

1 M. Elizabeth Day (SBN 177125)
2 eday@feinday.com
3 David Alberti (SBN 220625)
4 dalberti@feinday.com
5 Sal Lim (SBN 211836)
6 slim@feinday.com
7 Marc Belloli (SBN 244290)
8 mbelloli@feinday.com
9 Jeremiah A. Armstrong (SBN 253705)
10 jarmstrong@feinday.com
11 Nick Martini (SBN237687)
12 nmartini@feinday.com
13 Hong Lin (SBN 249898)
14 hlin@feinday.com
15 Kate E. Hart (SBN 275121)
16 khart@feinday.com
17 **FEINBERG DAY KRAMER ALBERTI**
18 **LIM TONKOVICH & BELLOLI LLP**
19 1600 El Camino Real, Suite 280
20 Menlo Park, CA. 94025
21 Telephone: (650) 618-4360
22 Facsimile: (650) 618-4368

23 Attorneys for Uniloc 2017 LLC

24 UNITED STATES DISTRICT COURT
25 CENTRAL DISTRICT OF CALIFORNIA

26 UNILOC 2017 LLC,

27 Plaintiff,

28 v.

NETFLIX, INC.

Defendant.

CASE NO. 8:18-cv-02055-GW-DFM

CASE NO. 8:18-cv-02150-GW-DFM

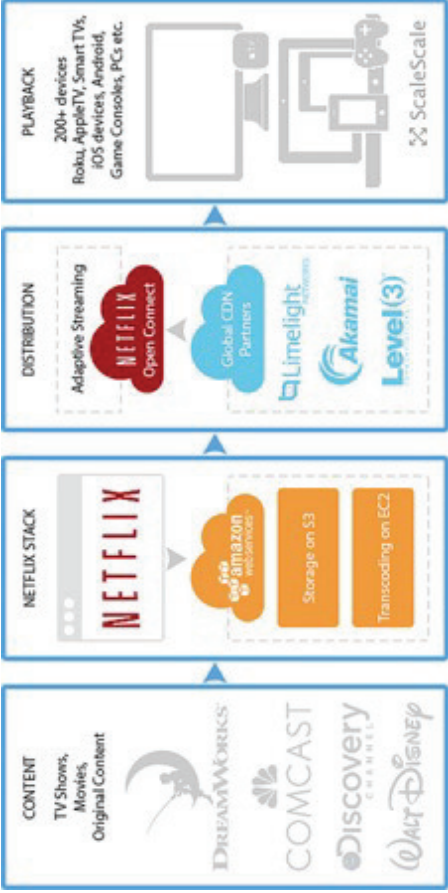
**PLAINTIFF'S PATENT LOCAL
RULE 3-1 AND 3-2 DISCLOSURES
OF ASSERTED CLAIMS,
INFRINGEMENT CONTENTIONS
AND DOCUMENT PRODUCTION
ACCOMPANYING DISCLOSURE**

