IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

METARAIL, INC.,	)	
	)	
Plaintiff,	)	
	)	C.A. No. 23-1116-GBW
v.	)	
	)	
	)	**DEMAND FOR JURY TRIAL**
GOOGLE LLC,	)	
	)	
Defendant.	)	
	)	
	)	

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Metarail, Inc. ("Metarail" or "Plaintiff")[1] files this First Amended Complaint against Defendant Google LLC ("Google" or "Defendant"), and in support thereof alleges as follows:

INTRODUCTION

1. This First Amended Complaint arises from Google's unlawful infringement of the following United States Patents owned by Metarail: United States Patent Nos. 9,633,378 (the "'378 patent"), 10,152,734 (the "'734 patent"), 10,262,342 (the "'342 patent") and 10,789,626 (the "'626 patent") (collectively the "Asserted Patents")[2].

2. One of the inventors of the Asserted Patents, Narenda Nath, founded Wayfare Interactive in 2010. The company rebranded as Metarail in 2017. *See* https://www.metarail.com/. Metarail's clients have included Expedia Group, Yahoo!, GoDaddy, Tripadvisor, Travelocity,

[1] Metarail does business as MetaRail.
[2] As shown on the face pages of the Asserted Patents, the '626 patent is a continuation of the '342 patent, which is a continuation of the '378 patent. All three patents share a common specification. The '734 patent is a continuation-in-part of application No. 15/463,790, which is a continuation of the '378 patent. Exhibits B, D, F, H.

Google Exhibit 1012
Google v. Metarail

Progressive, Kayak, and Assurance among others. Exhibit A. The technological foundation of the company and its products is Metarail's patented deep-linking technology invented back in 2010. *Id.* Because Google is using Metarail's technology without authorization, Metarail files this suit.

THE PARTIES

3. Metarail is a Delaware corporation with a principal place of business at 1030 E Hwy 377, Unit #110, Suite 211, Granbury, TX 76048.

4. On information and belief, Google is a Delaware limited liability company and is registered to do business in the State of Delaware. Google may be served via its registered agent, Corporation Service Company, located at 251 Little Falls Drive, Wilmington, Delaware 19808.

JURISDICTION AND VENUE

5. This is an action for patent infringement arising under the patent laws of the United States. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a), 15 U.S.C. § 1121, and 28 U.S.C. § 1367(a).

6. This Court has personal jurisdiction over Google because, on information and belief, Google conducts business in and has committed acts of patent infringement in this District and has established minimum contacts with this forum state such that the exercise of jurisdiction over Google would not offend traditional notions of fair play and substantial justice. Google resides in this District. On information and belief, Google offers products and/or services, including those accused herein of infringement, to customers and potential customers located in this District.

7. Venue is proper in this Court under 28 U.S.C. §§ 1391 and 1400(b). Google resides in this District. Google has chosen to incorporate in the state of Delaware, thereby receiving the benefits offered to Delaware companies. Google must accordingly assume responsibilities to Delaware and its citizens.

8. Further, on information and belief, Google has offered and sold, and continues to offer and sell, its infringing products and services in this District. On information and belief, Google uses, distributes, sells, and/or offers to sell the infringing products and services to consumers and businesses in this District.

9. On information and belief, Google is a company with global reach and annual revenue in the billions of dollars. Google accordingly cannot reasonably claim it would be inconvenient to litigate in the forum in which it is incorporated.

BACKGROUND OF THE PATENTS-IN-SUIT

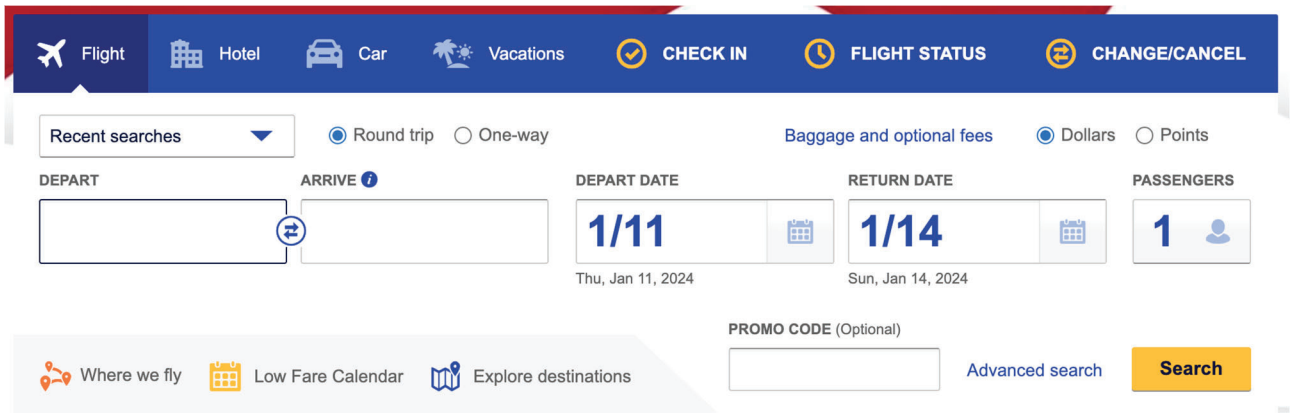
10. The patents-in-suit solve technical problems and are directed to novel improvements to Internet search and deep-linking by utilizing dynamic data from arbitrary web sites, mobile apps and other forms of online media and being able to automatically transfer that dynamic data to other arbitrary web sites in order to generate and serve more targeted and personalized advertisements as well as enabling a user to land directly on a results page or checkout page (a dynamic page URL) rather than a home page, thereby substantially increasing conversion rates and performance. Exhibit H,'626 patent, 1:31-46; 3:7-17.

11. At the time of the inventions claimed in the Asserted Patents, the advertising industry was seeing substantial developments and transformations, with a shift from traditional offline media such as print, television and billboards to digital advertising[3] in online media such as the Internet and mobile apps. Exhibit H, '626 patent, 1:56-63. With this shift to digital advertising, demand to provide better and better targeting, relevance and harmony with content continued to get stronger in order to provide greater value to end-users, better return on investment for advertisers, and increased site

[3] The two largest categories within "Digital Advertising" back in 2010 were "Digital Display Advertising" and "Search Advertising." Exhibit H, '626 patent, 2:11-44.

loyalty and monetization for publishers. Exhibit H, ’626 patent, 2:2-10.

