Exhibit 2

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
NORFOLK DIVISION

I/P ENGINE, INC.,)	
)	
Plaintiff,)	
v.)	Civ. Action No. 2:11-cv-512
)	
AOL, INC. et al.,)	
)	
Defendants.)	

PLAINTIFF I/P ENGINE, INC'S
PRELIMINARY DISCLOSURE OF ASSERTED CLAIMS AND
PRE-DISCOVERY INFRINGEMENT CONTENTIONS AS TO GOOGLE SEARCH

Plaintiff I/P Engine, Inc. ("I/P Engine") hereby makes the following Disclosure of

Asserted Claims and Infringement Contentions for U.S. Patent Nos. 6,314,420 ("the '420

patent") and 6,775,664 ("the '664 patent").

A.   Identification of Asserted Claims and Infringing Products

Defendant Google, Inc.'s ("Google") products, methods and systems promoted under

the name of Google Web Search ("Google Search") are accused of infringing at least the

following claims:

claims 10, 14, 15, 25, 27 and 28 of the '420 patent; and

claims 1, 6, 21, 22, 26, 28 and 38 of the '664 patent.

Each asserted claim of the '420 and '664 patents are reproduced in the attached claim

charts. The left column of the claim charts includes the language of each claim; each limitation

of each claim is listed separately. The right column of the claim charts includes the features of

Google Search that I/P Engine contends infringe each corresponding limitation in the claim

based on evidence currently available to I/P Engine. Based on the attached claim charts, Google is liable for direct infringement of the '420 and '664 patents.

These claim charts can be, and will be, supplemented and/or amended based upon discovery, additional evidence, further investigation, and/or the claim construction by the Court.

B.   Identification of Infringing Structure, Acts, and/or Materials

As demonstrated by the attached claim charts and as described in Google's materials and other publicly available sources, each element of each claim of the '420 and '664 patents asserted against Google is literally present in Google Search. If Google contends that any limitations of any of the asserted claims is not literally present in Google Search, any such limitation of the asserted claims is present under the doctrine of equivalents because the difference(s), if any, between Google Search, and what is literally claimed in the asserted claims is(are) insubstantial. I/P Engine will provide contentions under the doctrine of equivalents if, after, and when Google identifies which elements it contends are not present in Google Search.

C.   Identification of Priority Date

Each of the asserted claims of the '420 and '664 patents are entitled to a priority date at least as early as the effective date of the '420 patent, i.e., December 3, 1998 (based on the filing date of the patent application, U.S. Patent Application No. 09/204,149, that issued as the '420 patent). Additionally, each of the asserted claims of the '420 and '664 patents may be entitled to an earlier effective date based on, without limitation, the filing of earlier related patent applications.

D.   Indirect Infringement Disclosures

As demonstrated by the attached claim charts, the use of Google Search directly infringes the asserted claims of the '420 and '664 patents and establishes the prerequisite act of

direct infringement. Google has also had knowledge of the '420 and '664 patents at least as early as the filing date of this lawsuit, September 15, 2011 (D.I. 001).

Google, via its materials and other publicly available sources, provides, sells, offers for sale, and/or promotes the infringing products, methods and systems of Google Search to its Search Partners and/or end users that use the infringing Google Search. *See, e.g.,* IPE0000108-IPE0000109, IPE0000130, IPE0000185-IPE0000187, IPE0000304-IPE0000305. Based on these materials and uses, Google intends for its Search Partners and/or end users to use Google Search in an infringing manner. Thus, Google intends to cause infringement of the '420 and '664 patents.

Therefore, by making, using, providing, selling, and/or promoting its infringing Google Search, and by continuing to provide, sell, offer for sale, and/or promote its infringing Google Search, with the intention of causing at least some Search Partners and/or end users to use Google Search in an infringing manner, Google actively and knowingly aids and abets infringement of the '420 and '664 patents and is liable under induced infringement.

In addition, Google Search is a material part of the claimed invention of the '420 and '664 patents. Google Search is especially made or especially adapted for use with only infringing search engine systems and/or search systems. Furthermore, Google Search is not a staple article. Google Search is not a commodity of commerce and can only be used with infringing search engine systems and/or search systems. Google Search is also not suitable for substantial non-infringing uses. Therefore, Google is liable as a contributory infringer.

