Plaintiff Uniloc 2017 LLC ("Uniloc"), by and through the undersigned counsel, hereby files this Second Amended Complaint and makes the following allegations of patent infringement relating to U.S. Patent No. 9,721,273 against Hulu, LLC ("Hulu") and alleges as follows upon actual knowledge with respect to itself and its own acts and upon information and belief as to all other matters:

## **NATURE OF THE ACTION**

- 1. This is an action for patent infringement. Uniloc alleges that Hulu infringes U.S. Patent No. 9,721,273 (the "273 patent"), a copy of which is attached hereto as Exhibit A ("the Asserted Patent").
- 2. Uniloc alleges that Hulu directly infringes the Asserted Patent by making, using, offering for sale, selling and/or importing products and services that perform a method for providing content via a computer network and a computer system. Uniloc seeks damages and other relief for Hulu's infringement of the Asserted Patent.

## **THE PARTIES**

- 3. Uniloc 2017 LLC is a Delaware corporation having places of business at 1209 Orange Street, Wilmington, Delaware 19801 and 620 Newport Center Drive, Newport Beach, California 92660.
- 4. Uniloc holds all substantial rights, title and interest in and to the Asserted Patent.
- 5. Upon information and belief, Defendant Hulu, LLC, is a corporation organized and existing under the laws of the State of Delaware, with at least the following place of business in this District: 2500 Broadway, Santa Monica, California 90404. Hulu may be served through its registered agent for service: CSC-Lawyers Incorporating Service 2710 Gateway Oaks Drive, Suite 150N, Sacramento, CA 95833

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## **JURISDICTION AND VENUE**

- 6. This action for patent infringement arises under the Patent Laws of the United States, 35 U.S.C. § 1 et. seq. This Court has original jurisdiction under 28 U.S.C. §§ 1331 and 1338.
- 7. This Court has both general and specific jurisdiction over Hulu because Hulu has committed acts within the Central District of California giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over Hulu would not offend traditional notions of fair play and substantial justice. Defendant Hulu, directly and through subsidiaries, intermediaries (including distributors, retailers, franchisees and others), has committed and continues to commit acts of patent infringement in this District, by, among other things, making, using, testing, selling, licensing, importing and/or offering for sale/license products and services that infringe the Asserted Patent.
- 8. Venue is proper in this district and division under 28 U.S.C. §§ 1391(b)-(d) and 1400(b) because Hulu has committed acts of infringement in the Central District of California and has at least one regular and established place of business in the Central District of California.

## **COUNT I- INFRINGEMENT OF U.S. PATENT NO. 9,721,273**

- 9. The allegations of paragraphs 1-8 of this First Amended Complaint are incorporated by reference as though fully set forth herein.
- 10. The '273 patent, titled "System and Method For Aggregating And Providing Audio And Visual Presentations Via A Computer Network," issued on August 1, 2017. A copy of the '273 patent is attached as Exhibit C. The priority date for the '273 patent is August 21, 2008. The inventions of the '273 patent were developed by an inventor at LINQware, Inc.
  - 11. Pursuant to 35 U.S.C. § 282, the '273 patent is presumed valid.
  - 12. Claim 1 of the '273 patent addresses a technological problem

indigenous to webpages, search engines and the Internet—providing the most relevant content to a user.

- 13. Claim 1 of the '273 patent reads as follows:
- 1. A method for providing content via a computer network and computing system, the method comprising:

storing presentation data that represents content of a first collection of one or more presentations using the computer system;

storing data indicative of the first collection of presentations so as to be associated with the presentation data;

storing feed data that represents a collection of one or more feeds using the computer system, wherein each of the feeds identifies a corresponding second collection of one or more presentations being accessible via the computer network and includes no data representing content of the second collection of presentations;

automatically and periodically accessing each of the feeds to identify each of the corresponding second collection of presentations, using the computer system;

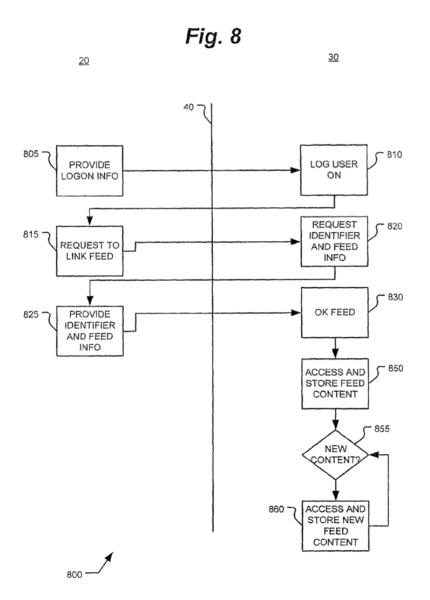
storing data associated with a third collection of one or more presentations; and

aggregating each of the first, identified second, and third collections of presentations for delivery via the computer network using a common web page.