12. Prior systems, and in particular, prior “Search Advertising” systems, relied on the use of keywords typed in by users searching for information to select the ads to present. Under these prior methods, Internet advertisements were identified and served using “the static content of any web site,” i.e., the content displayed to a user on a webpage. Exhibit H, ’626 patent at 2:25-45. For example, if an Internet search query included the phrase, “flights from SFO to LAX,” advertisements would be served for ad customers having webpages that included the static words of the queried phrase. Indeed, a webpage for Southwest Airlines may not have any of those searched for words on a page where one can seek flights from San Francisco to Los Angeles, as depicted below where the words “from,” “to,” “SFO,” and “LAX” do not appear. And even if the search could result in an ad that led to the Southwest Airlines booking website, having empty user input boxes for departure and destination fields, a user would be required to re-enter the airports, e.g., “SFO” and “LAX” and enter yet another search to identify corresponding flight options.



13. In 2010, the then existing deep-linked[4] or parameter-based advertising was considered

[4] There are numerous ways to create and serve “deep-links.” The most basic way is a link that directs a user past the home page of a website to content inside of it. Before the inventions claimed in the Asserted Patents, “deep-links” were pre-programmed and static, meaning that any user who clicked on the link would be sent to the same webpage. As set forth herein, the Asserted Patents describe and claim a new form of deep-linking.

a recent advancement in digital advertising. Exhibit H, ’626 patent at 2:53-54. However, to make deep-linked ads work prior to the inventions claimed in the Asserted Patents, deep-linked ad connections had to be manually created by developing programmatic integrations between variables and fields on the publisher web site and the advertiser web site created by manual code. “This is so because each website uses its own field descriptor and variable names and the only way to create deep-linked ads has been to manually obtain the names of the respective variables from both publishers and advertisers and then integrate them to each other through manual programming.” Exhibit H, ’626 patent at 3:16-25. In addition, “this manual programming is a time and resource intensive activity that multiplies as the size of the network grows, limiting the size, scale and market adoption for deep-linked ads” and “this manual model requires prior knowledge of ads to be placed on a given publisher’s site or app in order for the deep-linked integrations to be pre-built.” Exhibit H, ’626 patent at 3:26-36.

14. Metarail transformed the infrastructure of Internet advertising by envisioning a new type of Internet advertisement generated in a new way. These new advertisements are not simply generated based on the static words on webpages or pre-built non-dynamic deep-linked ads, as those under conventional methods. Rather, the inventors at Metarail envisioned a system for Internet search advertising where dynamic data (e.g., values such as provided by a user) provided to a publisher’s site or app are input into the appropriate locations on the advertiser’s site or app based on a user providing values such as via text input or hovering a cursor over a portion of a website. The Asserted Patents allow for improved search advertising and, in particular, improved deep-linking, by mapping and integrating field identifiers or programming variables on the publisher site or mobile app with the corresponding fields or variables on the advertiser site or mobile app. By linking the programming variable—as opposed to static values—a searching customer is dynamically provided a deep-linked

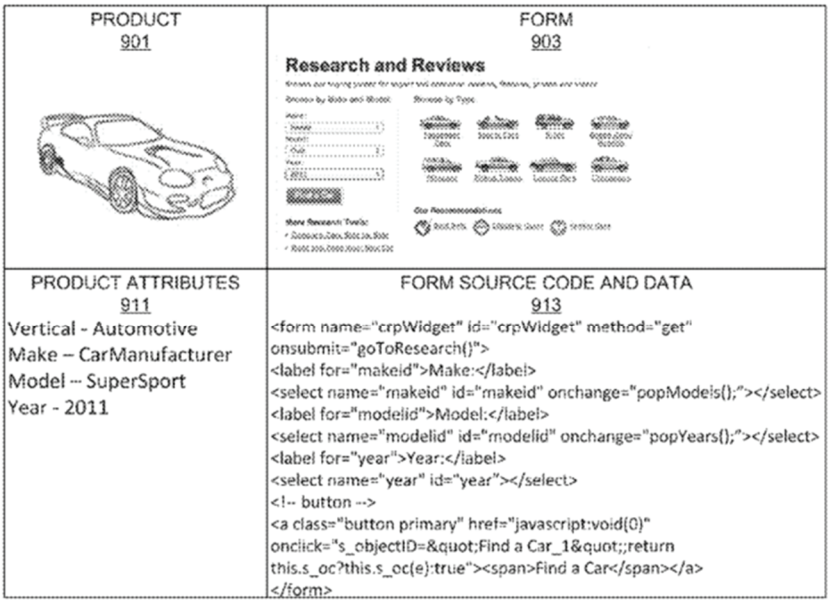
advertisement based on a universal variable map of programming variables across many websites, rather than static words or keywords that appear on webpages. The inventors recognized that using programming variables and dynamic data based on what the user was inputting (via typing or hovering over content)—associated with the underlying code of a website rather than the static display presented to a user—could allow for the dynamic generation of online advertisements to drive potential customers to more relevant pages (i.e., the dynamic page URL as opposed to the static home page URL), without any preexisting relationship and without relying on static page data. Exhibit H, ’626 patent, 9:30-63; 10:20-26. Moreover, the inventors recognized that by implementing the use of programming variables, when the user clicks on the deep-linked advertisement, the values corresponding to the programming variables may be extracted and passed to a merchant website, allowing for the extracted values to be pre-populated on the merchant website.

15. The inventions of the Asserted Patents also allow, through the use of a universal variable map, forms and fields from one site to be associated with one or more relevant forms and fields from one or more different sites, even if the sites themselves may be in different verticals.[5] Exhibit H, ’626 patent, 5:26-39. “Leveraging this unique and comprehensive universal variable map, embodiments can take a web site visitor from an initial stop (e.g., a home page of a first web site such as a search site) directly and in real-time through a specific deep-link ad to a landing page on another site (e.g., a checkout page of a second web site or to a home page on another site with as much data pre-populated as available based on the user’s input in the context of the particular E-commerce transaction.” Exhibit H, ’626 patent, 5:30-38; 18:25-61. “There is hence an indefinite number of cascading deep-linked ads that can be set up, each having the ability to leverage all of the user input-

[5] Examples of verticals can include Travel, Real Estate, Cars, Jobs etc. and examples of geographies can include zip code, phone area code, geo-coordinates or names like California, Texas, China, India, South America etc. Exhibit H, ’626 patent, 8:44-49.

explicitly typed in, or implicitly inferred from the user's clicks or hovers-up to that point." Exhibit H, '626 patent, 5:44-48.