These contentions are preliminary, are based on known publicly available information, and are subject to change based on the Court's claim construction. I/P Engine reserves the right to amend and/or supplement these infringement contentions if and when further information regarding Google Search becomes available and/or for other good cause.

Dated: November 7, 2011

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CLAIM CHART FOR INFRINGEMENT OF U.S. PATENT NO. 6,314,420

Google Search

CLAIM 10	GOOGLE SEARCH
a. A search engine system comprising:	The preamble is typically not a limitation and thus no comparison needs to be made between the accused system, Google Search, and the preamble. *See, e.g., Symantec Corp. v. Computer Associate Intern., Inc.*, 522 F.3d 1279, 1288 (Fed. Cir. 2008)("Absent clear reliance on the preamble in the prosecution history, or in situations where it is necessary to provide antecedent basis for the body of the claim, the preamble generally is not limiting.")(quotation omitted). However, Google Search includes a search engine system. Google Search on Google's website (www.google.com) provides a search engine system that searches for information (e.g., websites and/or website results) relevant to search queries. For example, when a user enters a search query into the search bar on Google's website and selects the "search" button, the user is presented with a list of items, e.g., website results. *See* IPE0000051-IPE0000053 (displaying an example search for "grill"); *see also* IPE0000025 ("We stand alone in our focus on developing the 'perfect search engine.'"). Google Search is also used to search for information and display search engine results on other websites that use Google Custom Search. IPE0000305; *see also* IPE0000304 (enabling a user to create a Google-powered custom search engine that can be added to a user's own webpage).
b. a system for scanning a network to make a demand search for informons relevant to a query from an individual user;	Google Search includes a system for scanning a network to make a demand search for information relevant to a query from a user. For example, the search bar on Google's website (www.google.com) and other "search network" sites allows a user to enter a search query and run a demand search. *See* section a. In response to the query, the system conducts a demand search for information *See* IPE0000051-IPE0000053. Google uses distributed databases in its systems, and

CLAIM 10	GOOGLE SEARCH
	the databases distribute information across several locations on a network(s). IPE0000011-IPE0000024; see also IPE0000026 (showing distributed systems). Additionally, the system also obtains website information relevant to a query from a user. IPE0000112.
c. a content-based filter system for receiving the informons from the scanning system and for filtering the informons on the basis of applicable content profile data for relevance to the query; and	Google Search includes a system for receiving the information from the scanning system and for filtering the information on the basis of applicable content profile data for relevance to the query. Google Search receives and filters the information based, in part, on a content-based analysis. IPE0000025 ("[o]ur search engine . . . analyzes page content"); IPE0000025-IPE0000026 ("our technology analyzes the full content of a page and . . . analyze[s] the content of neighboring web pages to ensure the results returned are the most relevant to a user's query.").
d. a feedback system for receiving collaborative feedback data from system users relative to informons considered by such users;	Google Search includes a system that receives feedback data from system users, the feedback data being related to the website information returned as results and considered by users. For example, Google collects data regarding results viewed by users. *See* IPE0000102 ("with [search] logs, we can improve our search results: if we know that people are clicking on the #1 result we're doing something right, and if they're hitting next page or reformulating their query, we're doing something wrong."); *see also* IPE0000140.
e. the filter system combining pertaining feedback data from the feedback system with the content profile data in filtering each informon for relevance to the query.	Upon information and belief, Google Search includes a system that combines feedback data from the feedback system with the content data to filter information for relevance to the query. Google Search uses content data in their search algorithm to filter items for relevance to the query. *See* section c. Upon information and belief, Google Search also uses collected feedback data to improve how the search algorithm filters items for relevance to the query. *See* IPE0000140 ("in order to come up with new ranking techniques and evaluate if users find them useful, we have to store and analyze search logs. . . . What results do people click on? How does their behavior change when we change aspects of our algorithm?"). In U.S. Patent No. 7,346,839 to Acharya and U.S. Application No. 2008/0140647 to Bailey et al. (both related to Google's search engine technology), Google describes using feedback data, such as user-click-data, to alter a score associated with a document. *See* IPE0000154 ("According to an

