IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

CHEWY, INC., Plaintiff, v. INTERNATIONAL BUSINESS MACHINES CORPORATION, Defendant.	Case No. 1:21-cv-01319-JSR **IBM'S FIRST AMENDED ANSWER TO CHEWY'S COMPLAINT FOR DECLARATORY JUDGMENT OF NON-INFRINGEMENT AND IBM'S FIRST AMENDED COUNTERCLAIMS** **JURY TRIAL DEMANDED**

Defendant International Business Machines Corporation ("IBM"), by and through its undersigned counsel, hereby responds to Plaintiff's Complaint for Declaratory Judgment of Non-Infringement ("Complaint"), filed by Plaintiff Chewy, Inc. ("Chewy").

PRELIMINARY STATEMENT

Last year, IBM discovered that Chewy was using IBM's patents without permission. IBM promptly approached Chewy and attempted to negotiate an amicable resolution to this serious matter. IBM sent Chewy a letter that showed how Chewy infringed IBM's patents and asked to meet with Chewy to discuss the terms of a license agreement. In response, Chewy offered meritless excuses and refused to meet with IBM. The parties continued to exchange letters, with IBM repeatedly asking for a meeting and Chewy repeatedly refusing. Then, without warning, Chewy brought this lawsuit against IBM. This case is the result of Chewy's decision to unilaterally cut off discussions and rush to the courthouse—rather than negotiating a license agreement.

IBM answers the Complaint as follows.

NATURE OF THE ACTION

To the extent the various headings in the Complaint are intended to constitute allegations,

IBM denies them.

1. IBM admits that Chewy is seeking a declaration of non-infringement of U.S. Patent Nos. 7,072,849 (the "'849 patent"), 9,569,414 (the "'414 patent"), 7,076,443 (the "'443 patent"), and 6,704,034 (the "'034 patent") (collectively, the "Asserted Patents" or "Patents-In-Suit") from the Court under the patent laws of the United States, 35. U.S.C. § 1 et seq., and the Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202, and is seeking other relief as the Court deems just and proper. IBM denies that any factual or legal basis exists for any of Chewy's claims against IBM in this action, or that Chewy is entitled to any relief whatsoever. IBM otherwise denies all remaining or different allegations in Paragraph 1 of the Complaint.

2. IBM admits that Exhibits 1–4 to the Complaint are true and correct copies of the Asserted Patents.

THE PARTIES

3. IBM admits the allegations in Paragraph 3 of the Complaint.

4. IBM admits the allegations in Paragraph 4 of the Complaint.

5. IBM admits the allegations in Paragraph 5 of the Complaint.

JURISDICTION AND VENUE

6. The allegations in Paragraph 6 of the Complaint are legal conclusions to which no response is required.

7. The allegations in Paragraph 7 of the Complaint are legal conclusions to which no response is required.

8. The allegations in Paragraph 8 of the Complaint are legal conclusions to which no response is required.

THE ASSERTED PATENTS

9. IBM admits the allegations in Paragraph 9 of the Complaint.

10. IBM admits the allegations in Paragraph 10 of the Complaint.

11. IBM admits the allegations in Paragraph 11 of the Complaint.

12. IBM admits the allegations in Paragraph 12 of the Complaint.

THE PARTIES' DISPUTE CONCERNING THE ASSERTED PATENTS

13. IBM admits that it has obtained thousands of patents over the past 20 years. IBM otherwise denies all remaining or different allegations in Paragraph 13 of the Complaint.

14. IBM admits that it brought infringement actions against Priceline, Groupon, Expedia, Zillow, and Airbnb and that it has outstanding litigation against Zillow. IBM otherwise denies all remaining or different allegations in Paragraph 14 of the Complaint.

15. IBM admits that on July 6, 2020, Ms. Leann M. Pinto of IBM sent a letter to Mr. Sumit Singh, CEO of Chewy, with the subject line "Notice of Infringement for IBM US Patent Nos.: 7,072,849; 9,569,414; 7,076,443; and 6,704,034." IBM admits that the letter states, "Please be advised that Chewy, Inc. (Chewy) is infringing at least the following IBM patents by operation of its website Chewy.com." IBM further admits that the letter states "IBM views your continued use of all of these inventions as a serious matter." IBM further admits that the letter states "We strongly prefer a negotiated business resolution of such matters and hope that you share this preference. IBM, however, has been forced to resolve infringement of its patents through judicial proceedings at times." IBM further admits that the letter states "we have initiated patent litigations against Amazon, Priceline, Expedia, Zillow, Airbnb, and Groupon, among others, to redress the unauthorized use of IBM's patented inventions." IBM otherwise denies all remaining or different allegations in Paragraph 15 of the Complaint.

16. IBM admits the allegations in Paragraph 16 of the Complaint.

17. IBM admits that on October 6, 2020, Mr. Joshua L. Raskin of Greenberg Traurig sent a response to IBM on behalf of Chewy. IBM admits that the language Chewy quotes appears in

the October 6, 2020 letter. IBM otherwise denies all remaining or different allegations in Paragraph 17 of the Complaint.

18. IBM admits that in response to the October 6, 2020 letter, on October 16, 2020, Ms. Pinto, on behalf of IBM, sent a letter to Chewy to rebut Chewy's non-infringement position as to the four Asserted Patents. IBM further admits that the letter states "IBM respectfully reiterates its request for a meeting with Chewy so that you may have a better understanding of IBM's position with respect to the four IBM patents that Chewy continues to infringe." IBM admits that the language Chewy quotes appears in the October 16, 2020 letter. IBM further admits that the letter lists what others have paid IBM for a patent cross license, and the amounts ranged from $20 million to $57.5 million. IBM otherwise denies all remaining or different allegations in Paragraph 18 of the Complaint.

19. IBM admits that on December 9, 2020, Mr. Joshua L. Raskin of Greenberg Traurig sent another letter to IBM, addressed to Ms. Pinto, on behalf of Chewy. IBM admits that the quoted language appears in the December 9, 2020 letter. IBM otherwise denies all remaining or different allegations in Paragraph 19 of the Complaint.

20. IBM admits that on December 17, 2020, Ms. Pinto, on behalf of IBM, replied to the December 9, 2020 letter. IBM further admits that the December 17, 2020 letter states "Chewy's continued and unfounded assertions that IBM's infringement proofs are 'meritless' and patterns of behavior in its dealings with IBM would support enhanced damages under 35 U.S.C. § 284." IBM further admits that the December 17, 2020 letter states "[b]y refusing to engage in business discussions, Chewy risks litigation and a finding of enhanced damages for willful infringement." IBM further admits that the December 17, 2020 letter states "We look forward to your reply providing options for a meeting between the parties to occur before December 31, 2020." IBM

otherwise denies all remaining or different allegations in Paragraph 20 of the Complaint.

21. IBM admits that on January 4, 2021, Mr. Raskin sent Ms. Pinto another letter on behalf of Chewy. IBM admits that the language that Chewy quotes appears in the January 4, 2021 letter. IBM otherwise denies all remaining or different allegations in Paragraph 21 of the Complaint.

22. IBM admits that on January 12, 2021, Ms. Pinto, on behalf of IBM, wrote a letter to Mr. Raskin. IBM further admits that the January 12, 2021 letter states "IBM maintains that Chewy infringes each of the IBM patents identified above as asserted in the claim charts already provided to Chewy and as further explained in IBM's correspondence addressed to Chewy to date." IBM further admits that the January 12, 2021 letter stated that "While Chewy declares that it takes allegations of patent infringement seriously, Chewy's responses continue to consist of unfounded and conclusory denials, with the apparent goal of Chewy and IBM business personnel never being given the opportunity to discuss a resolution, even after Chewy has been provided with IBM's infringement claims charts, explanations, and refutations of Chewy-presented challenges. If Chewy persists in maintaining its conclusory denials of infringement, it will become even more apparent that a meeting to aid Chewy's understanding of IBM's position on each patent is imperative. For Chewy to continue to resist such a meeting to address its (mis)understandings and ill-placed positions only further supports acts arising to willful infringement. That said, we direct your attention to the public pleadings in the recently-settled IBM litigation with Airbnb. Triggered by Chewy's refusal to engage in meaningful discussions to clarify points of contention, IBM will be forced to take more aggressive measures." IBM otherwise denies all remaining or different allegations in Paragraph 22 of the Complaint.

23. IBM admits that IBM has previously asserted at least one of the '849 patent, the '414 patent, and the '443 patent against various companies including Amazon, Priceline, Expedia,

Zillow, Airbnb, and Groupon. IBM denies all remaining or different allegations in Paragraph 23 of the Complaint.

24. The allegations in Paragraph 24 of the Complaint are legal conclusions to which no response is required.

FIRST CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the '849 Patent)

25. In response to Paragraph 25 of the Complaint, IBM incorporates by reference its Answers to each of the paragraphs above. IBM denies all remaining or different allegations in Paragraph 25 of the Complaint.

26. IBM denies the allegations in Paragraph 26 of the Complaint.

27. IBM denies the allegations in Paragraph 27 of the Complaint

28. The allegations in Paragraph 28 of the Complaint are legal conclusions to which no response is required. To the extent a response is required, IBM denies the allegations in Paragraph 28 of the Complaint.

29. The allegations in Paragraph 29 of the Complaint are legal conclusions to which no response is required. To the extent a response is required, IBM denies the allegations in Paragraph 29 of the Complaint.

SECOND CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the '414 Patent)

30. In response to Paragraph 30 of the Complaint, IBM incorporates by reference its Answers to each of the paragraphs above. IBM denies all remaining or different allegations in Paragraph 30 of the Complaint.

31. IBM denies the allegations in Paragraph 31 of the Complaint.

32. IBM denies the allegations in Paragraph 32 of the Complaint.

33. The allegations in Paragraph 33 of the Complaint are legal conclusions to which no response is required. To the extent a response is required, IBM denies the allegations in Paragraph 33 of the Complaint.

34. The allegations in Paragraph 34 of the Complaint are legal conclusions to which no response is required. To the extent a response is required, IBM denies the allegations in Paragraph 34 of the Complaint.

THIRD CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the '443 Patent)

35. In response to Paragraph 35 of the Complaint, IBM incorporates by reference its Answers to each of the paragraphs above. IBM denies all remaining or different allegations in Paragraph 35 of the Complaint

36. IBM denies the allegations in Paragraph 36 of the Complaint.

37. IBM denies the allegations in Paragraph 37 of the Complaint.

38. The allegations of Paragraph 38 in the Complaint are legal conclusions to which no response is required. To the extent a response is required, IBM denies the allegations in Paragraph 38 of the Complaint.

39. The allegations in Paragraph 39 of the Complaint are legal conclusions to which no response is required. To the extent a response is required, IBM denies the allegations in Paragraph 39 of the Complaint.

FOURTH CLAIM FOR RELIEF

(Declaratory Judgment of Non-Infringement of the '034 Patent)

40. In response to Paragraph 40 of the Complaint, IBM incorporates by reference its Answers to each of the paragraphs above. IBM denies all remaining or different allegations in Paragraph 40 of the Complaint

41. IBM denies the allegations in Paragraph 41 of the Complaint.

42. IBM denies the allegations in Paragraph 42 of the Complaint.

43. The allegations in Paragraph 43 of the Complaint are legal conclusions to which no response is required. To the extent a response is required, IBM denies the allegations in Paragraph 43 of the Complaint.