16. With the improvements of the Asserted Patents, a search query of "flights from SFO to LAX," leads to dynamic and programmatically generated ads that direct a user to any number of relevant websites (whether they include the static words of the query) with the departure and destination fields pre-populated and relevant flights shown. Exhibit H, '626 patent at 2:25-45; 13:58-64. As illustrated in Fig. 9 of the Asserted Patents, describing aspects of an embodiment of the inventions, the programming variables are identified using the underlying "source code and data" of a webpage, rather than the static information displayed on the webpage:



PRODUCT 901	FORM 903
	Research and Reviews
PRODUCT ATTRIBUTES 911 Vertical - Automotive Make – CarManufacturer Model -- SuperSport Year - 2011	FORM SOURCE CODE AND DATA 913 <form name="crpWidget" id="crpWidget" method="get" onsubmit="goToResearch()"> <label for="makeid">Make:</label> <select name="makeid" id="makeid" onchange="popModels();"></select> <label for="modelid">Model:</label> <select name="modelid" id="modelid" onchange="popYears();"></select> <label for="year">Year:</label> <select name="year" id="year"></select> <!-- button --> Find a Car </form>

FIG. 9

Exhibit H, '626 patent at Fig. 9, 13:34-46; 14:6-25.

17. The programming variables of the webpage may be mapped to different programming variables of any number of other, different webpages (*see*, *e.g.*, Exhibit H, '626 patent, 10:36-61; 16:50-56) using the universal variable map, allowing for the identification of relevant webpages and the passage of parameters between webpages. Exhibit H, '626 patent, 13:50-57; 17:3-11. "By creating

this universal schema, if web site A wants to advertise a deep-linked ad for web site B, the Ad system would already know what the respective variable names were called, and could programmatically create an ad with accurate mappings without any human intervention." Exhibit H, '626 patent, 13:65-14:2.

18. As the applicants stated during prosecution of the '378 patent, prior methods were "based on reviewing the ***content*** of websites" and not "leveraging explicit or implicit programming variables or containers of data on websites." Exhibit J, '378 patent file history, 3/17/14 Response at 9. While "prior art approaches … focus[ed] on mapping visible, static content on web pages," the Metarail inventions relied on field identifiers which "are computer programming elements – they are not visible to consumers who visit websites." Exhibit J, '378 patent file history, 10/31/2014 response at 13.

19. The Asserted Patents, by use of underlying website code rather than the static information presented on a website and seen by a user, allow for a much more efficient generation of relevant ads with higher monetization rates, and, for the first time, allow for the automatic generation of ads and parameter passing to relevant websites without the constraints of static information included in the webpage or on an advertiser's website. As the inventors explained during prosecution of the '378 patent, the inventions "enable[] a fundamental advance in the utility of the Internet, because now consumers can search for something to buy once, and then have their specific search details passed from site to site without them needing to re-type it, even if the sites themselves have no relationships or are not associated in any way." Exhibit J, '378 patent file history, 10/31/2014 response at 13. The "invention thus is able to transform the entire Internet into one giant shopping mall." *Id.*

20. This inventionsare described throughout the specifications for the Asserted Patents

and embodied, among other places, in claim 1 of the ’626 patent:

> 1. A method, comprising:
>
> generating, by a server computer, a deep-linked ad utilizing a universal variable map stored in a data store and accessible by the server computer, the universal variable map linking programming variables across multiple sites on the Internet and applications;
>
> serving, by the server computer, the deep-linked ad through a first site or mobile application, the deep-linked ad linking a first set of programming variables of the first site on the Internet or the first mobile applications with a second set of programming variables of a second site on the Internet or a second mobile application, the first set of programming variables being associated with the second set of programming variables in the universal variable map stored in the data store; and
>
> in response to a user interacting with the deep-linked ad displayed on a user device through an instance of the first site on the Internet or the first mobile application: extracting, through the first site on the Internet or the first mobile application, values corresponding to the first set of programming variables;
>
> automatically directing the user device to the second site on the Internet or the second mobile application; and
>
> passing the values corresponding to the first set of programming variables to the second set of programming variables such that one or more fields corresponding to the second set of programming variables of the second site on the Internet or the second mobile application are explicitly or implicitly pre-populated with the values extracted through the first site on the Internet or the first mobile application.

21. As stated above, the novel system utilizes a universal variable map of programming variables to generate an Internet advertisement rather than generating an advertisement based on the static content on a web page. An example of this is found in the specification with reference to searching for flights. The “programming variables” are “placeholders for dynamic data that a user types in on a site, or clicks on or hovers over on a site” and that “dynamic data” can be passed as “values” between the website where the search occurs and the advertiser’s website. Exhibit H, ’626 patent at 9:30-63.

22. With reference to the travel example in the specification, “from” and “to” could be two different programming variables that correspond to how numerous different websites are coded

to represent from where a flight originates and where it eventually arrives. Exhibit H, ’626 patent, 9:64-10:3. A non-limiting example of one embodiment of a universal variable map with three different programming variables is in the specification:

Web Sites	xxx.com	yyy.net	zzz.org	. . .	Normalized Variables
Variable 1	Orig	Depart_City	From	. . .	from
Variable 2	Dest	Arrival_City	To	. . .	to
Variable 3	. . .	. . .	. . .	. . .	. . .
. . .	. . .	. . .	. . .	. . .	. . .

Exhibit H, ’626 patent at 9:64-10:19. As shown above, while three different websites have different ways in which they identify programming dynamic input fields indicating from where a flight originates and lands (e.g., the coded identification of a user text input box corresponding to departure and arrival), each are organized in a “universal variable map” of the various “programming variables” of different dynamic data (e.g., the different cities in the example above).

23. Another example is found in Fig. 11B of the Asserted Patents, depicted below. In Fig. 11B, a user would be typing in Honda Civic 2011 on a search site (like Google or Bing)—but the words (Honda and Civic) and number (2011) do not expressly/statically appear on the “search site” (e.g., a used car website). The universal variable map would then be accessed to cross reference programming variables used by the search engine (e.g., Google) and those used by the search site (e.g., Carvana) to create a new form of deep linked ad—one with the programming variables “make” and “model” embedded in the deep-link (www.site1.com/cars?/make=< >&model=< >). Exhibit H, ’626 patent, 13:65-14:25. The < > are computer code placeholders for the values corresponding to the programming variables (here “Honda” and Civic”). Embodiments of the inventions claimed in the Asserted Patents allow a deep-linked ad that has the programming variables and values embedded

in the link to be generated automatically based on the user's search. Then, when the user clicks on the ad the variables "Honda" and "Civic" are passed to the search site (e.g. here, Carvana) so that the form on the search site is pre-populated.

