1 2 3 4 5 6 7 8 9	QUINN EMANUEL URQUHART & SULTames R. Asperger (Bar No. 83188) jamesasperger@quinnemanuel.com Yury Kapgan (Bar No. 218366) yurykapgan@quinnemanuel.com 865 S. Figueroa Street, 10th Floor Los Angeles, CA 90017 Telephone: (213) 443-3000 Facsimile: (213) 443-3100  Victoria F. Maroulis (Bar No. 202603) victoriamaroulis@quinnemanuel.com 555 Twin Dolphin Drive, 5th Floor Redwood Shores, CA 94065 Telephone: (650) 801-5000 Facsimile: (650) 801-5100	LIVAN, LLP Jordan R. Jaffe (Bar No. 254886) jordanjaffe@quinnemanuel.com 50 California Street, 22nd Floor San Francisco, CA 94111 Telephone: (415) 875-6600 Facsimile: (415) 875-6700  BLACKBERRY CORPORATION Edward R. McGah, Jr (Bar No. 97719) Vice President, Deputy General Counsel – Litigation 41 Ticknor Place Laguna Niguel, California 92677 Telephone: (650) 581-4750		
11	Attorneys for Plaintiff			
12	BlackBerry Limited			
13	IN THE UNITED STATES DISTRICT COURT FOR THE CENTRAL DISTRICT OF CALIFORNIA			
14				
15	TOR THE CENTRAL DIST	INCI OI CALII ONNA		
16	BLACKBERRY LIMITED, a	CASE NO. 2:19-cv-1444		
17	Canadian corporation,	·		
18	Plaintiff,	COMPLAINT FOR PATENT INFRINGEMENT		
19	v.	JURY TRIAL DEMANDED		
20	TWITTER, INC., a Delaware			
21	corporation			
22	Defendant.			
23	2 3333,000			
24				
25				
26				
27				
28				
		Case No. 2:19-cv-1444		
- 1		COLORIA DIE EOD DATENIE DIEDDICENCIA		

COMPLAINT FOR PATENT INFRINGEMENT

#### **COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff BlackBerry Limited ("BlackBerry" or "Plaintiff") hereby asserts the following claims for patent infringement against Defendant Twitter, Inc. ("Twitter" or "Defendant"), and alleges as follows:

#### **SUMMARY**

- 1. **BlackBerry Pioneers Mobile Messaging** BlackBerry has been a leading innovator in the field of mobile communications for the past 30 years, having invested substantial sums into research and development of communications technologies. BlackBerry's innovations led to the commercialization of some of the earliest models of smartphones in the United States, enabling its users to, among other things, send and receive e-mails securely and surf the internet anytime and anywhere. These same innovations prompted the rise of the smartphone as a necessary everyday accessory for businesspersons and ordinary consumers alike.
- 2. One example of BlackBerry's innovations is the BlackBerry Messenger technology, which revolutionized instant messaging by providing users with secure, user-friendly, point-to-point instant messaging on their mobile devices. In many respects, through BlackBerry Messenger and other research and development, BlackBerry helped pioneer modern mobile messaging—secure, instant and user friendly on a mobile device. The appeal and success of BlackBerry Messenger led consumers to consider instant messaging functionality as an integral aspect of mobile communications, resulting today in billions of people worldwide engaging in instant messaging over their mobile devices.
- 3. As an innovator, BlackBerry took many steps to safeguard this valuable intellectual property. It received numerous patents protecting the cutting-edge features of its mobile phones, BlackBerry Messenger, and other communications applications that make such products secure, easy-to-use, and ultimately engaging to the end-user, thereby driving user growth and retention.

- 4. Defendant Later Develops Competing Applications that Improperly Use BlackBerry's Mobile Messaging Intellectual Property Defendant, on the other hand, is a relative latecomer to the mobile messaging world. Defendant created mobile messaging applications that co-opt BlackBerry's innovations, using a number of the innovative user interface and functionality enhancing features that made BlackBerry's products such a critical and commercial success in the first place.
  - 5. The Patents-in-Suit cover, for example:
  - (a) User Interface Improvements For Mobile Devices—including (i) improvements in message notification techniques that streamline and optimize reception of new message notifications that prevent users from being inundated with numerous messaging notifications, (ii) resetting a new message indicator when a user accesses their inbox list of messaging conversations, which saves users from having to individually view each conversation in which there is a new message in order to reset their new message indicator;
  - (b) Messaging and Social Networking Improvements for Mobile Devices—including (i) improved techniques for determining whether a recipient has read messages in a conversation by inferring the status of one or more of the messages, thereby reducing data transmissions, power consumption and improving battery life in mobile devices, and (ii) improved techniques for making informational content, selected by one user, available to one or more other users via a data hub server that avoids users having to download and reupload content that they wish to share, thereby reducing unnecessary data transmissions, power consumption and improving battery life in mobile devices; and
  - (c) *Mobile Advertising*—improved techniques of delivering targeted advertising and content to mobile devices based on user demographics and

4 5

6

7 8

10

11

12

9

13 14

16

15

17

18 19

20 21

22

23

24 25

26 27

28

interest, as well as the location of the user's mobile device and time-based triggers.

- 6. Defendant's Use of BlackBerry's Mobile Messaging Innovations Harms BlackBerry and Provides an Undeserved Windfall to Defendant— Defendant's use of BlackBerry's inventions, and infringement of the Patents-in-Suit, has succeeded in diverting consumers away from BlackBerry's products and services and toward those of Defendant. This has resulted in a substantial and undeserved windfall for Defendant as these users drive Defendant's revenue. Defendant's gain comes at BlackBerry's expense, depriving BlackBerry of revenue to which it is entitled as a result of its inventions.
- BlackBerry attempted to resolve this dispute without resorting to 7. litigation. For example, Blackberry reached out to Defendant's General Counsel in June and July 2017 regarding BlackBerry's patent portfolio and, among other things, identified two of the Patents-in-Suit as being infringed by Defendant. See Ex. H, attached hereto. However, Defendant has refused to adequately compensate BlackBerry for its use of BlackBerry's intellectual property. Through this suit, BlackBerry seeks redress for the harm caused by Defendant's unlawful use of BlackBerry's intellectual property.

#### INTRODUCTION TO BLACKBERRY

- For more than 30 years, BlackBerry has been a leading innovator in the 8. mobile communications industry. BlackBerry's cutting-edge wireless communication products and services have transformed the way people around the world connect, converse, and share digital information.
- 9. BlackBerry was founded in 1984 in Waterloo, Ontario by two engineering students, Mike Lazaridis and Douglas Fregin. In its early years, the company—then named Research In Motion ("RIM")—focused its inventive energies on wireless data transmission.

16

17

18

19

20

21

2223242526

10. From its modest beginnings more than 30 years ago, BlackBerry has gone on to offer a portfolio of award-winning products, services, and embedded technologies to tens of millions of individual consumers and organizations around the world, including governments, and educational institutions. By transforming the way people communicate, BlackBerry laid a foundation for today's multibillion-dollar modern smartphone industry. BlackBerry's innovations in mobile communications continue to this day through BlackBerry's award-winning software platform and devices, which enable and manage security, mobility, and communications between and among hardware, programs, mobile applications, and the Internet of Things (IoT).

developing 11. In the its ground-breaking course of mobile communications systems, BlackBerry (and the BlackBerry family of companies) invented a broad array of technologies that cover everything from enhanced security and cryptographic techniques, to mobile device user interfaces, instant messaging functionality, communication servers, and many other areas. To take just one example, security posed a critical challenge for BlackBerry to address when bringing its mobile devices to market. Commercial acceptance of such mobile devices required providing mechanisms to ensure safe and secure communications so that users and businesses could be confident that their confidential and private information stayed that way in the face of ever-increasing security threats. As a result of its innovative technologies, BlackBerry has been universally recognized as the gold standard when it comes to safe and secure data communications over mobile devices.

12. Indeed, throughout its history, BlackBerry has demonstrated a commitment to innovation, including through its investments in research and development, which have totaled more than \$5.5 billion over the past decade. BlackBerry has protected the technical innovations resulting from these investments,

5 6

7 8

9

10 11

12 13

14

16

15

17 18

19 20

22 23

21

24

25

26

27 28 including by seeking patent protection, and as detailed below, BlackBerry owns rights to an array of patented technologies in the United States.

- 13. BlackBerry owns United States Patent Nos. 8,676,929, 8,296,351, 9,349,120, 9,021,059, 8,286,089, and 8,572,182 (collectively, the "Patents-in-Suit"). Defendant infringes the Patents-in-Suit by using, without authorization, BlackBerry's proprietary technologies in a number of commercial products and services, such as the Twitter application<sup>1</sup> and Twitter Ads which are marketed, offered and distributed to advertisers and users of mobile and other devices throughout the United States, including in this District.
- By this action, BlackBerry seeks to put an end to Defendant's unauthorized use of BlackBerry's patented technologies and to obtain compensation for the harm BlackBerry has suffered.

#### NATURE OF THE ACTION

- This is a civil action for patent infringement under the patent laws of 15. the United States, 35 U.S.C. § 1 et seq.
- Defendant has infringed and continues to infringe, and has induced and 16. continues to induce infringement of, one or more claims of the Patents-in-Suit at least by making, using, selling, and/or offering to sell Twitter Ads and the Twitter application for mobile and other devices in the United States, including in this District.
- 17. BlackBerry is the legal owner by assignment of the Patents-in-Suit, which were duly and legally issued by the United States Patent and Trademark Office ("USPTO"). BlackBerry seeks injunctive relief and monetary damages.

As used herein, "Twitter application" refers to all applicable versions of the Twitter application, including those released for iOS, Android, Windows, and the web (www.twitter.com).

## 2

3 4

5 6

7 8

9

10

12

13

11

14

15 16

17

#### 18 19

20

22

21

23 24

25

26

27

28

#### THE PARTIES

- Plaintiff BlackBerry Limited is a Canadian company with its principal 18. place of business at 2200 University Avenue East, Waterloo, Ontario, Canada N2K 0A7. BlackBerry Limited is the owner of intellectual property rights at issue in this action.
- 19. On information and belief, Defendant is a Delaware corporation with a principal place of business at 1355 Market St. Ste. 900, San Francisco, CA 94103. On information and belief, Defendant maintains offices in Santa Monica, California, operates and owns the website located at www.twitter.com, and markets, offers, and distributes applications and services such as Twitter and Twitter Ads throughout the United States, including in this District.
- Upon information and belief, Defendant directly and/or indirectly 20. develops, designs, manufactures, distributes, markets, offers to sell and/or sells infringing products and services in the United States, including in this District, and otherwise purposefully directs infringing activities to this District in connection with the Twitter application and Twitter Ads.

#### **JURISDICTION AND VENUE**

- 21. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 et seq.
- 22. This Court has subject matter jurisdiction over the matters asserted herein under 28 U.S.C. §§ 1331 and 1338(a) and 35 U.S.C. §§ 271 et seq.
- 23. This Court has personal jurisdiction over Defendant, in part because Defendant does continuous and systematic business in this District, including by providing infringing products and services to the residents of this District that it knew would be used within this District, and by soliciting business from the residents of this District. For example, Defendant is subject to personal jurisdiction in this Court because, among other reasons, upon information and belief, it has a regular and established place of business at its offices in this District, including its

office in Santa Monica (see <a href="https://careers.twitter.com/en/locations/losangeles.html">https://careers.twitter.com/en/locations/losangeles.html</a>), employs over 80 individuals in the Los Angeles Metro Area (see Ex. G) and elsewhere in the State of California, and directly and through agents regularly does, solicits and transacts business in the Central District of California and elsewhere in the State of California, including through its website at <a href="https://www.twitter.com">www.twitter.com</a>, Twitter Ads, and its Twitter application, all of which are marketed, offered, and distributed to and utilized by advertisers and users of computing and mobile devices in this District and throughout the State of California.

- 24. In particular, Defendant has committed and continues to commit acts of infringement in violation of 35 U.S.C. § 271, and has made, used, marketed, distributed, offered for sale, sold, and/or imported infringing products and services in the State of California, including in this District, and engaged in infringing conduct within and directed at or from this District. For example, Defendant has purposefully and voluntarily placed the Twitter application and Twitter Ads into the stream of commerce with the expectation that its infringing products and services will be used in this District. The infringing Twitter application and Twitter Ads have been and continue to be distributed to and used in this District. Defendant's acts cause injury to BlackBerry, including within this District.
- 25. Venue is proper in this District under the provisions of 28 U.S.C. §§ 1391 and 1400(b) at least because a substantial part of the events or omissions giving rise to the claims occurred in this judicial district, and because Defendant has committed acts of infringement in this District and has a regular and established place of business in this District.

### 5

#### 6 7

8 9 10

11 12

13 14

15

16 17

18

19 20

21

22 23

24

25

27

26

28

In particular, on information and belief, Defendant has a regular and 26. established place of business in this District located in Santa Monica, California.<sup>2</sup> On further information and belief, Defendant employs engineers and/or other personnel within this District, including at its office in Santa Monica.<sup>3</sup>

#### FACTS COMMON TO ALL CLAIMS

#### BlackBerry's Innovation and Industry Recognition

- BlackBerry is a global leader in the mobile communications industry. 27. Through its significant investment in research and development over the past 30 years, BlackBerry has developed innovative, cutting-edge technologies that have changed the face of telecommunications. In particular, BlackBerry has developed key innovations in the way mobile devices and communications software interact with and receive input from users. BlackBerry's innovations in messaging and UI development improved the speed and accuracy with which users could perform various tasks on their mobile devices.
- In the late 1990s, BlackBerry began to release a series of game-28. changing handheld mobile devices that enabled users to send and receive email and messages on the go, without needing to be tethered to a modem or a desktop The innovative nature of the 1998 RIM 950 Wireless Handheld, for computer. example, was instantly recognized, garnering both an Editor's Choice Award from CNET and Andrew Seybold's Outlook Award. In particular, the press praised the RIM 950's keyboard for its advanced ergonomic features, including an easy-to-typeon keyboard layout despite the device's miniature size.

See, e.g., https://careers.twitter.com/en/locations/los-angeles.html; https://twitter.com/TwitterLA ("Official Account for the tweeps in the #TwitterLA office!").

<sup>&</sup>lt;sup>3</sup> For example, www.linkedin.com identifies more than 80 Twitter employees in the Greater Los Angeles Area. (See Ex. G.)

29. In 2002, BlackBerry released the BlackBerry 6710 and 6720 – the first BlackBerry devices capable of both sending emails and making phone calls, and some of the earliest smartphones released in the United States. The next year, BlackBerry introduced smartphone models that added built-in audio hardware and color screens. Since those early smartphones, BlackBerry has continued to offer handheld wireless products incorporating its proprietary technologies in security, communications, mobile device user interfaces, and other areas.

30. In 2005, BlackBerry introduced the innovative BlackBerry Messenger (or "BBM") application, which revolutionized the concept of instant messaging. BBM provided the first form of point-to-point communications that was instant, cross-carrier, and mobile. The developers of BBM further incorporated a well-designed graphical user interface and other innovative features not utilized by messaging platforms at that time. For example, BBM has been credited as the first messaging platform to enable status updates showing when messages were Delivered and Read by users, which created a pioneering sense of real-time presence that is now standard in many instant messaging applications. Additionally, BBM's unique platform has allowed users to communicate even when traditional forms of cell communication were incapacitated, such as during the Chilean earthquake in 2010.<sup>4</sup>

31. Over the years, BlackBerry continued to develop and improve successive versions of BBM by introducing features such as GPS positioning, connected applications, voice chat, private chat, and many other features. As a result, BBM has been widely downloaded and is popular among users of all platforms, including Android and iOS. Indeed, more than 5 million people

blackberry-allowed-contact-when-phones-failed.html.

<sup>&</sup>lt;sup>4</sup> *See*, *e.g.*, <a href="https://www.cio.com/article/2420175/blackberry-phone/blackberry-messenger--bbm--keeps-chilean-quake-affected-connected.html;">http://www.nytimes.com/2001/09/20/technology/the-right-connections-the-simple-

downloaded BBM within 8 hours of the release of its Android and iOS versions in October 2013. By March 4, 2015, the Android version of BBM had reached 100 million Google Play installs. BBM also enjoys strong user loyalty, with studies finding that 82% of BBM's Android users continue using the application 90 days after installation.