CLAIM 10	GOOGLE SEARCH
	implementation . . . one or more query-based factors may be used to generate (or alter) a score associated with a document. For example, one query based factor may relate to the extent to which a document is selected over time when the document is included in a set of search results."); *see also* IPE0000172 ("Some implementations include a conventional user feedback mechanism for a scoring system. The user feedback mechanism uses user-click-data to learn characteristics of queries, or results of queries that correlate with high quality clicks. [In an example case] the mechanism recognizes that book search results are preferred for future queries . . . and causes such results to have an enhanced search result quality score."). A former Google employee has stated "The actual mechanics of how click data is used is often proprietary, but Google makes it obvious that it uses click data with its patents on systems like 'Rank-adjusted content items.'" IPE0000336.

CLAIM 14	GOOGLE SEARCH
The system of claim 10 wherein the collaborative feedback data comprises passive feedback data.	Google Search collects feedback that indicates what results people click on. *See* claim 10 section d.

CLAIM 15	GOOGLE SEARCH
The system of claim 14 wherein the passive feedback data is obtained by passively monitoring the actual response to a proposed informon.	Google Search passively monitors a user's behavior related to a proposed link. For example, links are presented to users, and Google collects data regarding results viewed by users. *See* claim 10 section d.

CLAIM 25	GOOGLE SEARCH

CLAIM 25	GOOGLE SEARCH
a. A method for operating a search engine system comprising:	The preamble is typically not a limitation and thus no comparison needs to be made between the accused system, Google Search, and the preamble. *See, e.g., Symantec Corp. v. Computer Associate Intern., Inc.*, 522 F.3d 1279, 1288 (Fed. Cir. 2008)("Absent clear reliance on the preamble in the prosecution history, or in situations where it is necessary to provide antecedent basis for the body of the claim, the preamble generally is not limiting.")(quotation omitted). However, Google Search includes a method for operating a search engine system. Google Search on Google's website (www.google.com) operates a search engine system that searches for information (e.g., websites and/or website results) relevant to search queries. For example, when a user enters a search query into the search bar on Google's website and selects the "search" button, the user is presented with a list of items, e.g., website results. *See* IPE0000051-IPE0000053 (displaying an example search for "grill"); *see also* IPE0000025 ("We stand alone in our focus on developing the 'perfect search engine.'"). Google Search is also used to search for information and display search engine results on other websites that use Google Custom Search. IPE0000305; *see also* IPE0000304 (enabling a user to create a Google-powered custom search engine that can be added to a user's own webpage).
b. scanning a network to make a demand search for informons relevant to a query from an individual user;	Google Search scans a network to make a demand search for information relevant to a query from a user. For example, the search bar on Google's website (www.google.com) and other "search network" sites allows a user to enter a search query and run a demand search. *See* section a. In response to the query, the system conducts a demand search for information *See* IPE0000051-IPE0000053. Google uses distributed databases in its systems, and the databases distribute information across several locations on a network(s). IPE0000011-IPE0000024; see also IPE0000026 (showing distributed systems). Additionally, the system also obtains website information relevant to a query from a user. IPE0000112.
c. receiving the informons in a content-based filter system from the scanning system and	Google Search receives the information from the scanning system and filters the information on the basis of applicable content profile data for relevance to the

