

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

R2 Solutions LLC,  
Plaintiff,

v.

Roku, Inc.,  
Defendant.

Civil Action No. 6:21-cv-00997

Jury Trial Demanded

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**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff R2 Solutions LLC files this Complaint against Roku, Inc. for infringement of U.S. Patent Nos. 8,209,317 (“the ’317 patent”), 7,860,878 (“the ’878 patent”), 8,862,610 (“the ’610 patent”), 8,442,929 (“the ’929 patent”), 8,903,778 (“the ’778 patent”), and 9,805,097 (“the ’097 patent”). The ’317 patent, ’878 patent, ’610 patent, ’929 patent, ’778 patent, and ’097 patent are referred to collectively as the “patents-in-suit.”

**THE PARTIES**

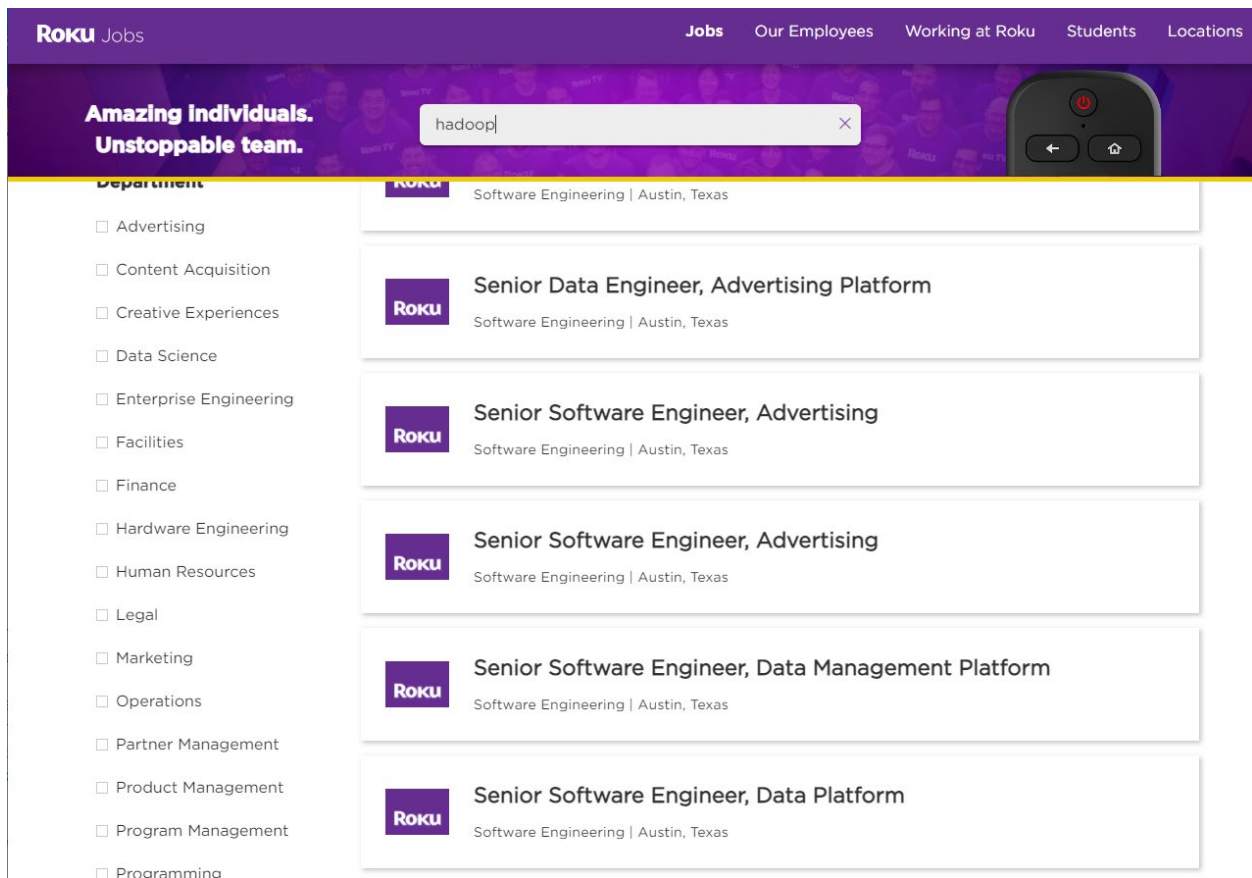
1. Plaintiff R2 Solutions LLC (“R2 Solutions”) is a Texas limited liability company with a place of business at 6136 Frisco Square Blvd, Suite 400, Frisco, Texas 75034.