- 32. Each successive iteration of BlackBerry's wireless devices and technologies have received significant unsolicited coverage in the media. For example, GSMA—the largest and most well-known association of mobile operators—recognized BlackBerry and its communication technologies as "chang[ing] the face of corporate communication." Thomson Reuters named BlackBerry one of the World's Top 100 Most Innovative Organizations, based largely on the number of "important patents" owned by BlackBerry. In 2015, Forrester Research crowned BlackBerry as a "leader in mobile management" based on BlackBerry's focus in security software and mobile solutions.
- 33. BlackBerry's handheld devices and communications technologies have garnered widespread industry acclaim for both their unique design and their performance. For example, BlackBerry mobile devices have garnered dozens of industry awards, including the GSMA Chairman's Award, InfoWorld Magazine's Product of the Year Award, PC World's World Class Award, the Network Industry Award for Best New Mobile Communications Product, the BusinessWeek Best Product of the Year Award, Digit Magazine's "World's Best Mobile OS" Award, Security Products "Govies" Government Security Award, and PC Magazine's Best Products of the Year Award. BBM in particular has been recognized for its innovations in mobile messaging, being awarded "Superstar" distinction from the 2014 Mobile Star Awards in the Mobile Messaging or Email category, the Indonesia Golden Ring Award for Best Mobile Social Media, and the ICA 2014 Award for Best Mobile Chat App.

34. BlackBerry's more recent innovations have garnered similar industry acclaim. For example, in 2015 BlackBerry's Passport was awarded the prestigious Red Dot "Best of the Best" award for innovative product design (from thousands of total entries); BlackBerry and BBM were recognized with the Mobile Marketing Association's "Smartie" Award for 2015 Publisher/Media Company of the Year in Mobile; and BlackBerry's PRIV was awarded the Red Dot "Design Award" for best product design in 2016.

#### **BlackBerry's Patents**

- 35. U.S. Patent No. 8,676,929 ("'929 Patent") is entitled "System and method for pushing information to a mobile device," and was issued on March 18, 2014. A true and correct copy of the '929 Patent is attached as Exhibit A.
- 36. The '929 Patent was filed on September 13, 2012 as U.S. Patent Application No. 13/614,884 and claims priority to, *inter alia*, U.S. Provisional Appl. No. 60/307,265 filed July 23, 2001.
- 37. BlackBerry Limited is the owner of all rights, title, and interest in and to the '929 Patent, with the full and exclusive right to bring suit to enforce the '929 Patent, including the right to recover for past infringement.
- 38. The '929 Patent is valid and enforceable under United States Patent Laws.
- 39. U.S. Patent No. 8,296,351 ("'351 Patent") is entitled "System and method for pushing information to a mobile device," and was issued on October 23, 2012. A true and correct copy of the '351 Patent is attached as Exhibit B.
- 40. The '351 Patent was filed on March 18, 2010 as U.S. Patent Application No. 12/726,405 and claims priority to, *inter alia*, U.S. Provisional Appl. No. 60/307,265 filed July 23, 2001.
- 41. BlackBerry Limited is the owner of all rights, title, and interest in and to the '351 Patent, with the full and exclusive right to bring suit to enforce the '351 Patent, including the right to recover for past infringement.

- 42. The '351 Patent is valid and enforceable under United States Patent Laws.
- 43. U.S. Patent No. 9,349,120 ("'120 Patent") is entitled "System and method for silencing notifications for a message thread," and was issued on May 24, 2016. A true and correct copy of the '120 Patent is attached as Exhibit C.
- 44. The '120 Patent was filed on Feb. 26, 2010 as U.S. Patent Application No. 12/713,577 and claims priority to U.S. Provisional Appl. No. 61/167,542 filed Apr. 8, 2009.
- 45. BlackBerry Limited is the owner of all rights, title, and interest in and to the '120 Patent, with the full and exclusive right to bring suit to enforce the '120 Patent, including the right to recover for past infringement.
- 46. The '120 Patent is valid and enforceable under United States Patent Laws.
- 47. U.S. Patent No. 9,021,059 ("'059 Patent") is entitled "Data hub server," and was issued on April 28, 2015. A true and correct copy of the '059 Patent is attached as Exhibit D.
- 48. The '059 Patent was filed on Nov. 21, 2011 as U.S. Patent Application No. 13/301,006 and is a continuation of U.S. Patent Application No. 112/394,994 filed Feb. 27, 2009, which issued as U.S. Patent No. 8,065,361.
- 49. BlackBerry Limited is the owner of all rights, title, and interest in and to the '059 Patent, with the full and exclusive right to bring suit to enforce the '059 Patent, including the right to recover for past infringement.
- 50. The '059 Patent is valid and enforceable under United States Patent Laws.
- 51. U.S. Patent No. 8,286,089 ("'089 Patent") is entitled "Representing new messages on a communication device," and was issued on October 9, 2012. A true and correct copy of the '089 Patent is attached as Exhibit E.

-13-

3

12

15

16

14

17 18

19

20

21 22

23 24

25

26

27

28

- The '089 Patent was filed on Dec. 30, 2005 as U.S. Patent Application 52. No. 11/320,980.
- 53. BlackBerry Limited is the owner of all rights, title, and interest in and to the '089 Patent, with the full and exclusive right to bring suit to enforce the '089 Patent, including the right to recover for past infringement.
- 54. The '089 Patent is valid and enforceable under United States Patent Laws.
- 55. U.S. Patent No. 8,572,182 ("'182 Patent") is entitled "Handling notifications in instant messaging systems," and was issued on Oct. 29, 2013. A true and correct copy of the '182 Patent is attached as Exhibit F.
- 56. The '182 Patent was filed on July 21, 2006 as U.S. Patent Application No. 11/459,047.
- 57. BlackBerry Limited is the owner of all rights, title, and interest in and to the '182 Patent, with the full and exclusive right to bring suit to enforce the '182 Patent, including the right to recover for past infringement.
- 58. The '182 Patent is valid and enforceable under United States Patent Laws.

#### Defendant's Use of BlackBerry's Patented Technologies

On information and belief, Defendant released its first mobile Twitter 59. application in April 2010, nearly half a decade after BlackBerry's release of BlackBerry Messenger ("BBM").5 Additionally, Defendant first introduced "Promoted Tweet" advertisements via Twitter Ads sometime in 2010, nearly a decade after the priority date of BlackBerry's '929 and '351 patents.<sup>6</sup>

See, e.g., https://blog.twitter.com/official/en\_us/a/2010/twitter-for-iphone-1.html; https://techcrunch.com/2010/04/09/twitter-acquires-tweetie/.

See, e.g., https://www.nytimes.com/2010/04/13/technology/internet/ 13twitter.html.

18

19

20

21

22

23

24

25

26

27

- By the time Defendant had released even the first (and simplest) 60. version of its Twitter application, BlackBerry had already invented most of the technologically innovative messaging application functionalities at issue in this action. Industry commentators at the time noted the success of BBM, including with consumer audiences such as "[t]eens, for instance, [who] love BlackBerry Messenger, RIM's proprietary instant messaging feature." See http://archive.fortune.com/2009/08/12/technology/blackberry research in motion.f The consumer demand and appreciation for BlackBerry's ortune/index.htm. innovative messaging application functionalities was further evidenced in 2013, when BlackBerry released the first versions of BBM for Apple's iOS and Google's Android mobile device platforms and recorded over 5 million downloads of BBM within the first of made available. hours being See https://9to5mac.com/2013/10/21/blackberry-announces-5-million-downloads-ofbbm-for-ios-and-android-only-8-hours-after-release/. In just two years, BBM had installed in over 100 million Android devices See http://blogs.blackberry.com/2015/03/bbm-hits-100m-google-play-installs/.
- 61. Seizing on the success of BBM and demand for consumer messaging platforms featuring BlackBerry's innovative features and functionalities, Defendant has developed and released its infringing Twitter application that incorporates and unlawfully utilizes BlackBerry's patented technologies, including, without limitation, the Twitter application for Android and iOS devices. Likewise, Defendant has utilized BlackBerry's innovative electronic advertising technologies to monetize its Twitter platform, including without limitation, through its Twitter Ads service.
- 62. On information and belief, Defendant markets, offers, and distributes the infringing Twitter application and Twitter Ads service in and within the United States, including through distribution platforms such as the Apple iTunes App Store

-15-

: ||

and the Google Android Play Store, the Microsoft Store, as well as its own websites, <a href="https://www.twitter.com">www.twitter.com</a> and <a href="https://www.twitter.com">business.twitter.com</a>.

- 63. On information and belief, the accused Twitter application and Twitter Ads service are the primary or only products and services offered by Twitter in the United States.
- 64. On information and belief, Defendant encourages users of mobile and computing devices such as mobile phones and desktop and laptop computers in the United States to download and use the infringing Twitter application, and such users download and use the infringing application in the manner Defendant intends such application to be used. Moreover, Defendant encourages advertisers and businesses in the United States to use the infringing Twitter Ads service, and such advertisers and businesses use the infringing service in the manner Defendant intends such service to be used.
- 65. On information and belief, Defendant has also designed, developed, tested, and used the infringing applications and services in and within the United States.

#### **COUNT I: INFRINGEMENT OF U.S. PATENT NO. 8,676,929**

66. BlackBerry incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint as if fully set forth herein.

#### The '929 Patent

67. The '929 Patent claims, among other things, "[a] server, comprising: a database organized into a plurality of memory location channels, each of the memory location channels storing information of a same category as a pre-defined category of each of the respective memory location channels, wherein upon detection of a triggering event comprising a time triggering event, determining the information relevant to the detected triggering event from among information stored in one of the plurality of memory location channels of the database, when the information relevant to the detected triggering event comprises content information,

inserting into the content information a meta tag for one or more advertisements to be displayed with the content information that includes the meta tag to a mobile device, wherein the meta tag identifies the one or more advertisements and advertisement display requirements, and wherein the one or more advertisements are selected based on the detected triggering event." '929 Patent at claim 1.

# The Inventions Claimed in the '929 Patent Were Not Well-Understood, Routine, or Conventional

- 68. The use of a server to detect a time triggering event, determine information relevant to the detected time triggering event, and insert a meta tag into content information corresponding to the detected time triggering event that identifies one or more advertisements or advertisement display requirements selected based on the detected triggering event, was not common or conventional at the time of the '929 Patent.
- 69. The inventors of the '929 Patent recognized that when transmitting content triggered by, for example, a time triggering event, the insertion of a meta tag into content information could further facilitate the delivery of relevant and timely advertising information to mobile users. As taught by the '929 Patent, the disclosed invention "provides a method of combining the information so that the mobile device user has a consistent and transparent experience of receiving both information content and advertising content." '929 Patent at 3:1-4.
- 70. Given the state of the art at the time of the invention of the '929 Patent, the inventive concepts of the '929 Patent were not conventional, well-understood, or routine. The '929 Patent discloses, among other things, an unconventional and technological solution to an issue arising specifically in the context of mobile communication devices, and the delivery of advertising content to such devices. The solution implemented by the '929 Patent provides a specific and substantial improvement over prior communication systems used for this purpose, resulting in an improved system for the delivery of relevant and timely content and advertising

- 71. Consistent with the problem addressed being rooted in wireless communication to mobile devices, the '929 Patent's solutions are also rooted in the same technology that cannot be performed with pen and paper or in the human mind.
- 72. This technical context is reflected in the '929 Patent's claims. For example, the claims recite "a server" that detects a "time triggering event," determines information relevant to the detected triggering event, and which transmits information over a "wireless network" to a "mobile device" with a "meta tag" that identifies the one or more advertisements and advertisement display requirements.
- 73. A person having ordinary skill in the art at the time of the inventions of the '929 Patent would not have understood that the inventions could or would be performed solely in the human mind or using pen and paper. Using pen and paper would ignore the stated purpose of the '929 Patent and the problem it was specifically designed to address, which arose in the context of needing an improved system for delivering content, including advertising content, from an information source to mobile users over a wireless network. Doing so would also run counter to the inventors' detailed description of the inventions and the language of the claims and be a practical impossibility.

l ||

#### '929 Patent Allegations

- 74. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '929 Patent in violation of 35 U.S.C. § 271 et seq., directly by making, using, selling, offering for sale, and/or importing into the United States without authority or license, the Twitter advertising platform including Twitter Ads, which transmits targeted advertisements to Twitter users, as well as associated backend servers and systems (hereinafter "the '929 Accused Products") that infringe at least claims 1, 2, 9 and 10 of the '929 Patent. The '929 Accused Products are non-limiting examples identified based on publicly available information, and BlackBerry reserves the right to identify additional infringing activities, products and services, including, for example, on the basis of information obtained during discovery.
- 75. On information and belief after reasonable investigation, the '929 Accused Products include a server capable of detecting a time triggering event and, based on the time triggering event, sending to a mobile device advertisements and content information with a "meta tag" to identify one or more advertisements and advertisement display requirements.
- 76. As just one non-limiting example, set forth below (with claim language in italics) is a description of infringement of exemplary claims 9 and 10 of the '929 Patent in connection with the Twitter advertising platform and associated backend servers and systems. This description is based on publicly available information. BlackBerry reserves the right to modify this description including, for example, on the basis of information about the '929 Accused Products that it obtains during discovery.
- 9(a) A server, comprising: Defendant makes and/or uses Twitter Ads, the Twitter application, and the <u>www.twitter.com</u> website, and associated backend servers and systems. Regardless of whether the preamble of claim 9 adds any substantive limitation to the claim, the claim language is met by the '929 Accused

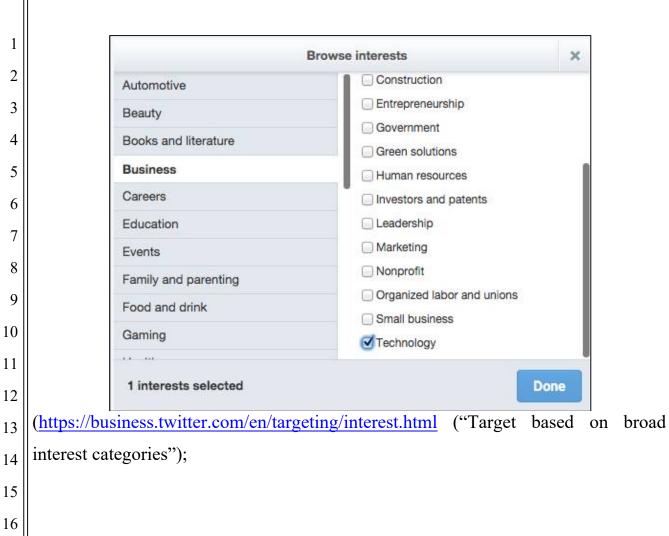
Products, as the '929 Accused Products include a server comprising the elements further described below for the remaining claim limitations.

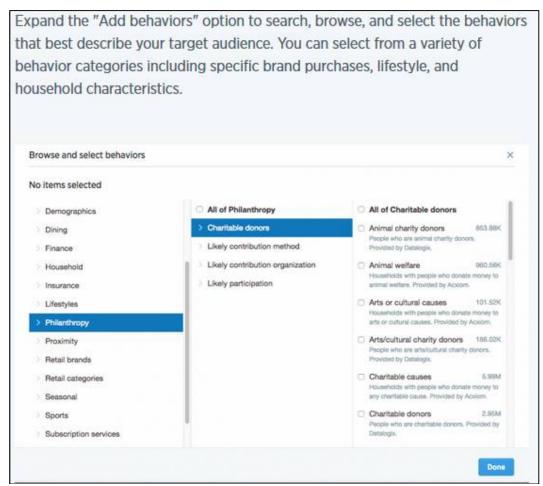
9(b) a database organized into a plurality of memory location channels, each of the memory location channels storing information of a same category as a predefined category of each of the respective memory location channels, – The Twitter application includes a news feed feature that allows users to watch video clips as well as to receive Tweet content from various sources, including advertisers. On information and belief, these features are enabled by a database on the Twitter server comprising a plurality of memory locations, each channel corresponding to a pre-defined category of information that users may wish to access, such as other Twitter accounts that they follow.

The Twitter advertising platform includes tools such as Twitter Ads used by advertisers to send information over the Internet to a Twitter server that, on information and belief, stores the information to one of a plurality of memory location channels of the database based on pre-defined categories. On information and belief, the channels include one or more content categories of interest selected by Twitter users, categories developed by Defendant corresponding to interests of Twitter users and/or demographics such as the age, gender, or location of users. For example, Twitter Ads allows advertisers to create and save advertisements according to, among other things, one or more demographics (*e.g.*, age, gender, location), user interests (*e.g.*, Business, Events, Gaming), who users follow, and past behaviors (*e.g.*, donations). On information and belief, such advertising information is stored in the database based on the foregoing criteria.

