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GOOGLE INC.

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

IN RE GOOGLE INC. GMAIL
LITIGATION

Case No. 5:13-md-02430 LHK (PSG)

**DECLARATION OF STACEY KAPADIA IN
SUPPORT OF DEFENDANT GOOGLE INC.'S
ADMINISTRATIVE MOTION TO FILE
PORTIONS OF DOCUMENTS UNDER SEAL**

Judge: Hon. Lucy H. Koh
Dept: Courtroom 8 – 4th Floor

I, Stacey Kapadia, declare:

1. I am a Software Engineer at Google Inc. (“Google”) and am familiar with Google’s internal systems related to Gmail, as well as the general business decision-making and strategy related to those systems. I submit this declaration in support of Google’s Administrative Motion to File Portions of Documents Under Seal (the “Motion to Seal”). I have personal knowledge of the facts set forth in this Declaration, and if called to testify, I could and would testify competently thereto.

2. The Motion to Seal seeks to seal portions of documents including, among others, Google’s Opposition to Plaintiffs’ Motion for Class Certification (“Google’s Opposition”), the Declaration of Stacey Kapadia in Support of Google’s Opposition (the “Kapadia Declaration”)

1 and Exhibit A to the Declaration of Maco Stewart in Support of Google's Opposition ("Stewart
2 Exhibit A").¹ This is information that Google designated as "CONFIDENTIAL" or
3 "CONFIDENTIAL – ATTORNEYS' EYES ONLY" under the terms of the stipulated protective
4 order ("Protective Order"), entered on June 17, 2013 in this matter, or is derived from that
5 protected information. These materials contain Google's proprietary and highly confidential
6 information, which derives much of its value from its confidentiality.

7 3. The documents Google incorporates into its Opposition reference information that
8 is non-public and would cause competitive harm to Google, or could cause harm to Gmail users,
9 if not sealed (the "Sealable Information"). Below, I provide the Court with explanations as to
10 why this information is Sealable Information, and how disclosure of the Sealable Information in
11 these documents would harm Google and its users.

12 **GOOGLE'S CONFIDENTIAL EMAIL SCANNING PROCESSES**

13 4. Google discloses to Gmail users that it filters and scans the text of Gmail
14 messages, and it also discloses what it uses that information for, including, for example, to filter
15 spam, to detect viruses, to help users organize their inboxes by importance, and to deliver
16 personalized advertising. Users consent to that scanning and the use of information under
17 Google's terms of service and privacy policy. Thus, the fact that Google scans emails and uses
18 scanned information is not confidential, and Google does not seek to seal those facts. However,
19 the mechanics of how Google performs those processes are sensitive, both for user security
20 reasons and for competitive reasons.

21 5. The redacted information in Google's Opposition, the Kapadia Declaration, and
22 Stewart Exhibit A describes the specific techniques that Google uses to implement Gmail's
23 processes, the systems and infrastructure it uses to apply those processes, and the sequence in
24 which it applies those processes, all of which are the result of over nine years of development by
25 Google's engineers. We designed the Gmail system to be secure so that we can provide secure
26

27 ¹ I understand that another Google employee, Han Lee, will provide a separate declaration
28 addressing other sealable material filed in support of Google's Opposition, including the Stewart
Declaration and Stewart Exhibit B.

1 email services to our users. We also designed the Gmail system so that we can maximize the
2 speed of Gmail while at the same time providing a large number of unique features to users that
3 our competitors do not offer. And, we designed the Gmail system so that we can scale, and so
4 that the system is efficient in terms of data storage and retention.

5 6. Security is a crucial Gmail feature. Email accounts are frequently targeted by
6 unwanted messages, known as “spam.” The spam emails include not only unwanted advertising,
7 but also outright scams that attempt to lure recipients to participate in fraudulent schemes. In
8 addition, even messages that are well-intentioned and sent by persons known to the recipient may
9 be harmful if they contain attachments which have been infected by computer viruses, worms, or
10 Trojan horses. Google has designed the Gmail system to prevent harmful materials from reaching
11 Gmail users’ inboxes, to categorize spam as such and segregate it from emails that users are more
12 likely to desire, and to flag materials containing viruses or other such harmful content. Google’s
13 ability to combat spammers, hackers, and others who propagate these unwanted or harmful
14 materials would be impaired if those individuals had visibility into Google’s defenses. For
15 example, Google does not publicly disclose when its scanning for spam and viruses occurs in the
16 sequence of email processing, whether its scanning to detect spam and viruses happens once or
17 multiple times, or whether these scanning processes occur together or separately. The
18 confidentiality of this information is important to ensure that Google is able to prevent harm to its
19 users. For example, a hacker who believes that his Trojan horse will be captured by a spam filter
20 might act differently than a hacker who believes that his Trojan horse will be assessed
21 independently of spam filtering.

