

Redfin helps people find and buy their dream homes using Google Maps APIs

REDFIN

At a Glance

What they wanted to do

- Build an online estate brokerage for home buyers and sellers

What they did

- Developed location-centric website and mobile apps
- Used Google Maps APIs to help buyers find houses in specific locations
- Leveraged the Google Maps Directions API and Distance Matrix API to make it easier for buyers to go on open house tours

What they accomplished

- Cut search failure rate on its website from 8% to 4%
- Reduced search failure rate on its Android app from 6% to 4%
- Built a successful service that has closed nearly \$20 billion in home sales

Background

Redfin is a technology-powered real estate brokerage representing people who are buying and selling homes. It has broker-listed homes for sale, as well as for-sale-by-owner properties that don't pay brokers a commission. The company serves major markets across the U.S.

Challenge

Web-based Redfin was founded in 2004 with a business model designed to change the way that people buy and sell homes. It pays its real estate agents based on customer satisfaction rather than on commission, with the goal that they focus on helping customers buy and sell what's best suited for them, rather than the most-expensive homes. Unlike competing real estate sites, Redfin makes its money when homes are sold, rather than advertising and lead generation.

"Our model is based on the success of customer satisfaction during the buying and selling experience," says Curtis Howell, Redfin senior product manager for customer engagement. "The key to customer satisfaction is how well we use technology to make their experiences as simple and stress-free as possible."

Redfin covered only Seattle when it started in 2004, and Howell says the company "hand-stitched" its maps together for its website at launch. When the company expanded to other markets, it used Microsoft Virtual Earth. The company then switched to **Google Maps** because Google Maps were faster to load than those created by Virtual Earth, and **Google Maps APIs** offer features that Virtual Earth couldn't match.

Redfin found that pages built with Google Maps loaded **dramatically quicker** than those built with Virtual Earth – an average of 2.5 seconds faster when basic pages were loaded, and up to 12.5 seconds faster when a page loaded with 500 pushpins on the map (each pushpin represents a house listing).

The screenshot shows the Redfin website interface. At the top, there's a search bar with "Fenway, Boston, MA, USA" entered. To the right of the search bar are links for "Call: 1-877-973-3346", "Sign In", and "Join Redfin". Below the search bar, there's a map of Fenway, Boston, MA, with a pushpin at "31 Queensberry St #5". To the right of the map, there's a section titled "Boston Real Estate" with a "Table" tab selected. Below this, there's a list of properties. The first property is "31 Queensberry St #5" with a price of "\$649,900", 3 beds, 2 baths, and 1,067 sq. ft. The table below shows the following data:

Address	Location	Price	Beds	Baths	Sq Ft.	\$/Sq Ft.	Days
31 Queensberry St #5	The Fenway	\$649,900	3	2	1,067	\$609	102
Median for Boston:		\$649,900	3	2	1,067	\$609	102

At the bottom, it says "Viewing page 1 of 1 (Download All)" and "Rectangular Snap".

REDFIN

Filters

Call: 1-877-973-3346 [Sign In](#) or [Join Redfin](#)

Buy & Sell Real Estate Agents Tools

Save Search

12345 Real Estate

Showing 169 homes, sorting by recommended

Address

Location

Price

Beds

Baths

Sq. Ft.

\$/Sq. Ft.

Days

123 Main St	Redfin, USA	\$559,000	3	2.5	1,410	\$396	1
456 E Broadway St	Redfin, USA	\$474,500	3	2	1,300	\$365	2
1 Finnian Wy	Redfin, USA	\$849,000	3	3.5	3,180	\$267	2
201 Rally Rd	Redfin, USA	\$320,000	2	1	1,170	\$274	8
345 Inspiration Blvd	Redfin, USA	\$395,000	2	1	700	\$564	4
678 Delightful Dr	Redfin, USA	\$499,000	3	1.75	1,300	\$263	4
1234 Unstoppable Ave	Redfin, USA	\$400,000	2	1	680	\$455	4
201 Genuine Dr	Redfin, USA	\$425,000	3	3	900	\$462	7
2 Mission Dr	Redfin, USA	\$450,000	3	1.75	1,400	\$321	2
123 Resourceful Rd	Redfin, USA	\$899,888	4	2	2,790	\$323	2
201 Local Ln	Redfin, USA	\$890,000	4	2.5	2,590	\$344	2
456 Happy Home Ct	Redfin, USA	\$469,000	1	1	1,180	\$397	2
201 Finnian Wy #12	Redfin, USA	\$500,000	3	1	2,570	\$195	3
1 Rally Rd #12	Redfin, USA	\$510,000	3	1.5	1,150	\$443	7
201 Inspiration Blvd #12	Redfin, USA	\$515,000	2	1	1,060	\$486	4
789 Main St	Redfin, USA	\$537,500	4	1.5	2,160	\$249	8

“This speed makes a big difference when it comes to the user experience,” Howell says. “The extra features that Google Maps has are important as well, such as high-resolution satellite images.”

Solution

Redfin differentiates itself from other real estate websites by its a maps-centric interface, which the company believes makes it easier for sellers to find homes for sale. It uses the **Google Maps Javascript API** to build the web interface and the **Google Maps Android API** for the Android app.

“We’re known for our map-based search,” Howell says. “Maps take up most of our screen real estate and are the center of the user experience. People are familiar with the Google Maps interface, and when they come to our site or use our Android app, they intuitively know how to navigate and search.”

People often want to search for houses by places of interest, for example to be near a park or a landmark, and the **Google Places API** allows them to do that. They can also find houses for sale in specific neighborhoods by drawing a polygon on a map, and then doing a search within that area.

Finding houses for sale is only the beginning of house buying. The next step is to visit during open houses. Redfin uses several Google Maps APIs to make that process easier. The **Google Maps Directions API** makes sure people find the quickest route from house to house. The **Google Maps Distance Matrix API** accurately estimates the time it will take them to drive between houses.

Benefits

Using Google Maps, Redfin has developed a service that makes it easier for people to buy and sell houses, starting with finding the right homes in their desired neighborhoods, and through open house visits.

LISTED BY REDFIN

1/25

\$490,000

2 Beds

2 Baths

2,200 Sq. Ft.

123 Main St

Redfin, USA

Go Tour This Home

This beautiful home features a great floor plan, including a cozy family room with vaulted ceilings and wood-burning fireplace. The bright kitchen boasts refinished cabinets.

MORE

FAVORITE

X-OUT

ASK AGENT

SHARE

About Google Maps for Work

Google Maps APIs for Work makes it easy for companies to include fully interactive Google Maps on their public and internal websites. The Maps API helps your customers and employees make the right business and purchasing decisions by visualising important information on a familiar map.

For more information, visit
www.google.com/work/mapsearch/

“Unlike other real estate sites, we only get paid when people close a sale, so we need to create the most efficient service possible,” Howell says. “Google Maps has helped us do that with its maps, searching and other tools like traffic navigation.”

Howell says that Google’s location-based searched has reduced the search failure rate on the web site from 8% to 4%, and on the Android app from 6% to 4%. This leads to improved customer satisfaction, and to people finding more houses they are interested in buying, which ultimately leads to more sales.

“With Google Maps we’ve built a delightful search experience that draws buyers in,” Howell says. “Our map-based search is much more efficient and less costly than the way the traditional real-estate industry works. We pass those savings along to our customers in the form of lower commissions. Everybody wins – sellers pay less in commission, buyers find the exact houses they want, and our service keeps growing.”