44. The allegations in Paragraph 44 of the Complaint are legal conclusions to which no response is required. To the extent a response is required, IBM denies the allegations in Paragraph 44 of the Complaint.

PRAYER FOR RELIEF

IBM denies that Chewy is entitled to any relief, either as prayed for in the Complaint or otherwise. IBM further denies each allegation contained in the Complaint that was not specifically admitted, denied, or otherwise responded to herein. IBM respectfully requests that the Court enter judgment in its favor and against Chewy on the Complaint, declare this case exceptional under 35 U.S.C. § 285, award IBM its attorneys' fees, costs, and expenses, and grant IBM such further relief as the Court deems just and proper.

COUNTERCLAIMS

Counterclaim Plaintiff IBM asserts counterclaims of patent infringement against Chewy, demands a trial by jury on all issues so triable, and alleges as follows:

INTRODUCTION

1. IBM is in the innovation business. Every year, IBM spends billions of dollars on research and development to invent, market, and sell new technology. For example, through its investments and innovations in the new frontier of quantum information science, IBM is the leader in commercializing quantum computing, once thought to be a purely academic exercise. IBM's Q

Network service—a community of Fortune 500 companies, academic institutions, research organizations, and startups working with IBM to advance quantum computing—now has over 100 members.

2. IBM obtains patents on the technology its inventors develop. IBM's commitment to research and innovation has resulted in numerous inventions that have led to the thousands of patents awarded to IBM by the United States Patent and Trademark Office each year. In fact, for each of the last 28 years, IBM scientists and researchers have been awarded more U.S. patents than those of any other company. Those patents are critical to IBM's business and its licensing philosophy.

3. For example, for over twenty years, IBM has been a strong proponent of open source technologies. IBM was a founding member of Open Invention Network, the largest patent non-aggression community in history, which supports freedom of action in Linux, a key element of open source software. IBM was able to leverage its patent portfolio to enable the broad industry adoption of open source technologies by pledging to provide open access to key innovations covered by hundreds of IBM software patents for those working on open source software. And early in 2020, IBM joined the License on Transfer Network ("LOT Network"), a non-profit community of companies that supports open innovation and responsible stewardship of technology. The LOT Network affirms the traditional use of patents—safeguarding the innovations of companies who research, develop, and sell new technologies—while protecting its members against patent assertion entities who purchase or acquire patents from others.

4. As another example, IBM has pledged to let anyone working on solutions to the coronavirus pandemic use its patents for free. IBM's vast patent portfolio can now support researchers everywhere who are developing technologies to help prevent, diagnose, treat or contain

COVID-19. The collection includes thousands of IBM artificial intelligence patents, some related to Watson technology, as well as dozens, if not hundreds, related to biological viruses.

5. IBM also believes in the protection of its proprietary technologies, which result from IBM's extensive investments in research and development and the hard work of IBM's employees. IBM believes that companies who use IBM's patented technology should agree to a license and pay a fair royalty. When a company is using IBM's patents without authorization, IBM first seeks to negotiate an agreement whereby IBM and the other company each receive a license to the other's patent portfolio. That way, each company can avoid litigation, be fairly compensated for the use of all of their patents, and maintain freedom to operate in their respective markets.

6. IBM's research and development is currently focused on technology that includes quantum computing, big data analytics, artificial intelligence, and natural language processing. But IBM also has a long history of innovating and licensing its technology in the field of internet commerce. In fact, long before Chewy existed, IBM partnered with other companies to launch Prodigy, one of the very first e-commerce services.

7. Chewy, which was founded in 2011, after e-commerce was already established, took those prior innovations made by IBM and others to create and run its new business. As its business has developed, Chewy has incorporated additional innovations pioneered by IBM.

8. For almost a year, IBM has tried to negotiate with Chewy about Chewy's unlicensed use of IBM's patents. Dozens of similar companies, including Amazon, Apple, Google, and Facebook, have agreed to cross licenses with IBM. Unfortunately, Chewy is not among them. Instead, to this day, Chewy has chosen to willfully infringe IBM's patents and even expand its infringing activity.

9. Rather than negotiate with IBM, Chewy has disregarded IBM's attempts to find a mutually acceptable resolution. In July 2020, IBM informed Chewy it was infringing IBM's patents through operation of its website, Chewy.com. That same month, IBM provided Chewy with detailed evidence showing how Chewy infringed the '849, '414, '443, and '034 patents, *see* Exhibits B, D, F, and H, and offered to meet with Chewy to discuss a business resolution. After months of delay, on October 6, 2020, Chewy claimed that it did not infringe any of IBM's patents and declined IBM's invitation to meet.

10. The parties continued to exchange letters, with IBM repeatedly asking for a meeting and Chewy repeatedly refusing. Then, without warning or notice, on February 15, 2021, Chewy brought this lawsuit again IBM. In the past months, IBM has discovered that Chewy has been using other IBM patents without authorization. IBM provided Chewy with detailed evidence showing how Chewy infringed U.S. Patent No. 7,496,831 on May 20, 2021, *see* Exhibit J.

NATURE OF THE CASE

11. This action arises under 35 U.S.C. § 271 for Defendant's infringement of IBM's United States Patent Nos. 7,072,849 (the "'849 patent"), 9,569,414 (the "'414 patent"), 7,076,443 (the "'443 patent"), 6,704,034 (the "'034 patent"), and 7,496,831 (the "'831 patent") (collectively the "Patents-In-Suit").

THE PARTIES

12. Plaintiff IBM is a New York corporation, with its principal place of business at 1 New Orchard Road, Armonk, New York 10504.

13. Defendant Chewy, Inc. is a Delaware corporation, with its principal place of business at 1855 Griffin Road, Dania Beach, Florida 33004.

JURISDICTION AND VENUE

14. IBM incorporates by reference paragraphs 1-13.

15. This action arises under the patent laws of the United States, including 35 U.S.C. § 271 *et seq*. The jurisdiction of this Court over the subject matter of this action is proper under 28 U.S.C. §§ 1331 and 1338(a).

16. Venue is proper in the Southern District of New York pursuant to 28 U.S.C. §§ 1391(b) and (c) and 1400(b). Chewy, Inc. conducts business in New York, at least by offering for sale and selling products and services through its websites and mobile applications, which are accessible in New York. Infringement by Chewy has occurred and continues to occur in New York. Venue is also proper because Chewy consented to venue in this District, including by filing its Complaint in this District.

17. Personal jurisdiction exists over Chewy, Inc. because it conducts business in New York, at least by offering for sale and selling products and services through its websites and mobile applications, which are accessible in New York, and because infringement has occurred and continues to occur in New York. Personal jurisdiction also exists over Chewy, Inc. because it consented to jurisdiction of this Court, including by commencing its Declaratory Judgment action against IBM and arguing that jurisdiction was proper.

FACTUAL BACKGROUND

A. IBM Is A Recognized Innovator.

18. IBM is a worldwide pioneer in various sectors of science and technology. During IBM's over 100-year history, IBM's employees have included six Nobel laureates, six Turing Awards laureates, five National Medal of Science recipients, and fifteen inventors in the National Inventors Hall of Fame. IBM has been awarded the U.S. National Medal of Technology more times than any other company or organization—the U.S. National Medal of Technology is the nation's highest award for technological innovation.

19. IBM employees are responsible for technological advances that have become foundational technology that is widely incorporated into use by the global community today, including the dynamic random access memory (DRAMs) found in nearly all modern computers; magnetic disk storage (hard disk drives) found in computers and portable music players; and some of the world's most powerful supercomputers, including Deep Blue (the first computer to beat a reigning chess champion, Garry Kasparov), Watson (the system that combined content analysis, natural language processing, information retrieval, and machine learning to beat two of *Jeopardy!*'s greatest human champions), and Summit (the world's fastest supercomputer when delivered to Oak Ridge National Laboratory in 2018 that has been employed to tackle society's largest problems from the opioid crisis to COVID-19). Technology evolves quickly and the nature of research and development ambitiously seeks out new discoveries. The inventions that IBM unearths today lays the groundwork for tomorrow's technology.

B. IBM Is Committed To Protecting Its Innovations Through The Patent System.

20. IBM's research and development operations differentiate IBM from many other companies. IBM annually spends billions of dollars for research and development. In addition to yielding inventions that have literally changed the way in which the world works, IBM's research and development efforts have resulted in more than 80,000 patents worldwide.

21. Like the research upon which the patents are based, IBM's patents also benefit society. Indeed, the Supreme Court has recognized that the patent system encourages both the creation and the disclosure of new and useful advances in technology. Such disclosure, in turn, permits society to innovate further. And, as the Court has further recognized, as a reward for committing resources to innovation and for disclosing that innovation, the patent system provides patent owners with the exclusive right to prevent others from practicing the claimed invention for a limited period of time.

C. IBM Routinely Licenses Its Patents In Many Fields But Will Enforce Its Rights Against Those Who Refuse To Negotiate About Their Unlawful Use Of IBM's Intellectual Property.

22. IBM's commitment to creating a large patent portfolio underscores the value that IBM places in the exchange of innovation, and disclosure of that innovation, in return for limited exclusivity. Indeed, IBM has used its patent portfolio to generate revenue and other significant value for the company by executing patent cross-license agreements. The revenue generated through patent licensing enables IBM to continue to commit resources to innovation. Cross licensing, in turn, provides IBM with the freedom to innovate and operate in a manner that respects the technology of others.

23. Given the investment IBM makes in the development of new technologies and the management of its patent portfolio, IBM and its shareholders expect companies to act responsibly with respect to IBM's patents. IBM facilitates this by routinely licensing its patents in many fields and by working with companies that wish to use IBM's technology in those fields in which IBM grants licenses. When a company appropriates IBM's intellectual property but refuses to negotiate a license, IBM has no choice but to seek judicial assistance. In the case of Chewy, IBM tried to discuss a potential agreement, but Chewy filed a lawsuit instead of negotiating.

D. IBM Invented Methods For Presenting Applications And Advertisements In An Interactive Service While Developing The PRODIGY Online Service.

24. The inventors of the '849 patent developed the patented technologies as part of IBM's efforts to launch the PRODIGY online service ("Prodigy"), a forerunner to today's Internet, in the late 1980s. The inventors believed that to be commercially viable, Prodigy would have to provide interactive applications to millions of users with minimal response times. The inventors believed that the "dumb" terminal approach that had been commonly used in conventional systems, which heavily relied on host servers' processing and storage resources for performance, would not be

suitable. As a result, the inventors sought to develop more efficient methods of communication that would improve the speed and functionality of interactive applications and reduce equipment capital and operating costs.

25. In light of the above considerations, the inventors developed novel methods for presenting applications and advertisements in an interactive service that would take advantage of the computing power of each user's PC and thereby reduce demand on host servers, such as those used by Prodigy. The inventors recognized that if applications were structured to be comprised of "objects" of data and program code capable of being processed by a user's PC, the Prodigy system would be more efficient than conventional systems. By harnessing the processing and storage capabilities of the user's PC, applications could then be composed on the fly from objects stored locally on the PC, reducing reliance on Prodigy's server and network resources.