- 14. At the time of invention of the '273 patent, given the vastness of content on the Internet, it proved "difficult for a user of an Internet enabled computer to identify and locate content of a particular type and relating to a particular subject." '273 patent at 1:49-55. One way to find relevant content was to use a search engine for specified keywords to return a list of documents where those words are found. '273 patent at 1:56-59.
  - 15. Some of the available search engines at the time of the invention

- 16. In light of the foregoing there existed a need for technology that would provide more relevant content, particularly with respect to presentations for use in business productivity, education, and for entertainment purposes (e.g., providing videos of interest to a consumer). '273 patent at 2:6-10.
- 17. The claimed invention of claim 1 of the '273 patent provides a technological solution to the problem faced by the inventor, namely to create a common webpage by aggregating collections of presentations and collecting and analyzing feed data from multiple feeds in at least one of the collections of presentations in order to provide more relevant content to each user.
- 18. The technological solution is detailed in the specification and claim 1. First, presentation data that represents content of a first collection of presentations is stored. Next, data indicative of the first collection of presentations that is associated with the presentation data is stored. Then feed data that represents various feeds that identify a second collection of presentations (but has no data representing the content) is stored. The feed data is then automatically and

periodically accessed to identify the corresponding second collection of presentations. Data associated with a third collection of presentations is also stored. Finally, the first, second, and third collections of presentations are aggregated for delivery using a common webpage. '273 patent at 2:15-3:10, 10:63-12:29, Fig. 8, claim 1.



It should further be understood such a content acquisition provides additional advantages. For example, each user wishing to identify and view content available via an RSS feed may conventionally need to obtain and operate an RSS reader application. Further, each such RSS reader application would need to access each identified RSS feed. This

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leads to substantial bandwidth usage, for example. In contrast, certain embodiments of the present invention permit a user to access RSS content without the need for his own RSS reader. Further, embodiments of the present invention only require that system 30 access each RSS feed, as opposed to each system 30 user computer 20 wishing to access the RSS feeds, leading to substantial savings in network resources. Further, certain embodiments of the present invention allow user to access and compare content available via RSS feeds they are not even aware of, e.g., by their interaction with webpage 200 as discussed above, where webpage 200 includes content added using the methodology of process 800, for example. Accordingly, certain embodiments of the present invention provide for enhanced content syndication and aggregation, as compared to even RSS feeds themselves, for example. And, certain embodiments of the present invention provide for automatic aggregation of RSS fed content in combination with non-RSS fed content in a single application independent of any user RSS reader application.

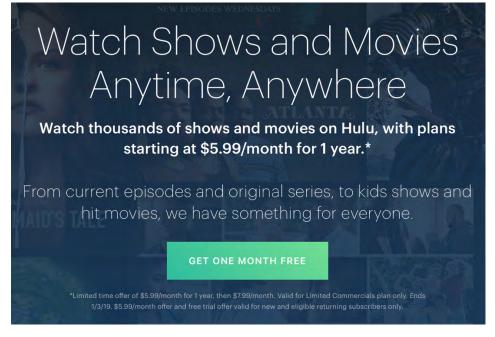
'273 patent at 12:4-29 (emphasis added).

- 19. Claim 1 of the '273 patent improves the functionality of a webpage, search engine and technology specific to the Internet by creating a common webpage by aggregating collections of presentations and collecting and analyzing feed data from multiple feeds in at least one of the collections of presentations in order to provide more relevant content to each user. This is because, among other reasons, there is no data representing the content of the second collection of presentations in the feed data. The claimed invention of claim 1 of '273 patent also was not well-understood, routine or conventional at the time of the invention. Rather, as demonstrated above, the claimed invention was a departure from the conventional ways of identifying presentations on the Internet via the known search engines at the time.
- 20. In light of the foregoing, and the general knowledge of a person of ordinary skill in the art, a person of ordinary skill in the art reading the '273 patent and its claims would understand that the patent's disclosure and claims are drawn to solving a specific, technical problem arising in webpage, search engine and Internet

