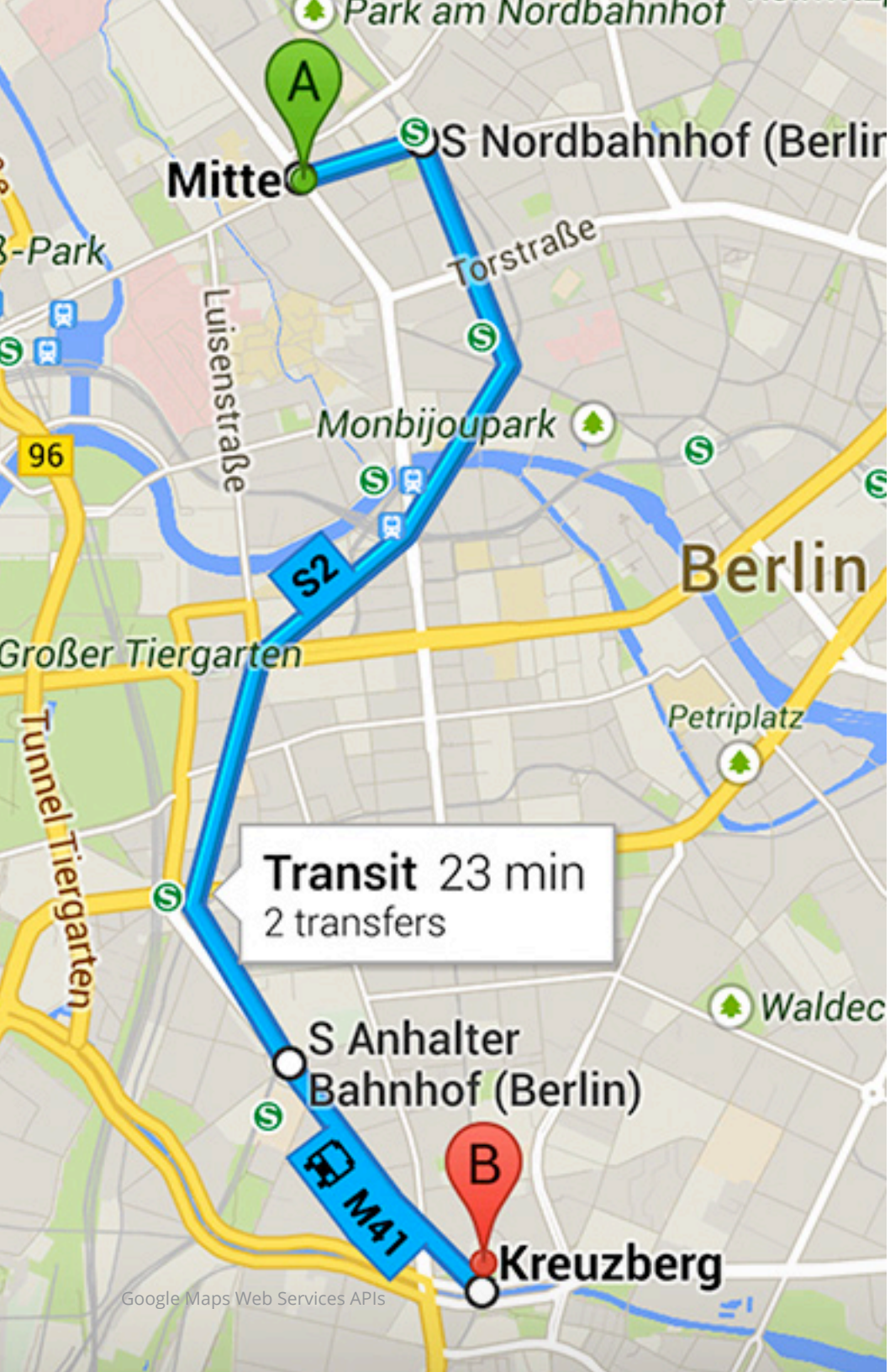
Google Maps Web Services APIs





The Google Maps Web Services APIs are a collection of HTTP interfaces to Google services providing geographic data to be used in conjunction with a Google Map.

There are a number of Google Maps Web Services APIs available:

Google Maps Directions API

Google Maps Distance Matrix API

Google Maps Places API

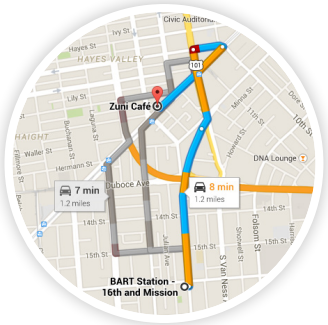
Google Maps Geolocation API

Google Maps Geocoding API

Google Maps Roads API

Google Maps Elevation API

Google Maps Time Zone API



Google Maps Directions API

The Google Maps Directions API is a service that calculates directions between locations using an HTTP request. You can search for directions for several modes of transportation, include transit, driving, walking and cycling. Directions may specify origins, destinations and waypoints either as text strings (e.g., “Chicago, IL” or “Darwin, NT, Australia”) or as latitude/longitude coordinates. The Directions API can return multi-part directions using a series of waypoints.