2. On information and belief, Defendant Roku, Inc. (“Roku”) is a Delaware corporation with a regular and established place of business located at 9606 N. Mopac Expressway, Suite 400, Austin, Texas 78759. Roku may be served with process through its registered agent, Corporation Service Company d/b/a CSC – Lawyers Incorporating Service Company, located at 211 7<sup>th</sup> Street, Suite 620, Austin, Texas 78701.

**JURISDICTION AND VENUE**

3. This action arises under the patent laws of the United States, 35 U.S.C. § 101, *et seq.* This Court’s jurisdiction over this action is proper under the above statutes, including 35 U.S.C. § 271, *et seq.*, 28 U.S.C. § 1331 (federal question jurisdiction), and 28 U.S.C. § 1338 (jurisdiction over patent actions).

4. This Court has personal jurisdiction over Roku in accordance with due process and/or the Texas Long Arm Statute because, among other things, Roku does business in this State by, among other things, “recruit[ing] Texas residents, directly or through an intermediary located in this state, for employment inside or outside this state.” TEX. CIV. PRAC. & REM. CODE § 17.042(3):



[https://www.roku.com/jobs/listing?search=hadoop&location=Austin%2C%20Texas.](https://www.roku.com/jobs/listing?search=hadoop&location=Austin%2C%20Texas)

5. Further, this Court has personal jurisdiction over Roku because it has engaged, and continues to engage, in continuous, systematic, and substantial activities within this State, including the substantial marketing and sale of products and services within this State and this District. Indeed, this Court has personal jurisdiction over Roku because it has committed acts giving rise to R2 Solutions' claims for patent infringement within and directed to this District, has derived substantial revenue from its goods and services provided to individuals in this State and this District, and maintains regular and established places of business in this District, including at least Roku's corporate office in Austin.

6. Relative to patent infringement, Roku has committed, and continues to commit, acts in violation of 35 U.S.C. § 271 in, and directed at, to, and from, this State, this District, and beyond, including making, using, selling, offering for sale, and/or importing media streaming devices, computer-implemented applications, and attendant servers, databases, and other devices and equipment necessary to proliferate Roku's media streaming platform and services that perform and/or embody the functionalities and features discussed and particularly described and claimed in the patents-in-suit and the attached Exhibits to this Complaint. For clarity, such infringing products and services include the Roku search engine(s) and recommendation engine(s) incorporated into the Roku application(s). All such infringing products, systems, and instrumentalities are hereinafter referred to collectively as the "Roku Systems." Such Roku Systems have been, and continue to be, made, offered for sale, distributed to, sold, and/or used in this District, and the infringing conduct has caused, and continues to cause, injury to R2 Solutions, including injury suffered within this District. These are purposeful acts and transactions in this State and this District such that Roku reasonably should know and expect that it could be haled into this Court because of such activities.

7. Indeed, Roku customers in this District invoke the infringing Roku Systems from this District to search for, discover, and access content, among other things. *See, e.g.*, Ex. 7 at Slides 10-11 (“receive a partial query *submitted at a remote user client system by a user*”); Ex. 8 at Slides 17-18 (“determining data relating to current interest topics ... *involving user interactions* with one or more of a search engine, a web page or a computer application”); Ex. 9 at Slide 7 (“presenting, within a host application, a *user interface*”); Ex. 10 at Slide 16 (“detecting a particular *user’s selection*”); Ex. 11 at Slide 7 (“receiving, at a receiver, *a request from a user*”); Ex. 12 at Slide 7 (“receiving a *search request from a user*”).

8. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b) because Roku has regular and established places of business in this District and has committed acts of infringement in this District. Roku’s regular and established places of business in this District include, at least, its Austin, Texas corporate office. Paragraphs 2 and 4 are herein incorporated by reference. Indeed, Roku conducts business in this District, including marketing and selling the Roku Systems to customers located in this District. Roku’s activities, or the actions of the Roku Systems, in the District satisfy one or more elements claimed in each of the patents-in-suit.

### **BACKGROUND**

9. The patents-in-suit were filed by Yahoo! Inc. (“Yahoo!”) between 2006 and 2009. At the time, Yahoo! was a leading Internet communications, commerce, and media company. Yahoo! invested billions of dollars in research and development over this period, filing hundreds of patent applications each year to cover the innovative computing technologies emerging from its expansive research and development efforts.

