
From: Lynch, John
To: (b)(6), (7)(C) per CRM [REDACTED]@perkinscoie.com
Cc: [REDACTED]@perkinscoie.com
Bcc:
Subject: Re: Preservation
Date: Sun May 23 2010 10:24:32 EDT
Attachments:

Thanks very much.

(b)(6), (7)(C) per CRM From: [REDACTED]@perkinscoie.com>
To: Lynch, John
Sent: Sun May 23 10:14:22 2010
Subject: FW: Preservation

John,

(b)(6), (7)(C) per CRM You mentioned that you will be working with (coordinating with?) [REDACTED] on the wifi issue, but you did not ask me to copy you on my correspondence with him, so below is just FYI for you. Happy to cc you in the future or not – whatever you prefer.

(b)(6), (7)(C) per CRM [REDACTED]

----- Forwarded Message

(b)(6), (7)(C) per CRM From: [REDACTED]@perkinscoie.com>
Date: Sun, 23 May 2010 10:04:55 -0400
To: [REDACTED]@usdoj.gov>, [REDACTED] (USANJ)" [REDACTED]@usdoj.gov>
Conversation: Preservation
Subject: Preservation

(b)(6), (7)(C) per CRM [REDACTED]:

I got back from travel late last night and so I want to address the preservation issue you raised on our call this week. We appreciate your willingness to work cooperatively with us as you try to learn more about the facts underlying Google's recent blog posts on its StreetView service and related WiFi project.

I am writing to assure you that Google has in place a litigation hold for this matter and that the WiFi data collected in the U.S. has been secured and will not be deleted. This litigation hold was in place before we spoke by phone, and it is as, if not more, comprehensive in scope than any preservation steps we would have taken solely in response to legal process issued by your office.

You stated that you had some concerns because of news stories you read pertaining to possible destruction of data in Europe, made at the request of, or in cooperation with, European data protection authorities. Any such destruction of data pertains or will pertain to only data that was collected in Europe.

I hope that this information suffices, but if you have follow-up questions please let me know so that we can be sure to allay any continuing concerns you may have with regard to preservation issues.

(b)(6), (7)(C)
per CRM

----- End of Forwarded Message

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* * * * *

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From: [REDACTED] (Perkins Coie)
To: [REDACTED] @perkinscoie.com>
[REDACTED] (USANJ)
[REDACTED] @usa.doj.gov>; [REDACTED] (USANJ)
[REDACTED] @usa.doj.gov>
Cc: [REDACTED] (USANJ)
Lynch, John
[REDACTED] (USANJ)
Klumb, Eric
[REDACTED] (Perkins Coie) @perkinscoie.com>
Bcc:
Subject: RE: Meeting Follow-up
Date: Mon Jun 28 2010 16:19:59 EDT
Attachments:

(b)(6), (7)(C)
per CRM

Tomorrow at 3:00 pm works for both of us. Thanks for taking care of the bridge.

(b)(6), (7)(C)
per CRM

(b)(6), (7)(C)
per CRM

Perkins Coie LLP
607 Fourteenth Street, NW
Washington, DC 20005-2003

(b)(6), (7)(C)
per CRM

[REDACTED] tel
[REDACTED] fax
[REDACTED] @perkinscoie.com
www.perkinscoie.com [REDACTED]

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(b)(6), (7)(C)
per CRM

From: [REDACTED] (USANJ) [mailto:[REDACTED]@usdoj.gov]
Sent: Monday, June 28, 2010 4:16 PM
To: [REDACTED] (Perkins Coie); [REDACTED] (Perkins Coie)
Cc: [REDACTED] (USANJ); Lynch, John (CRM); Klumb, Eric (CRM)
Subject: RE: Meeting Follow-up

(b)(6), (7)(C)
per CRM

Thanks for getting back to us.