26. The service that would eventually be called Prodigy embodied inventions from the '849 patent when it launched in late 1988, before the existence of the World Wide Web. The efficiencies derived from the use of the patented technology permitted the implementation of one of the first graphical user interfaces for online services. The efficiencies also allowed Prodigy to quickly grow its user base. By 1990, Prodigy had become one of the largest online service providers with hundreds of thousands of users. Prodigy was widely praised in the industry and is still held up as an example of innovation in computer networks that predated even the advent of the World Wide Web. The technological innovations embodied in this patent persist to this day and are fundamental to the efficient communication of Internet content.

27. Today, it is easy to take the World Wide Web, powerful computers, and high-speed network connectivity for granted. Not so in 1988, when the first application in the '849 patent's priority chain was filed. The World Wide Web had not even been conceived yet. Typical personal

computers at the time had "512K RAM"—not 512 megabytes or gigabytes of RAM, but 512 kilobytes. '849 patent at 9:16-18. The '849 patent also describes the use of 1,200 to 2,400 bps (bits per second) modems to access a network—a far cry from today's high-speed internet. *Id.* at 9:18-20.

28. The limited processing power and network bandwidth available in 1988 posed significant technical obstacles to the development and adoption of network-based interactive services, in which many users may access interactive services provided by a host. *Id.* at 1:34-58. Accordingly, the '849 patent specifically identifies slowdowns in network response time caused by processing bottlenecks at the host as a problem to be solved:

> [I]n conventional time-sharing computer networks, the data and program instructions necessary to support user sessions are maintained at a central host computer. However, that approach has been found to create processing bottlenecks as greater numbers of users are connected to the network; bottlenecks which require increases in processing power and complexity; e.g., multiple hosts of greater computing capability, if the network is to meet demand. Further, such bottlenecks have been found to also slow response time as more users are connected to the network and seek to have their requests for data processing answered. *Id.* at 10:42-53; see also *id.* at 1:43-52, 10:54-57.

29. As the '849 patent also explains, simply adding additional computing capacity to the hosts is not enough to fix the bottleneck problem. "[E]ven in the case where additional computing power is added, and where response time is allowed to increase, eventually the host becomes user saturated as more and more users are sought to be served by the network." *Id.* at 10:58-61. In other words, even a host with additional computing capacity would still have limits on how many users it could support in conventional approaches.

30. Conventional approaches to providing advertising in interactive services exacerbated the bottleneck problem by clogging limited network bandwidth. In conventional approaches to advertising in interactive services, advertising had to compete with service application data for

limited network bandwidth. *Id.* at 2:20-30. That competition between advertising and service application data had "the undesirable effect of diminishing service response time." *Id.* at 2:25-26.

31. The bottleneck problem arises from the limitations of networks that rely exclusively on central hosts to satisfy users' data processing requests and the limited network bandwidth available at the time of the invention. Accordingly, the bottleneck problem addressed by the '849 patent is a "technical problem."

32. Before this suit, the '849 patent had been challenged three times on grounds of alleged patent ineligibility. Those challenges were all unsuccessful. In the matter of *IBM v. The Priceline Grp., Inc.*, C.A. No. 1:15-cv-00137 (D. Del.), the defendants (collectively "Priceline") filed a motion to dismiss, alleging that the '849 patent was directed to unpatentable subject matter. The Delaware court denied Priceline's motion, finding that "Defendants have failed to meet their burden of demonstrating that . . . claim 1 of the '849 patent [is] devoid of inventive concepts." *IBM v. The Priceline Grp., Inc.*, 2016 WL 626495, at *24 (D. Del. Feb. 16, 2016).

33. In the matter of *Kayak Software Corp. v. IBM.*, CBM2016-00075, Priceline again challenged the '849 patent on alleged patent eligibility grounds, this time before the Patent Trial and Appeal Board ("PTAB"). Just like in the district court, the PTAB rejected Priceline's challenge. The PTAB "agree[d] with Patent Owner the disclosure of the '849 patent itself is almost exclusively directed to solving a problem arising in computer technology (i.e., bandwidth) with a computerized solution (i.e., local storage)." *Kayak Software Corp. v. IBM.*, CBM2016-00075, Paper 16 (PTAB Dec. 15, 2016)) at 19. The PTAB thus concluded, "Petitioner has not shown sufficiently that independent claims 1 and 21 are directed to an unpatentable 'abstract idea' . . . ." *Id.* at 20.

34. Although the parties filed other summary judgment motions in the Priceline case, Priceline chose not to file a summary judgment motion to challenge the patent eligibility of the ’849 patent.

35. In the matter of *IBM v. Groupon, Inc.*, C.A. No. 1:16-cv-00122 (D. Del.), Groupon, Inc. (“Groupon”) moved for judgment on the pleadings that the ’849 patent was directed to ineligible subject matter. The court denied Groupon’s motion, finding that “the asserted claims for the Filepp patents are not directed to an abstract idea and are directed to patent-eligible subject matter.” *IBM v. Groupon, Inc.*, 289 F. Supp. 3d 596, 607 (D. Del. 2017).

E. IBM Invented Unconventional Methods For Formatting And Serving Web Content Using JavaScript Functions And JavaScript Objects.

36. The inventors of the ’414 patent developed the patented technology as a way to improve web development by simplifying and optimizing the generation and display of dynamic content. Prior to the ’414 patent, web developers who wished to embed dynamic content on their websites would typically embed a URL that called to a JavaScript library to add in the dynamic content. The dynamically generated JavaScript library contained the content to be displayed and provided a function to embed that content directly on to the page. ’414 patent at 1:31-33. A web developer could adjust the look and feel of the website by using cascading style sheets (CSS), but this approach was very limited on the type of formatting that could be performed on the data. *Id.* at 1:33-35. Web developers were thus essentially restricted by the formatting provided by the JavaScript library that they called. If the developer wanted different formatting, then he or she was required to create a new dynamically generated JavaScript library that contained the new functions and the content to perform the desired formatting. *Id.* at 1:35-42. Thus, developers were required to create a new dynamically generated JavaScript library for each different format they may desire, even if it was passing the same content.

37. Having to develop multiple JavaScript libraries led to several problems. First, it was time consuming to design and create each of the dynamically generated JavaScript libraries. Second, each dynamically generated JavaScript library had to be able to interface with the various backend systems that provide the data, leading to an increase in network traffic and use of bandwidth on the backend systems. *Id.* at 1:45-47. And third, as the number of versions of the dynamically generated JavaScript libraries increased, due to either variations of the content or the formatting, the burden of maintaining, storing, finding, and constantly updating those libraries increased as well. *Id.* at 1:42-45.

38. The inventors of the ’414 patent addressed these problems by separating the dynamic data from the formatting functions. The inventors realized that if they generated the dynamic data as a set of JavaScript objects without any HTML formatting, they could pass the data as a parameter to a set of JavaScript functions which provide the formatting. This allowed for a more efficient approach for serving dynamic content because the one set of JavaScript objects can be formatted by different sets of JavaScript functions based on the type of formatting required. Conversely, one set of JavaScript functions can format different sets of JavaScript objects depending on the type of content that is to be served. *Id.* at 4:34-37.

39. The invention of the ’414 patent had several advantages. The JavaScript functions could be static, rather than dynamic, because they were taking, as input, the dynamic JavaScript data. *Id.* at 4:5-10. The JavaScript data and the functions could also be stored on different servers since they were no longer tied together. *Id.* at 3:67-4:5. Furthermore, the JavaScript functions and the JavaScript data can be updated independent of each other; thus, if there is a change in the content of the data, the new approach would not require updating the set of JavaScript functions. *Id.* at 4:24-27. Additionally, a new set of JavaScript functions did not need to be created for each

content type and format type; rather, a single set of JavaScript functions could be developed to provide the desired format for all types of dynamic JavaScript content. Thus, if a developer wants different formatting, the developer only needs to create one new set of JavaScript functions, as opposed to developing several JavaScript libraries to format each set of content that may be served. Lastly, this would also lead to a reduction in the amount of database space needed to store the content and the functions, as each combination of content and formatting need not be stored as a unique JavaScript library. *Id.* at 4:35-37. By separating the dynamic JavaScript data from the functions that format that data, the inventors of the '414 patent greatly increased web developers' degree of formatting flexibility.

40. In order to implement this invention, the inventors of the '414 patent developed a particular approach and corresponding software framework that combined three key features.

41. First, the '414 patent teaches "a set of JavaScript functions distinct from a set of JavaScript objects." By decoupling the content (e.g., the JavaScript objects) from the formatting (e.g., the JavaScript functions), the '414 patent resolves the problem in prior uses of JavaScript requiring the development of JavaScript libraries to account for each combination of formatting and content. Specifically, the web developer need only create sets of JavaScript objects and separate sets of JavaScript functions wherein each set of JavaScript functions can format one or more sets of JavaScript objects, such that returning one set of JavaScript functions to format one set of JavaScript objects can sufficiently output formatted content. In addition, decoupling the JavaScript functions from the JavaScript objects also supports downloading the dynamically generated set of JavaScript objects from one server while the set of JavaScript functions used for formatting can be downloaded from a different server, thereby improving performance and flexibility.

42. Second, the ’414 patent requires requesting this decoupled set of JavaScript functions and set of JavaScript objects in a single HTTP request. By requesting the JavaScript functions and the set of JavaScript objects using a single HTTP request, the invention of the ’414 patent ensures that the use of decoupled JavaScript objects and functions still allows for an optimal user experience during navigation of the website. In particular, after a user submits a request on a website, such as a search request, the user expects to receive displayed formatted content responsive to the user’s request. The invention of the ’414 patent seeks to meet such expectations by requiring that the request for both the set of JavaScript functions and the set of JavaScript objects is instantiated by a single HTTP request. For example, when a user submits a search query, the HTTP request generated by the user’s action would be for the fully rendered page responsive to the search query, including all components (such as JavaScript functions and JavaScript objects) needed for rendering the page.

43. Third, the ’414 patent requires that JavaScript objects and the JavaScript functions be obtained specifically in response to the request to the server. This limitation minimizes the latency that a user may experience as it navigates the webpage by minimizing the number of downloads and HTTP communications that occur, thus further optimizing user experience. This limitation also ensures accuracy by sending JavaScript functions and objects responsive specifically to the user’s request.[1]

F. IBM Invented Unconventional Methods For Targeting Users With Highly Relevant Advertising By Leveraging The Characteristics Of Search Results Rather Than Merely Matching Search Queries.

44. The inventors of the ’443 patent developed the patented technologies as part of IBM’s

[1] For a more detailed discussion of the computer-specific problems to which the claims are directed and inventive aspects therein, see the Declaration of Dr. Douglas Schmidt (attached herein as Ex. K)

efforts to improve Internet search engine technology in the area of e-commerce solutions and, in particular, targeted advertisements. Prior to the inventions of the '443 patent, with the accelerated growth of the Internet and its associated e-commerce activities, advertising over the Internet became increasingly more acceptable to Internet users, and marketing professionals looked for ways to optimize online advertising. But the technology used to deliver targeted advertisements to Internet users presented unique challenges—different from those faced by offline advertising (such as person-to-person marketing)—because computers must determine appropriate ads based largely on the users' behaviors while browsing the Internet.