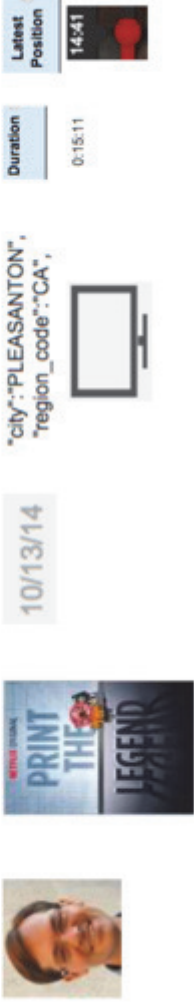
Exhibit D

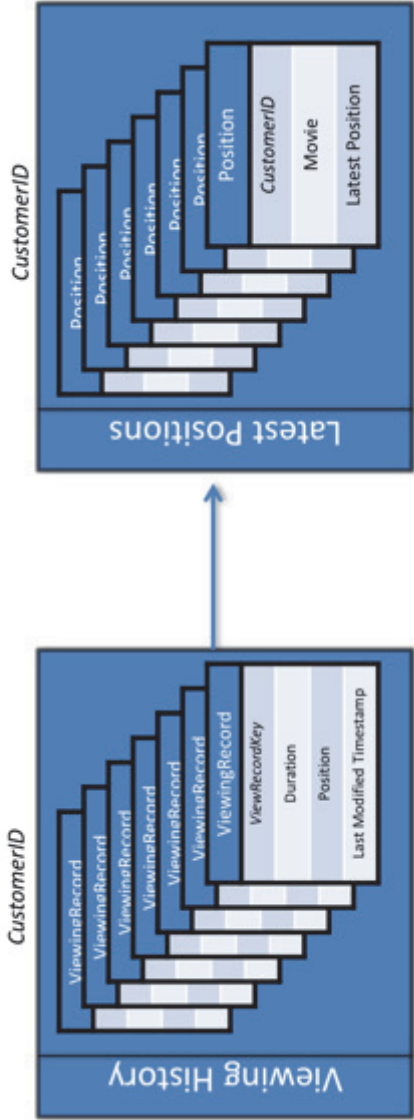
Netflix's Infringement of U.S. Patent No. 9,721,273

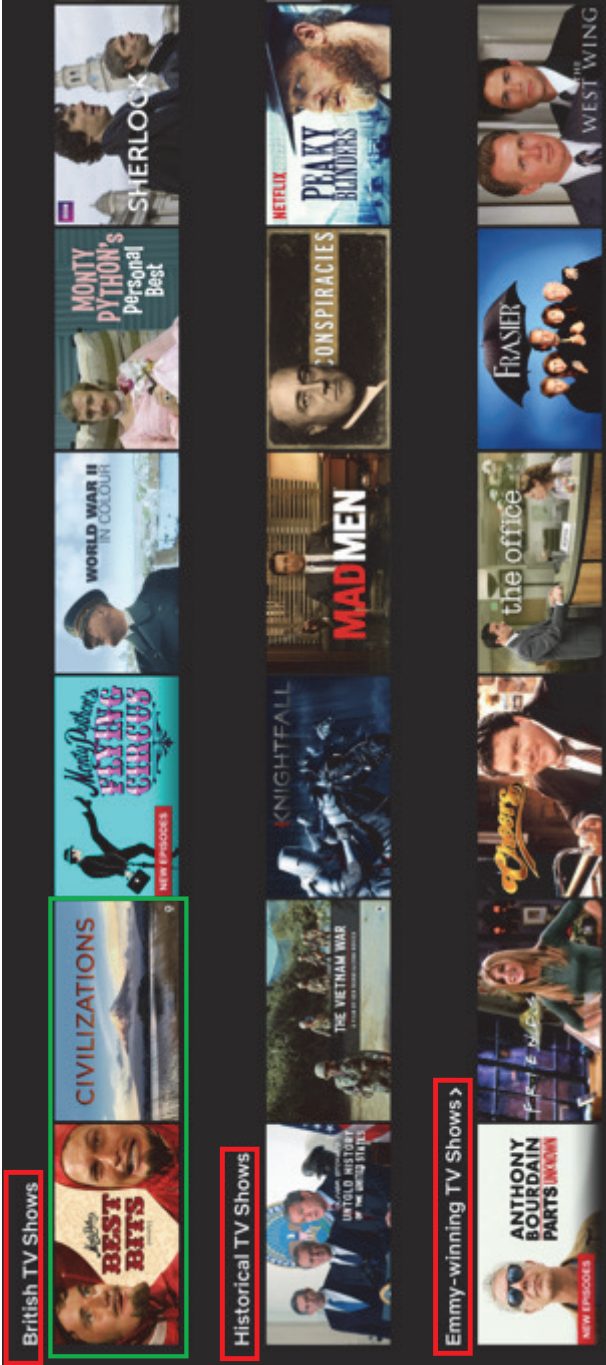
Plaintiff accuses Netflix, Inc. ("Netflix") of making, using, selling, licensing, offering for sale/license and/or importing products and services, including Netflix.com and its subscription-based streaming OTT service and related software, applications (including the Netflix App for mobile devices), servers and clients (collectively the "Accused Products") of directly infringing claim 1 of U.S. Patent No. 9,721,273 (the "'273 Patent").