Assuming tomorrow at 3pm works, I have set up the following conference call-in number:

(b)(6), (b)(7)(C)
per CRM

Sincerely,

(b)(6), (b)(7)(C)
per CRM

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Monday, June 28, 2010 10:00 AM
To: [REDACTED] (USANJ); [REDACTED] (Perkins Coie)
Cc: [REDACTED] (USANJ); Lynch, John (CRM); Klumb, Eric (USASC)
Subject: Re: Meeting Follow-up

(b)(6), (b)(7)(C)
per CRM

Great timing - we expect to be sending information to you today (via email).

(b)(6), (b)(7)(C)
per CRM

I am free tomorrow at 3 pm, and I'll check with [REDACTED] on [REDACTED] availability.

Thanks,

(b)(6), (b)(7)(C)
per CRM

-----Original Message-----

(b)(6), (b)(7)(C)
per CRM

From: [REDACTED] (USANJ) <[REDACTED]@usdoj.gov>
To: [REDACTED] (Perkins Coie); [REDACTED] (Perkins Coie)
CC: [REDACTED] (USANJ) [REDACTED]@usdoj.gov>; Lynch, John (CRM) [REDACTED]@usdoj.gov>;
Klumb, Eric (USASC) [REDACTED]@usdoj.gov>
Sent: Mon Jun 28 09:51:45 2010
Subject: RE: Meeting Follow-up

(b)(6), (b)(7)(C)
per CRM

Thank you for the note last week. Hopefully the time between the June 9 meeting and today has given Google the opportunity to gather the material discussed at the June 9th meeting. We would like to set up a call for 3pm EST tomorrow to discuss. Are you available at that time?

Thank you,

(b)(6), (7)(C)
per CRM

[REDACTED]
Assistant U.S. Attorney

(b)(6), (7)(C)
per CRM

[REDACTED]
District of New Jersey
[REDACTED]

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]

Sent: Thursday, June 17, 2010 1:43 PM

(b)(6), (7)(C)
per CRM

To: [REDACTED] (USANJ); [REDACTED] (USANJ); [REDACTED] (USANJ); Lynch, John (CRM);
Klumb, Eric (USASC); [REDACTED] (FBI)

Cc: [REDACTED] (Perkins Coie)

Subject: Meeting Follow-up

(b)(6), (7)(C)
per CRM

[REDACTED] John, Eric and [REDACTED]

Thank you again for taking the time to meet with us last week to discuss Wi-Fi issues. We took away with us your requests for further information and we are consulting with the company on what we will be able to do in that regard. We expect to be back in touch with you shortly.

Sincerely,

(b)(6), (7)(C)
per CRM

[REDACTED]
Perkins Coie LLP
607 Fourteenth Street, NW
Washington, DC 20005-2003

(b)(6), (7)(C)
per CRM

[REDACTED] tel
[REDACTED] fax
[REDACTED]@perkinscoie.com

www.perkinscoie.com [REDACTED] <file:///A/www.perkinscoie.com [REDACTED]>

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From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED] (USANJ)
[REDACTED]@usa.doj.gov>; [REDACTED] (USANJ)
(b)(6), (7)(C) per CRM [REDACTED]
[REDACTED]@usa.doj.gov>; Lynch, John
Klumb, Eric (USASC) [REDACTED]@usa.doj.gov>;
(FBI) [REDACTED]
Cc: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
Bcc:
Subject: Documents to others
Date: Thu Jul 08 2010 15:32:44 EDT (b)(4), (b)(6) & (7)(C) per CRM
Attachments: [REDACTED]

Gentlemen:

You asked for us to send to you any documents that we have provided to "others" (e.g., domestic and foreign regulators, civil litigants). Attached are fourteen documents that were sent to various foreign privacy officials, as indicated. Some or all of these documents, in turn, have been or may be shared with others. As with the other documents you requested, these are being submitted to assist you in your review of this matter. There are no redactions on these documents, although some documents contain "Confidential and Proprietary" or other similar markings. Further documents will be sent to you shortly.