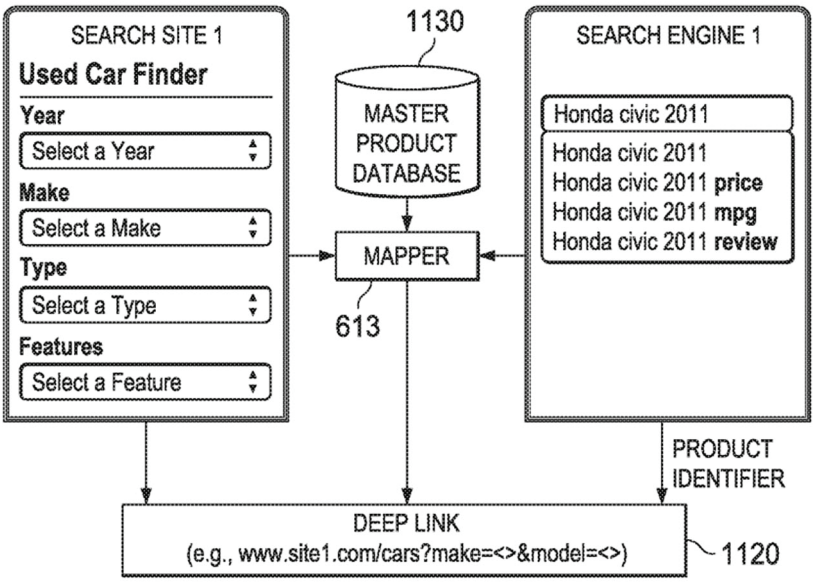


FIG. 11B

Exhibit H, '626 Patent, Fig. 11B.

24. In practice there will be thousands if not millions of programming variables for different kinds of searches for different kinds of services and goods. "The names of all such variables are [ ] archived in a universal variable map." Exhibit H, '626 patent, 10:3-4. Once a site is categorized into the appropriate vertical, sub-vertical, product category etc., the universal variable map may then be completed by mapping the variables saved and indexed to their normalized versions using adaptive heuristics, allowing for the automatic and optimized generation of deep-linked ads and the presentation of the deep-linked ads by accessing variable mapping information and URL landing information. Exhibit H, '626 patent, 11:16-30; 14:54-64.

25. Returning to the flight example above, in reference to claim 1 of the '626 patent, when

a user queries a search engine for "flights from SFO to LAX," the "programming variables" corresponding to that search will be linked to the associated "programming variables" of the various travel websites in the stored universal variable map. A deep-linked advertisement for a flight can then be automatically generated in real time and served by linking the programming variables of the search engine and associated programming variables of a travel site in the universal variable map. Exhibit H, '626 patent, claim 1 ("generating" and "serving limitations"). As the applicants stated during prosecution, prior deep-linked ads without the benefits of a universal map of programming variables had to be pre-generated and pre-existing. With the Metarail inventions "deep-linked ads may be dependent on information provided in real-time from the field identifiers to generate or act upon the creation of the deep-linked ad … [t]his is not possible with [conventional methods] because they lack a universal variable map and hence its contained data." Exhibit J, '378 patent file history, 10/31/14 response at 16. Continuing the airlines example, an ad would need to be created for every possible departure and destination, and if the search query includes a date, then each of those ads would need to be pre-created with any possible date. It was simply not possible to pre-generate targeted ads in real-time and allow for the parameter passing as claimed in the Asserted Patents.

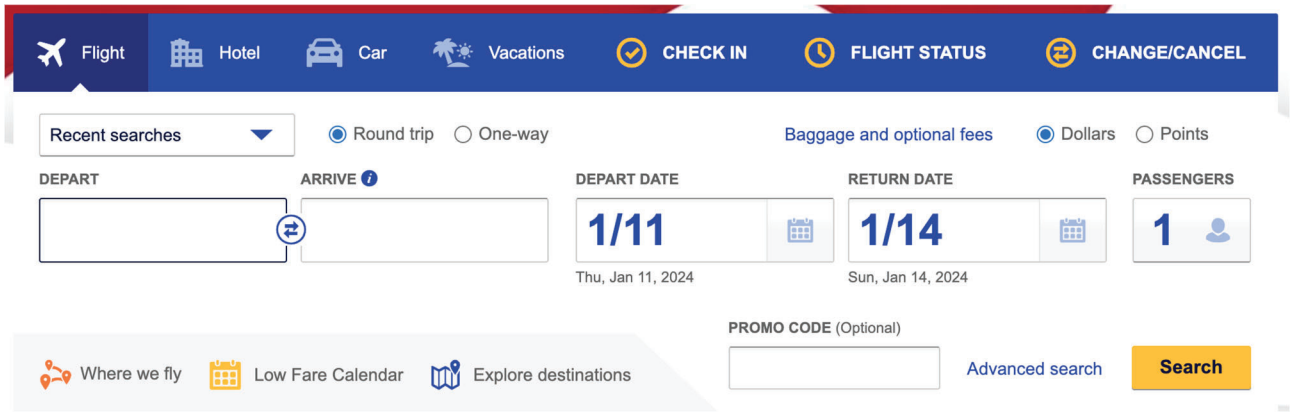
26. If the user interacts with the served advertisement (e.g., clicks on the ad), the values of dynamic data corresponding to the programming variables will be extracted from the search engine website and passed to the airline website such that the user is presented with a pre-populated form of the extracted values. '626 patent, claim 1 (the "in response to," "extracting," "automatically directing," and "passing the values" limitations).

27. The difference between the prior methods of search and serving advertisements and Metarail's inventions is stark. Prior to the Metarail inventions, a search for "flights from SFO to LAX" at best might yield a result for a generic advertisement for the Southwest Airlines website and

a link which would direct you to another search page on the airline's site with no information pre-populated as depicted below.