10. Yahoo! began as a directory of websites that two Stanford graduate students developed as a hobby. The name “Yahoo” stands for “Yet Another Hierarchical Official Oracle,”

a nod to how the original Yahoo! database was arranged hierarchically in layers of subcategories. From this initial database, Yahoo! would develop and promulgate numerous advancements in the field of data storage and recall.

11. For example, in 1995, Yahoo! introduced Yahoo! Search. This software allowed users to search the Yahoo! directory, making it the first popular online directory search engine. This positioned Yahoo! as the launching point for most users of the World Wide Web. By 1998, Yahoo! had the largest audience of any website or online service.

12. However, the early iterations of Yahoo! Search did not operate like a modern search engine because Yahoo! Search was only a directory. Yahoo! Search first integrated a Web crawling engine in 2000. Yahoo! Search used Google's Web crawling engine from 2000–2004. During this time, Yahoo! was developing its own Web search technologies. Yahoo! deployed its own Web crawler in early 2004. The engine, known as Slurp, allowed Yahoo! to collect documents from the Web and build a searchable index. The patents-in-suit relate to innovations associated with Yahoo! Search that were developed and implemented during this period, which enabled Yahoo! to become Google's biggest competitor in the search engine space.

### **THE PATENTS-IN-SUIT**

13. The '317 patent is entitled, "Method and Apparatus for Reconstructing a Search Query." The '317 patent lawfully issued on June 26, 2012 and stems from U.S. Patent Application No. 11/502,202, which was filed on August 10, 2006. A copy of the '317 patent is attached hereto as Ex. 1.

14. The '878 patent is entitled, "Prioritizing Media Assets for Publication." The '878 patent lawfully issued on December 28, 2010 and was filed on February 25, 2008. A copy of the '878 patent is attached hereto as Ex. 2.

15. The '610 patent is entitled, "Method and System for Content Search." The '610 patent lawfully issued on October 14, 2014 and was filed on April 13, 2012. A copy of the '610 patent is attached hereto as Ex. 3.

16. The '929 patent is entitled, "Predicting Item-Item Affinities Based on Item Features by Regression." The '929 patent lawfully issued on May 14, 2013 and was filed on November 5, 2009. A copy of the '929 patent is attached hereto as Ex. 4.

17. The '778 patent is entitled, "Visible Personalization." The '778 patent lawfully issued on December 2, 2014 and was filed on October 17, 2012. A copy of the '778 patent is attached hereto as Ex. 5.

18. The '097 patent is entitled, "Method and System for Providing a Search Result." The '097 patent lawfully issued on October 31, 2017 and stems from PCT Application No. PCT/CN2014/094122, which was filed on December 17, 2014. A copy of the '097 patent is attached hereto as Ex. 6.

19. R2 Solutions is the owner of the patents-in-suit with all substantial rights, including the exclusive right to enforce, sue, and recover damages for past and future infringements.

20. The specifications of the patents-in-suit disclose shortcomings in the prior art and then explain, in detail, the technical way the claimed inventions resolve or overcome those shortcomings. Accordingly, the claims of the patents-in-suit are directed to patent eligible subject matter under 35 U.S.C. § 101. They are not directed to abstract ideas, and the technologies covered by the claims consist of ordered combinations of features and functions that, at the time of invention, were not, alone or in combination, well-understood, routine, or conventional.

21. For example, relative to the '317 patent, the specification explains that existing search engine interfaces "may be rigid and require uses to submit full queries to perform

searche[s].” ’317 patent at Abstract. Traditional search engines were built with desktop computer users in mind. Thus, they were designed with the assumption that a user had access to a full keyboard for composing a complete, properly structured search query. However, as noted in the specification of the ’317 patent, users at the time could increasingly access the internet from a variety of devices, including “cell phones, personal digital assistants, and the like.” *Id.* at 1:44–47. Portability started to become “an increasingly important concern for users.” *Id.* at 1:50–52. The increasing portability of these devices came with a tradeoff in input capabilities. *See id.* at 1:50–52. Indeed, most phones at the time the ’317 patent was filed did not have a full keyboard, a characteristic also reflected in remote controls for TVs and streaming devices. The simpler input mechanisms available on mobile devices (as well as remote controls) presented a barrier to entering properly structured queries, thus limiting users’ ability to fully explore the Internet. *See id.* at 1:52–53.