Please contact us if you have any questions.

(b)(6), (7)(C)
per CRM [REDACTED]

(b)(6), (7)(C)
per CRM

[REDACTED]
Perkins Coie LLP
607 Fourteenth Street, NW
Washington, DC 20005-2003

[REDACTED] tel
[REDACTED] fax

(b)(6), (7)(C)
per CRM

[REDACTED]@perkinscoie.com
www.perkinscoie.com/[REDACTED]

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From: [REDACTED] (USANJ) [REDACTED]
[REDACTED]@usdoj.gov>
To: [REDACTED]@perkinscoie.com
[REDACTED]@perkinscoie.com>; [REDACTED] (USANJ)
(b)(6), (7)(C) [REDACTED]
per CRM [REDACTED]@usa.doj.gov>; Lynch, John
[REDACTED]
Klumb, Eric (USASC) [REDACTED]@usa.doj.gov>; [REDACTED]
(FBI) [REDACTED]
Cc: [REDACTED]@perkinscoie.com
[REDACTED]@perkinscoie.com>
Bcc:
Subject: Re: July 30 Update
Date: Sun Aug 01 2010 09:38:57 EDT
Attachments:

(b)(6), (7)(C)
per CRM [REDACTED]

Many thanks. We will review the materials and get back to you with any questions.

(b)(6), (7)(C)
per CRM [REDACTED]

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Saturday, July 31, 2010 01:02 PM
To: [REDACTED] (USANJ); [REDACTED] (USANJ); Lynch, John (CRM); Klumb, Eric (USASC);
[REDACTED] (FBI)
Cc: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com>
Subject: July 30 Update

(b)(6), (7)(C)
per CRM [REDACTED]

Gentlemen:

We are writing to update you on a number of fronts, including the status of our internal review.

1. On Friday, July 23, Google met in Hartford CT with a multi-state group of state attorneys general, led by Connecticut Attorney General Richard Blumenthal. We had an open dialogue at that meeting, as we had with you, and we will likely provide to the AGs some or all of the documents that we have provided to you, once there is an appropriate confidentiality agreement in place.
2. On July 26, we responded in writing to questions we received from the FTC, and a copy of our letter response to the FTC is attached.

(b)(4) per CRM

[REDACTED]

4. If you have not seen it, here is a link to an article published by the BBC on July 29, "Google Cleared of Wi-Fi Snooping," which reports on the findings of the UK's Information Commissioner Office. <http://www.bbc.co.uk/news/technology-10805090>. A statement by the Information Commissioner's Office regarding their assessment of data relating to the U.K. is attached. The ICO stated that, based upon their review of the data, "we are satisfied so far that it is unlikely that Google will have captured significant amounts of personal data. There is also no evidence as yet that the data captured by Google has caused or could cause any individual detriment."

5. We have made substantial progress on our internal review of documents. We hope that by Labor Day we will be close enough to finishing our review that we can provide relevant documents to you.

Please let us know if you would like to discuss these or any other issues by phone.

(b)(6), (7)(C)
per CRM

[REDACTED]

(b)(6), (7)(C)
per CRM

[REDACTED]
Perkins Coie LLP
607 Fourteenth Street, NW
Washington, DC 20005-2003

[REDACTED] tel
[REDACTED] fax
[REDACTED]@perkinscoie.com
www.perkinscoie.com [REDACTED]

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(b)(6), (7)(C)
per CRM

<<2010-07-26 Ltr [REDACTED].PDF>> <<Final letter to Google Street View Car.pdf>> <<Compliance check results - Google collection of Wi-Fi Data.pdf>> <<ico_statement_google_wifi_data_290710.pdf>>

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* * * * *

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From: [REDACTED] (USANJ) [REDACTED]
[REDACTED]@usdoj.gov>
To: [REDACTED]@perkinscoie.com
[REDACTED]@perkinscoie.com>; [REDACTED] (USANJ)
(b)(6), (7)(C) [REDACTED]@usa.doj.gov>; Lynch, John
per CRM [REDACTED]
Klumb, Eric (USASC) [REDACTED]@usa.doj.gov>;
(FBI) [REDACTED]
Cc: [REDACTED]@perkinscoie.com
[REDACTED]@perkinscoie.com>
Bcc:
Subject: Re: Documents
Date: Tue Aug 31 2010 14:47:31 EDT
Attachments:

Sounds good. Thanks.