The asserted claim includes elements that are implemented, at least in part, by proprietary and specialized electronics, firmware and/or software in the Accused Products. The precise designs, processes, and algorithms used in them are held secret, at least in part, and are not publicly available in their entirety. An analysis of Netflix's documentation and/or source code may be necessary to fully and accurately describe all infringing features and functionality of the Accused Products and, accordingly, Plaintiff reserves the right to supplement these contentions once such information is made available to Plaintiff. Furthermore, Plaintiff reserves the right to revise these contentions, including as discovery in the case progresses, in view of any non-infringement arguments Netflix may make (*e.g.*, to allege infringement under the doctrine of equivalents), in view of the Court's final claim construction in this action, and in connection with the provision of its expert reports.

Claim	Accused Products
1. A method for providing content via a computer network and computing system, the method comprising:	The Accused Products perform a method for providing content via a computer network and computer system. In particular, Netflix operates a streaming service that delivers TV shows and movies to subscribers over the Internet.  The diagram illustrates the Netflix architecture, showing the flow of content from source to playback. It is divided into four main stages: CONTENT, NETFLIX STACK, DISTRIBUTION, and PLAYBACK. CONTENT includes logos for TV Shows, Movies, Original Content, DREAMWORKS, COMCAST, Discovery CHANNEL, and Walt Disney. NETFLIX STACK includes the NETFLIX logo, Amazon S3, Storage on S3, and Transcoding on EC2. DISTRIBUTION includes Adaptive Streaming, Netflix Open Connect, Global CDN Partners, Limelight, Akamai, and Level(3). PLAYBACK includes 200+ devices (Roku, AppleTV, Smart TVs, iOS devices, Android, Game Consoles, PCs etc.) and a ScaleScale logo. http://highscalability.com/blog/2015/11/9/a-360-degree-view-of-the-entire-netflix-stack.html.
storing presentation data that represents content of a first collection of one or more presentations using the computer system;	The Accused Products store presentation data that represents content of a first collection of one or more presentations using the computer system. For example, Netflix maintains a collection of presentations displayed in a "Continue Watching Row" that a user has started, but not finished, watching.  The screenshot shows the Netflix interface for a "Continue Watching for [redacted]" row. It displays a row of video thumbnails, including "EIGHTIES", "THE IT [CROW]", "GODZILLA", "NO COUNTRY FOR OLD MEN", "DISEMBODIMENT", and "FACE/OFF".