22. To solve these problems, the ’317 patent discloses “a flexible and intuitive system for reconstructing a search query based on a received partial query.” *Id.* at 1:16–18. This solution is embodied in Claim 1 of the ’317 patent:

A computer database system for providing search results to a user in response to user submissions over a data network, the computer database system comprising:  
a database configured to store information about events in the computer database system;  
and  
a query reconstruction server in data communication with the database and operative to receive a partial query submitted at a remote user client system by a user seeking search results matching the submitted partial query and, *in response to the received partial query, determine a full query* based on

(i) the received partial query, and

(ii) information stored in the database about queries previously-submitted by users,

wherein the submitted partial query comprises an abbreviated or incomplete search query which is not fully representative of an entire search query desired by the user and the full query is better representative of the entire search query desired by the user. (emphasis added).

23. The inventions described and claimed in the '317 patent improve the speed, efficiency, effectiveness, and functionality of computer systems. Moreover, the inventions provide an improvement in computer functionality rather than economic or other tasks for which a computer is used in its ordinary capacity. The specification explains, for instance, that partial queries are “shorthand ways of expressing typical search queries.” *Id.* at 3:15–17. Thus, “auto ins” may be a partial query for the full search query “auto insurance.” *Id.* at 3:20–23. 36. While “auto ins” may be an intentional abbreviation, it might also be a typographical error resulting from the restrictive input options of a mobile device. Because the claimed invention will nevertheless be able to take the incomplete query “auto ins” and return search results for “auto insurance,” a broader array of mobile devices and input mechanisms may be used to search the Internet. *See id.* at 1:43–56.

24. With respect to the '878 Patent, the specification discusses prior art “interactive media” and explains that “[u]nfortunately, [media publishing] approaches still fall short of being able to present relevant content to users on a scale which corresponds to the rate at which content is now produced.” '878 patent at 2:52-54. The '878 patent explains that the “expectation of users for fresh, personally relevant content has also increased,” and further focuses on the inability of “human editorial resource[s]” to satisfy these expectations. *Id.* at 1:52-65. As a technical solution



to these problems, the '878 patent discusses “automation of the prioritization of media assets for publication” by treating “content selection and evaluation...as a text-based information retrieval problem,” and further “allowing a large audience to participate in prioritizing media assets in a way which promotes an understanding of current topics of interest.” *Id.* at 3:49-57. The '878 patent further discusses “segmentation of prioritization to arbitrary audience segments” and notes that “enabling automated publishing mechanisms that can scale to any number of media assets can be optimized for audience sizes ranging from entire populations to a single individual, and/or have update cycles that are not limited by human editorial resources.” *Id.* at 3:49-64.

25. This solution is embodied in Claim 1 of the '878 patent:

A computer-implemented method for prioritizing a plurality of media assets, the method comprising

***identifying text associated with each media asset***, the text representing subject matter to which the associated media asset relates;

***determining data relating to current interest topics***, the current interest topics data having been ***generated from a dynamic data set***,

wherein the dynamic data set changes over time and represents actions by a population of users involving ***user interactions with one or more of a search engine, a web page or a computer application***, and

wherein the current interest topics data represents a plurality of current topics of interest associated with the population of users and ***changes in the topics of interest over time as the dynamic data set changes over time***;

***ranking the media assets*** based at least in part on a comparison of the current interest topics data with the text associated with each media asset; and

selecting a subset of the media assets based on the ranking of the media assets. (emphasis added).

26. In essence, the inventions described and claimed in the '878 patent improve the speed, efficiency, effectiveness, and functionality of computer systems. Moreover, the inventions provide an improvement in computer functionality beyond rote tasks for which a computer is used in its ordinary capacity. The '878 patent opines, for example, on the advantages of the technical solutions presented therein, describing an “automated mechanism” capable of, e.g., “discerning the evolving interests of a population of users” and adjusting content identification, selection, recommendation, and/or prioritization in response to dynamic data representing a “demographic slice of a population of users.” *Id.* at 8:31-48.