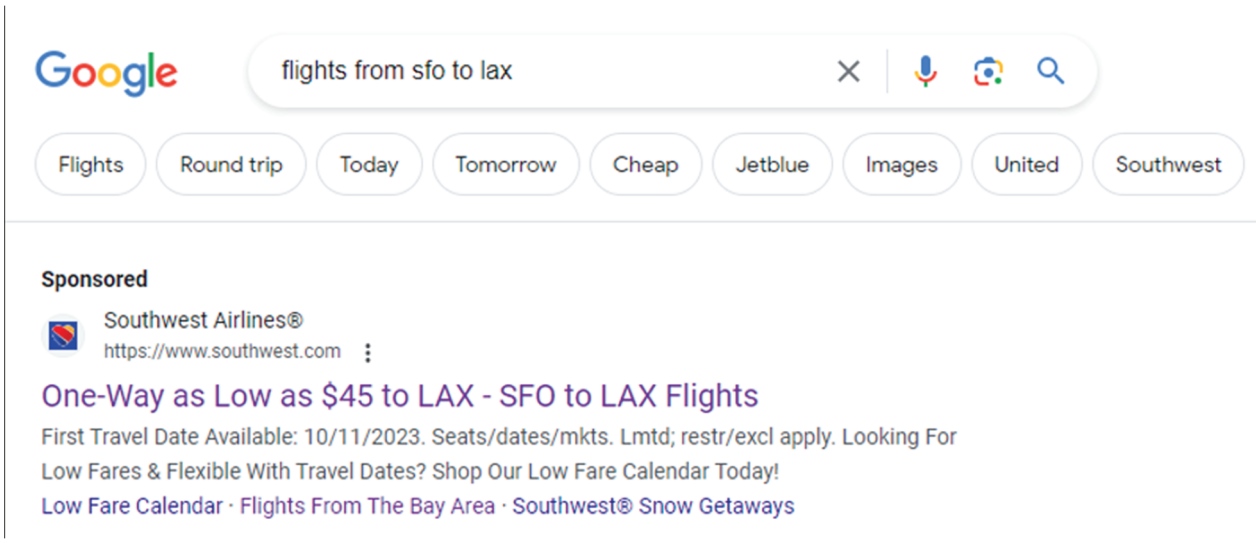
Old Advertisement:

Old Search Site Webpage:

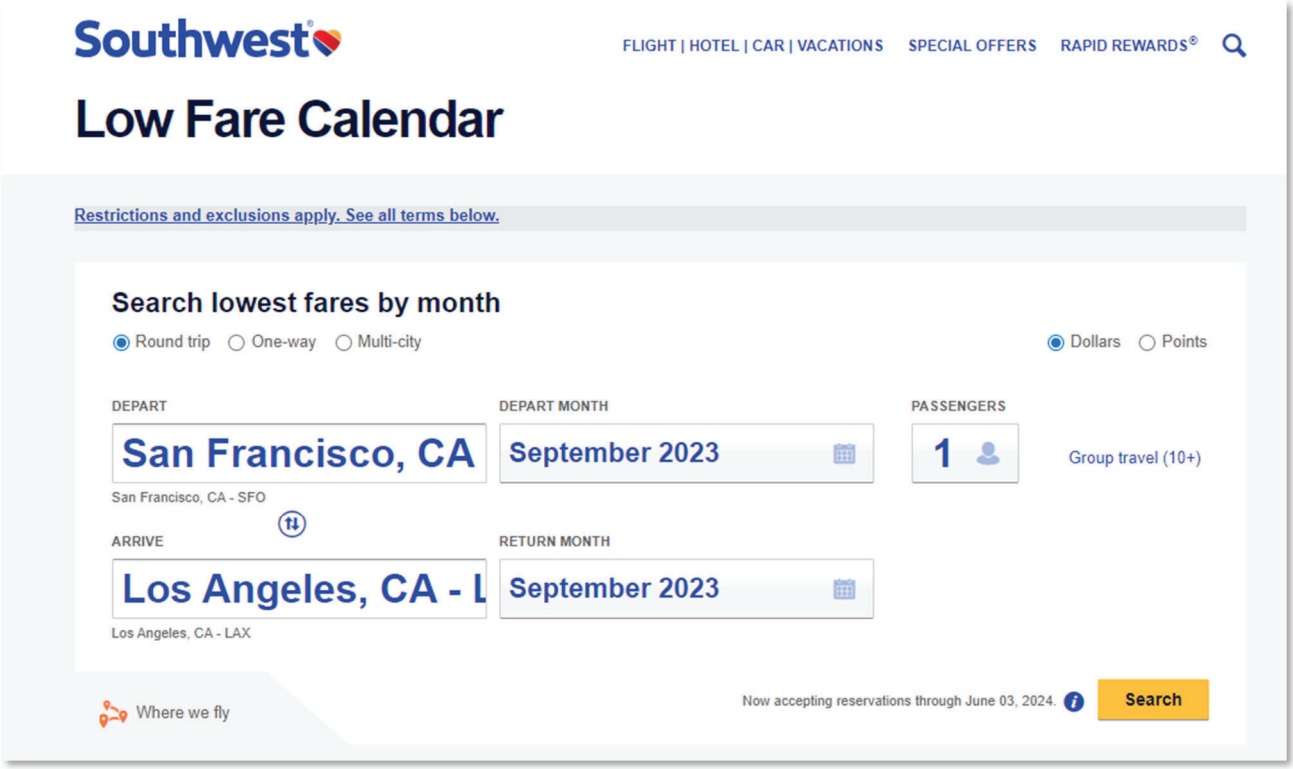


28. However, with the Metarail inventions, deep-linked advertisements based on the programming variables of a search engine based on the one hand, and the programming variable of numerous search sites on the other hand, are linked via a universal variable map, can be generated and served at the time of search for exactly the flight the user is looking for. Moreover, if the user clicks on a deep-linked advertisement, the user is transported, and the values are also sent, to the search site and pre-populated on the search site. This is depicted below.

New Advertisement:



<u>New Search Site Webpage</u>:



29. One of the key features of the Asserted Patents is the generating and serving of a deep-linked advertisement that utilizes a universal variable map that links programming variables across multiple sites. When the deep-linked advertisement is selected, the values corresponding to the programming variables are passed to the website the user is directed to and pre-populated on the

merchant's site.

30. As the patents explain, the advantages of the claimed inventions are profound:

> Even more particularly, embodiments disclosed herein relate to a deep-linking system, method, database, and computer program product for online ads and E-commerce widgets, the online ads and widgets being automatically generated utilizing dynamic data from arbitrary web sites, mobile apps and other forms of online media and being able to automatically transfer their dynamic data to other arbitrary web sites, mobile apps and other forms of online media, thereby pre-populating fields on the receiving online media, ***or enabling ad clicks to land directly on a results page or checkout page rather than a home page, substantially increasing conversion rates and performance***.

Exhibit H, '626 patent, 1:35-46 (emphasis added).