22 7. Gmail’s speed is also a valuable feature for users, and that speed is a major
23 competitive advantage for Google—particularly in light of the numerous email-related features
24 that Google offers, such as spam filtering, virus detection, personalized advertising, automatic
25 organization of incoming emails by importance, spellchecking, search within email, automatic
26 saving and sorting into folders, and converting text URLs to clickable links. Google has spent
27 years developing a system that can provide all of these features while still delivering email almost
28 instantly to users. Gmail’s speed is in large part a result of the sequencing and organization of the

1 Gmail system for processing incoming email. Changes to the sequencing and organization of the
2 Gmail system directly impact the speed at which Gmail operates. I do not know how our
3 competitors structure their webmail infrastructures. But, I do know that it has taken the Gmail
4 team years of experimentation, iteration, and engineering time to develop our email infrastructure
5 to optimize speed without sacrificing product features, and I do not believe that our competitors
6 could achieve the same results without significant investment.

7 8. Another objective achieved by Google's proprietary system design is to permit
8 scaling. As the number of Gmail features and Gmail users has grown, Google has had to develop
9 ways to more efficiently manage the many email features it offers. In some cases, this has
10 resulted in pieces of infrastructure specifically dedicated to a particular task, or to systems being
11 connected to one another in a specific way, in a manner that a competitor would not realize was
12 superior without substantial experimentation at significant cost. Google's ability to scale its
13 system is in large part a result of the sequencing and organization of Google's systems for
14 processing incoming email.

15 9. The Gmail system is also designed for efficient data storage. Gmail has hundreds
16 of millions of users, many of whom receive numerous email messages. One of Gmail's benefits
17 to users, and competitive advantages in the marketplace, is its ability to provide users with a large
18 amount of storage. Google's ability to provide users with such substantial storage space is a
19 result of both the organization of Google's systems and confidential Google processes related to
20 when and how certain information related to emails is retained.

21 10. As noted, Google has developed its systems at substantial cost and through
22 substantial efforts spanning multiple years. And indeed, Google continues to work on developing
23 methods to improve its features, including superior spam and virus detection. Exposure of the
24 details of Google's systems would reduce Google's ability to defend Gmail users against
25 unwanted messages and harmful message content. Moreover, if Google's competitors were able
26 to access the details of Google's systems, they could simply copy Google's methods, depriving
27 Google of a competitive advantage it earned through years of costly innovation, and giving
28 Google's competitors the unfair advantage of implementing similar systems without the cost and

effort of developing them independently. In addition, Google’s competitors could potentially pair Google’s proprietary methods with their own innovations—which are unknown to Google—giving them a product superior to what natural competition would have developed and putting Google at a competitive disadvantage.

INDIVIDUAL REDACTION EXPLANATIONS

11. This declaration supports Google’s request to seal very limited portions of three documents: the Opposition, the Kapadia Declaration, and Stewart Exhibit A. Versions of these documents with these limited redactions are attached to this declaration as Exhibits A, B, and C, respectively (each a “Kapadia Exhibit”).² The following table addresses each Kapadia Exhibit and explains in detail the reasons why the redacted language is Sealable Information:

Document and Portion to be Sealed	Description of Sealable Information	Potential Harm from Disclosure
Kapadia Exhibit A • Page 18, lines 21-23 Kapadia Exhibit B • ¶¶ 7, 13	When read in the context of the surrounding unredacted information, this redacted information discloses when Google implemented structural changes to its email infrastructure. On these dates, Google reorganized the delivery flow sequence in order to improve spam classification and other user services.	Public disclosure of this confidential business information could cause harm to Google’s users by allowing spammers to identify and respond to changes in Google’s systems made to combat spam messages. Disclosure could also cause Google competitive harm, as competitors could use this information to assess how an upgrade to Google’s systems affected the features it was able to provide its users, and make corresponding adjustments to their own systems without incurring similar development costs.
Kapadia Exhibit B • ¶¶ 5, 6, 12	These passages describe how emails flow through the Gmail system, including specific details about the sequencing process that Gmail designed through years of engineering work and experimentation to maximize speed and efficiency.	Disclosure of this detailed, proprietary information revealing the sequence in which Google implements its Gmail processes could harm Google by giving third parties a roadmap to how these emails are routed through the Gmail system for processing and delivery. A competitor could use this information to develop competing products featuring a similarly quick and efficient email flow. Potential hackers and spammers armed with this confidential information explaining how Gmail messages travel through the system could use this knowledge to enhance their attempts to

² For the Court’s convenience, and to file the Stewart Declaration and its exhibits together, the Stewart Declaration and Stewart Exhibits A and B are filed as Kapadia Exhibit C.