1			ÅÅ			
2						
3		Language targeting Reach people who understand a	Gender targeting Target your message to males or	Interest targeting Serve up your campaign to users		
4		particular language.	females.	whose interests broadly align with your business.		
5				*		
6						
7		+ -				
8		ñ		(C)		
9		Follower targeting	Device targeting	Behavior targeting		
10		Target the followers of relevant	Target users based on the specific	Reach high-intent audiences on		
11		accounts to reach people who are likely to be interested in your content.	mobile device they use to access Twitter.	Twitter based on shopping and spending patterns.		
12						
13						
14		-0-		M		
15		m		Шф		
16		Tailored Audiences	Keyword targeting	Geography targeting		
17		targeting Tailored Audiences uses your own	Act on signals of intent by delivering timely messages to	Connect with a global audience or narrow the reach of your		
18		CRM lists to reach specific groups of users on Twitter.	users based on what they've recently Tweeted or engaged with	campaign to a specific country,		
	(https://business.twitter.com/en/targeting.html; see also https://business.twitter.com/				s twitter com/	
19	en/help/campaign-setup/campaign-targeting/geo-gender-and-language-					
20				_		
21	targeting.html		nder, language		targeting");	
22	https://business.twitter.com/en/targeting/follower.html ("Target people based on					
23	who they follow"); <a href="https://business.twitter.com/en/targeting/geo-and-language.html">https://business.twitter.com/en/targeting/geo-and-language.html</a>					
24	("Geography and language targeting"));					
25						
26						
27						
28						
			-21-	Case	No. 2:19-cv-1444	

COMPLAINT FOR PATENT INFRINGEMENT





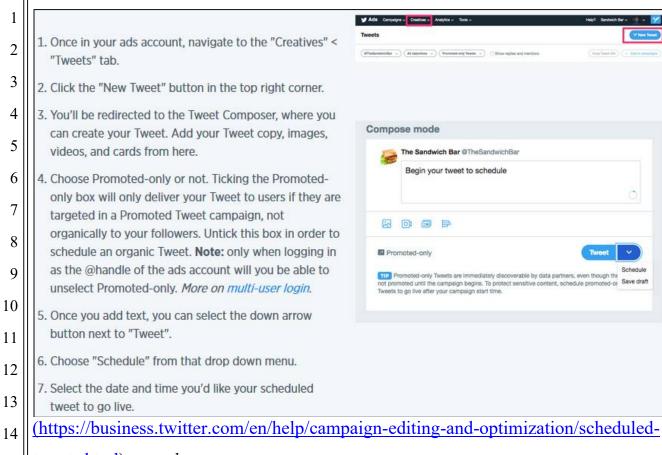
(<a href="https://business.twitter.com/en/targeting/behavior.html">https://business.twitter.com/en/targeting/behavior.html</a> ("Behavior targeting enables you to reach audiences on Twitter based on their shopping behavior, lifestyle, and other key attributes.")).

9(c) wherein upon detection of a triggering event comprising a time triggering event, determining the information relevant to the detected triggering event from among information stored in one of the plurality of memory location channels of the database, – The Twitter application allows users to subscribe to or "follow" other users and content streams and to receive notifications/live updates. On information and belief, these notifications correspond to a "time triggering event" in some cases—e.g., a predetermined release time for Tweet content, for example (see, e.g., <a href="https://business.twitter.com/en/help/campaign-editing-and-optimization/scheduled-tweets.html">https://business.twitter.com/en/help/campaign-editing-and-optimization/scheduled-tweets.html</a>), a predetermined time for a particular event (see, e.g., <a href="https://business.twitter.com/en/help/campaign-setup/campaign-targeting/">https://business.twitter.com/en/help/campaign-setup/campaign-targeting/</a>

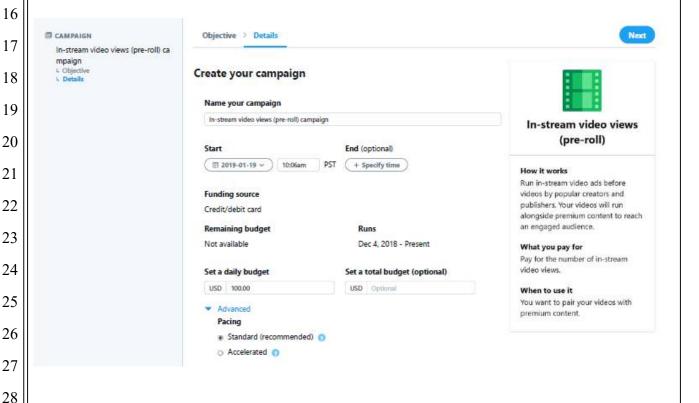
event-targeting.html ("Event targeting allows advertisers to quickly and easily discover, plan for, and activate events on Twitter. Our Event calendar, found in your ads account, surfaces hundreds of events around the world showing the people who are interested or participating. Our one-click campaign activation allows you to easily and directly reach that audience.")), or a time period during which ad content is to be inserted into videos published by popular creators and publishers (see <a href="https://media.twitter.com/en\_us/articles/products/2018/in-stream-video-ads-for-publishers.html">https://media.twitter.com/en\_us/articles/products/2018/in-stream-video-ads-for-publishers.html</a>). Accordingly, Twitter Ads allows advertisers to run advertisements based on a specified time schedule. On information and belief, the advertiser-specified times for publishing ads corresponds to a "time triggering event," for example. On information and belief, upon detection of the time triggering event, the Twitter server determines the information relevant to the detected triggering event from among information stored in the plurality of memory location channels in the database.

### **Scheduled Tweets**

Twitter Ads allow you to schedule both organic and promoted-only Tweets to "go live" at a specific date and time. You can schedule Tweets within your ads account, up to a year in advance, and add them to new and existing campaigns. This feature is great for Tweets that need to be published on the weekend, evenings, or other busy times when you may not have time to tweet manually.



tweets.html); see also:



Ex. I (screenshot when logged into Twitter account from <a href="https://ads.twitter.com/">https://ads.twitter.com/</a> <a href="https://ads.twitter.com/">campaign/18ce54tgi4k/new/campaign/setup?objective=9</a> as of January 20, 2019).

9(d) when the information relevant to the detected triggering event comprises content information, inserting into the content information a meta tag for one or more advertisements to be displayed with the content information, and transmitting the content information that includes the meta tag to a mobile device, - On information and belief, when the information relevant to the detected triggering event comprises content information, Twitter inserts into the content information a meta tag for one or more advertisements to be displayed with the content information, and transmits the content information that includes the meta tag to a mobile device. For example, Twitter's in-stream video ads are inserted into content information mobile devices **Twitter** sent to by the (See https://media.twitter.com/en\_us/articles/products/2018/in-stream-video-ads-for-Additionally, Twitter's Promoted Tweets include content publishers.html.) information as well as advertisements to be displayed with the content information. On information and belief, when content is delivered to a mobile device, the content includes "meta tags" or indications of where and when certain advertising information should be inserted.

19

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

20

21

22

23

2425

26

27

1 Nature's Bounty @NaturesBounty - Nov 16 You've been binging on your shows but 2 now it's bed time. For a restful night, limit 3 screen time & try #melatonin.\*† 4 NATURE'S BOUNT 5 6 7 8 9 10 11 Promoted 12 全→ 26

(https://instapage.com/blog/what-are-promoted-tweets.)

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

advertisement display requirements, and wherein the one or more advertisements are selected based on the detected triggering event. – On information and belief, the meta tags inserted into content information identify the advertisements and advertisement display requirements that should accompany the delivered content. For example, Twitter provides various templates for different styles for promoted Tweets, where each template includes display requirements. (See, e.g., https://business.twitter.com/en/help/campaign-setup/advertiser-cardspecifications.html.) On information and belief, the selected advertisements are tailored according to several user characteristics, including the detected triggering event. Twitter advertisements can be designed to reach a specified audience. When created, these advertisements can be directed toward audiences of a particular demographic, in a particular geographic region, or with a particular interest. On information and belief, the desired audience parameters selected by the advertiser are used to select advertisements to be delivered to a particular mobile device (i.e.,

9(e) wherein the meta tag identifies the one or more advertisements and

in determining which metatag to apply to a given set of content information). On information and belief, the time triggering event is among the information used by the server to select the appropriate advertisement.

(E)	កំពុំ	
Language targeting Reach people who understand a particular language.	Gender targeting  Target your message to males or females.	Interest targeting Serve up your campaign to users whose interests broadly align with your business.
<sup>+</sup> ∞		(C)
Follower targeting  Target the followers of relevant accounts to reach people who are likely to be interested in your content.	Device targeting  Target users based on the specific mobile device they use to access Twitter.	Behavior targeting Reach high-intent audiences on Twitter based on shopping and spending patterns.
r constant of the constant of		
Tailored Audiences targeting Tailored Audiences uses your own CRM lists to reach specific groups of users on Twitter.	Keyword targeting  Act on signals of intent by delivering timely messages to users based on what they've recently Tweeted or engaged with	Geography targeting Connect with a global audience or narrow the reach of your campaign to a specific country, region or even town.

(https://business.twitter.com/en/targeting.html; see also https://business.twitter.com/

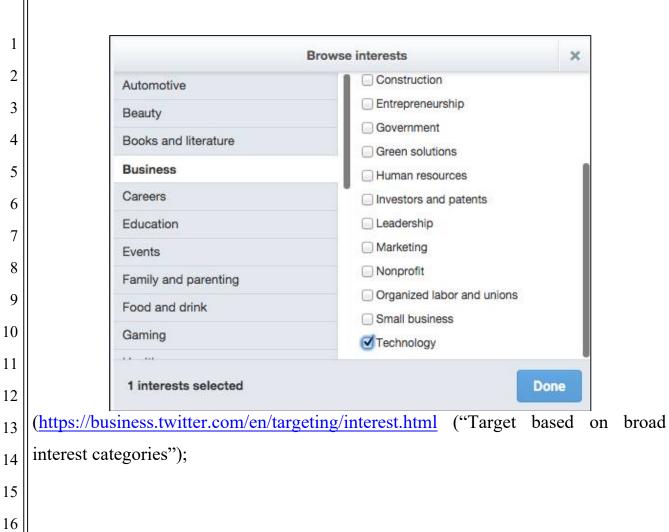
23 en/help/campaign-setup/campaign-targeting/geo-gender-and-language-

targeting.html ("Geo, gender, language, and age targeting");

https://business.twitter.com/en/targeting/follower.html ("Target people based on

who they follow"); https://business.twitter.com/en/targeting/geo-and-language.html

("Geography and language targeting"));



21

22

23

24

25

26

27

28

Expand the "Add behaviors" option to search, browse, and select the behaviors that best describe your target audience. You can select from a variety of behavior categories including specific brand purchases, lifestyle, and household characteristics. Browse and select behaviors No items selected All of Philanthropy All of Charitable donors Demographics > Charitable donors Animal charity donors 853.88K Dining People who are animal charity donors. Likely contribution method Finance Likely contribution organization Animai welfare Household Likely participation animal wetters. Provided by Apxiom. Insurance Arts or cultural causes 101.62% Lifestyles arts or cultural causes. Provided by Applion. Philanthropy ☐ Arts/cultural charity donors 186.02K Proximity Retail brands Provided by Detalogic. Charitable causes Retail categories Households with people who donate money to any charitable cause. Provided by Acalem. Seasonal Charitable donors Sports People who are charitable donors. Provided by Subscription services

(<a href="https://business.twitter.com/en/targeting/behavior.html">https://business.twitter.com/en/targeting/behavior.html</a> ("Behavior targeting enables you to reach audiences on Twitter based on their shopping behavior, lifestyle, and other key attributes."));

#### A low-friction way for publishers to monetize on Twitter.

Twitter is the fastest way to find out what's happening in the world, and video is the best way to show it. Today, publishers can post videos of up to 10 minutes with each Tweet. Even better, you can monetize those videos with In-Stream Video Ads.

Available to partners in the Amplify Publisher Program, In-Stream Video Ads automatically pair pre-roll from advertisers with premium, brand-safe video content on Twitter using the tags you've chosen for each video. It's an easy and effective way to drive additional revenue for publishers.

(https://media.twitter.com/en\_us/articles/products/2018/in-stream-video-ads-for-publishers.html.);

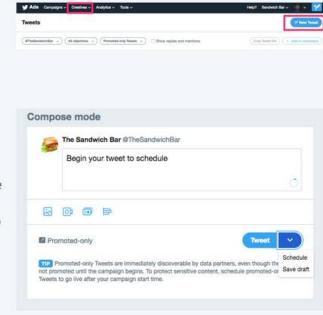
## Scheduled Tweets

Twitter Ads allow you to schedule both organic and promoted-only Tweets to "go live" at a specific date and time. You can schedule Tweets within your ads account, up to a year in advance, and add them to new and existing campaigns. This feature is great for Tweets that need to be published on the weekend, evenings, or other busy times when you may not have time to tweet manually.

- Once in your ads account, navigate to the "Creatives" <
  "Tweets" tab.</li>
- 2. Click the "New Tweet" button in the top right corner.
- You'll be redirected to the Tweet Composer, where you can create your Tweet. Add your Tweet copy, images, videos, and cards from here.
- 4. Choose Promoted-only or not. Ticking the Promoted-only box will only deliver your Tweet to users if they are targeted in a Promoted Tweet campaign, not organically to your followers. Untick this box in order to schedule an organic Tweet. Note: only when logging in as the @handle of the ads account will you be able to unselect Promoted-only. More on multi-user login.
- Once you add text, you can select the down arrow button next to "Tweet".
- 6. Choose "Schedule" from that drop down menu.
- Select the date and time you'd like your scheduled tweet to go live.

(https://business.twitter.com/en/help/campaign-editing-and-optimization/scheduled-

tweets.html);



20

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

21

2223

24

25

2627



(https://instapage.com/blog/what-are-promoted-tweets).

- 77. BlackBerry has been damaged by Defendant's infringement of the '929 Patent and will continue to be damaged unless Defendant is enjoined by this Court. BlackBerry has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction.
- 78. BlackBerry is entitled to recover from Defendant all damages that BlackBerry has sustained as a result of Defendant's infringement of the '929 Patent, including without limitation lost profits and not less than a reasonable royalty.

#### **COUNT II: INFRINGEMENT OF U.S. PATENT NO. 8,296,351**

79. BlackBerry incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint as if fully set forth herein.

#### The '351 Patent

80. The '351 Patent discloses, among other things, a "system for pushing information to a mobile device" involving a "proxy content server," which "is coupled to [an] information source and [a] wireless network." '351 Patent at

32- Case No. 2:19-cv-1444

7

10

11 12

14

15

13

16 17

18

19

20

21 22

23

24

25 26

27

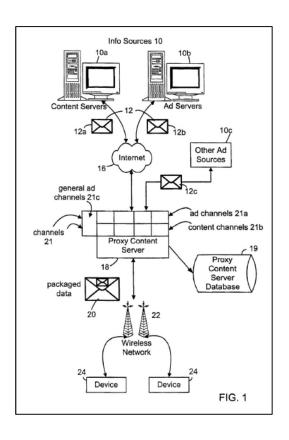
28

The proxy content server "stores information received from the Abstract. information source to one of a plurality of channels based on predefined information categories, and automatically transmits information from a selected channel over the wireless network to the mobile device." Id.

- 81. The '351 Patent teaches a proxy content server that provides targeted advertising information (see, e.g., id. at 4:28-46) and "aggregates existing information, such as Internet or Intranet content, from one or more Information sources, and pushes the information to a mobile device." Id. at 2:59-62. configuration "provides a method of combining the information so that the mobile device user has a consistent and transparent experience of receiving both information content and advertising content." Id. at 2:63-66. The '351 Patent inventors recognized that providing targeted advertisements and content was important "to achieve a revenue source for the provider of the information so the mobile device user gets a reduce[d] or free information service." *Id.* at 3:16-19.
- Fig. 1 of the '351 Patent shows an exemplary network architecture according to an embodiment of the Patent for such a push notification system to improve the delivery of advertising content to mobile users. Figure 1 illustrates "a plurality of Information Sources 10, a Proxy Content Server 18, a Proxy Content Server Database 19, and a plurality of mobile devices 24." *Id.* at 2:21-23.

27

28



83. The '351 Patent thus claims, among other things, "[a] system for pushing information to a mobile device, comprising: a proxy content server that receives information over a computer network from an information source and stores the information to one of a plurality of channels based on pre-defined information categories, wherein the plurality of channels comprise memory locations included in at least one of the proxy content server or a proxy content server database; the proxy content server to receive a feedback signal over a wireless network that indicates a position of the mobile device, and to use the feedback signal to select a channel for transmission of the information from the selected channel over the wireless network to the mobile device, wherein the information comprises at least one of static advertising information, dynamic advertising information, default advertising information, or content information, and wherein a combination of the static advertising information with one of the dynamic or default advertising information comprises an advertisement or an information bulletin." Id. at Claim 1.