45. One prior art solution to the challenges faced by internet advertisers involved building user profiles with cookies to generate banners ads. Internet advertisers built a user profile by extracting data about the user from the user's browsing behaviors. When the user browsed a particular website, the website placed on the user's computer a small piece of data (a "cookie") from the user's browsing session on that website. When the user returned to that website, the website retrieved the cookies associated with that user to determine the user's interests. These cookies comprised the user's "user profile"—a snapshot of the user's interests derived from their browsing behaviors. For example, a user might visit the website www.sears.com looking for a dishwasher. The website stored a cookie on the user's computer indicating that the user is interested in dishwashers. If the user later returned to www.sears.com, the website retrieved the cookie from the user's computer and determined that the user was interested in dishwashers.

46. At the time of the invention of the '443 patent, advertisers typically used cookies to build user profiles. The advertisers then used those user profiles to generate banner ads. Banner ads are advertisements embedded into a website, typically appearing on a site as a bar, column, or box. An early banner ad is seen in the image below:

(https://www.theatlantic.com/technology/archive/2017/04/the-first-ever-banner-ad-onthe-web/523728/).

47. Advertisers presented banner ads according to the user's user profile, on the assumption that the user profile accurately represented the user's interests. For example, a user might have a user profile indicating that they are interested in dishwashers. When the user visited www.sears.com, the website detected this attribute in the user's user profile and presented a banner ad on the website advertising dishwashers.

48. Although user profiling and banner ads were a popular form of internet advertising at the time of the invention of the '443 patent, they suffered from numerous drawbacks. A website displayed banner ads to a user whether or not the user solicited them, which annoyed users who did not want to see any ads or who preferred to view ads only if the user requested them. User profiling was also burdensome and time-consuming to carry-out, especially for website owners who were not tech savvy or lacked the required resources. Moreover, user profiling and banner ads were typically only effective on websites that had high user traffic, since building comprehensive and informative user profiles required extensive interactions between many users and the website.

49. Additionally, user profiling and banner ads were often not aligned with the user's actual interests. For example, a user might visit www.sears.com and search for a dishwasher. The website stored a cookie indicating that the user is interested in dishwashers. The user then left the website and purchased a dishwasher in-person from a different store. When the user returned to www.sears.com in search of an air conditioner, the website retrieved the user's cookie and

mistakenly concluded that the user is still interested in a dishwasher. Advertisers therefore had difficulty keeping user profiles and banner ads aligned to a user's current interests. User profiling and banner ads also failed to account for offline purchases and untracked online purchases. For example, the website could not determine if a user bought a particular product in-person at a store, disabled cookies on their browser before making a purchase, or simply chose to browse anonymously.

50. The inventors of the '443 patent developed a novel and unconventional approach to delivering advertisements over the Internet that overcame the limitations of user profiling and banner advertisements. The inventors' core philosophy was at odds with the banner advertisements that were prevalent at the time of the invention of the '443 patent. The '443 patent explains that "unlike the prior art methods of selecting and displaying banner ads predicated on user profiles, these profiles need not be relied upon. Instead the initial search results themselves are utilized." '443 patent at 5:16-19. The patent goes on to state that "[t]he invention's philosophy relies on the principle that users who are performing a search query have a special interest in finding a particular piece of information. From this one may deduce that if a user is interested in a specific piece of information, he or she may be interested in related or similar advertisements." *Id.* at 5:11-16. The patent describes the patented invention as "a new method and apparatus for associating search result items with similar or related advertisements." *Id.* at 1:63-65. The core idea behind the '443 patent was therefore an unconventional departure from the conventional internet advertising techniques of user profiling and banner advertisements.

51. The patent describes the unconventional technique of generating internet advertisements based off the results of a user search. First, a user performs a search. If the search returns a search result, the system performs a search for related advertisements using that search

result. For example, a user may search "washer machine" and get three search results, named WashMax, CleanMaster, and HousePro. The system could use the information contained in the "WashMax" search result to search for advertisements related to that particular search result. The system could repeat the advertisement search for both the CleanMaster and HousePro search results.

52. The system can also place a Graphical User Interface ("GUI") button next to each search result. If the user clicks a search result, the system returns information for that search result. On the other hand, if the user selects the GUI button next to the search result, the system initiates a search of the advertised database using the search result as a search parameter, and displays to the user advertisements relating to that search result.

53. The '443 patent describes a detailed algorithm for performing this unconventional method of delivering internet advertisements based on search result items in a computing environment. First, a "user initially submits a query" which is then "forwarded to the user/session manager subsystem [] which then forwards it on to [the] search engine." *Id.* at 6:27-31. The "search engine [] performs an Internet search and produces a search results set" which is then "forwarded [] to the product matching manager." *Id.* at 6:31-34. "The product matching manager [] takes the search engine results set and attempts to match at least one product to each of the search result items" by "communicat[ing] with the product database []." *Id.* at 6:35-38. Then, "[f]or each match found, the product matching manager [] flags the corresponding search result item" and "[t]his flag is used by the request server . . . to display a graphical user interface ['GUI'] designator . . . ." *Id.* at 6:49-54. After that, "[t]he request server [] builds a results page which contains the search result items, and if the search result item was flagged as [] having a product match, a [] graphical user interface ['GUI'] designator is also displayed for subsequent user selection. The

search result items and associated product icons are then displayed [] to the browser . . . ." *Id.* at 7:11-17.

54. The '443 patent also describes how the invention uses the computer-specific process of caching in an inventive way to implement the unconventional method of delivering associated advertisements based on search result items. The '443 patent states that a "caching component [] may be used to expedite the matching process." *Id.* at 6:44-45. The '443 patent further explains that "[t]his additional caching component stores frequent advertising queries, using the URL of the search result item as a unique key identifier." 6:47-49. The patent recognizes that a computer has limited time and resources to retrieve information and presents an unconventional method of using caching to search for advertisements using the search result items in a time and resource-efficient manner. The patent explains that "performance of the implementation is time sensitive," and therefore "the complete product list is not associated with each search result item [immediately]," but instead "[t]he caching component may be adapted to yield a TRUE or FALSE designation to the user depending on whether related advertisements exist for the URL of a particular search result item." *Id.* at 6:54-60. The '443 patent goes on to explain that "[e]very result for an advertisement is stored in the caching component. Advertising queries issued from the product matching manager [] perform a first inquiry in the caching component database, and then a full advertising query if no information is found in the caching component database for the particular search result item." *Id.* at 6:60-65. The invention therefore applies caching in an inventive way to improve the delivery of advertisements over the internet within a computer context.

55. The '443 patent also describes how the invention uses the computer-specific technique of "batch processing" in an inventive way to implement the unconventional method of delivering

advertisements related to search result items over the Internet. The patent explains that "the product matching manager [] may be adapted to perform an off-line batch process for each search result item in the search engine repository. The product database [] and the search engine repository are synchronized for this alternative approach. For example, for any new product advertisements, the product matching manager would update the cache." *Id.* at 6:66-7:5. The invention therefore applies batch processing in an inventive way to improve the delivery of advertisements over the internet within a computer context.

56. The '443 patent further describes how the unconventional method of delivering advertisements associated with search result items improves internet advertising. The patent states that "the implementation of this methodology will establish a new avenue for generating revenue from Internet advertisements." *Id.* at 1:65-67. Unlike user profiling and banner advertisements, generating advertisements based on the search result items themselves gives any website—no matter how small or infrequently visited—the ability to generate advertisements and ad revenue as long as the website has some type of search engine. As the '443 patent states: "[U]nlike the current user profiling methods, all web site owners who provide search engine services will be able [to] make use of the instant invention, independent of whether user profiling information can be obtained." *Id.* at 2:1-4.

57. The invention also more closely aligns the advertisements with the user's interests, since unlike user profiles, "search results provide a more narrowly defined basis for selecting target advertisements for each user." *Id.* at 5:20-21. Internet advertisers no longer have to rely on potentially outdated user profiles to generate unsolicited banner ads that may not even reflect the interests of the user. Instead, internet advertisers can use the unconventional methods of the '443 patent to find relevant advertisements for a particular user by using search result items returned to

the user through a user-initiated search. Therefore, the systems and methods of the '443 patent are inventive and unconventional.[2]

G. IBM Invented Methods For Increasing Accessibility Through A Context Sensitive Magnifying Glass That Could Be Combined With Other Techniques To Improve Graphical User Interfaces.

58. The inventors of the '034 patent developed the claimed technology as part of IBM's efforts to improve graphical user interfaces (GUIs) for users with disabilities. A computer communicates with a user through a GUI by displaying graphics, including text and icons, on a display screen, and the user communicates with the computer by typing textual information in response to dialogs and by manipulating the displayed icons with a pointing device, such as a mouse. *Id.* at 1:26-33. While GUIs were able to display complex information, the amount of that information often produced cluttered visualizations that were constrained by the size of the display. Such displays were particularly difficult to access for individuals with disabilities, such as sight or hearing disabilities. *Id.* at 10:23-29. At the time of the invention, some tools were available for magnifying portions of the screen. Those tools, however, typically magnified a portion of the screen without regard to the type of content—*e.g.* equal magnification regardless of font size. Further, the prior art often used pixel amplification, in which pixels were duplicated to create a larger image. That process did not improve the resolution, resulting in blurred text and images. Consequently, conventional magnification techniques increased the size of content without increasing the readability of text or the details of an image. *Id.* at 2:6-17.

59. The inventors of the '034 patent recognized the need to increase accessibility of GUIs, without the drawbacks of conventional techniques. They developed numerous synergistic

[2] For a more detailed discussion of the computer-specific problems to which the claims are directed and inventive aspects therein, see the Declaration of Dr. Douglas Schmidt (attached herein as Ex. L)

mechanisms for magnifying objects presented in a data processing system based on the context of those objects. *Id.* at 5:1-25, 10:33-41. First, they conceived of using "object types" as a way to magnify selected screen content. This approach differed from magnifying all content in a particular area of the screen, as someone would do with a magnifying glass. Instead, the methods and systems they invented would magnify particular objects "based on their object type." In other words, the way in which the system would magnify objects would differ for different object types. This was a solution that only made sense in computer applications because a computer could be programmed to allow a user to identify an object and allow for different treatment based on object type. Text could be magnified using enhanced fonts, images using different bitmaps, audio by varying volume, particularly in certain frequency ranges, and videos using different resolutions.

60. Second, they conceived of "detecting movement of a pointer over an object" and "monitoring for a change in focus" to implement the invention. Rather than just magnifying the whole screen, or even waiting for the user to click a mouse or enter a keystroke, the inventors gave users the flexibility to use the graphical user interface naturally and still obtain the benefit of improved usability by magnifying only selected objects. Many shopping websites now use this approach to allow the user to see details of a product without clicking on it.

61. Third, they conceived of "identifying a magnified version of the image object," which could have a higher resolution, and presenting that version of the image. In particular, they envisioned using bitmaps to implement this functionality. Thus, instead of just duplicating pixels, as was conventional in the prior art, they used an entirely different image. This was not typical because it would require additional formatting and storage on the servers of the system. But despite these requirements (which most system administrators wanted to avoid at the time) the

inventors recognized that it could dramatically improve quality.[3]

H. IBM Invented Methods For Improved Presentation Of Electronic Documents By Reformatting Regions With Cluttered Hyperlinks Using Proximity Policies.