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Tuesday, August 31, 2010 11:47 AM
To: [REDACTED] (USANJ); [REDACTED] (USANJ); Lynch, John (CRM); Klumb, Eric (USASC);
(b)(6), (7)(C) [REDACTED] (FBI)
per CRM [REDACTED]
Cc: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com>
Subject: Documents

Gentlemen,

We have completed our document review. By the end of next week, we will have gathered and organized all of the relevant documents we found, and we will send them to you. We suggest having a call with you when you receive the documents so we can summarize for you what we found, and also explain to you the scope and methodology of our review.

(b)(6), (7)(C) [REDACTED] we do not have a mailing address for you. Please send your address to us, or we can just send
per CRM [REDACTED] your set c/o [REDACTED].

Thanks,

(b)(6), (7)(C) [REDACTED]
per CRM [REDACTED]

[REDACTED]
Perkins Coie LLP
(b)(6), (7)(C) 607 Fourteenth Street, NW
per CRM Washington, DC 20005-2003
[REDACTED] tel
[REDACTED] fax
[REDACTED]@perkinscoie.com
www.perkinscoie.com [REDACTED]

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* * * * *

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From: [REDACTED]@ic.fbi.gov>
To: [REDACTED]@perkinscoie.com
(b)(6), (7)(C) per CRM [REDACTED]@perkinscoie.com>; [REDACTED] (USANJ)
[REDACTED]@usa.doj.gov>; [REDACTED] (USANJ)
[REDACTED]@usa.doj.gov>; Lynch, John
Klumb, Eric (USASC) [REDACTED]@usa.doj.gov>
Cc: [REDACTED]@perkinscoie.com
[REDACTED]@perkinscoie.com>
Bcc:
Subject: Re: Documents
Date: Thu Sep 02 2010 13:16:05 EDT
Attachments:

(b)(6), (7)(C) per CRM [REDACTED] my address is:
FBI
100 Davidson Ave #209
Somerset NJ. 08873

(b)(6), (7)(C) per CRM [REDACTED]

Cell: [REDACTED]

DUPLICATIVE



From: Klumb, Eric
To: (b)(6), (b)(7)(C)
per CRM Klumb, Eric
; Lynch, John
Cc:
Bcc:
Subject: FCC Google SV
Date: Wed Sep 15 2010 15:00:07 EDT
Attachments:

StartTime: Thu Sep 16 10:00:00 Eastern Daylight Time 2010
EndTime: Thu Sep 16 11:00:00 Eastern Daylight Time 2010
Location:
Invitees:
Recurring: No
ShowReminder: No
Accepted: Yes
AcceptedTime: Wed Sep 15 15:00:00 Eastern Daylight Time 2010