technology. Moreover, a person of ordinary skill in the art would understand that the claimed subject matter of the '273 patent presents advancements in the field of webpage, search engine and Internet technology by allowing for a common webpage based on collections of presentations and collecting and analyzing feed data from multiple feeds in at least one of the collections of presentations in order to provide more relevant content to each user because the feed data does not include data representing the content of the second collection of presentations. A person of ordinary skill in the art would understand that claim 1 of the '273 patent is directed to a method for creating a common webpage by aggregating collections of presentations and collecting and analyzing feed data from multiple feeds in at least one of the collections of presentations in order to provide more relevant content to each user because the feed data does not include data representing the content of the second collection of presentations. Moreover, a person of ordinary skill in the art would understand that claim 1 of the '273 patent contains that corresponding inventive concept.

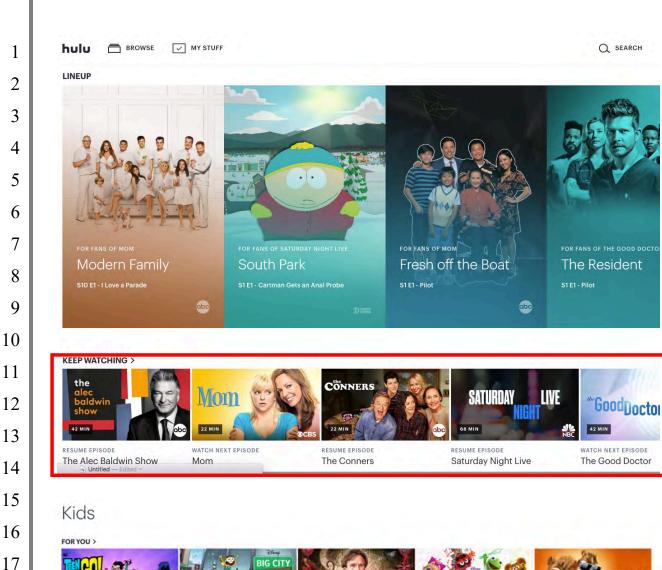
- 21. Hulu's own patents claim subject matter in the same field. For example, on January 5, 2017, more than 8 years after the priority date for the '273 patent, Hulu filed an application entitled, "Generation, ranking and delivery of actions for entities in a video delivery system," which matured into U.S. Patent No. 10,212,464 on February 19, 1029 (the "'464 patent"). This patent concerns using an "action feed" that is delivered to a client based on a ranking.
- 22. Upon information and belief, Hulu makes, uses, offers for sale, and/or sells in the United States and/or imports into the United States products and services that practice a method for providing content via a computer network and a computer system (collectively the "Accused Infringing Devices").
- 23. Upon information and belief, the Accused Infringing Devices infringe at least claim 1 in the exemplary manner described below.

24. The Accused Infringing Devices perform a method for providing content via a computer network and computer system. In particular, Hulu operates a streaming service that delivers TV shows and movies to subscribers over the Internet.



Source: <a href="http://www.hulu.com">http://www.hulu.com</a>

25. The Accused Infringing Devices store presentation data that represents content of a first collection of one or more presentations using the computer system. In particular, Hulu maintains a collection of presentations that a user has started, but not finished, watching. Such a collection can be displayed in several contexts, including on the Hulu homepage as well as while browsing categories such as "Kids."







Source: <a href="http://www.hulu.com">http://www.hulu.com</a>

26. The Accused Infringing Devices store data indicative of the first collection of presentations so as to be associated with the presentation data. In particular, the Accused Infringing Devices store viewing data indicating the amount

of time the user has watched each program in the "Keep Watching" row.



Source: <a href="http://www.hulu.com">http://www.hulu.com</a>

27. The Accused Infringing Devices store feed data that represents a collection of one or more feeds using the computer system. The Accused Infringing Devices store feed data representing TV shows and movies that have been recommended to the user. For example, "Line Up" is a collection of presentations recommended to the user.



Source: <a href="http://www.hulu.com">http://www.hulu.com</a>

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28. "For You" is another example of a collection of presentations recommended to the user through the browse category pages.