> To make deep-linked ads work, dynamic data from the publisher's site or app needs to be input into the appropriate locations on the advertiser's site or app, enabling it to "fast-forward" the user click deep into its conversion funnel***. In one embodiment of this invention, to make these ads work fields or variables on the publisher site or mobile app need to be mapped and integrated with corresponding fields or variables on the advertiser site or mobile apps, and the ad click sent to the appropriate dynamic page URL as opposed to the home page URL***.

Id. at 3:6-16 (emphasis added).

> Some embodiments may ***enable the deep-linked ads to land the user directly onto the results or checkout page of the advertising site or application, other embodiments may enable the pre-population of dynamic data into the forms of the advertising site or application but not activating the actual search action***, in the event that all fields cannot be pre-populated because of incomplete dynamic data being passed from the publishing site. ***Deep-linked ads in this embodiment reduce data entry required of users by pre-populating what is already available from the publishing site, thereby increasing conversation rates***.

Id. at 4:7-17 (emphasis added).

> With embodiments disclosed herein, publisher sites, apps and media can leverage deep-linked ads with the same ease as Display ads and Search ads, dramatically enhancing their revenue and monetization. ***At the same time, advertisers can place deep-linked ads on a full range of online media, dramatically enhancing their conversion rates and return on investmen***t.

Id. at 5:61-67 (emphasis added).

31. Google itself touts the importance of the technological advancement achieved by

Metarail's novel improvements to Internet search and deep-linking that more effectively serve advertisements:

About deep links

Deep links send mobile device users directly to relevant pages in your app rather than your website. Users click on ads and go directly to your app pages. You can use deep links in many Google Ads products, including App campaigns for engagement, App dynamic remarketing, and Search, Shopping, and Display campaigns.

How does deep linking work?

Assuming you have the app installed...

Benefits

- **Greater security**: App Links and Universal Links give you peace of mind that no other app can use your links. Other companies can't claim your link, so they can't send traffic to their own app (as can be done with custom schemes).
- **Relevant page results**: You can direct customers and potential customers to relevant pages within your app, rather than browser or mobile-web pages. App Links and Universal Links use the same URL as your web links, so if your app can't open, instead of being shown an error page, users will be taken to the mobile site landing page.
- **Seamless user experience**: The more seamless integration for your app users improves user experience, increases conversions, and improves customer loyalty.

https://support.google.com/google-ads/answer/10023042

Add and edit deep linking for App campaigns for engagement

When you're setting up a new App campaign for engagement, you need to add deep links to your ad groups so that the ads you create drive your users directly into relevant app pages.

Note: Your app developer should complete deep link setup before you add them to the App campaign for engagement. Learn more about deep links

Instructions for adding deep links

1. Sign in to your Google Ads account .
2. Follow the instructions on how to Create an App campaign for engagement through step 13.
3. For step 13, the Deeplink Suggestions feature of App campaigns for engagement will show you a list of deep links currently set up for your app.
4. Select or type the appropriate deep link in the field under "App URL".
5. Proceed with steps 14-17 in the instructions to complete the creation of your App campaign for engagement.

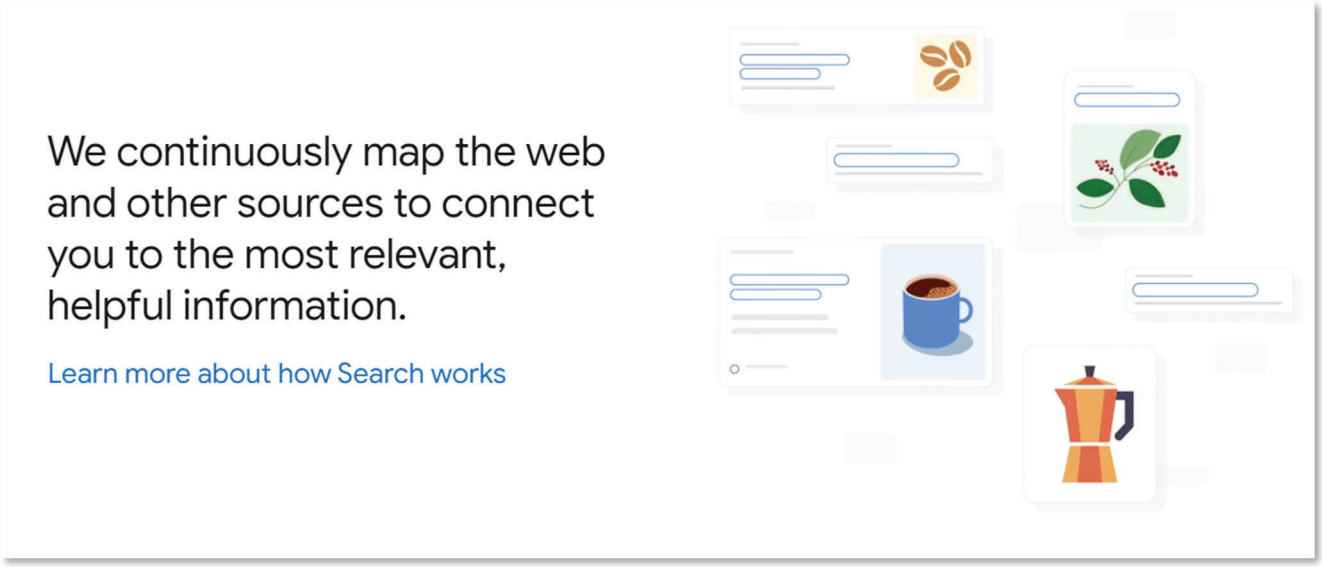
https://support.google.com/google-ads/answer/10024200?hl=en