27. With respect to the '610 patent, the specification explains that “the current mobile search experience is disjointed in the prior art” and describes “problems that greatly reduce the efficiency of the search.” '610 patent at 1:54-57. The specification explains also that “prior to search, on mobile devices, users more frequently want to search as a result of wanting to complete some tasks, which may begin in another application. As a result, the users need to leave the current application at hand in order to visit the search application. The context switch is costly and slow.” *Id.* at 1:57-62. The specification further points out that search results are “frequently inaccurate or irrelevant” because the search engine is unaware of user behavior prior to the search, meaning that “[u]sers are in charge of correcting and disambiguating,” which is “time consuming,” *id.* at 1:62-66, and that “users have to transport data back from the search application to the application that they started with,” which “round trip copy-and-paste behavior is costly.” *Id.* at 1:66 – 2:3.

28. As a technical solution to these problems, the '610 patent teaches an “efficient and effective content search on a user device” that “improv[es] the end-users’ search experience and

provid[es] an end-to-end search solution to application developers.” *Id.* at 4:40-43. This solution is embodied in Claim 1 of the ’610 patent:

A method, implemented on at least one machine each of which has at least one processor, storage, and a communication platform connected to a network for content search, the method comprising the steps of:

presenting, *within a host application, a user interface;*

*receiving a query from a user through the user interface;*

*determining a category of search based, at least in part, on the type of the host application;*

fetching a plurality of selectable search results *based on the query received from the user* through the user interface and *the category of search;*

*receiving an input associated with a selection of one or more selectable search results* from the user through the user interface; and

in response to the selection, providing the one or more selected search results with the context information to the host application. (emphasis added).

29. The inventions described and claimed in the ’610 patent improve the speed, efficiency, effectiveness, and functionality of computer systems. Moreover, the inventions provide an improvement in computer functionality beyond rote tasks for which a computer is used in its ordinary capacity. The specification describes, for instance, “bringing search within the host application” such that host applications can “provide contextual information that would improve the accuracy of the search,” and enabling “users [to] interact and select one or more results” facilitating the return of “semantic data of the selected result for the host application to provide continuous and seamless processing to complete users’ current tasks.” *Id.* at 4:46-50. And the ’610

patent improves the performance of the system itself by “provid[ing] a fast way for users to obtain a correct result by ... reducing time spent on disambiguation” and “significantly reduc[ing] the implementation time of an integrated search function.” *Id.* at 4:50-56.

30. Regarding the '929 patent, the background section of the specification discusses search engines configured to suggest content to users based on, e.g., specific selections made by a user population. *See* '929 patent at 1:14 – 2:36. The specification explains that such instrumentalities suffer several shortcomings—for example, such instrumentalities “might query a very large database that includes millions of items. With so many items in the database, there exists a significant possibility that most of those items will never have been selected by any user (or selected only a few times, at most).” *Id.* at 2:39-43. Indeed, “[n]ewer items that have recently been created and added to the web site’s database are even more likely to never have been selected by any user. These items are unlikely to be recommended to a user, at least in the short term, if the web site uses the foregoing approach, because these items have not yet been selected.” *Id.* at 2:43-48. Thus, “even though the web site’s database might contain a newly created item in which a prospective buyer user might be keenly interested (if he only knew about that item), the prospective buying user will probably not ever see the newly created item, unless that item’s attributes happen to match the query terms, if the web site uses the foregoing approach.” *Id.* at 2:48-54.

31. To address these issues, the '929 patent presents a technique that “automatically determines that two items are similar to each other not only based on previous actual user behavior, but also based on the observed relatedness of the characteristics of those two items.” *Id.* at 3:25-28. This solution is embodied in Claim 1 of the '929 patent:

A computer-implemented method comprising:

determining a proportion of users who select both (a) items that have a first characteristic and (b) items that have a second characteristic;

determining whether the proportion is greater than a specified threshold;

in response to determining that the proportion is greater than the specified threshold, *storing data that indicates an affinity between the first characteristic and the second characteristic;*

detecting a particular user's selection, from a list of items, of a particular item that possesses the first characteristic;

*determining, based at least on the data that indicates the affinity between the first characteristic and the second characteristic, a set of other items that possess the second characteristic;* and

*presenting one or more items from the set of other items to the user as recommended items;*

wherein the steps are performed by one or more computing devices. (emphasis added).