Kids





Source: <a href="http://www.hulu.com">http://www.hulu.com</a>

29. The Accused Infringing Devices store feed data in connection with the operation of their recommendation engine. In the case of displaying the Hulu homepage, the client queries the discover.hulu.com host to identify a second collection of presentations (*i.e.*, recommendations labeled "Line Up"). The recommendations are identified by id numbers, such as "2b4f6451-b084-450a-a6d7-f116ecc85af6" (corresponding to "Chicago Med"). This operation reflects the storage of feed data corresponding to the second collection by Hulu, prior to transmission of the id numbers to the client.

```
{_type: "hub", id: "urn:hulu:hub:home",...}
 1
            v components: [{_type: "collection", id: "135",...}, {_type: "collection", id: "282",...],...]
              ▼ 0: {_type: "collection", id: "135",...}
                 artwork: {}
 2
                 device_context_failure: false
                 href: "https://discover.hulu.com/content/v3/hubs/home/collections/1357schema=3
 3
                 is_fallback: false
 4
                 items: [{_type: "view", id: "2b4f6451-b084-450a-a6d7-f116ecc85af6",...},...]
                   0: {_type: "view", id: "2b4f6451-b084-450a-a6d7-f116ecc85af6",...}
                   * actions: {playback: {eab: "EAB::9b2dd699-11ec-4464-b973-122b59311637::61117927::26004819",...}, browse:
 5
                     device_context_failure: false
                   ▼ entity_metadata: {genre_names: ["Medical", "Drama", "Romance", "Action"], premiere_date: "2018-05-15T
 6
                     ▶ genre_names: ["Medical", "Drama", "Romance", "Action"]
                       premiere_date: "2018-05-15T00:00:00Z"
                     rating: {code: "TV14"}
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                       series_description: "Executive producer Dick Wolf delivers the newest installment of the compelling
                     id: "2b4f6451-b084-450a-a6d7-f116ecc85af6"
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                   ▼metrics_info: {reco_tags: "ncr|nr|uf", entity_id: "2b4f6451-b084-450a-a6d7-f116ecc85af6", entity_type
                       entity_id: "2b4f6451-b084-450a-a6d7-f116ecc85af6"
                       entity_name: "Chicago Med"
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                       entity_type: "series"
                       promo_text_format: "Start Watching"
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                       reco_reasons: "For Fans of The Good Doctor"
                       reco_tags: "ncr[nr[uf"
                       target_id: "2b4f6451-b084-450a-a6d7-f116ecc85af6"
11
                       target_name: "Chicago Med"
                       target_type: "series"
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                     personalization: {bowie_context: "cover_story", eab: "EAB::9b2dd699-11ec-4464-b973-122b59311637::6111
                     view_template: "cover_story_standard"
                    ▶ visuals: {artwork: { type: "artwork orientation",...}, headline: "Chicago Med", action text: "Start Wat
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                      type: "view"
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**Source:** Screenshot of Chrome Developer Tools showing the file containing data that supports the user's experience from Hulu.com.