62. The inventors of the '831 patent developed the claimed technology as part of IBM's efforts to improve the presentation of web pages on electronic devices. At the time of the invention of the '831 patent, conventional processes for the development and presentation of web pages were limited in allowing web pages to be accessible to people who have mobility or visual impairments. Developers often only used HTML to create web pages, and the limitations of HTML resulted in web pages that were often static. In the early days of the World Wide Web, there was no expectation that a web page can do any anything other than displaying static content.[4] Web pages would remain the same in spite of the amount of space available on an electronic device's display. And web pages often contained numerous links that could not be displayed efficiently on a device, though any of which could contain information of interest. The inventors realized that when numerous hyperlinks were packed into a small area, users could be overwhelmed and unable to interact effectively with the web page. For example, users may mistakenly click a blank space or the wrong hyperlink. And users who have impairments faced a challenge particular to the Internet: difficulty in accessing information available from a hyperlink due to limitations in conventional electronic devices. Prior art solutions to these problems involved keyboard inputs or magnifying portions of the webpage. But those techniques were time-consuming, required extraneous keystrokes, and were not intuitive. Users would have to use keystrokes to navigate sequentially through dozens or hundreds of links. And the magnification approach could have made web pages

[3] For a more detailed discussion of the computer-specific problems to which the claims are directed and inventive aspects therein, see the Declaration of Newton James Smith Junior (attached herein as Ex. M), an inventor of the '034 patent.
[4] https://www.techwalla.com/articles/the-disadvantages-of-html (attached herein as Ex. O).

less accessible, as oppose to more accessible, because it could not take into account how objects were already at the appropriate magnification.

63. The ’831 patent solves the problem of cluttered hyperlinks on a webpage in an unconventional way. Specifically, the inventors realized that webpages could be preprocessed by reformatting the hyperlinks before display using a proximity policy. ’831 patent at 7:31-43. The proximity policy could take into account, for example, the number of hyperlinks per unit of measure or the vertical/horizontal spacing between hyperlinks on the page. *Id.* at 7:59-63. And the proximity policy may also define the vertical or horizontal spacing between two or more hyperlinks using, among others, a number of points or pixels. *Id.* at 7:64-8:25. Unlike the approach of magnifying a portion of a screen, the inventions of the ’831 patent approached development and presentation of web pages in a new way, by linking a proximity policy to hyperlinks, as opposed to other content on a web page. The inventors also claimed specific technologies for implementing their solutions, such as cascading style sheets (“CSS”) with specifications concerning (1) spacing between words or (2) the minimal height of a generated inline box. *Id.* at 8:60-9:22. As opposed to web pages that only use HTML, this combination of using HTML and CSS provided a new way to reformat web pages that allowed web pages to be interactive. Unlike the early days of the World Wide Web, the inventions of the ’831 patent allowed web pages to do more than simply display static images and texts. Web pages can now receive a user input enabling the reformatting of the web page. The inventions of the ’831 patent have become particularly important as advances in technology allow for electronic devices with smaller screens. Increases in computing storage and power allow for a growing amount of data to be presented on electronic devices. And businesses require that an increasing amount of information and hyperlinks be presented on a single web page, even on devices with small screens. *Id.* at 2:23-24. Thus, smaller screens can provide greater challenges to people

who have visual or mobility impairments, especially when the entirety of information cannot all be displayed on the screen.[5]

I. Chewy Has Built Its Business By Infringing IBM's Patents.

64. Chewy offers for sale pet-related products and provides pet-related services, including connecting its customers with licensed veterinarians. Chewy has grown rapidly over the last several years and now has billions of dollars of annual revenue per year.

65. Rather than build its business on its own technologies, Chewy has appropriated the inventions of the Patents-In-Suit. Websites under Chewy's control, including at least www.chewy.com, use the technology claimed by the Patents-In-Suit to offer for sale products and to provide other pet-related services. Chewy mobile applications, including at least mobile applications running on, for example, Apple iOS and Google Android operating systems, use the technology claimed by the Patents-In-Suit to provide similar pet-related services to their users.

66. IBM has tried to work with Chewy to negotiate a licensing agreement since July 2020.

67. In July 2020, IBM informed Chewy it was infringing IBM's patents through operation of its website Chewy.com. That same month, IBM provided Chewy with detailed evidence showing how Chewy infringed the '849, '414, '443, and '034 patents, *see* Exhibits B, D, F, H, and offered to meet with Chewy to discuss a business resolution. Months later, on October 6, 2020, Chewy asserted that it did not infringe any of IBM's patents and declined IBM's invitation to meet.

[5] For a more detailed discussion of the computer-specific problems to which the claims are directed and inventive aspects therein, see the Declaration of Karthikeyan Ramamoorthy (attached herein as Ex. N), an inventor of the '831 patent.

68. On October 16, 2020, IBM provided Chewy increasingly detailed notice of IBM's infringement claims and again invited Chewy to engage in meaningful discussion. Almost two months later, on December 9, 2020, Chewy responded with meritless arguments and refused to have a meeting to engage in licensing discussions.

69. About one week later, on December 17, 2020, IBM noted that Chewy's most recent correspondence largely restated the same arguments from October and reiterated the necessity for the parties to meet and confer. On January 4, 2021, Chewy informed IBM that it would meet with IBM "only after IBM adequately responded to Chewy's non-infringement and invalidity positions." On January 12, 2021, IBM informed Chewy that its January 4, 2021 letter did not address IBM's evidence and explanations of Chewy's infringement.

70. Instead of responding to IBM's most recent letter on January 12, 2021, on February 15, 2021, Chewy brought its declaratory judgment action, without ever meeting with or notifying IBM beforehand. In the past months, IBM has discovered that Chewy has been using other IBM patents without authorization. IBM provided Chewy with detailed evidence showing how Chewy was infringing the '831 patent on May 20, 2021, *see* Exhibit J.

71. Chewy has challenged the patent eligibility of some of the patents in this action. However, all of the asserted claims recite technical solutions to technical problems and include unconventional inventive concept.[6]

COUNT ONE

INFRINGEMENT OF THE '849 PATENT

72. IBM incorporates by reference paragraphs 1-71.

[6] Ex. P, Inventive Concept Chart.

73. IBM is the owner of all right, title and interest in the ’849 patent. The ’849 patent was duly and properly issued by the USPTO on July 4, 2006. The ’849 patent was duly assigned to IBM. A copy of the ’849 patent is attached hereto as Exhibit A.

74. In violation of 35 U.S.C. § 271(a), Chewy has directly infringed one or more of the claims of the ’849 patent by having made, designed, offered for sale, sold, provided, used, maintained, and/or supported its websites (including www.chewy.com) and its mobile applications (including the Chewy applications for mobile devices running on, for example, the Apple iOS and Google Android operating systems). Alternatively, Chewy has contributed to the infringement of one or more of the claims of the ’849 patent in violation of 35 U.S.C. § 271(c) by selling, offering to sell, and/or supplying components, materials, or apparatuses for use in practicing the patented methods of the ’849 patent by end users and consumers, as described below. Alternatively, Chewy has induced others, including end users and customers, to infringe one or more of the claims of the ’849 patent in violation of 35 U.S.C. § 271(b), as described below. Chewy’s infringement is continuing.

75. Chewy infringes claims 1-9, 12-22, and 25 of the ’849 patent, as described below and in Exhibits Q and R.

76. For example, Chewy directly infringes at least claim 1 of the ’849 patent through www.chewy.com and the Chewy mobile applications, at least as shown by Exhibit B.

77. Alternatively, to the extent the “structuring” step is performed by a third party (in addition to and/or separate from Chewy’s performance), such as a browser or mobile operating system, that performance is attributable to Chewy at least because Chewy has an agency or contractual relationship with said third party, or Chewy directs or controls the performance of said third party. For example, Chewy directs or controls the performance of the “structuring” steps by

browsers and mobile operating systems because it, for example, establishes the manner or timing of the performance by, for example, designing and generating the HTML template and computer code (such as JavaScript and JSON), which comprise www.chewy.com and the Chewy mobile applications. That HTML template and computer code contains instructions that direct the browser or mobile operating system to structure the Chewy webpage or mobile applications in a particular manner. For another example, Chewy directs or controls the performance of the "structuring" steps by browsers and mobile operating systems because it profits from such performance by, for example, increasing use and user interactions by designing its website in a user-friendly manner. Chewy has the right to stop or limit infringement by, for example, redesigning the HTML and computer code of www.chewy.com and the Chewy mobile applications to function in a non-infringing manner.

78. Alternatively, to the extent that the "selectively storing" step is performed by a third party (in addition to and/or separate from Chewy's performance), such as a browser or mobile operating system, that performance is attributable to Chewy at least because Chewy has an agency or contractual relationship with said third party, or Chewy directs or controls the performance of said third party. For example, Chewy directs or controls the performance of the "selectively storing" step by browsers and mobile operating systems because it, for example, conditions receipt of a benefit, such as reduced latency, on the performance of the claimed steps, and establishes the manner or timing of the performance by, for example, determining which image and other data is cached and for how long. For another example, Chewy directs or controls the performance of the "selectively storing" step by browsers and mobile operating systems because it profits from such performance by, for example, increasing use and user interactions through reduced latency.

Chewy has the right to stop or limit infringement by, for example, determining that image and other data should not be cached.

79. Alternatively, to the extent that the "selectively storing" step is performed by a third party (in addition to and/or separate from Chewy's performance), such as a Content Delivery Network ("CDN") or other server, that performance is attributable to Chewy at least because Chewy has an agency or contractual relationship with said third party, or Chewy directs or controls the performance of said third party. For example, Chewy directs or controls the performance of the "selectively storing" step by CDNs because it, for example, conditions receipt of a benefit, such as payment for services, on the performance of the claimed steps, and establishes the manner or timing of the performance by, for example, determining which image and other data is cached and for how long. For another example, Chewy directs or controls the performance of the "selectively storing" step by browsers and mobile operating systems because it profits from the performance by, for example, increasing use and user interactions through reduced latency. Chewy has the right to stop or limit infringement by, for example, determining that image and other data should not be cached.

80. Chewy has had knowledge of the '849 patent and its direct and indirect infringement since at least July 6, 2020.

81. Chewy also indirectly infringes one or more claims of the '849 patent through its websites (including www.chewy.com) and the Chewy mobile applications (including the Chewy applications for mobile devices running on, for example, the Apple iOS and Google Android operating systems). On information and belief, in certain circumstances, client devices and software (e.g., devices and software used by end users and customers of Chewy's website and the associated mobile applications) directly infringe the '849 patent through the use of the website and

mobile applications. In particular, to the extent Chewy does not perform the method steps, in certain circumstances, client devices and software (e.g., devices and software used by end users, customers, and potential customers of Chewy's website and the associated mobile applications) perform at least the method of presenting advertising recited by claim 1 of the '849 patent.

82. On information and belief, despite knowledge of the infringement of the '849 patent, Chewy intended and continues to intend to contribute to patent infringement by third parties by selling, offering to sell, and/or supplying components, materials, or apparatuses for use in practicing the patented methods of the '849 patent by end users and consumers, as described in this section.

83. For example, Chewy provides computer code (such as HTML, JavaScript, JSON, and image files) underlying the Chewy website and mobile applications that is sent to customers and end users for use in infringing the '849 patent, and such computer code does not have substantial non-infringing uses. Such computer code is especially made and/or especially adapted for use in infringing the '849 patent and is not a staple article or commodity of commerce suitable for substantial non-infringing use. The only substantial use of such computer code is for the claimed subject matter involving presenting applications along with advertising as described in the '849 patent.