Deep link

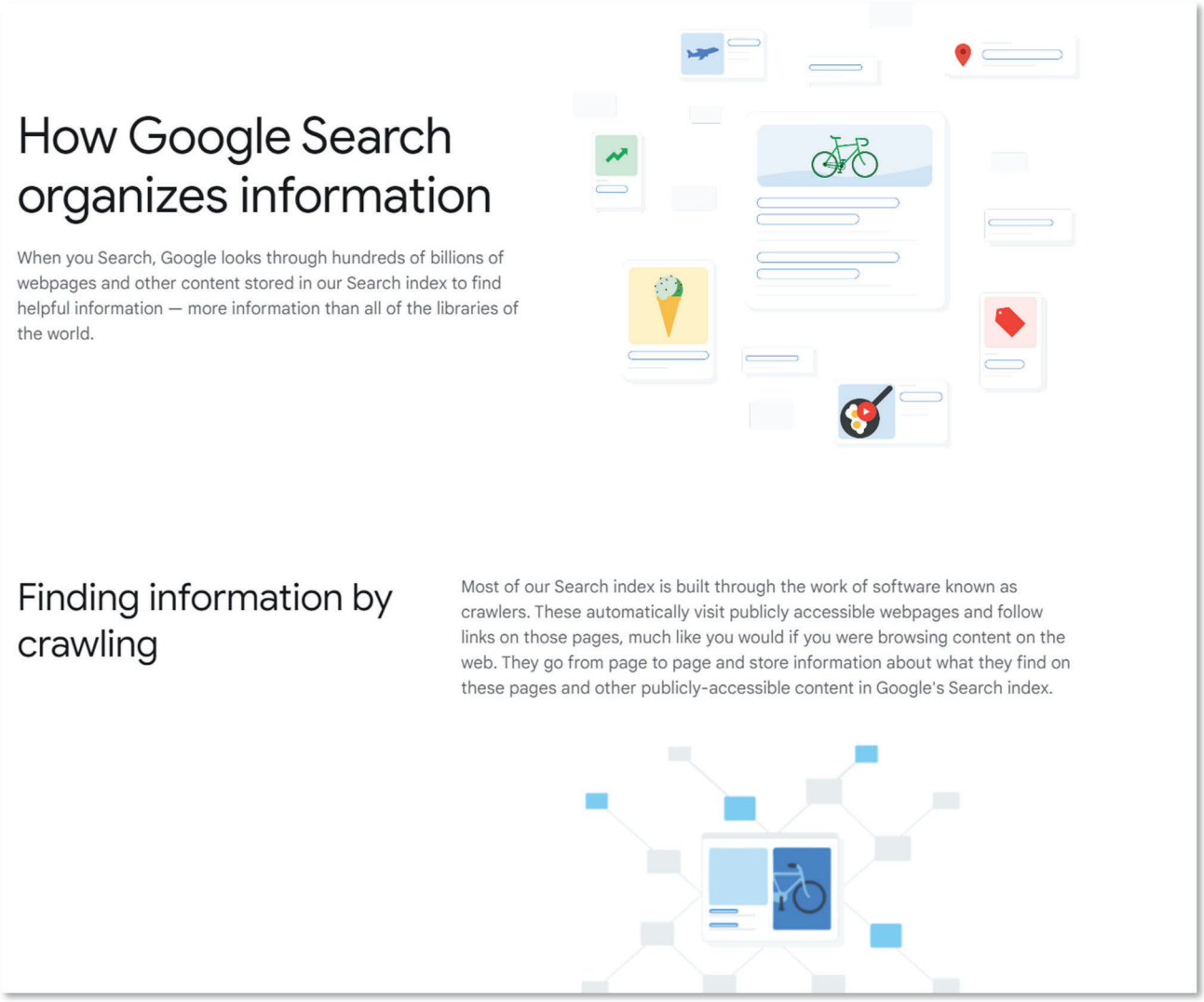
A type of destination URL in an ad that takes people to a specific page in an app. The following types of deep links are supported by Google Ads:

- **Custom schemes:** Custom schemes are custom URIs you can create to link to any in-app content. If your ad shows on a mobile device with your app installed and a user clicks the link, it sends people directly to the content in your app.
- **App Links and Universal Links:** These links use your existing HTTP destination URL, such as `www.example.com` or `www.example.com/product_1234`. Tracking parameters are allowed for these links.
  Note: Deep links are not automatically set up when you create your app, and they work differently on iOS and Android.
  - Learn about setting up custom schemes for Android apps
  - Learn more about Universal Links for iOS apps
  - Learn about setting up App Links for Android apps

https://support.google.com/google-ads/answer/6046977



https://www.google.com/search/howsearchworks/



https://www.google.com/search/howsearchworks/how-search-works/organizing-information/

FIRST COUNT

(INFRINGEMENT OF U.S. PATENT NO. 9,633,378)

32. Metarail incorporates by reference the foregoing paragraphs of this Complaint as if fully set forth herein.

33. Metarail owns by assignment, all rights, title, and interest, including the right to recover damages for past, present and future infringement, in the ’378 patent titled “Deep-Linking System, Method and Computer Program Product for Online Advertisement and E-Commerce.” The

’378 patent was duly and legally issued by the United States Patent and Trademark Office on April 25, 2017. A true and correct copy of the ’378 patent is attached as Exhibit B.

34. On information and belief, Google has directly infringed and continues to directly infringe one or more claims of the ’378 patent, including at least claim 1 of the ’378 patent, in the state of Delaware, in this judicial district, and elsewhere in the United States by, among other things, making, using, selling, offering for sale, and/or importing into the United States products that practice one or more of the inventions claimed in the ’378 patent, including but not limited to Google’s computer systems for implementing the functionality described in Exhibit C, including Google’s computer systems for generating certain deep-linked Google Ads (“Accused Instrumentalities”), as well as all reasonably similar products, in violation of 35 U.S.C. § 271(a).

35. The Accused Instrumentalities satisfy all claim limitations of one or more claims of the ’378 patent. A claim chart comparing exemplary independent claim 1 of the ’378 patent to representative functionality of the Accused Instrumentalities is attached as Exhibit C.

36. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, Google has injured Metarail and is liable for infringement of the ’378 patent pursuant to 35 U.S.C. § 271(a).

37. As a result of Google’s infringement of the ’378 patent, Metarail is entitled to monetary damages (past, present and future) in an amount adequate to compensate for Google’s infringement, but in no event less than a reasonable royalty for the use made of the inventions by Google, together with interest and costs as fixed by the Court.

38. Google’s acts of direct infringement have caused and continue to cause damage to Metarail. Metarail is entitled to damages in accordance with 35 U.S.C. §§ 271, 281, and 284 sustained as a result of Google’s wrongful acts in an amount to be proven at trial.

SECOND COUNT

(INFRINGEMENT OF U.S. PATENT NO. 10,152,734)

39. Metarail incorporates by reference the foregoing paragraphs of this Complaint as if fully set forth herein.

40. Metarail owns by assignment, all rights, title, and interest, including the right to recover damages for past, present and future infringement, in the ’734 patent titled “Systems, Methods and Computer Program Products for Mapping Field Identifiers From And To Deliver Service, Mobile Storefront, Food Truck, Service Vehicle, Self-Driving Car, Delivery Drone, Ride-Sharing Service or In-Store Pickup Integrated Shopping, Deliver, Returns Or Refunds.” The ’734 patent was duly and legally issued by the United States Patent and Trademark Office on December 11, 2018. A true and correct copy of the ’734 patent is attached as Exhibit D.