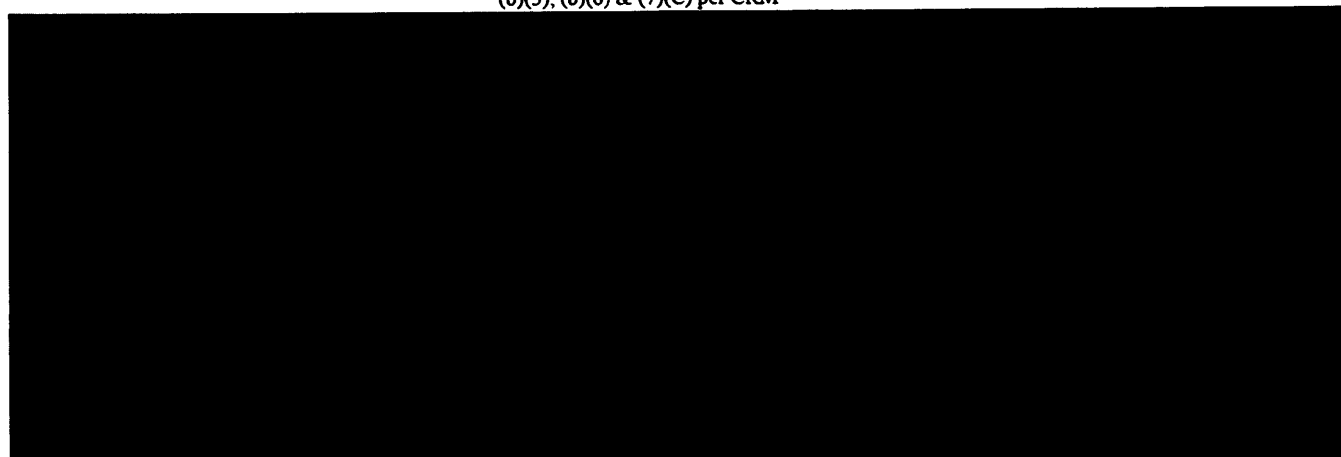
From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED]
[REDACTED]@usa.doj.gov>; [REDACTED] (USANJ)
(b)(6), (b)(7)(C) per CRM [REDACTED]
[REDACTED]@usa.doj.gov>; Lynch, John
[REDACTED]
Klumb, Eric
[REDACTED] (FBI)
Cc: [REDACTED] (Perkins Coie)
[REDACTED]
Bcc:
Subject: Attached FTC Closing Letter
Date: Tue Oct 26 2010 20:31:18 EDT
Attachments: Attached FTC Closing Letter (1).msg
smime.p7s
FTC 10.27.10 letter.pdf

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(b)(6), (7)(C)
per CRM

To: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]; [REDACTED]
(USANJ); [REDACTED]@usdoj.gov]; Lynch, John [REDACTED]@crm.usdoj.gov]; Klumb,
Eric [REDACTED]@crm.usdoj.gov]; [REDACTED] (FBI) [REDACTED]@ic.fbi.gov]
Cc: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
From: [REDACTED] (Perkins Coie)
Sent: Wed 10/27/2010 12:31:18 AM
Importance: Normal
Subject: Attached FTC Closing Letter
SMIME.txt



From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]

Sent: Friday, November 12, 2010 4:07 PM

(b)(5), (7)(C)
per CRM

To: [REDACTED] (USANJ); [REDACTED] (USANJ); Lynch, John (CRM); Klumb, Eric (CRM); [REDACTED] (FBI)

Cc: [REDACTED] (Perkins Coie)

Subject: Update re: FCC

Gentlemen:

We want to share with you a Letter of Inquiry that Google received from the FCC (attached) concerning Google's WiFi collection activity, and notifying Google that the FCC has initiated an investigation into whether Google's actions violated Section 705 of the Communications Act of 1934 (47 U.S.C. § 605). We will be speaking with the FCC on Monday about the scope of their request. We assume the FCC is not aware of our cooperation with the Department of Justice to date and we do not plan to tell them more than the fact of our cooperation with your review.

We would like to follow up with you to discuss our response to the FCC. We believe there is a Memorandum of Understanding between DOJ and the FCC wherein it is agreed that DOJ will take the lead in investigating any alleged violations of Section 605. In light of the MOU, we want to make sure that any cooperation we give to the FCC is consistent with your interests as well. We also would like the opportunity to discuss the status of your review and whether there is any further information that you need from us.

Please let us know if you (all) have a 30-minute window in the next week or so when we can get on a conference call.