CLAIM 25	GOOGLE SEARCH
filtering the informons on the basis of applicable content profile data for relevance to the query;	query. Google Search receives and filters the information based, in part, on a content-based analysis. IPE0000025 ("[o]ur search engine . . . analyzes page content"); IPE0000025-IPE0000026 ("our technology analyzes the full content of a page and . . . analyze[s] the content of neighboring web pages to ensure the results returned are the most relevant to a user's query.").
d. receiving collaborative feedback data from system users relative to informons considered by such users; and	Google Search receives feedback data from system users, the feedback data being related to the website information returned as results. For example, Google collects data regarding results viewed by users. *See* IPE0000102 ("with [search] logs, we can improve our search results: if we know that people are clicking on the #1 result we're doing something right, and if they're hitting next page or reformulating their query, we're doing something wrong."); *see also* IPE0000140.
e. combining pertaining feedback data with the content profile data in filtering each informon for relevance to the query.	Upon information and belief, Google Search combines feedback data from the feedback system with the content data to filter information for relevance. Google Search uses content data in their search algorithm to filter items for relevance to the query. *See* section c. Upon information and belief, Google Search also uses data regarding results viewed by users to filter items for relevance to the query. *See* IPE0000140 ("in order to come up with new ranking techniques and evaluate if users find them useful, we have to store and analyze search logs. . . . What results do people click on? How does their behavior change when we change aspects of our algorithm?"). In U.S. Patent No. 7,346,839 to Acharya and U.S. Application No. 2008/0140647 to Bailey et al. (both related to Google's search engine technology), Google describes using feedback data, such as user-click-data, to alter a score associated with a document. *See* IPE0000154 ("According to an implementation . . . one or more query-based factors may be used to generate (or alter) a score associated with a document. For example, one query based factor may relate to the extent to which a document is selected over time when the document is included in a set of search results."); *see also* IPE0000172 ("Some implementations include a conventional user feedback mechanism for a scoring system. The user feedback mechanism uses user-click-data to learn characteristics of queries, or results of queries that correlate with high quality clicks. [In an example case] the mechanism recognizes that book search results

CLAIM 25	GOOGLE SEARCH
	are preferred for future queries . . . and causes such results to have an enhanced search result quality score."). A former Google employee has stated "The actual mechanics of how click data is used is often proprietary, but Google makes it obvious that it uses click data with its patents on systems like 'Rank-adjusted content items.'" IPE0000336.

CLAIM 27	GOOGLE SEARCH
The method of claim 25 wherein the collaborative feedback data provides passive feedback data.	Google Search collects feedback that indicates what results people click on. *See* claim 25 section d.

CLAIM 28	GOOGLE SEARCH
The method of claim 27 wherein the passive feedback data is obtained by passively monitoring the actual response to a proposed informon.	Google Search passively monitors a user's behavior related to a proposed link. For example, links are presented to users, and Google collects data regarding results viewed by users. *See* claim 25 section d.

CLAIM CHART FOR INFRINGEMENT OF U.S. PATENT NO. 6,775,664

Google Search

CLAIM 1	GOOGLE SEARCH
a. A search system comprising:	The preamble is typically not a limitation and thus no comparison needs to be made between the accused system, Google Search, and the preamble. *See, e.g., Symantec Corp. v. Computer Associate Intern., Inc.*, 522 F.3d 1279, 1288 (Fed. Cir. 2008)("Absent clear reliance on the preamble in the prosecution history, or in situations where it is necessary to provide antecedent basis for the body of the claim, the preamble generally is not limiting.")(quotation omitted). However, Google Search includes a search system. Google Search on Google's website (www.google.com) provides a search system that searches for information (e.g., websites and/or website results) relevant to search queries. For example, when a user enters a search query into the search bar on Google's website and selects the "search" button, the user is presented with a list of items, e.g., website results. *See* IPE0000051-IPE0000053 (displaying an example search for "grill"); *see also* IPE0000025 ("We stand alone in our focus on developing the 'perfect search engine.'"). Google Search is also used to search for information and display search engine results on other websites that use Google Custom Search. IPE0000305; *see also* IPE0000304 (enabling a user to create a Google-powered custom search engine that can be added to a user's own webpage).
b. a scanning system for searching for information relevant to a query associated with a first user in a plurality of users;	Google Search includes a system for searching for information relevant to a query from a user. For example, the search bar on Google's website (www.google.com) and other "search network" sites allows a user to enter a search query and run a demand search. *See* section a. The system conducts a demand search that includes searching for information. *See* IPE0000051-IPE0000053. Google Search analyzes the website information based, in part, on a content-based relevance analysis. Google states that "[o]ur search engine . . .