30. In the case of displaying a browse category page, the client queries the discover.hulu.com host to identify a second collection of presentations (*i.e.*, recommendations labeled "For You"). The recommendations are identified by id numbers, such as "671bc3fd-114f-4044-986b-b961ca527024" (corresponding to "Teen Titans Go!"). This operation reflects the storage of feed data corresponding to the second collection by Hulu, prior to transmission of the id numbers to the client.

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"device_context_failure": false,
     'components": [
              _type": "collection",
            "href": "https://discover.hulu.com/content/v3/hubs/kids/collections/113?schema=3",
c533a76e8a07::NULL::NULL,EAB::671bc3fd-114f-4044-986b-b961ca527024::NULL::NULL,EAB::4f96cfd5-73b9-4975-8021-
ea504d4c5780::NULL::NULL,EAB
                                                                         JLL::NULL,EAB::2a70a30b-3ba2-4b7e-aaeb-
384e56596a19::NULL::NULL:EAB::f2f9e217-801f-460c-9a53-4e92ee82fe92::NULL::NULL,EAB::c4636d35-eb1b-4ac3-bf02-
cb83dce0ecf6::NULL::NULL,EAB::253eeea4-50d0-4b28-ab4b-1c0c015e0fa0::NULL::NULL,EAB::38364d89-c44f-47ce-985b-
a37a360f2b7e::NULL::NULL;EAB::bc47d2cf-6f24-4ea7-9219-1cb7ea84daba::NULL::NULL,EAB::3cb3f3c4-e908-458f-8db8-
5d43031995e6::NULL::NULL;EAB::45e51af5-3da2-4129-a715-51cdd5a34ccf::NULL::NULL,EAB::aaed007e-c365-4509-9eab-
d3713a19eab8::NULL::NULL,EAB::39dedbce-8fcd-431b-ac3f-15b562b9c742::NULL::NULL,EAB::27cefa35-f959-45df-a87b-
7622bec3d18f::NULL::NULL;EAB::115dd69e-a60c-4c00-8ba0-166715fb21a2::NULL::NULL,EAB::bffd458e-794f-4cb3-b748-
6df6ad452b7f::NULL::NULL;EAB::6f39a5a0-6e20-4bbf-b8b7-364025897b03::NULL::NULL,EAB::b86922f3-5c46-4871-adc0-
071e48d2d611::NULL::NULL,EAB::01b0d3e4-8b57-4cbe-9b74-e379bc60ac5a::NULL::NULL,EAB::ec95e86e-ee98-4726-9794-
e9dea449757c::NULL::NULL,EAB::bc455c45-a11d-43fe-ac7d-3afdfc264909::NULL::NULL,EAB::a996307f-0d34-4376-86e6-b2132be03f68::NULL::NULL,EAB::7b4bf05d-a7dc-47a7-85c8-82d7a69be484::NULL::NULL,EAB::03db8986-d082-45dc-a45b-
586f9f85c82b::NULL::NULL,EAB::9b75f792-44c6-4a49-a2a2-48a746c6c26d::NULL::NULL,EAB::0721150b-9e72-4970-b83a-
f2db08fbae54::NULL::NULL,EAB::eb0bb177-6278-48ec-902d-4efb916a7a39::NULL::NULL,EAB::b7833196-8dab-411e-8728-
46759d8402ba::NULL::NULL,EAB::14dcb999-615b-4a66-835c-4c1d00717df8::NULL::NULL:EAB::87e268f4-1dc3-4fd3-8e41-
41dc246eed02::NULL::NULL,EAB::139507fa-07d2-43ca-8991-370d5306989d::NULL::NULL,EAB::f20a0f3e-b96b-48d1-bfaf-
13eb4616b504::NULL::NULL,EAB::c8b9c799-b81e-4522-a05b-40212f69e7a6::NULL::NULL,EAB::d072c7a0-5570-45bd-80fb-
227ff42aca49::NULL::NULL;EAB::031f9f6e-6de8-4482-866c-e6682208b63e::NULL::NULL;EAB::3c0bf4eb-2d7a-4b7c-a9a4-
668427a22aba::NULL::NULL,EAB::9626bd57-00a7-4d44-8629-543811e439ee::NULL::NULL,EAB::8baef83e-f316-4846-8ba2-
21cdf4c40823::NULL::NULL,EAB::5c5f6041-ff38-4670-a7f8-30033a28f4bc::NULL::NULL,EAB::7983e75d-2897-4259-8f1d-
50be6d2ca263::NULL::NULL,EAB::eea4f209-0f98-4b51-8b2e-eceb2fbbd058::NULL::NULL,EAB::a4a06e0c-c4d8-4b34-a55e-
a28c57ecc429::NULL::NULL,EAB::5d931e25-bd29-46f2-9baf-b5a0b4c001f8::NULL::NULL,EAB::6cfcd220-59c1-4a89-b187-
e990b4c51b08::NULL::NULL;EAB::b4f327be-b835-4e82-99cd-40ab04543a2d::NULL::NULL,EAB::a5481b97-adb7-4583-af31-
d89772d93eb9::NULL::NULL;EAB::8a15de0d-8c39-4a94-bc8f-0bfe73062d7d::NULL::NULL;EAB::4b8401fa-eb03-4871-8da0-
                                17afce6-e552-491c-86be-6a422f518c68::NULL::NULL&bowie_context=browse",
              name": "For You"
             "artwork": {},
             "personalization": {
                 'bowie_context": "browse"
```