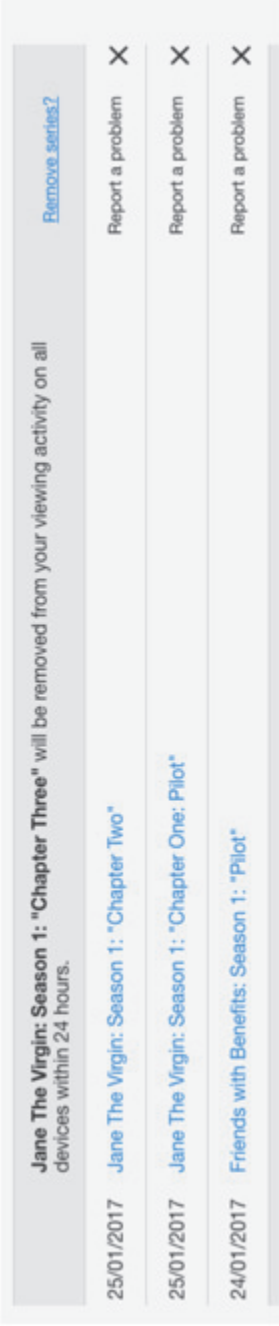
Claim	Accused Products
	An analysis of Netflix’s source code may be necessary to fully and accurately describe functionality of the Accused Products with respect to this limitation and, accordingly, Plaintiff reserves the right to supplement these infringement contentions once such information is made available to Plaintiff.
storing data indicative of the first collection of presentations so as to be associated with the presentation data;	The Accused Products store data indicative of the first collection of presentations so as to be associated with the presentation data. For example, Netflix stores identifiers for each of the presentations in the first collection and such identifiers are associated with the presentation data. The identifiers are indicative of presentations. The “No Country for Old Men” presentation appears to be associated with the identifier 70071613 in its URL. In another example, Netflix stores viewing data indicating the amount of time the user has watched each presentation in the “Continue Watching” row and whether the user has finished the presentation. Upon information and belief, viewing data for partially-watched presentations is used to select presentations for the first collection (the “Continue Watching” row), and as such is indicative of the first collection and associated with the presentation data for presentations in the first collection. Viewing Data Who, What, When, Where, How Long 

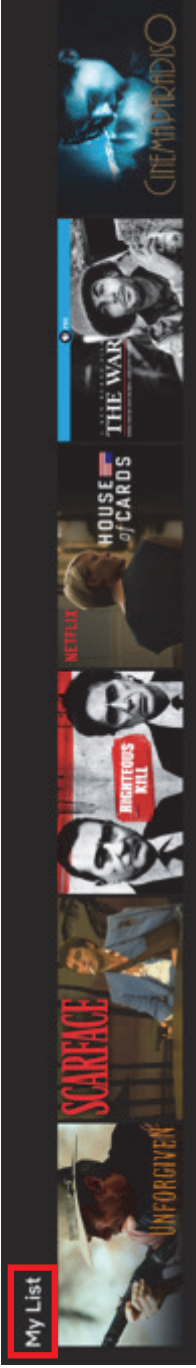
Claim	Accused Products
	https://www.slideshare.net/PhilipFisherOgden/netflix-viewing-history-ebug-2014 at 9. Conceptual Data Model  The diagram illustrates a conceptual data model with two main tables: 'Viewing History' and 'Latest Positions'. Both tables are indexed by 'CustomerID'. The 'Viewing History' table contains multiple 'ViewingRecord' entries, each with fields for 'ViewingRecordKey', 'Duration', 'Position', and 'Last Modified Timestamp'. The 'Latest Positions' table contains multiple 'Position' entries, each with fields for 'CustomerID', 'Movie', and 'Latest Position'. An arrow points from the 'Viewing History' table to the 'Latest Positions' table, indicating a relationship or data flow between them. https://www.slideshare.net/PhilipFisherOgden/netflix-viewing-history-ebug-2014 at 30. An analysis of Netflix’s source code may be necessary to fully and accurately describe functionality of the Accused Products with respect to this limitation and, accordingly, Plaintiff reserves the right to supplement these infringement contentions once such information is made available to Plaintiff.
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	The Accused Products store feed data that represents a collection of one or more feeds using the computer system. The Accused Products store feed data representing TV shows and movies belonging to a particular category that have been recommended to the user. For example, "British TV Shows," "Historical TV Shows," and "Emmy-winning TV Shows" are collections of presentations. Upon information and belief, Netflix stores the feed data as an ordered list of identifiers that are output by its