CLAIM 1	GOOGLE SEARCH
	analyzes page content." IPE0000025. Additionally, Google states "our technology analyzes the full content of a page and . . . analyze[s] the content of neighboring web pages to ensure the results returned are the most relevant to a user's query." IPE0000025-IPE0000026.
c. a feedback system for receiving information found to be relevant to the query by other users; and	Google Search includes a system for receiving information found to be relevant to the query by users of the system. For example, Google collects data regarding results viewed by users. *See* IPE0000102 ("with [search] logs, we can improve our search results: if we know that people are clicking on the #1 result we're doing something right, and if they're hitting next page or reformulating their query, we're doing something wrong."); *see also* IPE0000140.
d. content-based filter system for combining the information from the feedback system with the information from the scanning system and for filtering the combined information for relevance to at least one of the query and the first user.	Upon information and belief, Google Search includes a system for combining information from the feedback system with the information from the scanning system and for filtering the combined information for relevance to the query. Google Search uses content data in their search algorithm to filter items for relevance to the query. *See* section b. Upon information and belief, Google Search also uses data regarding results viewed by users to filter items for relevance to the query. *See* IPE0000140 ("in order to come up with new ranking techniques and evaluate if users find them useful, we have to store and analyze search logs. . . . What results do people click on? How does their behavior change when we change aspects of our algorithm?"). In U.S. Patent No. 7,346,839 to Acharya and U.S. Application No. 2008/0140647 to Bailey et al. (both related to Google's search engine technology), Google describes using feedback data, such as user-click-data, to alter a score associated with a document. *See* IPE0000154 ("According to an implementation . . . one or more query-based factors may be used to generate (or alter) a score associated with a document. For example, one query based factor may relate to the extent to which a document is selected over time when the document is included in a set of search results."); *see also* IPE0000172 ("Some implementations include a conventional user feedback mechanism for a scoring system. The user feedback mechanism uses user-click-data to learn characteristics of queries, or results of queries that correlate with high quality clicks. [In an example case] the mechanism recognizes that book search results are preferred for future queries . . . and causes such results to have

CLAIM 1	GOOGLE SEARCH
	an enhanced search result quality score."). A former Google employee has stated "The actual mechanics of how click data is used is often proprietary, but Google makes it obvious that it uses click data with its patents on systems like 'Rank-adjusted content items.'" IPE0000336.

CLAIM 6	GOOGLE SEARCH
The search system of claim 1 further comprising an information delivery system for delivering the filtered information to the first user.	Google Search delivers information to a user in the form of links to websites with short descriptions. *See* IPE0000051-IPE0000053 (displaying an example search for "grill").

CLAIM 21	GOOGLE SEARCH
The search system of claim 1 wherein the content-based filter system filters by extracting features from the information.	Google Search extracts features such as text font and location, and the presence of subdivisions, from webpages: "our technology analyzes the full content of a page and factors in fonts, subdivisions and the precise location of each word." IPE0000130.

CLAIM 22	GOOGLE SEARCH
The search system of claim 21 wherein the extracted features comprise content data indicative of the relevance to the at least one of the query and the user.	In Google Search the extracted features described in claim 21 are content data that is used to indicate the relevance of an item to the user's query. *See* claim 1 section b.

CLAIM 26	GOOGLE SEARCH
a. A method for obtaining information relevant	The preamble is typically not a limitation and thus no comparison needs to be

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CLAIM 26	GOOGLE SEARCH
to a first user comprising:	made between the accused system, Google Search, and the preamble. *See, e.g., Symantec Corp. v. Computer Associate Intern., Inc.*, 522 F.3d 1279, 1288 (Fed. Cir. 2008)("Absent clear reliance on the preamble in the prosecution history, or in situations where it is necessary to provide antecedent basis for the body of the claim, the preamble generally is not limiting.")(quotation omitted). However, Google Search includes a method for obtaining information relevant to a first user. Google Search on Google's website (www.google.com) provides a method of obtaining information (e.g., websites and/or website results) relevant to a user. For example, when a user enters a search query into the search bar on Google's website and selects the "search" button, the user is presented with a list of items, e.g., website results. *See* IPE0000051-IPE0000053 (displaying an example search for "grill"); *see also* IPE0000025 ("We stand alone in our focus on developing the 'perfect search engine.'"). Google Search is also used to search for information and display search engine results on other websites that use Google Custom Search. IPE0000305; *see also* IPE0000304 (enabling a user to create a Google-powered custom search engine that can be added to a user's own webpage).
b. searching for information relevant to a query associated with a first user in a plurality of users;	Google Search searches for information relevant to a query associated with a user. For example, the search bar on Google's website (www.google.com) and other "search network" sites allows a user to enter a search query and run a demand search. *See* section a. In response to the search query, the system conducts a demand search that includes searching for information. *See* IPE0000051-IPE0000053. Google Search analyzes the website information based, in part, on a content-based relevance analysis. Google states that "[o]ur search engine . . . analyzes page content." IPE0000025. Additionally, Google states "our technology analyzes the full content of a page and . . . analyze[s] the content of neighboring web pages to ensure the results returned are the most relevant to a user's query." IPE0000025-IPE0000026.
c. receiving information found to be relevant to	Google Search receives information found to be relevant to the query by users of