32. The inventions described and claimed in the '929 patent improve the speed, efficiency, effectiveness, and functionality of computer systems. Moreover, the inventions provide an improvement in computer functionality beyond rote tasks for which a computer is used in its ordinary capacity. For example, the '929 patent addresses the shortcomings in the prior art by providing a technical solution capable of determining whether a first characteristic and a second characteristic “have some affinity for each other” and ensuring that “[t]wo items having characteristics with high affinity for each other are determined to have some similarity to each other, even if very few or no users who selected one of those items ever selected the other of those items.” *Id.* at 3:29-36. And the '929 patent improves the performance of the system itself by

facilitating “recommendations [that] are based on relationships between the characteristics of items rather than solely on relationships between individual items themselves.” *Id.* at 3:36-54.

33. In the ’778 patent, the specification explains that “[a]lthough some electronic media has achieved great success in being generated based on user information, there is room for improvement. For example, it would be beneficial for a website (or any other type of system generating electronic media) to effectively evaluate electronic media with respect to preferences of a user and then automatically rate and/or generate, based on those preferences, the electronic media; therefore, increasing the relevancy of the electronic media to the user.” ’778 patent at 2:39-47.

34. To provide this technical advantage, the ’778 patent describes a “media relevancy system (MRS), for effectively rating and/or dynamically generating one or more media files with respect to information associated with a user, the user’s preferences, and/or the user’s past behavior.” *Id.* at 2:48-53. Such a solution and/or a method thereof is embodied in Claim 1 of the ’778 patent:

An electronic device implemented [] method, comprising:

receiving, at a receiver, a request from a user for a first electronic media file;

storing, in a non-transitory storage device, data associated with a second electronic media

file associated with the first electronic media file;

***evaluating, by circuitry, the data associated with the second electronic media file with respect to the user, preferences of the user, past behavior of the user, or any combination thereof;***

*generating, by the circuitry, a rating of the second electronic media file based at least partially on the evaluation of the data associated with the second electronic media file; and*

generating, by the circuitry, the first electronic media file with a reference to the second electronic media file and the rating of the second electronic media file. (emphasis added).

35. The inventions described and claimed in the '778 patent improve the speed, efficiency, effectiveness, and functionality of computer systems. Moreover, the inventions provide an improvement in computer functionality above rote tasks for which a computer is used in its ordinary capacity. For example, the '778 patent facilitates “effectively rating and/or dynamically generating one or more media files with respect to information associated with a user, the user’s preferences, and/or the user’s past behavior.” *Id.* at 2:48-53.

36. Lastly, with respect to the '097 patent, the specification addresses disadvantages in prior art approaches to searching algorithms and renderings. For example, the '097 patent explains that “[c]onventional approaches for providing a search result focus on presenting the items in the search result as a list. For example, a conventional search result includes items listed from top to bottom on a screen. This can limit user engagement on the search result as the user may lose interest after viewing the top two items.” '097 patent at 1:30-35. “It is [also] time consuming for the user to scroll up and down to find an interesting item with a listed presentation....” *Id.* at 1:35-40.

37. As a solution to this drawback, the '097 patent enables, in response to a search query, the displaying of content items in a framed structure (e.g., displaying thumbnails of the video content in some framed structure), as opposed to a list of search results going from top to

bottom, where there is a correspondence between one or more content items and at least one sub-component. The solution is embodied in Claim 1 of the '097 patent:

A method, implemented on at least one computing device each of which has at least one processor, storage, and a communication platform connected to a network for providing a search result, the method comprising:

receiving a search request from a user;

determining a plurality of content items based on the search request;

selecting one or more content items from the plurality of content items;

***generating a framed structure having at least one sub-component;***

***determining a correspondence between the one or more content items and the at least one sub-component;***

***arranging each of the one or more content items with respect to a corresponding sub-component;***

generating a search result based on the one or more content items and the framed structure;

and

providing the search result. (emphasis added).

38. The inventions described and claimed in the '097 patent improve the speed, efficiency, effectiveness, and functionality of computer systems. Moreover, the inventions provide an improvement in computer functionality beyond rote tasks for which a computer is used in its ordinary capacity. For example, the '097 patent enhances “search result generation and presentation, realized as a specialized and networked system by utilizing one or more computing devices (e.g., mobile phone, personal computer, etc.) and network communications (wired or wireless).” *Id.* at 4:29-33. The '097 patent provides significant advantages over prior art by



“providing a search result to a user to improve the user engagement and/or increase revenue for a search engine. After submitting a query to a search engine, a user may receive a search result including one or more content items. The user’s interest on the items may be stimulated not only by their content but also by a manner of providing or presenting them.” *Id.* at 4:33-40.

39. In sum, each of the patents-in-suit relate to novel and non-obvious inventions in the fields of search engines, recommendation engines, and graphical user interfaces.