41. On information and belief, Google has directly infringed and continues to directly infringe one or more claims of the ’734 patent, including at least claim 1 of the ’734 patent, in the state of Delaware, in this judicial district, and elsewhere in the United States by, among other things, making, using, selling, offering for sale, and/or importing into the United States products that practice one or more of the inventions claimed in the ’734 patent, including but not limited to Google’s computer systems for implementing the functionality described in Exhibit E, including but not limited to computer systems for generating certain deep-linked Google Ads (“Accused Instrumentalities”), as well as all reasonably similar products, in violation of 35 U.S.C. § 271(a).

42. The Accused Instrumentalities satisfy all claim limitations of one or more claims of the ’734 patent. A claim chart comparing exemplary independent claim 1 of the ’734 patent to representative functionality of the Accused Instrumentalities is attached as Exhibit E.

43. By making, using, offering for sale, selling and/or importing into the United States the

Accused Instrumentalities, Google has injured Metarail and is liable for infringement of the ’734 patent pursuant to 35 U.S.C. § 271(a).

44. As a result of Google’s infringement of the ’734 patent, Metarail is entitled to monetary damages (past, present and future) in an amount adequate to compensate for Google’s infringement, but in no event less than a reasonable royalty for the use made of the inventions by Google, together with interest and costs as fixed by the Court.

45. Google’s acts of direct infringement have caused and continue to cause damage to Metarail. Metarail is entitled to damages in accordance with 35 U.S.C. §§ 271, 281, and 284 sustained as a result of Google’s wrongful acts in an amount to be proven at trial.

THIRD COUNT

(INFRINGEMENT OF U.S. PATENT NO. 10,262,342)

46. Metarail incorporates by reference the foregoing paragraphs of this Complaint as if fully set forth herein.

47. Metarail owns by assignment, all rights, title, and interest, including the right to recover damages for past, present and future infringement, in the ’342 patent titled “Deep-Linking System, Method and Computer Program Product for Online Advertisement and E-Commerce.” The ’342 patent was duly and legally issued by the United States Patent and Trademark Office on April 16, 2019. A true and correct copy of the ’342 patent is attached as Exhibit F.

48. On information and belief, Google has directly infringed and continues to directly infringe one or more claims of the ’342 patent, including at least claim 1 of the ’342 patent, in the state of Delaware, in this judicial district, and elsewhere in the United States by, among other things, making, using, selling, offering for sale, and/or importing into the United States products that practice one or more of the inventions claimed in the ’342 patent, including but not limited to Google’s

computer systems for implementing the functionality described in Exhibit G, including but not limited to computer systems for generating certain deep-linked Google Ads ("Accused Instrumentalities"), as well as all reasonably similar products, in violation of 35 U.S.C. § 271(a).

49. The Accused Instrumentalities satisfy all claim limitations of one or more claims of the '342 patent. A claim chart comparing exemplary independent claim 1 of the '342 patent to representative functionality of the Accused Instrumentalities is attached as Exhibit G.

50. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, Google has injured Metarail and is liable for infringement of the '342 patent pursuant to 35 U.S.C. § 271(a).

51. As a result of Google's infringement of the '342 patent, Metarail is entitled to monetary damages (past, present and future) in an amount adequate to compensate for Google's infringement, but in no event less than a reasonable royalty for the use made of the inventions by Google, together with interest and costs as fixed by the Court.

52. Google's acts of direct infringement have caused and continue to cause damage to Metarail. Metarail is entitled to damages in accordance with 35 U.S.C. §§ 271, 281, and 284 sustained as a result of Google's wrongful acts in an amount to be proven at trial.

FOURTH COUNT

(INFRINGEMENT OF U.S. PATENT NO. 10,789,626)

53. Metarail incorporates by reference the foregoing paragraphs of this Complaint as if fully set forth herein.

54. Metarail owns by assignment, all rights, title, and interest, including the right to recover damages for past, present and future infringement, in the '626 patent titled "Deep-Linking System, Method and Computer Program Product for Online Advertisement and E-Commerce." The

’626 patent was duly and legally issued by the United States Patent and Trademark Office on September 29, 2020. A true and correct copy of the ’626 patent is attached as Exhibit H.

55. On information and belief, Google has directly infringed and continues to directly infringe one or more claims of the ’626 patent, including at least claim 1 of the ’626 patent, in the state of Delaware, in this judicial district, and elsewhere in the United States by, among other things, making, using, selling, offering for sale, and/or importing into the United States products that practice one or more of the inventions claimed in the ’626 patent, including but not limited to Google’s computer systems for implementing the functionality described in Exhibit I, including but not limited to computer systems for generating certain deep-linked Google Ads (“Accused Instrumentalities”), as well as all reasonably similar products, in violation of 35 U.S.C. § 271(a).

56. The Accused Instrumentalities satisfy all claim limitations of one or more claims of the ’626 patent. A claim chart comparing exemplary independent claim 1 of the ’626 patent to representative functionality of the Accused Instrumentalities is attached as Exhibit I.

57. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, Google has injured Metarail and is liable for infringement of the ’626 patent pursuant to 35 U.S.C. § 271(a).

58. As a result of Google’s infringement of the ’626 patent, Metarail is entitled to monetary damages (past, present and future) in an amount adequate to compensate for Google’s infringement, but in no event less than a reasonable royalty for the use made of the inventions by Google, together with interest and costs as fixed by the Court.

59. Google’s acts of direct infringement have caused and continue to cause damage to Metarail. Metarail is entitled to damages in accordance with 35 U.S.C. §§ 271, 281, and 284 sustained as a result of Google’s wrongful acts in an amount to be proven at trial.

PRAYER FOR RELIEF

WHEREFORE, Metarail prays for judgment and seeks relief against Google as follows:

A. For judgment that Google has infringed one or more claims of the Asserted Patents, either literally and/or under the doctrine of equivalents;

B. For judgment awarding Metarail damages adequate to compensate it for Google's infringement of the Asserted Patents, including all pre-judgment and post-judgment interest as well as an award of mandatory future royalties for continuing infringement;

C. For judgment awarding enhanced damages pursuant to 35 U.S.C. § 284;

D. For judgment awarding attorneys' fees pursuant to 35 U.S.C. § 285 or otherwise permitted by law;

E. For judgment awarding costs of suit; and

F. For judgment awarding Metarail such other and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure Metarail hereby demands a trial by jury of this action.

ASHBY & GEDDES

/s/ Andrew C. Mayo

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