CLAIM 26	GOOGLE SEARCH
the query by other users;	the system. For example, Google collects data regarding results viewed by users. *See* IPE0000102 ("with [search] logs, we can improve our search results: if we know that people are clicking on the #1 result we're doing something right, and if they're hitting next page or reformulating their query, we're doing something wrong."); *see also* IPE0000140.
d. combining the information found to be relevant to the query by other users with the searched information; and	Upon information and belief, Google Search combines the information found to be relevant to the query by other users with the searched information to filter information for relevance. Google Search uses content data in their search algorithm to filter items for relevance to the query. *See* section b. Upon information and belief, Google Search also uses data regarding results viewed by users to filter items for relevance to the query. *See* IPE0000140 ("in order to come up with new ranking techniques and evaluate if users find them useful, we have to store and analyze search logs. . . . What results do people click on? How does their behavior change when we change aspects of our algorithm?"). In U.S. Patent No. 7,346,839 to Acharya and U.S. Application No. 2008/0140647 to Bailey et al. (both related to Google's search engine technology), Google describes using feedback data, such as user-click-data, to alter a score associated with a document. *See* IPE0000154 ("According to an implementation . . . one or more query-based factors may be used to generate (or alter) a score associated with a document. For example, one query based factor may relate to the extent to which a document is selected over time when the document is included in a set of search results."); *see also* IPE0000172 ("Some implementations include a conventional user feedback mechanism for a scoring system. The user feedback mechanism uses user-click-data to learn characteristics of queries, or results of queries that correlate with high quality clicks. [In an example case] the mechanism recognizes that book search results are preferred for future queries . . . and causes such results to have an enhanced search result quality score."). A former Google employee has stated "The actual mechanics of how click data is used is often proprietary, but Google makes it obvious that it uses click data with its patents on systems like 'Rank-adjusted content items.'" IPE0000336.
e. content-based filtering the combined information for relevance to at least one of the	Upon information and belief, Google Search uses data regarding results viewed by users in combination with searched information to determine which results to

CLAIM 26	GOOGLE SEARCH
query and the first user.	display to a user, and in what order to display those results. *See* IPE0000113 ("When a user enters a query, our machines search the index for matching pages and return the results we believe are the most relevant to the user. Relevancy is determined by over 200 factors"); *see also* claim 26, section d (describing factors).

CLAIM 28	GOOGLE SEARCH
28. The method of claim 26 further comprising the step of delivering the filtered information to the first user.	Google Search delivers filtered information to a user in the form of links to websites with short descriptions. *See* IPE0000051-IPE0000053 (displaying an example search for "grill").

CLAIM 38	GOOGLE SEARCH
38. The method of claim 26 wherein the searching step comprises scanning a network in response to a demand search for the information relevant to the query associated with the first user.	Google Search scans a network in response to a demand search for information relevant to a query from a user. For example, the search bar on Google's website (www.google.com) and other "search network" sites allows a user to enter a search query and run a demand search. *See* section a. In response to the query, the system conducts a demand search for information *See* IPE0000051-IPE0000053. Google uses distributed databases in its systems, and the databases distribute information across several locations on a network(s). IPE0000011-IPE0000024; see also IPE0000026 (showing distributed systems). Additionally, the system also obtains website information relevant to a query from a user. IPE0000112.