**COUNT I**  
**INFRINGEMENT OF U.S. PATENT NO. 8,209,317**

40. R2 Solutions incorporates paragraphs 1–13, 21-23, and 39 herein by reference.

41. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

42. R2 Solutions is the owner of the ’317 patent with all substantial rights to the ’317 patent, including the exclusive right to enforce, sue, and recover damages for past and future infringements.

43. The ’317 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

***Direct Infringement (35 U.S.C. § 271(a))***

44. Roku has directly infringed and continues to directly infringe one or more claims of the ’317 patent in this District and elsewhere in Texas and the United States.

45. To this end, Roku has infringed and continues to infringe, either by itself or via an agent, at least Claims 1 and 8 of the ’317 patent by, among other things, making, offering to sell, selling, testing and/or using the Roku Systems.

46. Attached hereto as Ex. 7, and incorporated herein by reference, is a representative claim chart detailing how Roku infringes the ’317 patent.

47. Roku is liable for its infringements of the '317 patent pursuant to 35 U.S.C. § 271.

***Damages***

48. R2 Solutions has been damaged as a result of Roku's infringing conduct described in this Count. Roku is, thus, liable to R2 Solutions in an amount that adequately compensates it for Roku's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**COUNT II**  
**INFRINGEMENT OF U.S. PATENT NO. 7,860,878**

49. R2 Solutions incorporates paragraphs 1–12, 14, 24-26, and 39 herein by reference.

50. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

51. R2 Solutions is the owner of the '878 patent with all substantial rights to the '878 patent, including the exclusive right to enforce, sue, and recover damages for past and future infringements.

52. The '878 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

***Direct Infringement (35 U.S.C. § 271(a))***

53. Roku has directly infringed and continues to directly infringe one or more claims of the '878 patent in this District and elsewhere in Texas and the United States.

54. To this end, Roku has infringed and continues to infringe, either by itself or via an agent, at least Claims 1 and 9 of the '878 patent by, among other things, making, offering to sell, selling, testing and/or using the Roku Systems.

55. Attached hereto as Ex. 8, and incorporated herein by reference, is a representative claim chart detailing how Roku infringes the '878 patent.

56. Roku is liable for its infringements of the '878 patent pursuant to 35 U.S.C. § 271.

***Damages***

57. R2 Solutions has been damaged as a result of Roku's infringing conduct described in this Count. Roku is, thus, liable to R2 Solutions in an amount that adequately compensates it for Roku's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**COUNT III**  
**INFRINGEMENT OF U.S. PATENT NO. 8,862,610**

58. R2 Solutions incorporates paragraphs 1–12, 15, 27-29, and 39 herein by reference.

59. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

60. R2 Solutions is the owner of the '610 patent with all substantial rights to the '610 patent, including the exclusive right to enforce, sue, and recover damages for past and future infringements.

61. The '610 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

***Direct Infringement (35 U.S.C. § 271(a))***

62. Roku has directly infringed and continues to directly infringe one or more claims of the '610 patent in this District and elsewhere in Texas and the United States.

63. To this end, Roku has infringed and continues to infringe, either by itself or via an agent, at least Claims 1 and 9 of the '610 patent by, among other things, making, offering to sell, selling, testing and/or using the Roku Systems.

64. Attached hereto as Ex. 9, and incorporated herein by reference, is a representative claim chart detailing how Roku infringes the '610 patent.

65. Roku is liable for its infringements of the '610 patent pursuant to 35 U.S.C. § 271.

***Damages***

66. R2 Solutions has been damaged as a result of Roku's infringing conduct described in this Count. Roku is, thus, liable to R2 Solutions in an amount that adequately compensates it for Roku's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**COUNT IV**  
**INFRINGEMENT OF U.S. PATENT NO. 8,442,929**

67. R2 Solutions incorporates paragraphs 1–12, 16, 30-32, and 39 herein by reference.

68. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

69. R2 Solutions is the owner of the '929 patent with all substantial rights to the '929 patent, including the exclusive right to enforce, sue, and recover damages for past and future infringements.

70. The '929 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

***Direct Infringement (35 U.S.C. § 271(a))***

71. Roku has directly infringed and continues to directly infringe one or more claims of the '929 patent in this District and elsewhere in Texas and the United States.