# The Inventions Claimed in the '351 Patent Were Not Well-Understood, Routine, or Conventional

- 84. The use of a proxy content server to receive information over a computer network from an information source and store the information to one of a plurality of channels based on pre-defined information categories, wherein the plurality of channels comprise memory locations included in at least one of the proxy content server or a proxy content server database, and to receive a feedback signal over a wireless network that indicates the position of the mobile device and to use the feedback signal to select a channel for transmission of the information from the selected channel over the wireless network to the mobile device, wherein the information comprises at least one of static advertising information, dynamic advertising information, default advertising information with one of the dynamic or default advertising information comprises an advertisement or an information bulletin, was not common or conventional at the time of the '351 Patent.
- 85. The inventors of the '351 Patent recognized the need to transmit targeted advertising, facilitated by a proxy content server, in order to deliver relevant and timely advertising information to mobile users. As taught by the '351 Patent, the "Proxy Content Server [] provides a method of combining the information so that the mobile device user has a consistent and transparent experience of receiving both information content and advertising content." *Id.* at 2:63-66.
- 86. Given the state of the art at the time of the invention of the '351 Patent, the inventive concepts of the '351 Patent were not conventional, well-understood, or routine. The '351 Patent discloses, among other things, an unconventional and technological solution to an issue arising specifically in the context of wireless communication devices, and the delivery of advertising content to such devices. The solution implemented by the '351 Patent provides a specific and substantial

improvement over prior wireless communication systems used for this purpose, resulting in an improved system for the delivery of relevant and timely advertising information to mobile device users. The '351 Patent achieves this result by introducing novel elements directed to improving the function and working of wireless communication systems such as, among other things, the claimed "proxy content server" (all claims), positioned in a wireless network and configured according to the claims, the capability of the proxy content server to "receive a feedback signal over a wireless network that indicates a position of the mobile device, and to use the feedback signal to select a channel for transmission of the information from the selected channel over the wireless network to the mobile device," (claims 1-13) and the capability to combine "static advertising information with one of [] dynamic or default advertising information" to result in "an advertisement or an information bulletin" (all claims).

- 87. Consistent with the problem addressed being rooted in wireless communication to mobile devices, the '351 Patent's solutions are also rooted in the same technology that cannot be performed with pen and paper or in the human mind.
- 88. This technical context is reflected in the '351 Patent's claims. For example, the claims recite a "proxy content server that receives information over computer network from an information source" and which transmits information over a "wireless network" to "mobile devices."
- 89. A person having ordinary skill in the art at the time of the inventions of the '351 Patent would not have understood that the inventions could or would be performed solely in the human mind or using pen and paper. Using pen and paper would ignore the stated purpose of the '351 Patent and the problem it was specifically designed to address, which arose in the context of needing an improved system for delivering content, including advertising content, from an information source to mobile users over a wireless network. Doing so would also run counter to

9

10

11

12

13 14

15

16 17

18 19

20

21 22

23 24

25 26

28

27

the inventors' detailed description of the inventions and the language of the claims and be a practical impossibility.

# '351 Patent Allegations

- Defendant has infringed and is infringing, either literally or under the 90. doctrine of equivalents, the '351 Patent in violation of 35 U.S.C. § 271 et seq., directly, by making, using, selling, offering for sale, and/or importing into the United States without authority or license, the Twitter advertising platform including Twitter Ads, which transmits targeted advertisements to Twitter users, as well as associated backend servers and systems (hereinafter "the '351 Accused Products") that infringe at least claims 1 and 14 of the '351 Patent. The '351 Accused Products are a non-limiting example that was identified based on publicly available information, and BlackBerry reserves the right to identify additional infringing activities, products and services, including, for example, on the basis of information obtained during discovery.
- On information and belief after reasonable investigation, the '351 91. Accused Products include a proxy content server that receives information from an information source, stores the information in one of a plurality of channels, receives a feedback signal over a wireless network that indicates a position of a mobile device, uses the feedback signal to select a channel for transmission of the information over the wireless network to the mobile device, wherein the information comprises at least one of static advertising information, dynamic advertising information, default advertising information, or content information, and wherein a combination of the static advertising information with one of the dynamic or default advertising information comprises an advertisement or an information bulletin.
- As just one non-limiting example, set forth below (with claim language 92. in italics) is a description of infringement of exemplary claim 1 of the '351 Patent in connection with the Twitter advertising platform and associated backend servers and systems. This description is based on publicly available information. BlackBerry

reserves the right to modify this description, including, for example, on the basis of information about the '351 Accused Products that it obtains during discovery.

1(a) A system for pushing information to a mobile device, comprising: -Defendant makes and/or uses Twitter Ads, the Twitter application, and the www.twitter.com website, and associated backend servers and systems. Regardless of whether the preamble of claim 1 adds any substantive limitation to the claim, the claim language is met by the '351 Accused Products, as the '351 Accused Products comprise a system for pushing information to mobile devices, including the mobile devices of Twitter users.



# How it works



# Choose your target audience

Reach the right audience by targeting based on interests, geography, gender, device, or users similar to your followers. In addition, maximize the relevancy of your message by targeting by keywords in people's Tweets.



# Amplify your message and get discovered

Get your Tweets and your account in front of more people who are interested in you.



# Set a budget and pay for what works

Only pay when users follow your account or retweet, like, reply, or click on your Promoted Tweet. You're in complete control. There's no minimum spend, and you can start and stop at any time.

# (https://ads.twitter.com/login).

I(b) a proxy content server that receives information over a computer network from an information source and stores the information to one of a plurality of channels based on pre-defined information categories, wherein the plurality of channels comprise memory locations included in at least one of the proxy content server or a proxy content server database; — On information and belief, Defendant's advertising platform includes tools such as Twitter Ads and Ads Manager used by information sources such as advertisers or a Twitter advertisement intake server to send information over the Internet or Intranet to a Twitter proxy content server that stores the information to one of a plurality of channels based on pre-defined information categories.

# Twitter Ads Manager

We want every advertiser to get the best performance from their campaigns. Twitter Ads Manager provides a central workspace to plan, manage, and report on campaigns.

You can see Ads Manager by logging into your ads account (ads.twitter.com), where you will automatically be brought to the Ads Manager as your home screen. From there, you can customize your view to see relevant campaigns, creatives, and results.

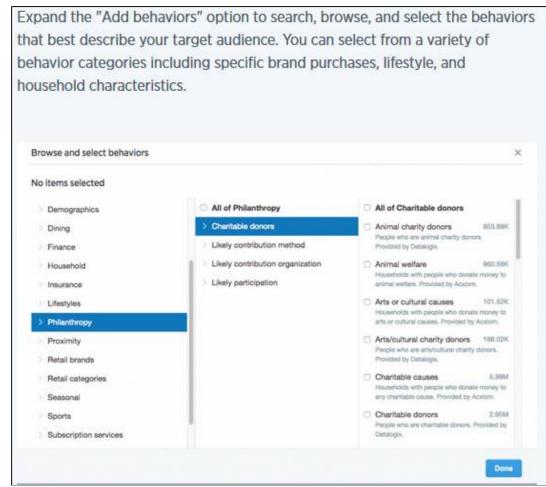
(https://business.twitter.com/en/help/campaign-setup/twitter-ads-manager.html).

On information and belief, the plurality of channels based on pre-defined information categories include one or more content categories of interest selected by Twitter users, categories developed by Defendant corresponding to interests of Twitter users and/or demographics such as the age, gender, or location of users. On information and belief, the plurality of channels comprise memory locations included in at least one of the proxy content server or a proxy content server database. For example, Twitter Ads allows advertisers to create and save advertisements according to, among other things, one or more demographics (e.g., age, gender, location), user interests (e.g., Business, Events, Gaming), who users follow, and past behaviors (e.g., donations). On information and belief, such advertising information is stored at the Twitter proxy content server or proxy content server database based on the foregoing criteria.

1			ôô				
2		لجارا	쓔ㅐ				
3		Language targeting	Gender targeting	Interest targeting			
4		Reach people who understand a particular language.	Target your message to males or females.	Serve up your campaign to users whose interests broadly align with			
5				your business.			
6							
7							
8		† <sub>0</sub> Q		<u></u>			
9		m		C.			
10		Follower targeting	Device targeting	Behavior targeting			
11		Target the followers of relevant accounts to reach people who	Target users based on the specific mobile device they use to access	Reach high-intent audiences on Twitter based on shopping and			
12		are likely to be interested in your content.	Twitter.	spending patterns.			
13							
14							
15				L-2			
16		r con					
17							
18		Tailored Audiences targeting	Keyword targeting  Act on signals of intent by	Geography targeting Connect with a global audience or			
19		Tailored Audiences uses your own CRM lists to reach specific groups	delivering timely messages to users based on what they've	narrow the reach of your campaign to a specific country,			
20		of users on Twitter.	recently Tweeted or engaged with in Tweets.	region or even town.			
21	(https://business.twitter.com/en/targeting.html; see also https://business.twitter.com/						
22	en/help/car	mpaign-setup/campai	gn-targeting/geo-gen	der-and-language-			
23	targeting.h	<u>ttml</u> ("Geo, g	ender, language,	and age to	argeting");		
24	https://business.twitter.com/en/targeting/follower.html ("Target people based on						
25	who they follow"); <a href="https://business.twitter.com/en/targeting/geo-and-language.html">https://business.twitter.com/en/targeting/geo-and-language.html</a>						
26	("Geograp	hy and language targ	eting"));				
27							
28							
			-41-	Case No.	2:19-cv-1444		

COMPLAINT FOR PATENT INFRINGEMENT

1		Brow	se interests	×	
2		Automotive	Construction		
3		Beauty	Entrepreneurship		
4		Books and literature	Government		
5		Business	Green solutions Human resources	1	
6		Careers	☐ Investors and patents	- 1	
7		Education	Leadership	- 1	
8		Events	Marketing	- 1	
		Family and parenting	Nonprofit	- 1	
9		Food and drink	Organized labor and unions     Small business	- 1	
10		Gaming	▼Technology	- 1	
11		1.1 101			
12		1 interests selected	Doi	ne	
13	(https://bu	usiness.twitter.com/en/targeting	/interest.html ("Target bas	ed on	broad
14	interest ca	ategories");			
15		<i>2</i> //			
16					
17					
1/					



(<a href="https://business.twitter.com/en/targeting/behavior.html">https://business.twitter.com/en/targeting/behavior.html</a> ("Behavior targeting enables you to reach audiences on Twitter based on their shopping behavior, lifestyle, and other key attributes.")).

I(c) the proxy content server to receive a feedback signal over a wireless network that indicates a position of the mobile device, and to use the feedback signal to select a channel for transmission of the information from the selected channel over the wireless network to the mobile device, — Advertisements through the Twitter advertising platform can be designed to reach a specified audience. When created, these advertisements can be directed towards audiences of a particular demographic, audiences in a particular geographic region, and audiences with a particular interest, among others. For example, the Twitter advertising platform sends targeted advertisements based on user location such that, on information and belief, the Twitter proxy content server sends advertising

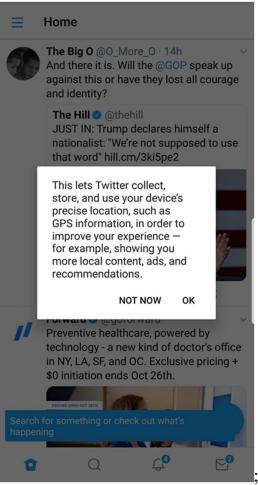
information to users based on location of the user as indicated by a feedback signal sent from the user's device over a wireless network to the Twitter proxy content server. On information and belief, the Twitter proxy content server selects the channel for transmission of information to the mobile device using the feedback signal as well as additional criteria, including the user demographics, and/or the user's behavior, for example.

Geo location targeting	Select location, language, technology Target people by location, language, platform, device, carrier, or OS version.				
oco location targeting	All > Locations Search Q				
Advertisers can target their campaigns to specific geographies, whether it be country, city, metro, or postal codes.					
You can specify your location targeting during	Select location, language, technology Target people to location, language, pattern, series, series, or Olf venion.				
campaign setup:	At > Leasure chicago	- 0			
Navigate to Targeting section of campaign setup	COCCUPION  City - Cimeny, K.; Named Rease  City - Cimeny, Ridge, K.; United States  City - West Consep, K.; United States  City - West Consep, K.; United States  City - March Consep, K.; United States  City - State Consep, R.; United States	Acti Acti Acti Acti	City – Chicago, IL, United States Locations Target people by country, shale, region, metro area, or postal code. Laters more	AL O W	
Scroll to "Select location, language, technology" section	City — Change Fragists, Li, United States City — New Discipling, Ni, Control States City — South Changes Fragists, Ni, Control States Allow — Changes, Ni, Control States Partial control — Gentle Control — Gentle Control States Partial Control — Gentle Control —	Acti Acti Acti Acti Acti Acti			
3. Click "All" and then "Locations"	Postal code - 6062, Chruspy, United States Postal code - 60611, Chruspy, Linkel States Postal code - 60616, Chruspy, United States	Add Add Add			
4. Input the geo location(s) you'd like to target. You can target by country, city, metro, or postal codes.					

Twitter's geo targeting is based on a user's recent location. This is a combination of a user's current location as well as their recent location history. Twitter uses several signals for determining whether a user is presently in a particular geographic location, such as a user's web IP address, mobile GPS signal, mobile wifi signal, and real-time signals, such as when a user includes their location in a Tweet. We use all of these signals to create sophisticated machine-learned models that predict a user's location. More on Twitter's data collection for ads.

(<a href="https://business.twitter.com/en/help/campaign-setup/campaign-targeting/geo-gender-and-language-targeting.html">https://business.twitter.com/en/help/campaign-setup/campaign-targeting/geo-gender-and-language-targeting.html</a>).

Additionally, on information and belief, the Twitter application enables location tracking of a user's mobile device by default.



; see also:

# How to use precise location on mobile devices

Enabling precise location through Twitter's official apps allows Twitter to collect, store, and use your precise location, such as GPS information. This allows us to provide, develop, and improve a variety of our services, including but not limited to:

- Delivery of content, including Tweets and advertising, that is better tailored to your location.
- Delivery of location-specific trends.
- Showing your followers the location you are Tweeting from as part of your Tweet, if you decide to geotag your Tweet.

(<u>https://help.twitter.com/en/safety-and-security/twitter-location-services-for-mobile</u>).

I(d) wherein the information comprises at least one of static advertising information, dynamic advertising information, default advertising information, or content information, and wherein a combination of the static advertising information with one of the dynamic or default advertising information comprises an advertisement or an information bulletin. — On information and belief, advertisements seen on at least Twitter include static advertising information that relates to an identity of the advertiser, such as the name and logo of the advertiser, and that is combined with dynamic and default advertising information that relates to a specific advertisement that is or is not time-sensitive, such as an advertisement image, description, "call to action" item and associated link(s).



14

15

16

17

18

19

20

21

22

23

24

25

26

27

28



- 93. BlackBerry has been damaged by Defendant's infringement of the '351 Patent and will continue to be damaged unless Defendant is enjoined by this Court. BlackBerry has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction.
- BlackBerry is entitled to recover from Defendant all damages that 94. BlackBerry has sustained as a result of Defendant's infringement of the '351 Patent, including without limitation lost profits and not less than a reasonable royalty.

# **COUNT III: INFRINGEMENT OF U.S. PATENT NO. 9,349,120**

BlackBerry incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint as if fully set forth herein.

# The '120 Patent

96. The '120 Patent discloses, among other things, "[m]ethods, systems, and computer programming products . . . for silencing message threads" whereby "[o]nce a message thread has been silenced, the user will no longer receive notifications of new messages added to the thread." '120 Patent, Abstract.

Case No. 2:19-cv-1444

11

12

13

14

15

16

17

18

19

20

21

22

23

24

97. The '120 Patent explains that "[e]lectronic messages, such as electronic mail messages and messages posted to group sites, can be grouped into message threads. Each message thread can relate to a particular matter such as a particular topic of conversation or an activity. For example, a user may be part of an email group which is involved in an ongoing discussion. Each email in the discussion could be included in the same message thread. A user may receive a notification each time an electronic message is received. Notifications could include, for example, auditory user alerts such as ring tones, visual alerts such as flashing lights or pop-ups and physical alerts such as vibrations." *Id.* at 1:22-32.

The '120 Patent provides a user with the capability to silence such 98. notifications on a per-thread basis, thereby overriding a currently enabled notification setting and allowing notifications to be received for other non-silenced threads. Id. at 2:22-49. Figures 5 and 6 of the '120 Patent detail an exemplary method by which such notification silencing for a method thread occurs. As shown in Fig. 5, "[a] method 500 can begin at 502 where a user can, using suitablyconfigured GUI(s) and input device, select a message inbox. [An] inbox generally refers to a virtual folder with which incoming messages are initially associated. . . . At 504, the user selects a message thread using, for example, a user interface such as a GUI 304, displaying one or more selectable options such as a list of one or more message threads. A message thread may be selected by the user by, for example, selecting a displayed, selectable option associated with the message thread using point-and-click functionality as described above. At 506, a user can silence a message thread or reactivate a message thread that had previously been silenced with respect to a device the user is using." *Id.* at 11:11-13:1.