84. Further, as a part of providing said computer code, Chewy enters into binding contracts with end users and customers to use Chewy's website and mobile applications, including in an infringing manner, by binding the users to a terms of use governing access to and use of the accused website and mobile applications.

85. Chewy receives valuable consideration from customers and end users located in this judicial district, including information provided by customers and end users, information

automatically collected from customers and end users, and monetary consideration from customers and end users who purchase products and other pet services through Chewy's website and mobile applications. When customers and end users in this judicial district use the accused website and/or mobile applications, Chewy collects information about the customers and end users, their devices, and their interaction with the accused website and the associated mobile applications. Chewy works with service providers and advertising networks to track and manage cookie information and activities of customers and end users across different websites and devices. Third parties use cookie information collected by Chewy to deliver advertisements to end users and customers based on their use of the accused website and mobile applications. Chewy's business is funded through advertising. The applications and website are especially made and/or especially adapted for use in infringing the Patents-In-Suit, including the '849 patent, at least as detailed above, and are not a staple article or commodity of commerce suitable for substantial non-infringing uses because, among other things, the components sent to users are uniquely designed only to access the infringing aspects of Chewy's website and mobile applications.

86. On information and belief, despite its knowledge of the infringement of the '849 patent, Chewy has intended and continues to induce patent infringement by third parties, including at least the direct infringement by end users and customers, as described in this section. Chewy has and continues to encourage and instruct customers and end users to use Chewy's website and the associated mobile applications in a manner that infringes the '849 patent by advertising the website and mobile applications, providing customer support, and designing its website and mobile applications in such a way that the use of the website and mobile applications by an end user or customer infringes the '849 patent.

87. On information and belief, to the extent Chewy was not aware that it was encouraging its customers and end users to infringe the ’849 patent, its lack of knowledge was based on being willfully blind to the possibility that its acts would cause infringement.

88. IBM has been damaged by the infringement of the ’849 patent by Chewy and will continue to be damaged by such infringement. IBM is entitled to recover from Chewy the damages sustained by IBM as a result of Chewy’s wrongful acts.

89. The continued infringement by Chewy of the ’849 patent is deliberate and willful, entitling IBM to increased damages under 35 U.S.C. § 284 and to attorney fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

90. IBM has suffered and continues to suffer irreparable harm, for which there is no adequate remedy at law, and will continue to do so unless Chewy is enjoined therefrom by this Court.

COUNT TWO

INFRINGEMENT OF THE ’414 PATENT

91. IBM incorporates by reference paragraphs 1-90.

92. IBM is the owner of all right, title and interest in the ’414 patent. The ’414 patent was duly and properly issued by the USPTO on February 14, 2017. The ’414 patent was duly assigned to IBM. A copy of the ’414 patent is attached hereto as Exhibit C.

93. In violation of 35 U.S.C. § 271(a), Chewy has directly infringed one or more of the claims of the ’414 patent by having made, designed, offered for sale, sold, provided, used, maintained, and/or supported its websites (including www.chewy.com) and its mobile applications (including the Chewy applications for mobile devices running on, for example, the Apple iOS and Google Android operating systems). Alternatively, Chewy has contributed to the infringement of the claims of the ’414 patent in violation of 35 U.S.C. § 271(c) by selling, offering to sell, and/or

supplying components, materials or apparatuses for use in practicing the patented methods of the '414 patent by end users and consumers, as described in this section. Alternatively, Chewy has induced others, including end users and customers, to infringe one or more of the claims of the '414 patent in violation of 35 U.S.C. § 271(b), as described below. Chewy's infringement is continuing.

94. Chewy infringes claims 1-3, and 5 of the '414 patent, as described below and in Exhibit S.

95. For example, Chewy directly infringes at least claim 1 of the '414 patent through www.chewy.com and the Chewy mobile applications, at least as shown by Exhibit D.

96. Chewy performs the "requesting" step by causing code on its website and mobile applications to be executed that generate and send to Chewy's servers an HTTP request in response to a user action. For example, Chewy performs the "requesting" step on its website by causing JavaScript code to be executed that generates an HTTP request when a user submits a search query. For another example, Chewy performs the "requesting" step on its mobile applications by causing code to be executed that generates an HTTP request when a user taps to view the details page of a product or service. Additionally, on information and belief, Chewy performs the "requesting" step when the Chewy server that receives the HTTP request sent from the user's browser or mobile application directs the request to a subsequent Chewy server in order to satisfy the HTTP request.

97. Chewy's request for "a set of JavaScript objects and a set of JavaScript functions" is in a single HTTP request. The HTTP request is generated in response to a user's request for a subsequent page, such as a page containing pet supplies or services responsive to a search query or the details page of a product or service, and requests all of the components needed to render that subsequent page, including the HTML, CSS files, JavaScript files, JavaScript objects, images, etc.

on that page. Chewy obtains the various components requested by returning, in response to the HTTP request, an HTML page including scripts for obtaining the other components.

98. Alternatively, to the extent the "requesting" step is performed by a third party (in addition to and/or separate from Chewy's performance), such as a user, browser, or mobile operating system, that performance is attributable to Chewy at least because Chewy has an agency or contractual relationship with said third party, or Chewy controls or directs the performance of said third party. For example, Chewy controls or directs the performance of the "requesting" step by users, browsers, and mobile operating systems because it, for example, conditions receipt of a benefit, such as access to certain content on Chewy's website and mobile applications, on the performance of the claimed steps, and establishes the manner or timing of the performance by, for example, requesting a set of JavaScript objects and a set of JavaScript functions using its underlying computer code. For another example, Chewy controls or directs the performance of the "requesting" step by users, browsers, and mobile operating systems because it profits from the performance by, for example, increasing the number of products purchased on Chewy's website and mobile applications. Chewy has the right to stop or limit infringement, by, for example, not sending JavaScript objects or JavaScript functions to the users, browsers, or mobile operating systems.

99. Alternatively, to the extent the "formatting" step is performed by a third party (in addition to and/or separate from Chewy's performance), such as a user, browser, or mobile operating system, that performance is attributable to Chewy at least because has an agency or contractual relationship with said third party, or Chewy controls or directs the performance of said third party. For example, Chewy controls or directs the performance of the "formatting" step by users, browsers, and mobile operating systems because it, for example, conditions receipt of a

benefit, such as access to certain content on Chewy's website and mobile applications, on the performance of the claimed steps, and establishes the manner or timing of the performance by, for example, designing and generating the JavaScript and the JSON files, which comprise www.chewy.com and the Chewy mobile applications. For another example, Chewy controls or directs the performance of the "formatting" step by users, browsers, and mobile operating systems because it profits from the performance by, for example, increasing use and user interactions by improving the manner that products are displayed. Chewy has the right to stop or limit infringement, by, for example, redesigning the JavaScript and JSON files of www.chewy.com and the Chewy mobile applications to function in a non-infringing manner.

100. Alternatively, to the extent the "outputting" step is performed by a third party (in addition to and/or separate from Chewy's performance), such as a user, browser, or mobile operating system, that performance is attributable to Chewy at least because Chewy has an agency or contractual relationship with said third party, or Chewy controls or directs the performance of said third party. For example, Chewy controls or directs the performance of the "outputting" step by users, browsers, and mobile operating systems because it, for example, conditions receipt of a benefit, such as access to certain content on Chewy's website and mobile applications, on the performance of the claimed steps, and establishes the manner or timing of the performance by, for example, designing and generating the HTML and the JavaScript files of www.chewy.com and the Chewy mobile applications. For another example, Chewy controls or directs the performance of the "outputting" step by users, browsers, and mobile operating systems because it profits from the performance by, for example, increasing the number of products or services accessed on Chewy's website and mobile applications by displaying the products in an efficient manner. Chewy has the right to stop or limit infringement, by, for example, redesigning the HTML and the

JavaScript files of www.chewy.com and the Chewy mobile applications to function in a non-infringing manner.

101. Chewy has had knowledge of the ’414 patent and its alleged direct and indirect infringement since July 6, 2020.

102. Chewy also indirectly infringes one or more claims of the ’414 patent through its websites (including www.chewy.com) and its mobile applications (including the Chewy applications for mobile devices running on, for example, the Apple iOS and Google Android operating systems). On information and belief, in certain circumstances, client devices and software (e.g., devices and software used by end users and customers of Chewy’s website and the associated mobile applications) directly infringe the ’414 patent through the use of the website and mobile applications. In particular, to the extent Chewy does not perform the method steps, in certain circumstances, client devices and software (e.g., devices and software used by end users, customers, and potential customers of Chewy’s website and the associate mobile applications) perform at least the method of formatting and serving web content recited by claim 1 of the ’414 patent.

103. On information and belief, despite knowledge of the infringement of the ’414 patent, Chewy has intended and continue to intend to contribute to patent infringement by third parties by selling, offering to sell, and/or supplying components, materials, or apparatuses for use in practicing the patented methods of the ’414 patent by end users and consumers, as described in this section.

104. For example, Chewy provides computer code (such as HTML, JavaScript, and image files) underlying the Chewy website and mobile applications to customers and end users for use in infringing the ’414 patent, and such computer code does not have substantial non-infringing

uses. Such computer code is especially made and/or especially adapted for use in infringing the '414 patent and is not a staple article or commodity of commerce suitable for substantial non-infringing use. The only substantial use of Chewy's computer code responses is for the claimed subject matter involving formatting and serving web content as described in the '414 patent.

105. Further, as a part of providing said computer code, Chewy enters into binding contracts with end users and customers to use Chewy's website and mobile applications, including in an infringing manner, by binding the users to a terms of use governing access to and use of the accused website and mobile applications.

106. Chewy receives valuable consideration from customers and end users located in this judicial district, including information provided by customers and end users, information automatically collected from customers and end users, and monetary consideration from customers and end users who purchase products and other pet services through Chewy's website and mobile applications. When customers and end users in this judicial district use the accused website and/or mobile applications, Chewy collects information about the customers and end users, their devices, and their interaction with the accused website and the associated mobile applications. Chewy works with service providers and advertising networks to track and manage cookie information and activities of customers and end users across different websites and devices. Third parties use cookie information collected by Chewy to deliver advertisements to end users and customers based on their use of the accused website and mobile applications. Chewy's business is funded through advertising. The applications and website are especially made and/or especially adapted for use in infringing the Patents-In-Suit, including the '414 patent, at least as detailed above, and are not a staple article or commodity of commerce suitable for substantial non-infringing uses because, among other things, the components sent to users are uniquely designed only to access the

infringing aspects of Chewy's website and mobile applications.

107. On information and belief, despite its knowledge of the infringement of the '414 patent, Chewy has intended and continues to induce patent infringement by third parties, including at least the direct infringement by end users and customers, as described in this section. Chewy has and continues to encourage and instruct customers and end users to use Chewy's website and the associated mobile applications in a manner that infringes the '414 patent by advertising the website and mobile applications, providing customer support, and designing its website and mobile applications in such a way that the use of the website and mobile applications by an end user or customer infringes the '414 patent.

108. On information and belief, to the extent Chewy was not aware that it was encouraging its customers and end users to infringe the '414 patent, its lack of knowledge was based on being willfully blind to the possibility that its acts would cause infringement.