This service is generally designed for calculating directions for static (known in advance) addresses for placement of application content on a map. It is not designed for real-time navigation in response to user location. (This use case could create a safety risk and is therefore prohibited by the terms of service. If you want to provide a real-time navigation feature in your app, we recommend the directions toolbar in the Google Maps Android API.)

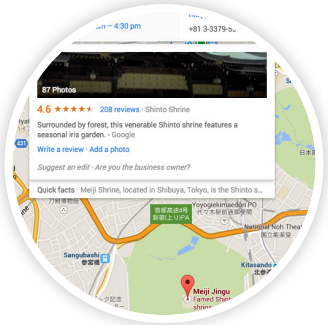
For more information about the Google Maps Directions API, visit: https://developers.google.com/maps/documentation/directions/



Google Maps Distance Matrix API

The Google Maps Distance Matrix API is a service that provides travel distance and time for a matrix of origins and destinations. The information returned is based on the recommended route between start and end points, as calculated by the Google Maps API, and consists of rows containing duration and distance values for each pair.

For more information about the Google Maps Distance Matrix API, visit: https://developers.google.com/maps/documentation/distancematrix/

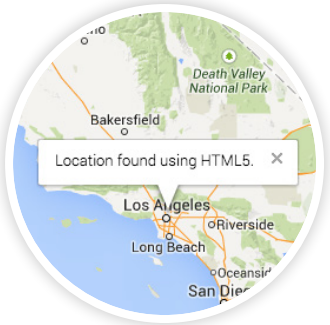


Google Places API

Find detailed information about places across a wide range of categories. Backed by the same database used by Google Maps and Google+ Local, the Google Places API features over 100 million businesses and points of interest that are updated frequently through owner-verified listings and user-moderated contributions. Additional capabilities in the Google Places API include:

- Search
- Autocomplete
- Photos

For more information about the Google Maps Places API, visit: https://developers.google.com/places/



Google Maps Geolocation API

The Google Maps Geolocation API returns a location and accuracy radius based on information about cell towers and WiFi nodes that the mobile client can detect. It is primarily used in devices that don't feature a GPS.

For more information about the Google Maps Geolocation API, visit: https://developers.google.com/maps/documentation/business/geolocation/



Google Maps Geocoding API

Geocoding is the process of converting addresses (like "1600 Amphitheatre Parkway, Mountain View, CA") into geographic coordinates (like latitude 37.423021 and longitude -122.083739), which you can use to place markers or position the map. Reverse geocoding is the process of converting geographic coordinates into a human-readable address.

The Google Maps Geocoding API finds the latitude/longitude coordinates for a given address (geocoding) or converts the latitude/longitude coordinates of a geographic location to an address (reverse geocoding).

For more information about the Google Maps Geocoding API, visit: https://developers.google.com/maps/documentation/geocoding/



Google Maps Roads API

The Google Maps Roads API identifies the roads a vehicle was traveling along and provides additional metadata about those roads.

It allows you to map GPS coordinates to the geometry of the road and to determine the speed limit along those road segments. The API is available via a simple HTTPS interface and exposes two services:

- **Snap to roads:** This service returns the best-fit road geometry for a given set of GPS coordinates. It takes up to 100 GPS points collected along a route and returns a similar set of data with the points snapped to the most likely roads the vehicle was traveling along. Optionally, you can request that the points be interpolated, resulting in a path that smoothly follows the geometry of the road.
- **Speed limits:** This service returns the posted speed limit for a road segment. It requires an asset tracking license.

For more information about the Google Maps Roads API, visit: https://developers.google.com/maps/documentation/roads/



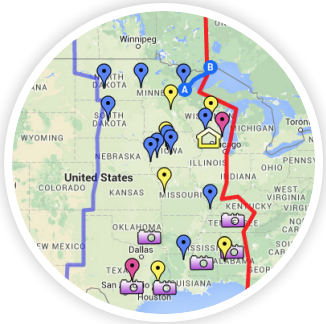
Google Maps Elevation API

The Google Elevation API provides you a simple interface to query locations on the earth for elevation data. Additionally, you may request sampled elevation data along paths, allowing you to calculate elevation changes along routes.

The Elevation API provides elevation data for all locations on the surface of the earth, including depth locations on the ocean floor (which return negative values). In those cases where Google does not possess exact elevation measurements at the precise location you request, the service will interpolate and return an averaged value using the four nearest locations.

With the Elevation API, you can develop hiking and biking applications, mobile positioning applications or low-resolution surveying applications.

For more information about the Google Maps Elevation API, visit: https://developers.google.com/maps/documentation/elevation/



Google Maps Time Zone API

The Google Maps Time Zone API provides time offset data for locations on the surface of the earth. Requesting the time zone information for a specific latitude/longitude pair will return the name of that time zone, the time offset from UTC and the Daylight Savings offset. You access the Google Maps Time Zone API through an HTTPS interface.

For more information about the Google Maps Time Zone API, visit: https://developers.google.com/maps/documentation/timezone/

For more information about Google Maps APIs, contact your sales representative or the Google Maps for Work sales team at 1-877-355-5787.