25

26

Select Inbox

Select Inbox

Select Message Thread

Silence/Reactivate Thread

FIG. 5

Id. at Fig. 5.

99. Fig. 6 shows an exemplary method of handling an incoming electronic message depending on whether or not the message thread with which the message is associated has been silenced. "A method 600 can begin at 602 where a message is received which is addressed or otherwise identified in such a way as to be associated with an inbox. . . . At 604, it may be determined whether or not the message relates to a new matter, such as a new topic of conversation or a new activity. . . . If the message does relate to a new matter, at 606, a new message thread is started. At 608, the user is notified of the message according to any currently-enabled notification settings, as described above. If the message does not relate to a new matter, at 610, a thread to which the message belongs may be determined. . . . At 612, it is may determined whether or not the message thread to which the message belongs has been silenced by the user. For example, a data record in memory 300 which is associated with the message thread may be checked to determine whether a flag has been set indicating that the thread has been silenced. If the message thread has been

2 3 4

silenced by the user then no notification may be activated. . . . If the message thread has not been silenced by the user, then at 616 the user may be notified of the incoming message according to any currently-enabled notification settings." *Id.* at 14:5-55.

New Message Received *Id.* at Fig. 6.

Yes New Matter?

Notification

Notification

Notification

Notification

Notification

FIG. 6

100. The '120 Patent claims, among other things, "[a] method for silencing notifications for incoming electronic messages to a communication system, the communication system comprising a data processor, media readable by the data processor and a communications subsystem, the communications subsystem adapted to receive the incoming electronic messages, the method comprising: receiving one or more selected message threads for silencing; in response to receiving the one or more selected message threads, activating one or more flags, each flag in association with a selected message thread of the one or more selected message threads, wherein the one or more flags indicate that the associated one or more selected message threads have been silenced; receiving a new incoming electronic message;

identifying the new incoming message as associated with the selected one or more

message threads; determining that a message thread associated with the new

incoming message has been flagged as silenced using the one or more flags;

overriding at least one currently-enabled notification setting to prevent a notification

pertaining to receipt of the new incoming message from being activated; and

displaying the new incoming electronic message in an inbox together with any

message thread not flagged as silenced, while silencing any further notifications

pertaining to receipt of the new incoming electronic message; wherein the new

incoming message thread flagged as silenced is displayed in the inbox in a different

manner than any message thread not flagged as silenced." *Id.* at claim 13.

# The Inventions Claimed in the '120 Patent Were Not Well-Understood, Routine, or Conventional

101. A communication system enabling a flag associated with an electronic message thread to be activated in order to silence notifications for the message thread and thereby override a currently-enabled notification setting was not common or conventional at the time of the '120 Patent.

102. The inventor of the '120 Patent recognized the need in electronic communications systems to silence notifications for specific message threads while still allowing new incoming messages in the silenced threads to be displayed in an inbox together with any message thread not flagged as silenced. '120 Patent, Abstract. The inventor further identified the benefit of solving this described problem by providing a communication system enabling "receiving a new incoming electronic message; identifying the new incoming message as associated with one or more message threads; determining that a message thread associated with the new incoming message has been flagged as silenced; and overriding at least one currently-enabled notification setting to prevent a notification pertaining to receipt of the new incoming message from being activated." *Id.* at 2:42-49. Thus,

4

1

3

567

8

10

11

12

14

13

16

15

1718

19

2021

22

2324

2526

28

27

notifications for messages associated with a specific messaging thread may be silenced while still allowing for notifications from non-silenced message threads.

103. Given the state of the art at the time of the invention of the '120 Patent, the inventive concepts of the '120 Patent were not conventional, well-understood, or The '120 Patent discloses, among other things, an unconventional and technological solution to an issue arising specifically in the context of electronic communications systems and electronic messaging received within those communications systems. The solution implemented by the '120 Patent provides a specific and substantial improvement over prior messaging notification systems, resulting in an improved electronic communications system, including by introducing novel elements directed to improving the function and working of communications systems such as, among other things, the claimed "activating one or more flags, each flag in association with a selected message thread of the one or more selected message threads, wherein the one or more flags indicate that the associated one or more selected message threads have been silenced" (claims 13 and 24; substantially similar limitation in claim 1), "determining that a message thread associated with the new incoming message has been flagged as silenced using the one or more flags" (claims 13 and 24; substantially similar limitation in claim 1), and "displaying the new incoming electronic message in an inbox together with any message thread not flagged as silenced, while silencing any further notifications pertaining to receipt of the new incoming electronic message; wherein the new incoming message thread flagged as silenced is displayed in the inbox in a different manner than any message thread not flagged as silenced" (claims 13 and 24; substantially similar limitation in claim 1).

104. Consistent with the problem addressed being rooted in electronic messaging between wireless communications devices, the '120 Patent's solutions naturally are also rooted in the same technology that cannot be performed with pen and paper or in the human mind.

105. This technical context is reflected in the '120 Patent's claims. For example, various claims of the '120 Patent require one or more electronic messages associated with one or more message threads, selected message thread(s) for silencing, settings for notifications pertaining to receipt of new incoming electronic messages associated with one or more such threads, and displaying such messages in an inbox.

106. A person having ordinary skill in the art at the time of the inventions of the '120 Patent would not have understood that the inventions could or would be performed solely in the human mind or using pen and paper. Using pen and paper would ignore the stated purpose of the '120 Patent and the problem it was specifically designed to address. Doing so would also run counter to the inventors' detailed description of the inventions and the language of the claims and be a practical impossibility.

# '120 Patent Allegations

- 107. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '120 Patent in violation of 35 U.S.C. § 271 *et seq.*, directly and/or indirectly, by making, using, selling, offering for sale, and/or importing into the United States without authority or license, the Twitter application (hereinafter "the '120 Accused Products") that infringes at least claims 1, 13, and 24 of the '120 Patent.
- 108. On information and belief after reasonable investigation, the '120 Accused Products contain messaging functionality designed and used to silence notifications for selected conversation threads thereby overriding a currently-enabled notification setting in an infringing manner.
- 109. As just one non-limiting example, set forth below (with claim language in italics) is a description of infringement of exemplary claim 24 of the '120 Patent in connection with the Twitter application. This description is based on publicly available information. BlackBerry reserves the right to modify this description,

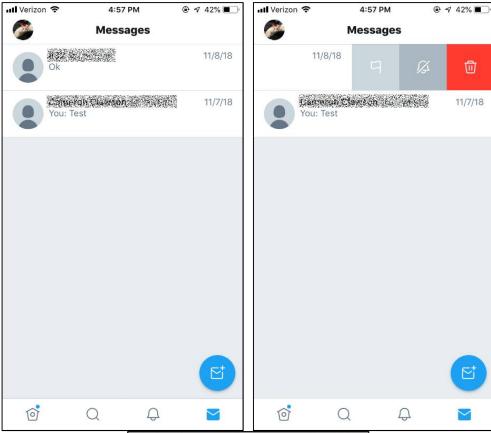
including, for example, on the basis of information about the '120 Accused Products that it obtains during discovery.

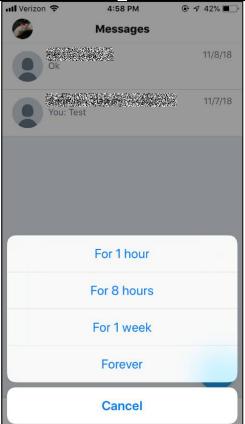
I(a) A non-transitory computer readable medium comprising processing instructions which when executed by a data processor cause the data processor to perform a method for silencing notifications for incoming electronic messages to a communication system, the method comprising: — Defendant makes and uses the Twitter application. Regardless of whether the preamble of claim 1 adds any substantive limitation to the claim, the claim language is met by the '120 Accused Products, as the '120 Accused Products include a non-transitory computer readable medium comprising processing instructions which when executed by a data processor cause the data processor to perform a method of silencing notifications for incoming electronic messages to a communication system as further described below for the remaining claim limitations.

1(b) receiving one or more selected message threads for silencing; –

-54-

Case No. 2:19-cv-1444





4

5

6

7

23

24

25

26

27

28

1

See

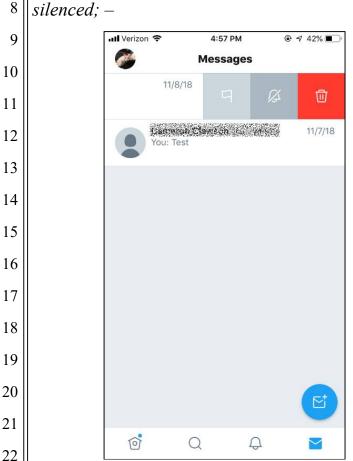
also

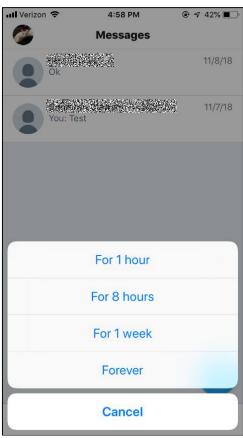
https://www.igeeksblog.com/how-to-mute-twitter-direct-message-

notifications-on-iphone-android-pc/; https://help.twitter.com/en/using-twitter/direct-

messages#mute.

1(c) in response to receiving the one or more selected message threads, activating one or more flags, each flag in association with a selected message thread of the one or more selected message threads, wherein the one or more flags indicate that the associated one or more selected message threads have been

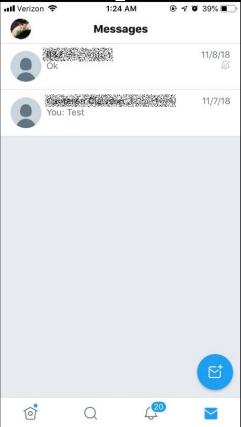




See also https://www.igeeksblog.com/how-to-mute-twitter-direct-messagenotifications-on-iphone-android-pc/; https://help.twitter.com/en/using-twitter/directmessages#mute.

1(d) identifying the new incoming message as associated with the selected one or more message threads; determining that a message thread associated with the new incoming message has been flagged as silenced using the one or more flags; –

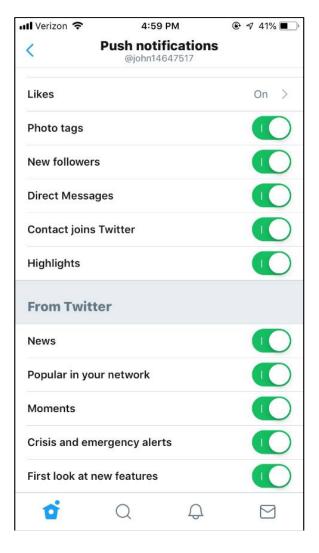




3 |

See also <a href="https://www.igeeksblog.com/how-to-mute-twitter-direct-message-notifications-on-iphone-android-pc/">https://www.igeeksblog.com/how-to-mute-twitter-direct-message-notifications-on-iphone-android-pc/</a>; <a href="https://help.twitter.com/en/using-twitter/direct-messages#mute">https://help.twitter.com/en/using-twitter/direct-messages#mute</a>.

1(e) overriding at least one currently-enabled notification setting to prevent a notification pertaining to receipt of the new incoming message from being activated; and –



1(f) wherein the new incoming message thread flagged as silenced is displayed in the inbox in a different manner than any message thread not flagged as silenced. –



5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

1

See also

https://www.igeeksblog.com/how-to-mute-twitter-direct-messagenotifications-on-iphone-android-pc/; https://help.twitter.com/en/using-twitter/direct-

messages#mute.

110. Additionally, Defendant has been, and currently is, an active inducer of infringement of the '120 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the '120 Patent under 35 U.S.C. § 271(c).

- 111. BlackBerry made Defendant aware of the '120 Patent and its infringement thereof by letter dated June 7, 2017. Ex. H. Accordingly, Defendant has had actual knowledge of (or was willfully blind to the existence of) the '120 Patent and its infringement thereof at least as of June 7, 2017, but has failed to take any action to avoid infringement. Indeed, on information and belief, Defendant has released over two dozen new versions of the iOS Twitter application since being put on notice of its infringement—none of which removed the infringing functionality. (See, e.g., https://itunes.apple.com/in/app/twitter/id333903271?mt=8 (link to version history contained therein).) Accordingly, Defendant knew that it infringed the '120 Patent well before BlackBerry filed this action and, despite its knowledge, acted egregiously and willfully by continuing to infringe the '120 Patent.
- 112. Defendant has provided the '120 Accused Products to its customers and, on information and belief, instructions to use the '120 Accused Products in an infringing manner while being on notice of or willfully blind to the '120 Patent and Defendant's infringement, and knowingly and intentionally encourages and aids its customers to directly infringe the '120 Patent.
- 113. Upon information and belief, Defendant provides the '120 Accused Products to customers through various third-party application stores (e.g., the Apple App Store) and instructions to end-user customers so that such customers will use the '120 Accused Products in an infringing manner. For example, Defendant provides instructions to end-user customers on how to set up, configure, and use

28

various features of the '120 Accused Products, as well as how to mute notifications associated with Twitter Direct Messaging conversations.<sup>7</sup>

114. Defendant's end-user customers directly infringe at least claims 1, 13, and 24 of the '120 Patent by using the '120 Accused Products in their intended manner to infringe. Defendant induces such infringement by providing the '120 Accused Products and instructions to enable and facilitate infringement, knowing of, or being willfully blind to the existence of, the '120 Patent. Upon information and belief, Defendant specifically intends that its actions will result in infringement of at least claims 1, 13, and 24 of the '120 Patent, or subjectively believes that its actions will result in infringement of the '120 Patent but has taken deliberate actions to avoid learning of those facts, as set forth above.

115. Additionally, Defendant contributorily infringes at least claims 1, 13, and 24 of the '120 Patent by providing the '120 Accused Products and/or software components thereof, that embody a material part of the claimed inventions of the '120 Patent, that are known by Defendant to be specially made or adapted for use in an infringing manner, and are not staple articles with substantial non-infringing uses. The '120 Accused Products are specially designed to infringe at least claims 1, 13, and 24 of the '120 Patent, and their accused components have no substantial non-infringing uses. In particular, on information and belief, the software modules and code that implement and perform the infringing functionalities identified above are specially made and adapted to carry out said functionality and do not have any substantial non-infringing uses.

116. Defendant's infringement of the '120 Patent was and continues to be willful and deliberate, entitling BlackBerry to enhanced damages and attorneys' fees.

<sup>&</sup>lt;sup>7</sup> See, e.g., <a href="https://help.twitter.com/en/using-twitter/direct-messages#mute">https://help.twitter.com/en/using-twitter/direct-messages#mute</a>.

- 117. Additional discovery regarding Defendant's knowledge of the '120 Patent likely will uncover additional facts related to Defendant's willful infringement.
- 118. Defendant's infringement of the '120 Patent is exceptional and entitles BlackBerry to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.
- 119. BlackBerry has been damaged by Defendant's infringement of the '120 Patent and will continue to be damaged unless Defendant is enjoined by this Court. BlackBerry has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction.
- 120. BlackBerry is entitled to recover from Defendant all damages that BlackBerry has sustained as a result of Defendant's infringement of the '120 Patent, including without limitation lost profits and not less than a reasonable royalty.

# **COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 9,021,059**

121. BlackBerry incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint as if fully set forth herein.

# The '059 Patent

- 122. The '059 Patent discloses, among other things, an "[a]pparatus and methods to engage in accessing informational content in a data hub server, where the informational content is identified as public or partially public to a group registered in the data hub server with permission to access the informational content made public or partially public in the data hub server by another entity, provide a mechanism to enhance the communication capabilities among mobile electronic devices." '059 Patent, Abstract.
- 123. The inventors of the '059 Patent recognized that "[i]mprovements to the flow of information enhance one's ability to interact with others, to respond to changing needs, and to avail oneself of enjoyment from processing various media

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

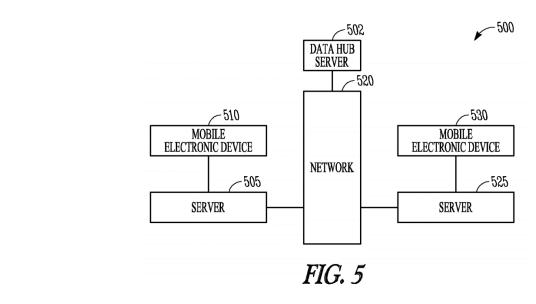
26

27

28

based information." Id. at 1:11-14. Accordingly, in various embodiments, the inventors of the '059 Patent described this improvement in the context of server communications. Id. at 2:26-36. In particular, the '059 Patent describes that "informational content sourced from a server can be accessed in a data hub server by another server in which the informational content is categorized in the data hub as public data with respect the accessing server. The informational content can be transferred to the data hub server from the server associated with the generation of the informational content using directed transmission between the server and the data hub server. The informational content can be transferred from the data hub server to the accessing server using directed transmission between the data hub server and the accessing server." Id. The inventors therefore recognized that informational content could be shared by the user of a first device with the user of a second device without requiring the first user to download the content and upload it to a server that then transmits the content to the second user. Rather, by using a data hub server to notify the second user that the informational content is available, the '059 Patent discloses a novel and improved communications system that preserves system bandwidth and battery life of mobile communications devices.