109. IBM has been damaged by the infringement of the '414 patent by Chewy and will continue to be damaged by such infringement. IBM is entitled to recover from Chewy the damages sustained by IBM as a result of Chewy's wrongful acts.

110. The continued infringement by Chewy of the '414 patent is deliberate and willful, entitling IBM to increased damages under 35 U.S.C. § 284 and to attorney fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

111. IBM has suffered and continues to suffer irreparable harm, for which there is no adequate remedy at law, and will continue to do so unless Chewy is enjoined therefrom by this Court.

COUNT THREE

INFRINGEMENT OF THE '443 PATENT

112. IBM incorporates by reference paragraphs 1-111.

113. IBM is the owner of all right, title and interest in the ’443 patent. The ’443 patent was duly and properly issued by the USPTO on July 11, 2006. The ’443 patent was duly assigned to IBM. A copy of the ’443 patent is attached hereto as Exhibit E.

114. In violation of 35 U.S.C. § 271(a), Chewy has directly infringed one or more of the claims of the ’443 patent by having made, designed, offered for sale, sold, provided, used, maintained, and/or supported its websites (including www.chewy.com) and its mobile applications (including the Chewy applications for mobile devices running on, for example, the Apple iOS and Google Android operating systems). Alternatively, Chewy has contributed to the infringement of the claims of the ’443 patent in violation of 35 U.S.C. § 271(c) by selling, offering to sell, and/or supplying components, materials or apparatuses for use in practicing the patented methods of the ’443 patent by end users and consumers, as described in this section. Alternatively, Chewy has induced others, including end users and customers, to infringe one or more of the claims of the ’443 patent in violation of 35 U.S.C. § 271(b), as described below. Chewy’s infringement is continuing.

115. Chewy infringes claims 1-20 of the ’443 patent, as described below and in Exhibits T and U.

116. For example, Chewy directly infringes at least claims 1 and 5 of the ’443 patent through www.chewy.com and the Chewy mobile applications, at least as shown by Exhibit F.

117. Alternatively, to the extent the “identifying” step is performed by a third party (in addition to and/or separate from Chewy’s performance), such as a user, browser, or mobile operating system, that performance is attributable to Chewy at least because Chewy has an agency or contractual relationship with said third party, or Chewy controls or directs the performance of said third party. For example, Chewy controls or directs the performance of the “identifying” step

by users, browsers, and mobile operating systems because it, for example, conditions receipt of a benefit, such as receiving personalized advertisements, on the performance of the claimed steps, and establishes the manner or timing of the performance by, for example, determining which advertisements are associated with which search result items. For another example, Chewy controls or directs the performance of the "identifying" step by users, browsers, and mobile operating systems because it profits from the performance by, for example, increasing use and user interactions from improved targeting of advertisements, and Chewy has the right to stop or limit infringement, by, for example, removing this feature from the Chewy website and applications.

118. Alternatively, to the extent that the "identifying" step is performed by a third party (in addition to and/or separate from Chewy's performance), such as a Content Delivery Network ("CDN") or other server, that performance is attributable to Chewy at least because Chewy has an agency or contractual relationship with said third party, or Chewy directs or controls the performance of said third party. For example, Chewy directs or controls the performance of the "identifying" step by CDNs because it, for example, conditions receipt of a benefit, such as payment for services, on the performance of the claimed steps, and establishes the manner or timing of the performance by, for example, determining which advertisements are associated with which search result item. For another example, Chewy directs or controls the performance of the "identifying" step by CDNs because it profits from the performance by, for example, increasing use and user interactions from improved targeting of advertisements, and Chewy has the right to stop or limit infringement by, for example, removing this feature from the Chewy website and applications.

119. Chewy has had knowledge of the '443 patent and its alleged direct and indirect infringement since July 6, 2020, based on communications with IBM.

120. Chewy also indirectly infringes one or more claims of the ’443 patent through its websites (including www.chewy.com) and its mobile applications (including the Chewy applications for mobile devices running on, for example, the Apple iOS and Google Android operating systems). On information and belief, in certain circumstances, client devices and software (e.g., devices and software used by end users and customers of Chewy’s website and the associated mobile applications) directly infringe the ’443 patent through the use of the website and mobile applications. In particular, to the extent Chewy does not perform the method steps, in certain circumstances, client devices and software (e.g., devices and software used by end users, customers, and potential customers of Chewy’s website and the associate mobile applications) perform at least the method of targeting at least one associated advertisement from an Internet search having access to an information repository by a user recited by claim 1 of the ’443 patent.

121. On information and belief, despite knowledge of the infringement of the ’443 patent, Chewy has intended and continue to intend to contribute to patent infringement by third parties by selling, offering to sell, and/or supplying components, materials, or apparatuses for use in practicing the patented methods of the ’443 patent by end users and consumers, as described in this section.

122. For example, Chewy provides computer code (such as HTML, JavaScript, and image files) underlying the Chewy website and mobile applications to customers and end users for use in infringing the ’443 patent, and such computer code does not have substantial non-infringing uses. Such computer code is especially made and/or especially adapted for use in infringing the ’443 patent and is not a staple article or commodity of commerce suitable for substantial non-infringing use. The only substantial use of Chewy’s computer code responses is for the claimed subject matter involving targeting associated advertisements as described in the ’443 patent.

123. Further, as a part of providing said computer code, Chewy enters into binding contracts with end users and customers to use Chewy's website and mobile applications, including in an infringing manner, by binding the users to a terms of use governing access to and use of the accused website and mobile applications.

124. Chewy receives valuable consideration from customers and end users located in this judicial district, including information provided by customers and end users, information automatically collected from customers and end users, and monetary consideration from customers and end users who purchase products and other pet services through Chewy's website and mobile applications. When customers and end users in this judicial district use the accused website and/or mobile applications, Chewy collects information about the customers and end users, their devices, and their interaction with the accused website and the associated mobile applications. Chewy works with service providers and advertising networks to track and manage cookie information and activities of customers and end users across different websites and devices. Third parties use cookie information collected by Chewy to deliver advertisements to end users and customers based on their use of the accused website and mobile applications. Chewy's business is funded through advertising. The applications and website are especially made and/or especially adapted for use in infringing the Patents-In-Suit, including the '443 patent, at least as detailed above, and are not a staple article or commodity of commerce suitable for substantial non-infringing uses because, among other things, the components sent to users are uniquely designed only to access the infringing aspects of Chewy's website and mobile applications.

125. On information and belief, despite its knowledge of the infringement of the '443 patent, Chewy has intended and continues to induce patent infringement by third parties, including at least the direct infringement by end users and customers, as described in this section. Chewy

has and continues to encourage and instruct customers and end users to use Chewy's website and mobile applications in a manner that infringes the '443 patent by advertising the website and mobile applications, providing customer support, and designing its website and mobile applications in such a way that the use of the website by an end user or customer infringes the '443 patent.

126. On information and belief, to the extent Chewy was not aware that it was encouraging its customers and end users to infringe the '443 patent, its lack of knowledge was based on being willfully blind to the possibility that its acts would cause infringement.

127. IBM has been damaged by the infringement of the '443 patent by Chewy and will continue to be damaged by such infringement. IBM is entitled to recover from Chewy the damages sustained by IBM as a result of Chewy's wrongful acts.

128. The continued infringement by Chewy of the '443 patent is deliberate and willful, entitling IBM to increased damages under 35 U.S.C. § 284 and to attorney fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

129. IBM has suffered and continues to suffer irreparable harm, for which there is no adequate remedy at law, and will continue to do so unless Chewy is enjoined therefrom by this Court.

COUNT FOUR

INFRINGEMENT OF THE '034 PATENT

130. IBM incorporates by reference paragraphs 1-129.

131. IBM is the owner of all right, title and interest in the '034 patent. The '034 patent was duly and properly issued by the USPTO on March 9, 2004. The '034 patent was duly assigned to IBM. A copy of the '034 patent is attached hereto as Exhibit G.

132. In violation of 35 U.S.C. § 271(a), Chewy has directly infringed one or more of the

claims of the ’034 patent by having made, designed, offered for sale, sold, provided, used, maintained, and/or supported its websites (including www.chewy.com). Alternatively, Chewy has contributed to the infringement of the claims of the ’034 patent in violation of 35 U.S.C. § 271(c) by selling, offering to sell, and/or supplying components, materials or apparatuses for use in practicing the patented methods of the ’034 patent by end users and consumers, as described in this section. Alternatively, Chewy has induced others, including end users and customers, to infringe one or more of the claims of the ’034 patent in violation of 35 U.S.C. § 271(b), as described below. Chewy’s infringement is continuing.

133. Chewy infringes claims 1, 2, 8, 11, 16-20, 22, 29, 30, 36, 39, 44-48, and 50-52 of the ’034 patent, as described below and in Exhibit V.

134. For example, Chewy directly infringes at least claim 1 of the ’034 patent through www.chewy.com, at least as shown in Exhibit H.

135. Alternatively, to the extent the “responsive to detecting movement” step is performed by a third party (in addition to and/or separate from Chewy’s performance), such as a user or browser, that performance is attributable to Chewy at least because Chewy has an agency or contractual relationship with said third party, or Chewy controls or directs the performance of said third party. For example, Chewy controls or directs the performance of the “responsive to detecting movement” step by users and browsers because it, for example, conditions receipt of a benefit, such as access to certain content on Chewy’s website, on the performance of the claimed steps, and establishes the manner or timing of the performance by, for example, determining the responses to detecting movement. For another example, Chewy controls or directs the performance of the “responsive to detecting movement” step by users and browsers because it profits from the performance by, for example, increasing the number of products purchased on

Chewy's website, and Chewy has the right to stop or limit infringement, by, for example, removing this feature from the Chewy website.

136. Alternatively, to the extent the "magnifying" step is performed by a third party (in addition to and/or separate from Chewy's performance), such as a user or browser, that performance is attributable to Chewy at least because Chewy has an agency or contractual relationship with said third party, or Chewy controls or directs the performance of said third party. For example, Chewy controls or directs the performance of the "magnifying" step by users and browsers because it, for example, conditions receipt of a benefit, such as access to certain content on Chewy's website, on the performance of the claimed steps, and establishes the manner or timing of the performance by, for example, determining which objects are associated with which object type. For another example, Chewy controls or directs the performance of the "magnifying" step by users and browsers because it profits from the performance by, for example, increasing the number of products purchased on Chewy's website, and Chewy has the right to stop or limit infringement, by, for example, removing this feature from the Chewy website.

137. Chewy has had knowledge of the '034 patent and its alleged direct and indirect infringement since July 6, 2020, based on communications with IBM.

138. Chewy also indirectly infringes one or more claims of the '034 patent through its websites (including www.chewy.com). On information and belief, in certain circumstances, client devices and software (e.g., devices and software used by end users and customers of Chewy's website) directly infringe the '034 patent through the use of the website. In particular, to the extent Chewy does not perform the method steps, in certain circumstances, client devices and software (e.g., devices and software used by end users, customers, and potential customers of Chewy's website) perform at least the method of presenting a set of objects on a display within the data

processing system recited by claim 1 of the ’034 patent.