1			bypass Google's virus detection and spam filtering functions to reach the inboxes of Gmail users.
2			
3	Kapadia Exhibit A	These passages describe the functions of specific pieces of Gmail infrastructure and their relationship to one another. These systems have been placed in relation to one another in a way that Google developed to make its Gmail system as efficient as possible.	Because speed and efficiency are key to Gmail's success, disclosure of confidential information revealing how Google constructs its Gmail infrastructure to optimize its systems' effectiveness would cause Google harm by permitting competitors to emulate Google's innovations.
4	• Page 2, lines 26-28		
5	• Page 3, line 3		
6	Kapadia Exhibit B		
7	• ¶¶ 14, 15, 16, 17, 23, 24, 25		
8	Kapadia Exhibit A	These passages reveal which servers and sub-processes play a role in the overall Gmail delivery process.	Disclosure of this confidential information would alert competitors to the types of processes that Gmail performs during the email delivery process, depriving Google of a competitive advantage it has gained through its innovative structuring of the email delivery process.
9	• Page 2, lines 26-28		
10	• Page 3, line 24		
11	Kapadia Exhibit A	This is a description indicating that Google has dedicated a specific server or piece of infrastructure to a particular task. This is an innovation Google developed to make a specific aspect of the Gmail system more efficient.	Disclosure of this confidential information would enable competitors to copy Google's innovation without incurring the costs of developing their own processes, thus depriving Google of a competitive advantage.
12	• Page 3, line 6		
13	Kapadia Exhibit B		
14	• ¶ 36		
15	Kapadia Exhibit A	These passages describe where in the Gmail infrastructure specific scanning processes take place. These processes have been deliberately placed in these locations to maximize the speed and efficiency of the Gmail system.	The location and interaction of scanning systems would give third parties insight into how Google is able to quickly and efficiently process and deliver messages to its users; as a result, disclosure of this confidential information would harm Google by giving competitors an unfair opportunity to copy Google's system and deprive Google of a competitive advantage.
16	• Page 6, lines 24-28		
17	• Page 7, line 1		
18	• Page 18, lines 21-23		
19	• Page 19, lines 2-6, 9, 11-28		
20	• Page 20, lines 1-2, 24		
21	• Page 21, lines 3, 5		
22	Kapadia Exhibit B		
23	• ¶¶ 8, 9, 10, 18, 19, 21, 22, 27, 28, 29, 30, 31, 32, 34		
24	Kapadia Exhibit C, Stewart Exhibit A		
25	• Page 11, lines 17-21, 23-24		
26	• Page 12, lines 1-2, 4-6, 8-9, 11-12		
27	• Page 16, lines 8-9, 13-14, 18-19		
28			

1	<ul style="list-style-type: none"> • Page 27, lines 17-18 		
2	<ul style="list-style-type: none"> • Page 28, lines 2-5, 8-10 		
3	<ul style="list-style-type: none"> • Page 39, lines 14-21 		
4	Kapadia Exhibit B <ul style="list-style-type: none"> • ¶¶ 11, 20, 26, 35 	These passages describe which information about its systems and activities Google creates records of, and which information it does not record. This indicates which information Google considers important to monitor in further developing its systems.	Disclosure of this confidential information would alert competitors to the types of information that Google deems worthwhile to record and allow them to narrow their own recording processes in competing products, thus causing Google competitive harm.

12. All of the above information relates to internal information, proprietary processes, or business decision-making within Google that is confidential and highly sensitive in nature. Google's users benefit from the confidentiality of this information because confidentiality protects their security and permits Google to provide innovative features in a competitive market for email services. Google also derives economic benefit from the confidentiality of this information, which reflects the specific information that Google uses and evaluates in connection with its Gmail system. Google does not disclose this information to its competitors, customers, or the general public. Public disclosure of this information would cause Google significant harm by giving third parties insight into confidential and sensitive aspects of Google's internal operations, and could harm users by giving hackers or spammers insight into the protections Google provides against those individuals. For these reasons, Google respectfully requests that this motion be granted, and that the Court seal information as requested above.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on November 21, 2013, in Mountain View, California.

/s/ Stacey Kapadia

Stacey Kapadia

FILER'S ATTESTATION

Pursuant to Local Rule 5-1(i)(3), I attest under penalty of perjury that concurrence in the filing of this document has been obtained from its signatory.

Dated: November 21, 2013

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