**Source:** Screenshot of Chrome Developer Tools showing the file containing data that supports the user's experience from Hulu.com.

31. Each of the feeds identifies a corresponding second collection of one or more presentations being accessible via the computer network, and includes no data representing the video/audio content of the second collection of presentations. As shown above, the feed data includes the identifiers and other metadata associated with the presentations, which is not the video/audio content of the presentations. In addition, the "Line Up" feed data includes other information that is apart from the video/audio content, such as the reason(s) for recommending a particular presentation to the user and tags associated therewith.

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{ _type: "hub", id: "urn:hulu:hub:home",...}
 1
            ▼ components: [{_type: "collection", id: "135",...}, {_type: "collection", id: "282",...},...]
              ▼ 0: {_type: "collection", id: "135",...}
                 artwork: {}
 2
                 device_context_failure: false
                 href: "https://discover.hulu.com/content/v3/hubs/home/collections/1357schema=3"
 3
                 id: "135"
                 is_fallback: false
                items: [{_type: "view", id: "2b4f6451-b084-450a-a6d7-f116ecc85af6",...},...]
 4
                 ▼ 0: {_type: "view", id: "2b4f6451-b084-450a-a6d7-f116ecc85af6",...}
                   actions: {playback: {eab: "EAB::9b2dd699-11ec-4464-b973-122b59311637::61117927::26004819",...}, browse:
 5
                     device_context_failure: false
                   ▼ entity_metadata: {genre_names: ["Medical", "Drama", "Romance", "Action"], premiere_date: "2018-05-15T
 6
                     ▶ genre_names: ["Medical", "Drama", "Romance", "Action"]
                       premiere_date: "2018-05-15T00:00:00Z"
                     rating: {code: "TV14"}
 7
                       series_description: "Executive producer Dick Wolf delivers the newest installment of the compelling
                     id: "2b4f6451-b084-450a-a6d7-f116ecc85af6"
 8
                   ▼metrics_info: {reco_tags: "ncr|nr|uf", entity_id: "2b4f6451-b084-450a-a6d7-f116ecc85af6", entity_type
                      entity_id: "2b4f6451-b084-450a-a6d7-f116ecc85af6"
                       entity_name: "Chicago Med"
 9
                      entity_type: "series"
                        romo text format: "Start Watching"
10
                       reco_reasons: "For Fans of The Good Doctor"
                       reco_tags: "ncr|nr|uf"
11
                       target_name: "Chicago Med"
                       target_type: "series"
12
                     personalization: {bowie_context: "cover_story", eab: "EAB::9b2dd699-11ec-4464-b973-122b59311637::6111
                     view_template: "cover_story_standard"
                    visuals: {artwork: {_type: "artwork_orientation",...}, headline: "Chicago Med", action_text: "Start Wat
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                      type: "view"
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```

**Source:** Screenshot of Chrome Developer Tools showing the file containing data that supports the user's experience from Hulu.com.

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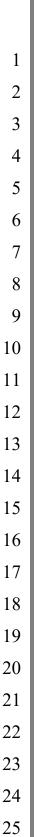
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- 32. The Accused Infringing Devices automatically and periodically access each of the feeds to identify each of the corresponding second collection of presentations using the computer system. In particular, Hulu's catalog of TV shows and movies is constantly changing. <a href="https://www.hulu.com/press/new-this-month/">https://www.hulu.com/press/new-this-month/</a>.
- 33. The Accused Infringing Devices also provide a recommendations engine that automatically and periodically provides updated recommendations.



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**Source:** <a href="https://www.hulu.com/press/hulu-update/mobile-features-and-your-new-web/">https://www.hulu.com/press/hulu-update/mobile-features-and-your-new-web/</a>

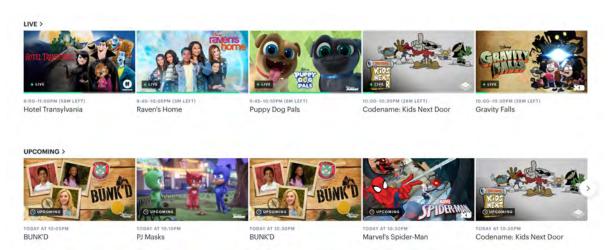
34. The Accused Infringing Devices store data associated with a third collection of one or more presentations. In particular, the Accused Infringing Devices display additional rows, each corresponding to a separate collection of presentations. For example, on the Hulu homepage, Hulu stores data associated with "New Episodes" and "My Channels."





Source: <a href="https://hulu.com">https://hulu.com</a>

35. In addition on the browse category pages, the Accused Infringing Devices store data associated with collections of "Live" and "Upcoming" TV shows.



Source: <a href="https://hulu.com">https://hulu.com</a>

36. The Accused Infringing Devices aggregate the first, second, and third collections of presentations for delivery via the computer network using a common web page. Both the Hulu.com homepage and browse category pages include rows corresponding to first (in the red box), second (in the green box), and third (in the blue box) collections of presentations.









Source: <a href="https://hulu.com">https://hulu.com</a>

**DEMAND FOR JURY TRIAL** Uniloc hereby demands trial by jury on all issues so triable pursuant to Fed. R. Civ. P. 38. Dated: October 21, 2019 FEINBERG DAY KRAMERALBERTI LIM TONKOVICH & BELLOLI LLP By: /s/ M. Elizabeth Day M. Elizabeth Day Attorneys for Plaintiff Uniloc 2017 LLC