Thanks,

(b)(5), (7)(C)
per CRM

[REDACTED]

(b)(5), (7)(C)
per CRM

[REDACTED]
Perkins Coie LLP
607 Fourteenth Street, NW
Washington, DC 20005-2003
[REDACTED] tel

[REDACTED] fax
[REDACTED]@perkinscoie.com
www.perkinscoie.com/[REDACTED] <file:///www.perkinscoie.com/[REDACTED]>

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<<Google LOI Letter 110310.pdf>>

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From: [REDACTED] (USANJ) [REDACTED]
[REDACTED]@usdoj.gov>
To: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>; [REDACTED] (Perkins Coie)
(b)(6), (7)(C) [REDACTED]
per CRM [REDACTED]@perkinscoie.com>
Cc: [REDACTED] (USANJ)
[REDACTED]@usa.doj.gov>; Lynch, John
[REDACTED]
Klumb, Eric [REDACTED]
Bcc:
Subject: RE: Update re: FCC
Date: Mon Nov 15 2010 16:04:25 EST
Attachments:

(b)(6), (7)(C) [REDACTED] we'll be with you in 5 minutes.
per CRM

Sorry and Thanks.

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Monday, November 15, 2010 11:50 AM
(b)(6), (7)(C) [REDACTED]
per CRM To: [REDACTED] (USANJ); [REDACTED] (Perkins Coie)
Cc: [REDACTED] (USANJ); Lynch, John (CRM); [REDACTED]@usdoj.gov; [REDACTED] (FBI)
Subject: Re: Update re: FCC

(b)(6), (7)(C) [REDACTED]
per CRM

4 pm ET works for us. Here is a bridge number:

(b)(6), (7)(C) [REDACTED]
per CRM

Thanks,

(b)(6), (7)(C) [REDACTED]
per CRM

-----Original Message-----

(b)(6), (7)(C) [REDACTED]
per CRM From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov>
To: [REDACTED] (Perkins Coie); [REDACTED] (Perkins Coie)
Cc: [REDACTED] (USANJ) [REDACTED]@usdoj.gov>; Lynch, John (CRM) [REDACTED]@usdoj.gov>;
Klumb, Eric (CRM) [REDACTED]@usdoj.gov>; [REDACTED] (FBI) [REDACTED]@ic.fbi.gov>
Sent: Mon Nov 15 10:17:06 2010
Subject: RE: Update re: FCC

(b)(6), (7)(C) [REDACTED]
per CRM

Can you do a call at 4pm today?

Thanks,

(b)(6), (7)(C)
per CRM



DUPLICATIVE

A large, solid black rectangular redaction box that covers the majority of the page content, starting below the 'DUPLICATIVE' text and extending nearly to the bottom of the page.

From: [REDACTED] (USANJ)
[REDACTED]@usdoj.gov>
To: [REDACTED] (Perkins Coie)
(b)(6), (7)(C) [REDACTED]@perkinscoie.com>; [REDACTED] (USANJ)
per CRM [REDACTED]@usa.doj.gov>; Lynch, John
[REDACTED]
Cc: Klumb, Eric
[REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
Bcc:
Subject: RE: Witness Update
Date: Fri Nov 19 2010 16:24:52 EST
Attachments:

(b)(6), (7)(C) Thanks [REDACTED] We look forward to hearing an update as to witness availability. Once we have
per CRM availability we can discuss the non-target letters, which we are still fine with.

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
(b)(6), (7)(C) Sent: Friday, November 19, 2010 1:15 PM
per CRM To: [REDACTED] (USANJ); [REDACTED] (USANJ); Lynch, John (CRM); Klumb, Eric (CRM)
Cc: [REDACTED] (Perkins Coie)
Subject: Witness Update

Gentlemen:

Google wants to make its employees available to you for interview, and we are planning for your proposed week of Dec 13th. However, as you know, ethically we cannot advise an employee whether he or she should get a lawyer. If the employee asks the question, we have retained a lawyer to answer it and the lawyer (or employee) may contact you to procure the non-target letter you offered during our last conversation. If not, we would nonetheless want each employee to have the letter, and we will want to discuss with you how best to handle issues like privilege. We hope to have any employee that asks to talk to this lawyer appear and cooperate fully. We expect to be in a position to confirm some or all of the interviews quickly and will let you know of our progress.