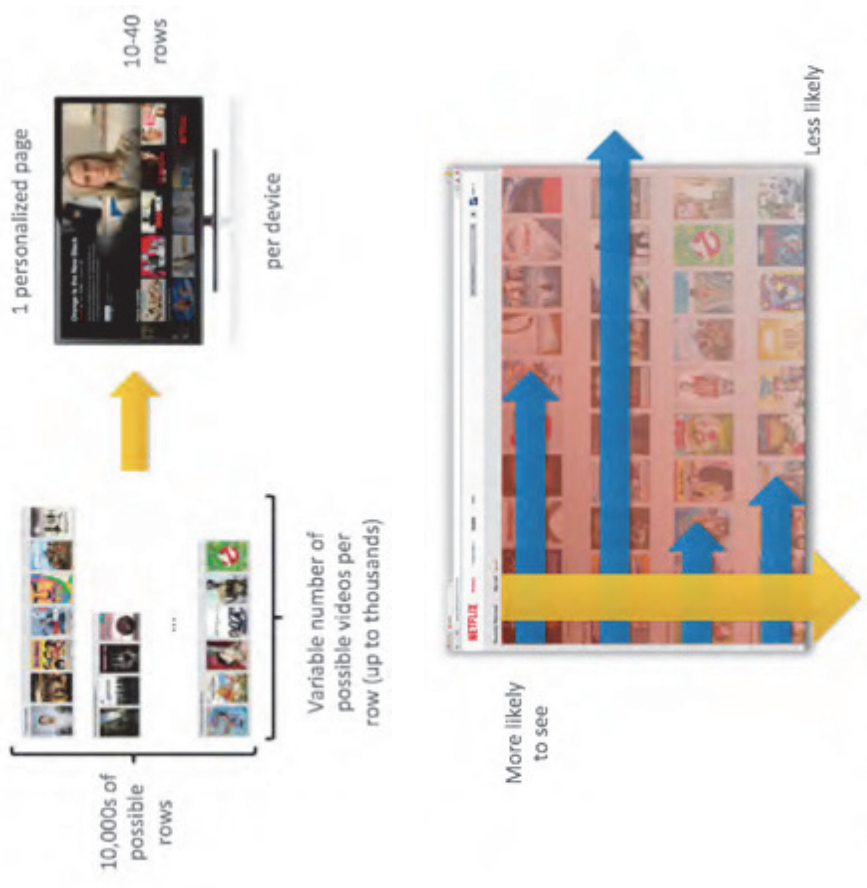
Claim	Accused Products
collection of one or more presentations being accessible via the computer network and includes no data representing content of the second collection of presentations;	recommendation engine. As shown below, the identifiers do not contain data representing content of the presentations.  The "Monty Python Best Bits (mostly)" presentation in the upper left corner is associated with the identifier 80236800, where as the "Civilizations" presentation to the right is associated with the identifier 81012418. These numeric identifiers do not contain data representing content of the presentations. Netflix explains the homepage recommendation algorithm as follows: "Once we have a set of possible video groups to consider for a page, we can begin to assemble the homepage from them. To do this, we start by finding candidate groupings that are likely relevant for a member based on the information we know about them. This also involves coming up with the evidence (or explanations) to support the presentation of a row, for example the movies that the member has

Claim	Accused Products
	previously watched in a genre. Next, we filter each group to handle concerns like maturity rating or to remove some previously watched videos. After filtering, we rank the videos in each group according to a row-appropriate ranking algorithm, which produces an ordering of videos such that the most relevant videos for the member in a group are at the front of the row. From this set of row candidates we can then apply a row selection algorithm to assemble the full page. As the page is assembled, we do additional filtering like deduplication to remove repeat videos and format rows to the appropriate size for the device." https://medium.com/netflix-techblog/learning-a-personalized-homepage-aa8ec670359a. <pre>graph TD; A[Find Candidates] --> B[Evidence]; B --> C[Filter & Deduplicate]; C --> D[Rank]; D --> E[Format]; E --> F[Choose]; F --> A;</pre> Process for creating and choosing rows. https://medium.com/netflix-techblog/learning-a-personalized-homepage-aa8ec670359a.