139. On information and belief, despite knowledge of the infringement of the ’034 patent, Chewy has intended and continue to intend to contribute to patent infringement by third parties by selling, offering to sell, and/or supplying components, materials, or apparatuses for use in practicing the patented methods of the ’034 patent by end users and consumers, as described in this section.

140. For example, Chewy provides computer code (such as HTML, JavaScript, and image files) underlying the Chewy website to customers and end users for use in infringing the ’034 patent, and such computer code does not have substantial non-infringing uses. Such computer code is especially made and/or especially adapted for use in infringing the ’034 patent and is not a staple article or commodity of commerce suitable for substantial non-infringing use. The only substantial use of Chewy’s computer code responses is for the claimed subject matter involving presenting a set of objects on a display within the data processing system as described in the ’034 patent.

141. Further, as a part of providing said computer code, Chewy enters into binding contracts with end users and customers to use Chewy’s website, including in an infringing manner, by binding the users to a terms of use governing access to and use of the accused website.

142. Chewy receives valuable consideration from customers and end users located in this judicial district, including information provided by customers and end users, information automatically collected from customers and end users, and monetary consideration from customers and end users who purchase products and other pet services through Chewy’s website. When customers and end users in this judicial district use the accused website, Chewy collects information about the customers and end users, their devices, and their interaction with the accused

website. Chewy works with service providers and advertising networks to track and manage cookie information and activities of customers and end users across different websites and devices. Third parties use cookie information collected by Chewy to deliver advertisements to end users and customers based on their use of the accused website. Chewy's business is funded through advertising. The applications and website are especially made and/or especially adapted for use in infringing the Patents-In-Suit, including the '034 patent, at least as detailed above, and are not a staple article or commodity of commerce suitable for substantial non-infringing uses because, among other things, the components sent to users are uniquely designed only to access the infringing aspects of Chewy's website.

143. On information and belief, despite its knowledge of the infringement of the '034 patent, Chewy has intended and continues to induce patent infringement by third parties, including at least the direct infringement by end users and customers, as described in this section. Chewy has and continues to encourage and instruct customers and end users to use Chewy's website in a manner that infringes the '034 patent by advertising the website, providing customer support, and designing its website in such a way that the use of the website by an end user or customer infringes the '034 patent.

144. On information and belief, to the extent Chewy was not aware that it was encouraging its customers and end users to infringe the '034 patent, its lack of knowledge was based on being willfully blind to the possibility that its acts would cause infringement.

145. IBM has been damaged by the infringement of the '034 patent by Chewy and will continue to be damaged by such infringement. IBM is entitled to recover from Chewy the damages sustained by IBM as a result of Chewy's wrongful acts.

146. The continued infringement by Chewy of the '034 patent is deliberate and willful,

entitling IBM to increased damages under 35 U.S.C. § 284 and to attorney fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

147. IBM has suffered and continues to suffer irreparable harm, for which there is no adequate remedy at law, and will continue to do so unless Chewy is enjoined therefrom by this Court.

COUNT FIVE

INFRINGEMENT OF THE '831 PATENT

148. IBM incorporates by reference paragraphs 1-147.

149. IBM is the owner of all right, title and interest in the '831 patent. The '831 patent was duly and properly issued by the USPTO on February 24, 2009. The '831 patent was duly assigned to IBM. A copy of the '831 patent is attached hereto as Exhibit I.

150. In violation of 35 U.S.C. § 271(a), Chewy has directly infringed one or more of the claims of the '831 patent by having made, designed, offered for sale, sold, provided, used, maintained, and/or supported its websites (including www.chewy.com). Alternatively, Chewy has contributed to the infringement of the claims of the '831 patent in violation of 35 U.S.C. § 271(c) by selling, offering to sell, and/or supplying components, materials or apparatuses for use in practicing the patented methods of the '831 patent by end users and consumers, as described in this section. Alternatively, Chewy has induced others, including end users and customers, to infringe one or more of the claims of the '831 patent in violation of 35 U.S.C. § 271(b), as described below. Chewy's infringement is continuing.

151. Chewy infringes claims 1-10 of the '831 patent, as described below and in Exhibit W.

152. For example, Chewy directly infringes at least claim 1 of the '831 patent through www.chewy.com, at least as shown in Exhibit J.

153. Chewy has had knowledge of the '831 patent and its direct and indirect infringement since at least May 20, 2021.

154. Alternatively, to the extent the "determining" step is performed by a third party (in addition to and/or separate from Chewy's performance), such as a browser, that performance is attributable to Chewy at least because Chewy has an agency or contractual relationship with said third party, or Chewy directs or controls the performance of said third party. For example, Chewy directs or controls the performance of the "determining" steps by browsers because it, for example, establishes the manner or timing of the performance by, for example, designing and generating the HTML template and computer code (such as JavaScript and JSON), which comprise www.chewy.com. That HTML template and computer code contains instructions that direct the browser to structure the Chewy webpage in a particular manner. For another example, Chewy directs or controls the performance of the "determining" steps by browsers because it profits from such performance by, for example, increasing use and user interactions by designing its website in a user-friendly manner. Chewy has the right to stop or limit infringement by, for example, redesigning the HTML and computer code of www.chewy.com to function in a non-infringing manner.

155. Alternatively, to the extent the "responsive" step is performed by a third party (in addition to and/or separate from Chewy's performance), such as a browser, that performance is attributable to Chewy at least because Chewy has an agency or contractual relationship with said third party, or Chewy directs or controls the performance of said third party. For example, Chewy directs or controls the performance of the "responsive" steps by browsers because it, for example, establishes the manner or timing of the performance by, for example, designing and generating the HTML template and computer code (such as JavaScript and JSON), which comprise

www.chewy.com. That HTML template and computer code contains instructions that direct the browser to structure the Chewy webpage in a particular manner. For another example, Chewy directs or controls the performance of the "responsive" steps by browsers because it profits from such performance by, for example, increasing use and user interactions by designing its website in a user-friendly manner. Chewy has the right to stop or limit infringement by, for example, redesigning the HTML and computer code of www.chewy.com to function in a non-infringing manner.

156. Chewy has had knowledge of the '831 patent and its alleged direct and indirect infringement since May 20, 2021, based on communications with IBM.

157. Chewy also indirectly infringes one or more claims of the '831 patent through its websites (including www.chewy.com). On information and belief, in certain circumstances, client devices and software (e.g., devices and software used by end users and customers of Chewy's website) directly infringe the '831 patent through the use of the website. In particular, to the extent Chewy does not perform the method steps, in certain circumstances, client devices and software (e.g., devices and software used by end users, customers, and potential customers of Chewy's website) perform at least the method of for presenting a page recited by claim 1 of the '831 patent.

158. On information and belief, despite knowledge of the infringement of the '831 patent, Chewy has intended and continues to intend to contribute to patent infringement by third parties by selling, offering to sell, and/or supplying components, materials, or apparatuses for use in practicing the patented methods of the '831 patent by end users and consumers, as described in this section.

159. For example, Chewy provides computer code (such as HTML, JavaScript, and image files) underlying the Chewy website to customers and end users for use in infringing the

’831 patent, and such computer code does not have substantial non-infringing uses. Such computer code is especially made and/or especially adapted for use in infringing the ’831 patent and is not a staple article or commodity of commerce suitable for substantial non-infringing use. The only substantial use of Chewy’s computer code responses is for the claimed subject matter involving presenting a page as described in the ’831 patent.

160. Further, as a part of providing said computer code, Chewy enters into binding contracts with end users and customers to use Chewy’s website, including in an infringing manner, by binding the users to a terms of use governing access to and use of the accused website.

161. Chewy receives valuable consideration from customers and end users located in this judicial district, including information provided by customers and end users, information automatically collected from customers and end users, and monetary consideration from customers and end users who purchase products and other pet services through Chewy’s website. When customers and end users in this judicial district use the accused website, Chewy collects information about the customers and end users, their devices, and their interaction with the accused website. Chewy works with service providers and advertising networks to track and manage cookie information and activities of customers and end users across different websites and devices. Third parties use cookie information collected by Chewy to deliver advertisements to end users and customers based on their use of the accused website. Chewy’s business is funded through advertising. The applications and website are especially made and/or especially adapted for use in infringing the Patents-In-Suit, at least as detailed above, and are not a staple article or commodity of commerce suitable for substantial non-infringing uses because, among other things, the components sent to users are uniquely designed only to access the infringing aspects of Chewy’s website.

162. On information and belief, despite its knowledge of the infringement of the ’831 patent, Chewy has intended and continues to induce patent infringement by third parties, including at least the direct infringement by end users and customers, as described in this section. Chewy has and continues to encourage and instruct customers and end users to use Chewy’s website in a manner that infringes the ’831 patent by advertising the website, providing customer support, and designing its website in such a way that the use of the website by an end user or customer infringes the ’831 patent.

163. On information and belief, to the extent Chewy was not aware that it was encouraging its customers and end users to infringe the ’831 patent, its lack of knowledge was based on being willfully blind to the possibility that its acts would cause infringement.

164. IBM has been damaged by the infringement of the ’831 patent by Chewy and will continue to be damaged by such infringement. IBM is entitled to recover from Chewy the damages sustained by IBM as a result of Chewy’s wrongful acts.

165. IBM has suffered and continues to suffer irreparable harm, for which there is no adequate remedy at law, and will continue to do so unless Chewy is enjoined therefrom by this Court.

RELIEF REQUESTED

Wherefore, IBM respectfully requests that this Court enter judgment against Chewy as follows:

A. That the ’849 patent has been and continues to be infringed by Chewy;

B. That Chewy’s infringement of the ’849 patent has been and continues to be willful;

C. An injunction against further infringement of the ’849 patent;

D. That the ’414 patent has been and continues to be infringed by Chewy;

E. That Chewy’s infringement of the ’414 patent has been and continues to be willful;

F. An injunction against further infringement of the ’414 patent;

G. That the ’443 patent has been and continues to be infringed by Chewy;

H. That Chewy’s infringement of the ’443 patent has been and continues to be willful;

I. An injunction against further infringement of the ’443 patent;

J. That the ’034 patent has been and continues to be infringed by Chewy;

K. That Chewy’s infringement of the ’034 patent has been and continues to be willful;

L. An injunction against further infringement of the ’034 patent;

M. That the ’831 patent has been and continues to be infringed by Chewy;

N. That Chewy’s infringement of the ’831 patent has been and continues to be willful;

O. An injunction against further infringement of the ’831 patent;

P. An award of damages adequate to compensate IBM for the patent infringement that has occurred, together with pre-judgment interest and costs;

Q. An award of all other damages permitted by 35 U.S.C. § 284, including increased damages up to three times the amount of compensatory damages found;

R. That this is an exceptional case and merits an award to IBM of its costs and reasonable attorneys’ fees incurred in this action as provided by 35 U.S.C. § 285; and

S. Such other relief as this Court deems just and proper.

DEMAND FOR JURY TRIAL

IBM hereby demands trial by jury on all claims and issues so triable

Dated: May 24, 2021

Respectfully submitted,

By: */s/ Karim Z. Oussayef*

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CERTIFICATE OF SERVICE

I hereby certify that that on May 24, 2021, I electrically filed a true and correct copy of the foregoing with the Clerk of the Court using the CM/ECF system, which will then send a notification of such filing (NEF) to all counsel of record.

Dated: May 24, 2021

Respectfully submitted,

By: */s/ Karim Z. Oussayef*

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