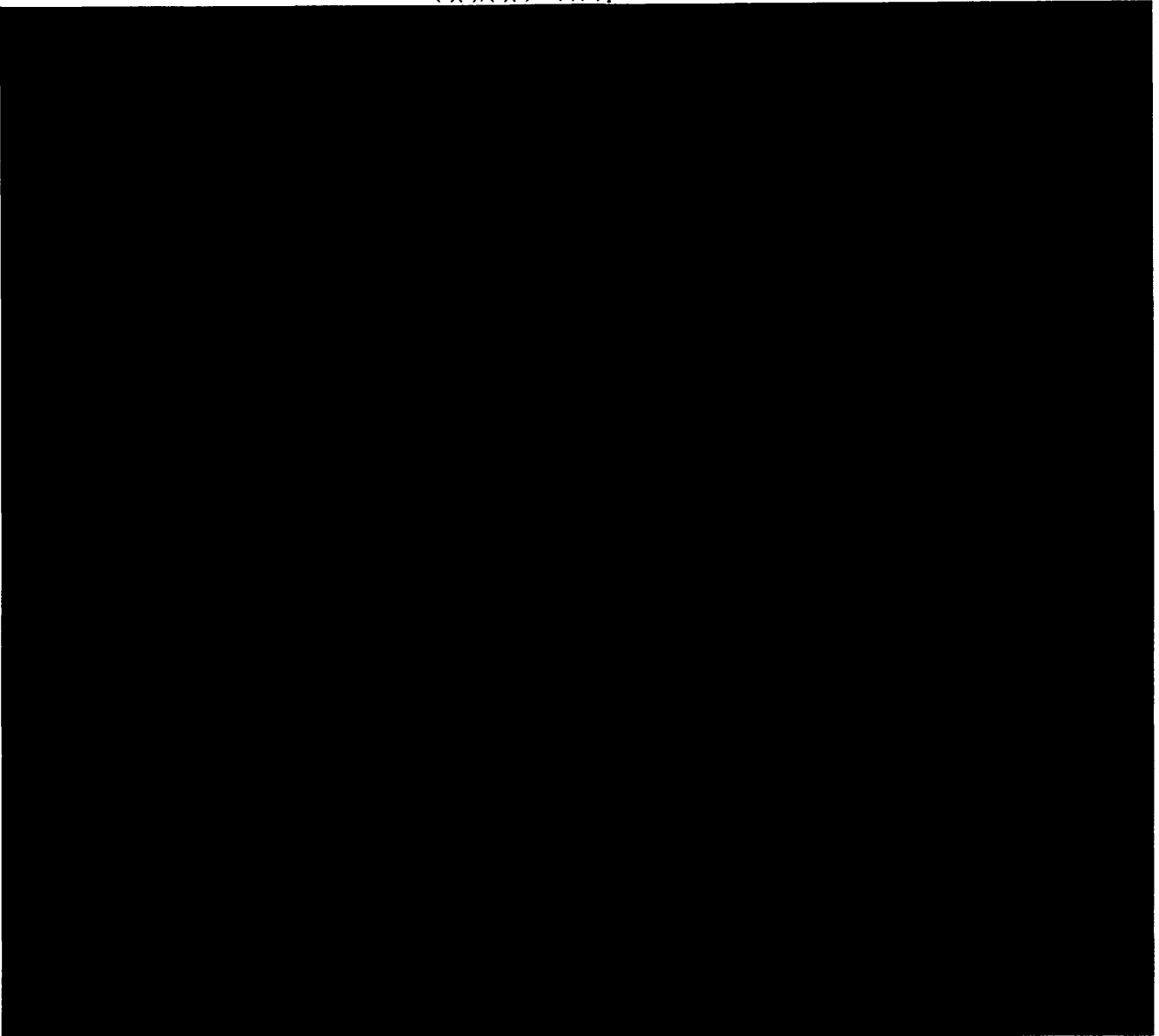
(b)(6), (7)(C)
per CRM [REDACTED]