124. Figure 5, for example, illustrates a representative communications system employing an embodiment of the '059 Patent "where mobile electronic devices 510 and 530 are mobile wireless devices and servers 505 and 525 are wireless servers." *Id.* at 15:52-54. Mobile electronic devices 510 and 530 indicate status of informational content, such as, for example, a set of movie clips, by marking it public or non-public. *Id.* at 15:51-67, 16:38-39. A representation of the informational content is sent from the mobile electronic devices 510 and 530 to respective servers 505 and 525. *Id.* at 16:1-4. The transfer may occur via, for example, Wi-Fi or USB. *Id.* at 16:1-37. In some embodiments, mobile electronic device 510 may have a share registration in server 525 (and vice versa). *Id.* at 16:1-



Id. at Fig. 5.

125. The '059 Patent explains that "[u]pon receipt of the movie clips in server 505, the status as to public or non-public is checked in server 505. The determination of which users have access to the movie clips can have been made in data hub server 502 previous to the reception of the movie clips in server 505. In such a case, server 505 sends the movie clips to data hub server 502 in appropriate format for transmission upon checking and determining the public status." *Id.* at 16:38-45. A user registers in data hub server 502 or servers 505, 525 using a mobile electronic device (*e.g.*, 510, 530). *Id.* at 16:56-17:8. If marked with a public status, the informational content can be made available to mobile devices on the data hub server 502. *Id.* at 16:56-17:28.

126. In various embodiments of the '059 Patent, servers send notifications to mobile electronic devices that are registered clients. For example, upon receipt of informational content received at a server, the server sends notification of the arrival of the informational content to a mobile electronic device. *Id.* at 23:15-32. In response, the mobile electronic device requests to download (or automatically downloads) the informational content in response to the notification. *Id.* 

127. The '059 Patent thus describes, among other things, "[a] method comprising making informational content, selected in a first mobile wireless device,

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

# available to a second mobile wireless device using a data hub server; receiving a representation of the informational content in the data hub server in a directed transmission from a first server to the data hub server, the first mobile wireless device being a client of the first server; and transmitting notification of the informational content being available to the second mobile wireless device using a directed transmission from the data hub server to a second server, the second mobile wireless device being a client of the second server, the first server being separate from the second server." *Id.* at claim 1.

# The Inventions Claimed in the '059 Patent Were Not Well-Understood, Routine, or Conventional

128. The method of making informational content, selected in a first mobile wireless device, available to a second mobile wireless device using a data hub server, whereby the server receives a representation of the informational content from a first server and transmits a notification of the informational content being available to the second mobile wireless device using a directed transmission from the data hub server to a second server, was not common or conventional at the time of the '059 Patent.

129. The inventors of '059 Patent recognized that, in systems that manage media content accessible to mobile electronic devices, "[i]mprovements to the flow of information enhance one's ability to interact with others, to respond to changing needs, and to avail oneself of enjoyment from processing various media based information." '059 Patent at 1:11-14. The '059 Patent further describes that "using servers, in connection with a data hub server, to manage the transfer of informational content between mobile electronic client devices can reduce the processing on the mobile electronic client devices with respect to the administration aspects of the data transmission and extend the battery life of the mobile electronic client devices." *Id.* at 18:6-12.

23

24

25

26

27

28

130. The inventors recognized that mobile wireless clients with shared registration of a data hub server provides the benefit of "efficient transfer of informational among such mobile wireless clients of different wireless servers without the mobile wireless clients having a share registration in the same wireless server." *Id.* at 18:13-19. In this manner, the '059 Patent is able to strike a desirable balance between cost efficiency and convenient access to informational content. 18:3-12.

- 131. Given the state of the art at the time of the invention of the '059 Patent, the inventive concepts of the '059 Patent were not conventional, well-understood, or The '059 Patent discloses, among other things, an unconventional routine. technological solution to an issue arising specifically in the context of electronic communications systems and electronic messaging and information exchange between mobile electronic devices within those systems. The solution implemented by the '059 Patent provides a specific and substantial improvement over prior electronic messaging systems in electronic devices, including by introducing novel elements directed to improving the function and working of communications devices such as, among other things, the claimed "making informational content, selected in a first mobile wireless device, available to a second mobile wireless device using a data hub server" (claims 1, 11, and 16), "receiving a representation of the informational content in the data hub server in a directed transmission from a first server to the data hub server, the first mobile wireless device being a client of the first server" (same), and "transmitting notification of the informational content being available to the second mobile wireless device using a directed transmission from the data hub server to a second server, the second mobile wireless device being a client of the second server, the first server being separate from the second server" (same).
- 132. Consistent with the problem addressed being rooted in electronic messaging and information exchange between wireless communications devices, the

'059 Patent's solutions naturally are also rooted in the same technology that cannot be performed with pen and paper or in the human mind.

- 133. This technical context is reflected in the '059 Patent's claims. For example, various claims of the '059 Patent require first and second mobile wireless devices, a data hub server, first and second servers, electronic informational content, and directed transmissions between servers.
- 134. A person having ordinary skill in the art at the time of the inventions of the '059 Patent would not have understood that the inventions could or would be performed solely in the human mind or using pen and paper. Using pen and paper would ignore the stated purpose of the '059 Patent and the problem it was specifically designed to address. Doing so would also run counter to the inventors' detailed description of the inventions and the language of the claims and be a practical impossibility.

# '059 Patent Allegations

- 135. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '059 Patent in violation of 35 U.S.C. § 271 et seq., directly, by making, using, selling, offering for sale, and/or importing into the United States without authority or license, the Twitter application and associated backend servers and systems (hereinafter "the '059 Accused Products") that infringes at least claim 1, 11, and 16 of the '059 Patent.
- 136. On information and belief after reasonable investigation, the '059 Accused Products contain messaging and information exchange functionality designed and used to exchange information by transmitting a representation of content to a data hub server that then provides a notification to one or more recipients of availability of the content in an infringing manner.
- 137. As just one non-limiting example, set forth below (with claim language in italics) is a description of infringement of exemplary claim 1 of the '059 Patent in connection with the Twitter application and associated backend servers and systems.

111213

14

1516

17 18

19

2021

22

2324

25

27

26

28

This description is based on publicly available information. BlackBerry reserves the right to modify this description, including, for example, on the basis of information about the '059 Accused Products that it obtains during discovery.

1(a) A method comprising: — Defendant makes and uses the Twitter application. Regardless of whether the preamble of claim 1 adds any substantive limitation to the claim, the claim language is met by the '059 Accused Products, as the '059 Accused Products perform a method as further described below for the remaining claim limitations.

1(b) making informational content, selected in a first mobile wireless device, available to a second mobile wireless device using a data hub server; — For example, on information and belief, a Twitter data hub server makes informational content selected by a Twitter user's mobile wireless device, such as a tweet or advertisement to retweet, available to a second mobile wireless device, such as the Twitter user's followers.

# Retweet FAQs

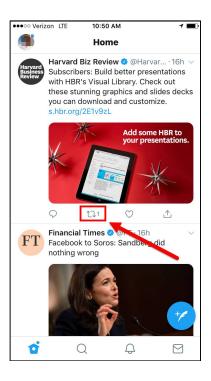
## What is a Retweet?

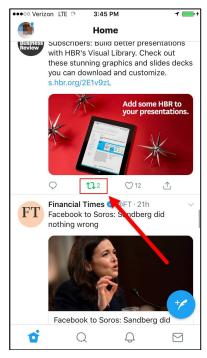
- A Retweet is a re-posting of a Tweet. Twitter's
   Retweet feature helps you and others quickly share
   that Tweet with all of your followers. You can Retweet
   your own Tweets or Tweets from someone else.
- Sometimes people type "RT" at the beginning of a Tweet to indicate that they are re-posting someone else's content. This isn't an official Twitter command or feature, but signifies that they are quoting another person's Tweet.

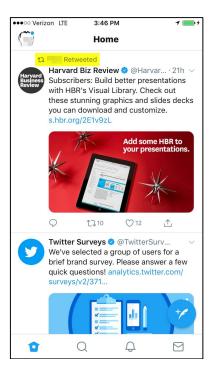
## What does a Retweet look like?

 Retweets look like normal Tweets with the author's name and username next to it, but are distinguished by the Retweet icon that and the name of the person who Retweeted the Tweet. If you see content from someone you do not follow in your timeline, look for Retweeted by info in the Tweet—the Retweeter should be someone you follow.

https://help.twitter.com/en/using-twitter/retweet-faqs; see also http://www.timdeboer.eu/paper\_publishing/Twitter\_An\_Architectural\_Review.pdf.



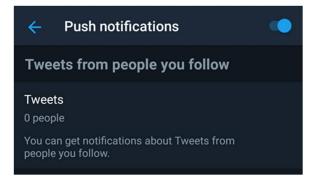


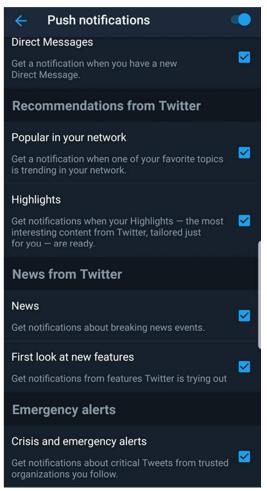


I(b) receiving a representation of the informational content in the data hub server in a directed transmission from a first server to the data hub server, the first mobile wireless device being a client of the first server; and — For example, on information and belief, when a Twitter user retweets content, a Twitter data hub server receives a representation of that informational content via a directed transmission from a first server (e.g., the user's Internet service provider). See, e.g., <a href="https://blog.twitter.com/engineering/en\_us/topics/infrastructure/2017/the-infrastructure-behind-twitter-scale.html">https://blog.twitter.com/engineering/en\_us/topics/infrastructure/2017/the-infrastructure-behind-twitter-scale.html</a>; <a href="https://highscalability.com/blog/2013/7/8/the-architecture-twitter-uses-to-deal-with-150m-active-users.html">https://highscalability.com/blog/2013/7/8/the-architecture-twitter-uses-to-deal-with-150m-active-users.html</a>; <a href="https://www.infoq.com/presentations/Twitter-Timeline-Scalability.">https://www.infoq.com/presentations/Twitter-Timeline-Scalability.</a>

1(c) transmitting notification of the informational content being available to the second mobile wireless device using a directed transmission from the data hub server to a second server, the second mobile wireless device being a client of the second server, the first server being separate from the second server. – For example, on information and belief, Defendant transmits a notification of the informational content being available (e.g., the first user's tweet or retweet) to the followers of the

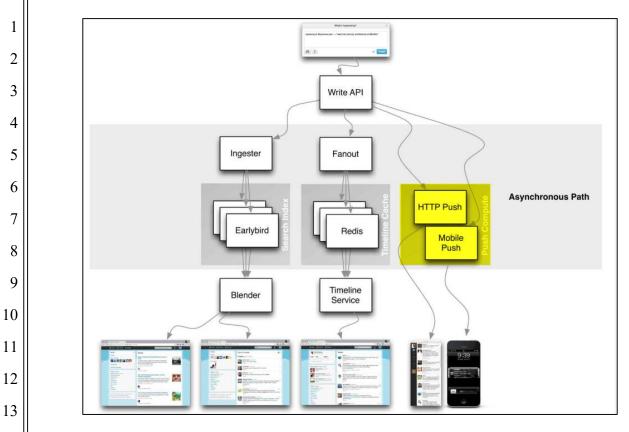
first user, including a second user, via a directed transmission from the Twitter data hub server to a second server, *e.g.*, the followers' respective transport POP servers and/or edge POP servers, including of the second user. <a href="https://blog.twitter.com/engineering/en\_us/topics/infrastructure/2017/the-infrastructure-behind-twitter-scale.html">https://blog.twitter.com/engineering/en\_us/topics/infrastructure/2017/the-infrastructure-behind-twitter-scale.html</a>. The notification is a push notification displayed via the Twitter application on the second user's mobile device.





-70-

Case No. 2:19-cv-1444



https://www.infoq.com/presentations/Twitter-Timeline-Scalability; see also
https://www.infoq.com/news/2009/06/Twitter-Architecture;

https://blog.evanweaver.com/2009/03/13/qcon-presentation/;

http://www.timdeboer.eu/paper\_publishing/Twitter\_An\_Architectural\_Review.pdf;

https://blog.twitter.com/engineering/en\_us/topics/infrastructure/2017/the-

<u>infrastructure-behind-twitter-scale.html</u>; <u>http://highscalability.com/blog/2013/7/8/</u>

the-architecture-twitter-uses-to-deal-with-150m-active-users.html;

https://www.infoq.com/presentations/Twitter-Timeline-Scalability.

138. BlackBerry has been damaged by Defendant's infringement of the '059 Patent and will continue to be damaged unless Defendant is enjoined by this Court. BlackBerry has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction.

27

14

15

16

17

18

19

20

21

22

23

24

25

26

139. BlackBerry is entitled to recover from Defendant all damages that BlackBerry has sustained as a result of Defendant's infringement of the '059 Patent, including without limitation lost profits and not less than a reasonable royalty.

# COUNT V: INFRINGEMENT OF U.S. PATENT NO. 8,286,089

140. BlackBerry incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint as if fully set forth herein.

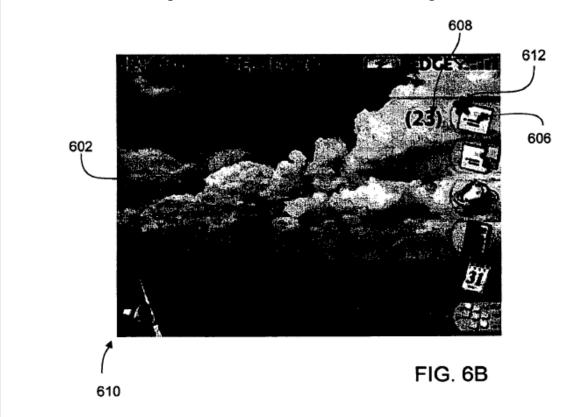
# The '089 Patent

- 141. The '089 Patent discloses, among other things, "a method of representing new email messages on a communication device having a display. This method comprises setting a new message flag when an email message is received by the device; and displaying a new message indicator on the display when the new message flag is set. The new message indicator can be displayed on a home screen on the display. The new message flag can be unset when a messages screen is selected on the device. A computer readable memory having recorded thereon instructions to carry out this method is also provided, as well as a device comprising such memory." '089 Patent, Abstract.
- 142. The '089 Patent explains that "[s]ending and receiving data messages, particularly email, on wireless mobile devices has become an increasingly important feature. Email messages received by the device are typically viewed using a graphical user interface (GUI), accessing a messages screen displayed on the device's display." *Id.* at 1:34-39. The '089 Patent further explains that "[a respective icon may be presented in association with each individual message in the message list indicating whether the particular message has been opened or unopened," and "[a] counter indicating the number of unopened messages present on the device may be displayed to the user such as on a home screen of the device." *Id.* at 1:41-51. However, the '089 Patent recognized that "[m]any device users receive far too many email messages for a simple unopened counter to be of much use." *Id.* at 1:52-57. To better inform users, some embodiments of the '084 Patent

2 | 3 | 4 | 5 | 6 | 7

provide a presentation of new messages and a notification that a new message has been received on a communications device. *Id.* at 3:6-36. In particular, when a new message is received, a new message indicator is shown on the home screen of the device or application. *Id.* This indicator is reset as soon as the device switches from the home screen to a display that contains a listing of received messages and a preview of the newly received message (*e.g.*, by displaying a portion of the message). *Id.* 

143. The '089 Patent explains further, "[i]n one embodiment, when there is a new message received by the device, the device turns on a new message flag. When the new message flag is on, the new messages indicator (e.g. 612 or LED) may be displayed. The new message flag can be turned off such as when the messages screen for displaying the message list is invoked or, in other embodiments, when all individual new messages are determined to be old messages." *Id.* at 3:37-43.



Id. at Fig. 6B.