72. To this end, Roku has infringed and continues to infringe, either by itself or via an agent, at least Claims 1 and 15 of the '929 patent by, among other things, making, offering to sell, selling, testing and/or using the Roku Systems.

73. Attached hereto as Ex. 10, and incorporated herein by reference, is a representative claim chart detailing how Roku infringes the '929 patent.

74. Roku is liable for its infringements of the '929 patent pursuant to 35 U.S.C. § 271.

***Damages***

75. R2 Solutions has been damaged as a result of Roku's infringing conduct described in this Count. Roku is, thus, liable to R2 Solutions in an amount that adequately compensates it for Roku's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**COUNT V**  
**INFRINGEMENT OF U.S. PATENT NO. 8,903,778**

76. R2 Solutions incorporates paragraphs 1–12, 17, 33-35, and 39 herein by reference.

77. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

78. R2 Solutions is the owner of the '778 patent with all substantial rights to the '778 patent, including the exclusive right to enforce, sue, and recover damages for past and future infringements.

79. The '778 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

***Direct Infringement (35 U.S.C. § 271(a))***

80. Roku has directly infringed and continues to directly infringe one or more claims of the '778 patent in this District and elsewhere in Texas and the United States.

81. To this end, Roku has infringed and continues to infringe, either by itself or via an agent, at least Claims 1 and 11 of the '778 patent by, among other things, making, offering to sell, selling, testing and/or using the Roku Systems.

82. Attached hereto as Ex. 11, and incorporated herein by reference, is a representative claim chart detailing how Roku infringes the '778 patent.

83. Roku is liable for its infringements of the '778 patent pursuant to 35 U.S.C. § 271.

***Damages***

84. R2 Solutions has been damaged as a result of Roku's infringing conduct described in this Count. Roku is, thus, liable to R2 Solutions in an amount that adequately compensates it for Roku's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**COUNT VI**  
**INFRINGEMENT OF U.S. PATENT NO. 9,805,097**

85. R2 Solutions incorporates paragraphs 1–12, 18, and 36-39 herein by reference.

86. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

87. R2 Solutions is the owner of the '097 patent with all substantial rights to the '097 patent, including the exclusive right to enforce, sue, and recover damages for past and future infringements.

88. The '097 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

***Direct Infringement (35 U.S.C. § 271(a))***

89. Roku has directly infringed and continues to directly infringe one or more claims of the '097 patent in this District and elsewhere in Texas and the United States.

90. To this end, Roku has infringed and continues to infringe, either by itself or via an agent, at least Claims 1 and 10 of the '097 patent by, among other things, making, offering to sell, selling, testing and/or using the Roku Systems.

91. Attached hereto as Ex. 12, and incorporated herein by reference, is a representative claim chart detailing how Roku infringes the '097 patent.

92. Roku is liable for its infringements of the '097 patent pursuant to 35 U.S.C. § 271.

***Damages***

93. R2 Solutions has been damaged as a result of Roku's infringing conduct described in this Court. Roku is, thus, liable to R2 Solutions in an amount that adequately compensates it for Roku's infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

**DEMAND FOR A JURY TRIAL**

R2 Solutions demands a trial by jury on all issues triable of right by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

**PRAYER FOR RELIEF**

R2 Solutions respectfully requests that this Court enter judgment in its favor and grant the following relief:

- (i) Judgment and Order that Roku has directly infringed one or more claims of each of the patents-in-suit;
- (ii) Judgment and Order that Roku has indirectly infringed one or more claims of each of the patents-in-suit;
- (iii) Judgment and Order that Roku must pay R2 Solutions past and future damages under 35 U.S.C. § 284, including supplemental damages arising from any continuing, post-verdict infringement for the time between trial and entry of the final judgment, together with an accounting, as needed, as provided under 35 U.S.C. § 284;
- (iv) Judgment and Order that Roku must pay R2 Solutions reasonable ongoing royalties on a go-forward basis after Final Judgment;

- (v) Judgment and Order that Roku must pay R2 Solutions pre-judgment and post-judgment interest on the damages award;
- (vi) Judgment and Order that Roku must pay R2 Solutions' costs;
- (vii) Judgment and Order that the Court find this case exceptional under the provisions of 35 U.S.C. § 285 and accordingly order Roku to pay R2 Solutions' attorneys' fees; and
- (viii) Such other and further relief as the Court may deem just and proper.

Dated: September 28, 2021

Respectfully submitted,

*/s/ Edward R. Nelson III*  
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