Claim	Accused Products
	The output of the recommendation algorithm constitutes the feed data, which is stored by Netflix. 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 content of the second collection of presentations. As shown above, the feed data includes the identifier associated with the presentations, but not the content of the presentations. An analysis of Netflix's source code may be necessary to fully and accurately describe functionality of the Accused Products with respect to this limitation and, accordingly, Plaintiff reserves the right to supplement these infringement contentions once such information is made available to Plaintiff.
automatically and periodically accessing each of the feeds to identify each of the corresponding second collection of presentations, using the computer system;	The Accused Products automatically and periodically access each of the feeds to identify each of the corresponding second collection of presentations using the computer system. In particular, Netflix's catalog of TV shows and movies is constantly changing. https://help.netflix.com/en/node/14422; http://www.vulture.com/2018/09/new-on-netflix-october-2018-movies-tv-and-original-series.html. The recommendations to users are updated on a daily basis.

Claim	Accused Products
	Click on the "X" on the show or movie you want to remove. If it's a series, click on "remove series?" to save you the bother of clicking "X" on every individual episode.  The screenshot shows a Netflix interface with a table of items to be removed. The table has three rows, each with a date, a title, and a 'Report a problem' button. The first row is for 'Jane The Virgin: Season 1: "Chapter Three"' with a date of '25/01/2017'. The second row is for 'Jane The Virgin: Season 1: "Chapter One: Pilot"' with a date of '25/01/2017'. The third row is for 'Friends with Benefits: Season 1: "Pilot"' with a date of '24/01/2017'. A link 'Remove series?' is visible at the top right of the table. IMAGE: RACHEL THOMPSON / MASHABLE It'll take 24 hours for Netflix to remove the offending shows and films from all your devices, and after that you should begin to see changes to your recommendations. https://mashable.com/2017/05/16/netflix-algorithm-reset/#rYS30DXLdOqG. An analysis of Netflix's source code may be necessary to fully and accurately describe functionality of the Accused Products with respect to this limitation and, accordingly, Plaintiff reserves the right to supplement these infringement contentions once such information is made available to Plaintiff.

Claim	Accused Products
storing data associated with a third collection of one or more presentations; and	The Accused Products store data associated with a third collection of one or more presentations. In particular, Netflix permits users to add presentations to a list. The Accused Products store the list of presentations selected by the user.  An analysis of Netflix's source code may be necessary to fully and accurately describe functionality of the Accused Products with respect to this limitation and, accordingly, Plaintiff reserves the right to supplement these infringement contentions once such information is made available to Plaintiff.
aggregating each of the first, identified second, and third collections of presentations for delivery via the computer network using a common web page.	The Accused Products aggregate the first, second, and third collections of presentations for delivery via the computer network using a common web page. The Netflix.com homepage includes rows corresponding to the first, second, and third collections of presentations. "We want our recommendations to be accurate in that they are relevant to the tastes of our members, but they also need to be diverse so that we can address the spectrum of a member's interests versus only focusing on one. We want to be able to highlight the depth in the catalog we have in those interests and also the breadth we have across other areas to help our members explore and even find new interests. We want our recommendations to be fresh and responsive to the actions a member takes, such as watching a show, adding to their list, or rating; but we also want some stability so that people are familiar with their homepage and can easily find videos they've been recommended in the recent past. Finally, we need to be able to place task-oriented rows, such as 'My List,' in amongst the more discovery-oriented rows."

Claim	Accused Products
	Page-level algorithmic challenge  Notional importance of navigation modeling. Members are more likely to scan vertically than horizontally, which means videos presented in the upper left are much more likely to be seen than those in the lower right. https://medium.com/netflix-techblog/learning-a-personalized-homepage-aa8ec670359a.

Claim	Accused Products
	An analysis of Netflix’s source code may be necessary to fully and accurately describe functionality of the Accused Products with respect to this limitation and, accordingly, Plaintiff reserves the right to supplement these infringement contentions once such information is made available to Plaintiff.