2 | 3 | 4 | 5 | 6 |

144. The '089 Patent provides "[d]isplay screen activity of the GUI is described for representing the new message indicator (e.g. 612). In accordance with the GUI, the user may navigate about a plurality of screens for example, moving from a home or main screen to display screens of various applications or functions such as an address book, messages screen displaying a list of email messages, calendar, phone dialler [sic], Web browser, etc." *Id.* at 7:23-30.

145. Figure 4B, for example, illustrates representative invocation operations by which the patent enables a new messages indicator. In step 416, one display screen is invoked. *Id.* at 7:34-35. Either a home screen (602) or "a messages screen (not shown) for reviewing email messages and opening (reading) email for example." *Id.* at 7:34-37. The home screen displays a new messages indicator based on whether there are new messages (step 418). *Id.* at 7:40-47. In other words, the home screen displays the new messages indicator until the messages screen is invoked, at which time the user is aware of the new messages. *Id.* The '089 Patent further explains that "when the messages screen is invoked (such as by user selection), the messages screen is displayed (Step 424) and operations unset (e.g. turn off) the message indicator flag (Step 426). When the home screen 602 is accessed again before a new message arrives on the device 202, the home screen 602 will not display the new messages indicator 612." *Id.* at 7:48-53.

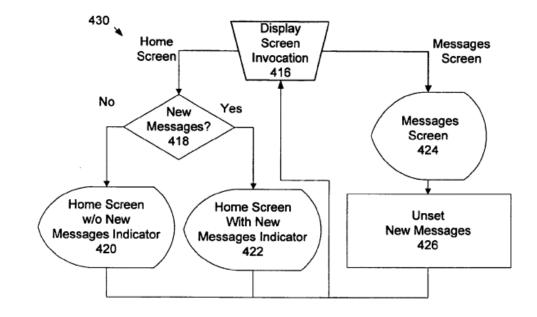


FIG. 4B

Id. at Fig. 4B.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

146. The '089 Patent thus describes, among other things, "[a] method of representing new electronic messages on a communication device having a display, the method comprising: receiving a new electronic message, setting a new message flag to indicate receipt of the new electronic message, representing, on a home screen displayed on the display, a new message indicator when the new message flag is set, receiving an invocation to switch the home screen displayed on the display to a message inventory display screen for viewing a listing including a plurality of electronic messages including the new electronic message, the message inventory display screen displaying a preview, for each listed electronic message, of either a subject line or of a portion of contents of the electronic message, the contents of an electronic message being accessible upon receipt of a request to open an electronic message from the list of messages, unsetting the new message flag in response to the invocation to switch the home screen displayed on the display to the message inventory display screen, the unsetting of the flag occurring without having received a request to open the new electronic message, and receiving an invocation to switch the message inventory display screen to the home screen, wherein the new

message indicator represented on the home screen is not displayed as a result of the unsetting of the new message flag." *Id.* at claim 1.

## The Inventions Claimed in the '089 Patent Were Not Well-Understood, Routine, or Conventional

147. A communication device having a display to set a new message flag to indicate receipt of a new electronic message, representing on a home screen displayed on the display a new message indicator when the new message flag is set, receiving invocation to switch the home screen displayed on the display to a message inventory display screen for viewing a listing including a plurality of electronic messages including the new electronic message, unsetting the new message flag in response to the invocation to switch the home screen to the message inventory display screen, and receiving an invocation to switch the message inventory display screen to the home screen, wherein the new message indicator represented on the home screen is not displayed as a result of the unsetting of the new message flag, was not common or conventional at the time of the invention of the '089 Patent.

148. The inventors of the '089 Patent recognized that wireless and mobile communication devices, such as cellular phones, were increasingly popular for sending and receiving electronic messages. '089 Patent at 1:22-36. These messages were "typically presented in a message list showing limited information pertaining to each message," and respective icons indicated whether a particular message had been opened or unopened. *Id.* at 1:39-45. Further, at the time of invention, "[a] counter indicating the number of unopened messages present on the device may be displayed to the user such as on a home screen of the device." However, the inventors of the '089 Patent recognized that "[m]any device users receive far too many email messages for a simple unopened counter to be of much use. The number of unopened emails becomes so large that the count itself is largely irrelevant." *Id.* at 1:52-55. The inventors therefore recognized that "[t]hese users need some way to

2

3

4 5

6 7

8

9

10

11

121314

15

161718

19

2021

2223

2425

26

2728

be informed that they have new messages as distinct from unopened messages on the device." *Id.* at 1:56-57.

149. The inventors of the '089 Patent recognized the benefit of solving this described problem by providing an improved and more efficient electronic device in which, among other things, a new message indicator is displayed on the home screen of the device or application when a new message is received until a user invokes the message inventory screen displaying all messages including the new message, whereby the switch from the home screen to the inventory screen resets the new message indicator. The display of the new message indicator is thereby tailored to the user's knowledge of new messages.

150. Given the state of the art at the time of the invention of the '089 Patent, the inventive concepts of the '089 Patent were not conventional, well-understood, or routine. The '089 Patent discloses, among other things, an unconventional and technological solution to an issue arising specifically in the context of electronic communications systems and electronic messaging received within those communications systems. The solution implemented by the '089 Patent provides a specific and substantial improvement over prior messaging notification systems, resulting in an improved electronic communication system, including by introducing novel elements directed to improving the function and working of communications systems such as, among other things, the claimed "setting a new message flag to indicate receipt of the new electronic message," (claim 1), "receiving an invocation to switch the home screen displayed on the display to a message inventory display screen for viewing a listing including a plurality of electronic messages including the new electronic message, the message inventory display screen displaying a preview, for each listed electronic message, of either a subject line or of a portion of contents of the electronic message, the contents of an electronic message being accessible upon receipt of a request to open an electronic message from the list of messages;" (same), "unsetting the new message flag in response to the invocation to

switch the home screen displayed on the display to the message inventory display screen, the unsetting of the flag occurring without having received a request to open the new electronic message" (same), and "receiving an invocation to switch the message inventory display screen to the home screen, wherein the new message indicator represented on the home screen is not displayed as a result of the unsetting of the new message flag" (same).

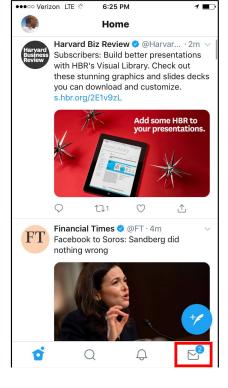
- 151. Consistent with the problem addressed being rooted in electronic messaging between wireless communications devices, the '089 Patent's solutions naturally are also rooted in the same technology that cannot be performed with pen and paper or in the human mind.
- 152. This technical context is reflected in the '089 Patent's claims. For example, various claims of the '089 Patent require a communications device having a display, a home screen displayed on the display, a message inventory display screen displayed on the display, a new electronic message, and a new message flag. Further, various claims of the '089 Patent require a communications device having a processor, memory, configured to receive a new electronic message, display a new message indicator on a home screen, and receive invocations to switch to different display screens.
- 153. A person having ordinary skill in the art at the time of the inventions of the '089 Patent would not have understood that the inventions could or would be performed solely in the human mind or using pen and paper. Using pen and paper would ignore the stated purpose of the '089 Patent and the problem it was specifically designed to address. Doing so would also run counter to the inventors' detailed description of the invention and the language of the claims and be a practical impossibility.

### '089 Patent Allegations

154. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '089 Patent in violation of 35 U.S.C. § 271 et seq.,

directly and/or indirectly, by making, using, selling, offering for sale, and/or importing into the United States without authority or license, the Twitter application (hereinafter "the '089 Accused Products") that infringes at least claim 1 of the '089 Patent.

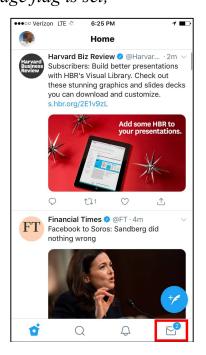
- 155. On information and belief after reasonable investigation, the '089 Accused Products contain messaging functionality designed and used to display a new message indicator upon receipt of a new message, display a message inventory screen, and affect the display of the new message indicator based on switching from a home screen to the message inventory screen in an infringing manner.
- 156. As just one non-limiting example, set forth below (with claim language in italics) is a description of infringement of exemplary claim 1 of the '089 Patent in connection with the Twitter application. This description is based on publicly available information. BlackBerry reserves the right to modify this description, including, for example, on the basis of information about the '089 Accused Products that it obtains during discovery.
- 1(a) A method of representing new electronic messages on a communication device having a display, the method comprising: Defendant makes and uses the Twitter application. Regardless of whether the preamble of claim 1 adds any substantive limitation to the claim, the claim language is met by the '089 Accused Products, as the '089 Accused Products perform a method of representing new electronic messages on a communication device having a display as further described below for the remaining claim limitations.
- 1(b) receiving a new electronic message; 1(c) setting a new message flag to indicate receipt of the new electronic message; On information and belief, the Twitter application receives new direct messages and sets a new message flag to indicate receipt of said new direct messages.





See also <a href="https://help.twitter.com/en/using-twitter/direct-messages">https://help.twitter.com/en/using-twitter/direct-messages</a>.

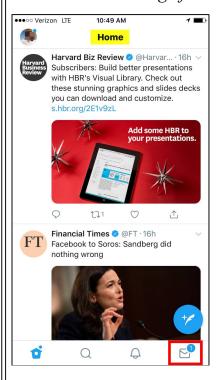
*1(d)* representing, on a home screen displayed on the display, a new message indicator when the new message flag is set; –

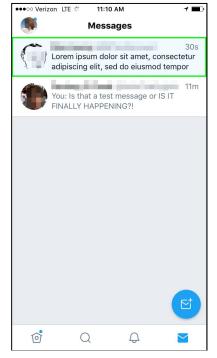


1(e) receiving an invocation to switch the home screen displayed on the display to a message inventory display screen for viewing a listing including a

-80-

plurality of electronic messages including the new electronic message, the message inventory display screen displaying a preview, for each listed electronic message, of either a subject line or of a portion of contents of the electronic message, the contents of an electronic message being accessible upon receipt of a request to open an electronic message from the list of messages; —







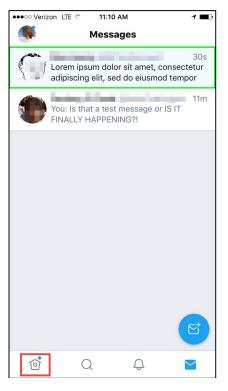
I(f) unsetting the new message flag in response to the invocation to switch the home screen displayed on the display to the message inventory display screen, the unsetting of the flag occurring without having received a request to open the new electronic message; and — On information and belief, the Twitter application unsets the new message flag in response to switching from the home screen to the message inventory display screen, even before there is a request to open a new direct message.

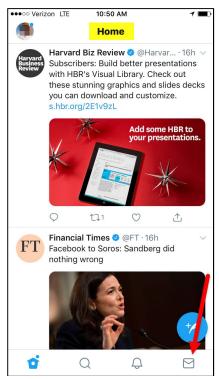
-81-





I(g) receiving an invocation to switch the message inventory display screen to the home screen, wherein the new message indicator represented on the home screen is not displayed as a result of the unsetting of the new message flag. — On information and belief, the Twitter application will not display the new message indicator, as a result of the unsetting of the new message flag, upon returning to the home screen.





157. Additionally, Defendant will be an active inducer of infringement of the '089 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the '089 Patent under 35 U.S.C. § 271(c) should Defendant continue its infringing acts after the filing of this Complaint.

- 158. Defendant knew of the '089 Patent, or should have known of the '089 Patent but was willfully blind to its existence. Upon information and belief, Defendant has had actual knowledge of the '089 Patent since at least as early as the filing and/or service of this Complaint.
- 159. Defendant has provided the '089 Accused Products to its customers and, on information and belief, instructions to use the '089 Accused Products in an infringing manner at least as early as the filing of this Complaint, while being on notice of or willfully blind to the '089 Patent and Defendant's infringement, and knowingly and intentionally encourages and aids its customers to directly infringe the '089 Patent.
- 160. Upon information and belief, Defendant provides the '089 Accused Products to customers through various third-party application stores (e.g., the Apple

App Store) and instructions to end-user customers so that such customers will use the '089 Accused Products in an infringing manner. For example, Defendant provides instructions to end-user customers on how to set up, configure, and use various features of the '089 Accused Products, including Direct Messages.<sup>8</sup>

161. Defendant's end-user customers directly infringe at least claim 1 of the '089 Patent by using the '089 Accused Products in its intended manner to infringe. Defendant induces such infringement by providing the '089 Accused Products and instructions to enable and facilitate infringement, knowing of, or being willfully blind to the existence of, the '089 Patent. Upon information and belief, Defendant specifically intends that its actions will result in infringement of at least claim 1 of the '089 Patent, or subjectively believes that its actions will result in infringement of the '089 Patent but took deliberate actions to avoid learning of those facts, as set forth above.

162. Additionally, Defendant contributorily infringes at least claim 1 of the '089 Patent by providing the '089 Accused Products and/or software components thereof, that embody a material part of the claimed inventions of the '089 Patent, that are known by Defendant to be specially made or adapted for use in an infringing manner, and are not staple articles with substantial non-infringing uses. The '089 Accused Products are specially designed to infringe at least claim 1 of the '089 Patent, and its accused components have no substantial non-infringing uses. In particular, on information and belief, the software modules and code that implement and perform the infringing functionalities identified above are specially made and adapted to carry out said functionality and do not have any substantial non-infringing uses.

163. BlackBerry has been damaged by Defendant's infringement of the '089 Patent and will continue to be damaged unless Defendant is enjoined by this Court.

<sup>&</sup>lt;sup>8</sup> See, e.g., <a href="https://help.twitter.com/en/using-twitter/direct-messages">https://help.twitter.com/en/using-twitter/direct-messages</a>.

7

8

9

10

11 12

13

14 15

17 18

16

19 20

22

21

23 24

25

26 27

28

BlackBerry has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction. 164. BlackBerry is entitled to recover from Defendant all damages that

BlackBerry has sustained as a result of Defendant's infringement of the '089 Patent, including without limitation lost profits and not less than a reasonable royalty.

## COUNT VI: INFRINGEMENT OF U.S. PATENT NO. 8,572,182

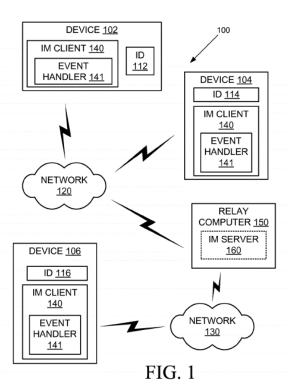
165. BlackBerry incorporates by reference and re-alleges all of the foregoing paragraphs of this Complaint as if fully set forth herein.

#### The '182 Patent

- The '182 Patent discloses, among other things, that "[r]educing the communications in an IM conversation between two devices may be accomplished by confirming two or more IM events of the conversation at the first device by sending to the second device a single IM communication that confirms the most recent of the events," and that "[i]n some cases, an earlier event can be inferred from the single IM communication." '182 Patent at 2:12-28.
- 167. The '182 Patent explains that in various embodiments, "[t]he second device, upon receipt from the first device of a Message Delivered notification for a particular IM, may infer that all previous instant messages in the conversation that were sent by the second device to the first device have also been received by the first device." Id. at 2:55-59. In other words, once the first device indicates it has received the last-sent message, the second device can infer that it must have also received one or more messages sent prior to the last-sent message. Id. at 2:59-65.
- 168. In a similar manner, the '182 Patent describes that "the second device, upon receipt from the first device of a Message Read notification for a particular IM, may infer that all previous instant messages in the conversation that were sent by the second device to the first device have also been received by the first device and read by the user of the first device." Id. at 2:65-3:3. In other words, once the

first device indicates it has received the last-sent message and it has been read by the user of the first device, the second device can infer that the user of the first device must also have read one or more messages sent prior to the last-sent message. *Id.* at 2:65-3:10.

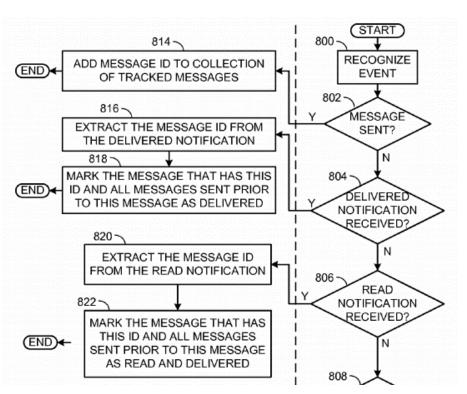
169. Figure 1 of the '182 Patent illustrates multiple devices 102, 104, and 106, each with respective IM clients 140 that may include an event handler 141. *Id.* at 4:25-28. The '182 Patent explains that "[w]hen the user of device 102 sends an instant message to the user of device 104, the instant message is handled by IM client 140 on device 102, communicated to network 120, communicated to a relay computer or computers 150, and passed back to network 120 for communication to device 104. When the user of device 106 sends an instant message to the user of device 104, the instant message is handled by IM client 140 on device 106, communicated to network 130, communicated to relay computer(s) 150, and passed to network 120 for communication to device 104." *Id.* at 4:28-38.



*Id.* at Fig. 1.

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |

170. Figure 8 depicts an exemplary method implemented by IM client 140 on a communication device sending one or more IM messages according to various embodiments. '182 Patent at 6:57-60. At step 800, IM client 140 determines that an event has occurred at device 104. *Id.* at 6:61-62. The '182 Patent explains that "[t]he recognized event may be sending a message, receiving a Message\_Delivered notification, receiving a Message\_Read notification, receiving a Typing\_Started notification, receiving a Typing\_Stopped notification, or receiving an instant message, as shown at 802, 804, 806, 808, 810 and 812, respectively." *Id.* at 6:62-67. When a Message\_Read notification is recognized (step 806), the IM client 140 extracts the ID number of a message embedded in the Message\_Read notification (step 820). *Id.* at 7:16-20. The '182 Patent describes that in step 822, IM client 140 compares the extracted ID number to the collection of tracked messages, and marks the message that has this ID number as read and delivered. IM client 140 marks also messages of that conversation that were sent prior to the newly marked message as read and delivered." *Id.* at 7:20-25.



Id. at Fig. 8.

171. The '182 Patent thus describes, among other things, "[a] method in a first communication device for reducing communications in an instant messaging conversation between said first device and a second communication device, the method comprising: sending to said second device, a plurality of instant messages of said conversation; receiving from said second device, after sending said plurality of instant messages, at least a notification of the status of only a particular one of said plurality of instant messages sent by said first device to said second device without having previously received a notification of the status of any of said plurality of instant messages; and in response to receipt of said notification, a processor updating an internal record to reflect said status for said particular one of said plurality of instant messages and to reflect an inferred status for all of said plurality of instant messages of said conversation sent prior to said particular one of said plurality of instant messages." *Id.* at claim 1.

# The Inventions Claimed in the '182 Patent Were Not Well-Understood, Routine, or Conventional

- 172. A method or system for sending a plurality of instant messages, subsequently receiving at least a notification of the status of only a particular one of said plurality of instant messages, and in response to receiving the notification, updating an internal record to reflect an inferred status for all of said plurality of instant messages sent prior to said particular one instant message, was not common or conventional at the time of the '182 Patent.
- 173. The inventor of the '182 Patent recognized issues with IM messaging communications and the need for more efficient communication of read receipts between IM clients. For example, the inventor noted that "[s]ome IM systems use notifications to provide users with 'clues' about the status of a conversation. For example, a Message\_Delivered notification may be used to notify a sender of a message that the message was received by the target communication device. In

2 | 1 | 3 | 3 | 4 | 1 | 5 | t | 6 | t |

1

7

8

252627

28

23

24

another example, a Message\_Read notification may be used to notify a sender of a message that the message was read by a user of the target communication device. In yet another example, Typing\_Started and Typing\_Stopped messages may be used to notify a sender of a message when a user of the target communication device is typing a response to the message." *Id.* at 1:22-32. As recognized by the inventor of the '182 patent, these "[n]otifications sent in an IM system occupy bandwidth that would otherwise be available for other communications." *Id.* at 33-34.

174. Given the state of the art at the time of the invention of the '182 Patent, the inventive concepts of the '182 Patent were not conventional, well-understood, or The '182 Patent discloses, among other things, an unconventional routine. technological solution to an issue arising specifically in the context of electronic communications systems and electronic messaging received within those communications systems. The solution implemented by the '182 Patent provides a specific and substantial improvement over prior messaging notification systems resulting in more efficient use of system bandwidth, including by introducing novel elements directed to improving the function and working of communications systems such as, among other things, the claimed "receiving . . . at least a notification of the status of only a particular one of said plurality of instant messages sent . . ." and "a processor updating an internal record to reflect said status for said particular one of said plurality of instant messages and to reflect an inferred status for all of said plurality of instant messages of said conversation sent prior to said particular one of said plurality of instant messages" (claim 1; substantially similar limitations in claims 4 and 5).

175. Consistent with the problem addressed being rooted in electronic messaging between wireless communications devices, the '182 Patent's solutions naturally are also rooted in the same technology that cannot be performed with pen and paper or in the human mind.

176. This technical context is reflected in the '182 Patent's claims. For example, various claims of the '182 Patent require transmissions between communication devices, sending and receiving instant messages, electronic notifications, and a processor updating an internal record.

177. A person having ordinary skill in the art at the time of the inventions of the '182 Patent would not have understood that the inventions could or would be performed solely in the human mind or using pen and paper. Using pen and paper would ignore the stated purpose of the '182 Patent and the problem it was specifically designed to address. Doing so would also run counter to the inventors' detailed description of the inventions and the language of the claims and be a practical impossibility.

#### '182 Patent Allegations

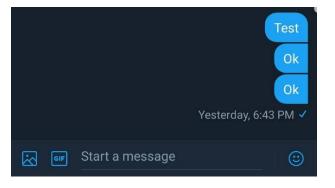
178. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '182 Patent in violation of 35 U.S.C. § 271 *et seq.*, directly and/or indirectly, by making, using, selling, offering for sale, and/or importing into the United States without authority or license, the Twitter application (hereinafter "the '182 Accused Products") that infringe at least claims 1 and 4 of the '182 Patent.

179. On information and belief after reasonable investigation, the '182 Accused Products contain messaging functionality designed and used to send and receive efficient read receipts based on updating an internal record to reflect an inferred status of instant messages in a manner that infringes the '182 Patent.

180. As just one non-limiting example, set forth below (with claim language in italics) is a description of infringement of exemplary claim 1 of the '182 Patent in connection with the Twitter application. This description is based on publicly available information. BlackBerry reserves the right to modify this description, including, for example, on the basis of information about the '182 Accused Products that it obtains during discovery.

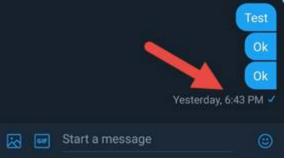
I(a) A method in a first communication device for reducing communications in an instant messaging conversation between said first device and a second communication device, the method comprising: — Defendant makes and uses the Twitter application which is executed on a communications device such as a mobile phone or computer, for example. Regardless of whether the preamble of claim 1 adds any substantive limitation to the claim, the claim language is met by the '182 Accused Products, as the '182 Accused Products include a method for reducing communications in an instant messaging conversation between a first communication device and a second communication device as further described below for the remaining claim limitations, as described below.

1(b) sending to said second device, a plurality of instant messages of said conversation; – For example, users of the Twitter application send to one another a plurality of instant messages as part of an instant messaging conversation, such as a conversation between a first device and a second device:



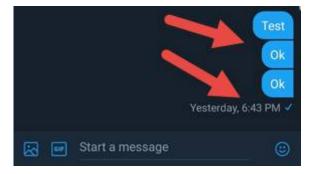
I(c) receiving from said second device, after sending said plurality of instant messages, at least a notification of the status of only a particular one of said plurality of instant messages sent by said first device to said second device without having previously received a notification of the status of any of said plurality of instant messages sent prior to said particular one of said plurality of instant messages; and – For example, on information and belief, after a first device sends a plurality of instant messages, it receives a notification of the status of only a particular one of said plurality of instant messages without having previously

received a notification of the status of any messages sent prior to the particular message for which a notification was received:



(indicating via the blue checkmark that the message has been seen by the recipient)

I(d) in response to receipt of said notification, a processor updating an internal record to reflect said status for said particular one of said plurality of instant messages and to reflect an inferred status for all of said plurality of instant messages of said conversation sent prior to said particular one of said plurality of instant messages. — For example, on information and belief, in response to receipt of the notification, a processor in the first device updates an internal record to reflect the status of the particular message and to reflect an inferred status for prior ones of the plurality of messages:



(indicating via the blue checkmark that the message has been seen by the recipient); See also <a href="https://developer.twitter.com/en/docs/direct-messages/typing-indicator-and-read-receipts/api-reference/new-read-receipt">https://developer.twitter.com/en/docs/direct-messages/typing-indicator-and-read-receipts/api-reference/new-read-receipt</a> (defining the "required" parameter last\_read\_event\_id, which is "[t]he message ID of the most recent message to be marked read. All messages before it will be marked read as well.").

- 181. Additionally, Defendant has been, and currently is, an active inducer of infringement of the '182 Patent under 35 U.S.C. § 271(b) and contributory infringers of the '182 Patent under 35 U.S.C. § 271(c).
- 182. BlackBerry made Defendant aware of the '182 Patent and its infringement thereof by letter dated June 7, 2017. Ex. H. Accordingly, Defendant has had actual knowledge of (or was willfully blind to the existence of) the '182 Patent and its infringement thereof at least as of June 7, 2017, but has failed to take any action to avoid infringement. Indeed, on information and belief, Defendant has released over two dozen new versions of the iOS Twitter application since being put on notice of its infringement—none of which removed the infringing functionality. (See, e.g., <a href="https://itunes.apple.com/in/app/twitter/id333903271?mt=8">https://itunes.apple.com/in/app/twitter/id333903271?mt=8</a> (link to version history contained therein). Accordingly, Defendant knew that it infringed the '182 Patent well before BlackBerry filed this action and, despite its knowledge, acted egregiously and willfully by continuing to infringe the '182 Patent.
- 183. Defendant has provided the '182 Accused Products to its customers and, on information and belief, instructions to use the '182 Accused Products in an infringing manner while being on notice of or willfully blind to the '182 Patent and Defendant's infringement, and knowingly and intentionally encourages and aids its customers to directly infringe the '182 Patent.
- 184. Upon information and belief, Defendant provides the '182 Accused Products to customers through various third-party application stores (e.g., the Apple App Store) and instructions to end-user customers so that such customers will use the '182 Accused Products in an infringing manner. For example, Defendant provides instructions to end-user customers on how to set up, configure, and use various features of the '182 Accused Products, as well as how to send messages and

disable/enable read receipts associated with Twitter Direct Messaging conversations.<sup>9</sup>

185. Defendant's end-user customers directly infringe at least claims 1 and 4 of the '182 Patent by using the '182 Accused Products in their intended manner to infringe. Defendant induces such infringement by providing the '182 Accused Products and instructions to enable and facilitate infringement, knowing of, or being willfully blind to the existence of, the '182 Patent. Upon information and belief, Defendant specifically intends that its actions will result in infringement of at least claims 1 and 4 of the '182 Patent, or subjectively believe that its actions will result in infringement of the '182 Patent but took deliberate actions to avoid learning of those facts, as set forth above.

186. Additionally, Defendant contributorily infringes at least claims 1 and 4 of the '182 Patent by providing the '182 Accused Products and/or software components thereof, that embody a material part of the claimed inventions of the '182 Patent, that are known by Defendant to be specially made or adapted for use in an infringing manner, and are not staple articles with substantial non-infringing uses. The '182 Accused Products are specially designed to infringe at least claims 1 and 4 of the '182 Patent, and their accused components have no substantial non-infringing uses. In particular, on information and belief, the software modules and code that implement and perform the infringing functionalities identified above are specially made and adapted to carry out said functionality and do not have any substantial non-infringing uses.

187. Defendant's infringement of the '182 Patent was and continues to be willful and deliberate, entitling BlackBerry to enhanced damages and attorneys' fees.

See, e.g., https://help.twitter.com/en/using-twitter/direct-messages.

- 188. Additional discovery regarding Defendant's knowledge of the '182 Patent likely will uncover additional facts related to Defendant's willful infringement.
- 189. Defendant's infringement of the '182 Patent is exceptional and entitles BlackBerry to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.
- 190. BlackBerry has been damaged by Defendant's infringement of the '182 Patent and will continue to be damaged unless Defendant is enjoined by this Court. BlackBerry has suffered and continues to suffer irreparable injury for which there is no adequate remedy at law. The balance of hardships favors BlackBerry, and public interest is not disserved by an injunction.
- 191. BlackBerry is entitled to recover from Defendant all damages that BlackBerry has sustained as a result of Defendant's infringement of the '182 Patent, including without limitation lost profits and not less than a reasonable royalty.

## **PRAYER FOR RELIEF**

WHEREFORE, BlackBerry respectfully requests:

- A. That Judgment be entered that Defendant has infringed one or more claims of the Patents-in-Suit, directly and indirectly, literally and/or under the doctrine of equivalents;
- B. That, in accordance with 35 U.S.C. § 283, Defendant and all its affiliates, employees, agents, officers, directors, attorneys, successors, and assigns and all those acting on behalf of or in active concert or participation with it, be enjoined from (1) infringing the Patents-in-Suit and (2) making, using, selling, and offering for sale the Twitter application and Twitter Ads service and websites, and/or backend servers enabling the accused functionality of such applications, websites, and services;
- C. An order directing Defendant to file with the Court and serve upon BlackBerry's counsel within thirty (30) days after entry of the order of injunction, a

1	report setting forth the manner and form in which Defendant has complied with the		
2	injunction, including the provision relating to destruction and recall of infringing		
3	products and materials;		
4	D.	An award of damages sufficient to compensate BlackBerry for	
5	Defendant's	infringement under 35 U.S.C. § 284, including an enhancement of	
6	damages on account of Defendant's willful infringement;		
7	E.	That the case be found exceptional under 35 U.S.C. § 285 and that	
8	BlackBerry be awarded its reasonable attorneys' fees;		
9	F.	Costs and expenses in this action;	
10	G.	An award of prejudgment and post-judgment interest; and	
11	H.	Such other and further relief as the Court may deem just and proper.	
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			

1	1	
2	SULLIV	EMANUEL URQUHART & 'AN, LLP
3	By: <u>/s/ Jame</u>	
4	jamesa	R. Asperger (Bar No. 83188) sperger@quinnemanuel.com
5	yuryka	Lapgan (Bar No. 218366) pgan@quinnemanuel.com
6	865 S. Los An	Figueroa Street, 10th Floor geles, CA 90017
7	Facsim	ngeles, CA 90017 one: (213) 443-3000 ile: (213) 443-3100
8	9 Victori victoria	a F. Maroulis (Bar No. 202603) maroulis@quinnemanuel.com
10	10 S 555 Tw Redwo	vin Dolphin Drive, 5th Floor od Shores, CA 94065 one: (650) 801-5000
11	11 Facsim	ile: (650) 801-5100
12	Jordan jordani	R. Jaffe (Bar No. 254886) affe@quinnemanuel.com
13	13    50 Cali	fornia Street, 22nd Floor ancisco, CA 94111
14	14    Telepho	one: (415) 875-6600 ile: (415) 875-6700
15	15	KBERRY CORPORATION
16	16   Edward	d R. McGah, Jr (Bar No. 97719) resident, Deputy General Counsel –
17	Litiga 41 Tick	tion knor Place
18	Telepho Telepho	Niguel, California 92677 one: (650) 581-4750
19	19 Attorney	vs for Plaintiff, BlackBerry Limited
20		
21		
22		
23		
24		
25		
26		
27		
28	28	
	07	Cara Na. 2.10 av. 144

1 **DEMAND FOR JURY TRIAL** Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, BlackBerry 2 3 respectfully demands a trial by jury on all issues triable by jury. 4 5 DATED: February 27, 2019 QUINN EMANUEL URQUHART & SULLIVAN, LLP 6 By: <u>/s/James R. Asperger</u> James R. Asperger (Bar No. 83188) 7 jamesasperger@quinnemanuel.com Yury Kapgan (Bar No. 218366) 8 yurykapgan@quinnemanuel.com 865 S. Figueroa Street, 10th Floor 9 Los Angeles, CA 90017 Telephone: (213) 443-3000 10 Facsimile: (213) 443-3100 11 Victoria F. Maroulis (Bar No. 202603) 12 victoriamaroulis@quinnemanuel.com 555 Twin Dolphin Drive, 5th Floor Redwood Shores, CA 94065 13 Telephone: (650) 801-5000 14 Facsimile: (650) 801-5100 Jordan R. Jaffe (Bar No. 254886) 15 jordanjaffe@quinnemanuel.com 50 California Street, 22nd Floor 16 San Francisco, CA 94111 Telephone: (415) 875-6600 17 Facsimile: (415) 875-6700 18 BLACKBERRY CORPORATION 19 Edward R. McGah, Jr (Bar No. 97719) Vice President, Deputy General Counsel – 20 Litigation 41 Ticknor Place Laguna Niguel, California 92677 21 Telephone: (650) 581-4750 22 Attorneys for Plaintiff, BlackBerry Limited 23 24 25 26 27 28 -98-Case No. 2:19-cv-1444

COMPLAINT FOR PATENT INFRINGEMENT