[REDACTED]
Perkins Coie LLP
(b)(6), (7)(C) 607 Fourteenth Street, NW
per CRM Washington, DC 20005-2003
[REDACTED] tel
[REDACTED] fax
[REDACTED]@perkinscoie.com

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From: [REDACTED]@perkinscoie.com]

Sent: Wednesday, December 01, 2010 10:02 PM

(b)(6), (7)(C)
per CRM

To: [REDACTED] (USANJ); Lynch, John (CRM); Klumb, Eric (CRM); [REDACTED] (USANJ); [REDACTED] (FBI)

Cc: [REDACTED]@perkinscoie.com>

Subject: Interviews

Gentlemen,

We want to get back to you concerning the interviews you requested (and follow up on the initial information we conveyed by phone).

1. The following four employees are available for interview, and none have requested separate

counsel:

(a) [REDACTED]

(b)(6), (7)(C)
per CRM

(b) [REDACTED]

(c) [REDACTED]

(d) [REDACTED]

(b)(6), (7)(C)
per CRM

We propose that you interview [REDACTED] on Tuesday, December 14, and continue into the 15th, as required. Unfortunately, [REDACTED] is on travel through December 21, but [REDACTED] can be interviewed by phone, if you choose to do so. Unless you hear otherwise from us, the interviews will take place on Google's campus, at 1965 Charleston Drive, Mountain View, CA.

(b)(6), (7)(C)
per CRM

2. [REDACTED]

3. [REDACTED]

(b)(6), (7)(C)
per CRM

4. [REDACTED] has separate counsel, [REDACTED], and Google has advised [REDACTED] that it has no objection to an interview of [REDACTED]. Please contact [REDACTED] directly concerning [REDACTED] availability for interview. (See [REDACTED])

(b)(6), (7)(C)
per CRM

5. Google's requirements: (a) Google's counsel will be present for all interviews (including [REDACTED] should an interview be scheduled); (b) witnesses will not be authorized to disclose attorney-client privileged information or communications; and (3) non-target letters will be provided to each witness prior to his interview session.

6. For accommodations, the Four Seasons on University Street in Palo Alto is 10 minutes from Google and has a government rate (when available) in the \$100s. Also try the Westin on El Camino Real in Palo Alto.

Please let us know if the above plan—and proposed dates for interviews—are acceptable.

Thanks,

(b)(6), (7)(C)
per CRM

[REDACTED]

(b)(6), (7)(C)
per CRM

[REDACTED]
Perkins Coie LLP
607 Fourteenth Street, NW
Washington, DC 20005-2003
tel [REDACTED]
fax [REDACTED]
[REDACTED]@perkinscoie.com
www.perkinscoie.com [REDACTED]

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From: Klumb, Eric
To: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>; [REDACTED] (USANJ)
[REDACTED]@usa.doj.gov>
Cc: (b)(6), (7)(C) per CRM Lynch, John
[REDACTED] (USANJ) [REDACTED]@usa.doj.gov>; [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com>
Bcc:
Subject: RE: Interview Contact Information
Date: Thu Dec 09 2010 11:35:20 EST
Attachments:

(b)(6), (7)(C)
per CRM

My cell is [REDACTED]

(b)(6), (7)(C)
per CRM

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Thursday, December 09, 2010 11:31 AM
To: [REDACTED] (USANJ); Klumb, Eric
Cc: Lynch, John; [REDACTED] (USANJ); [REDACTED] (Perkins Coie)
Subject: Interview Contact Information

(b)(6), (7)(C)
per CRM

[REDACTED] and Eric,

(b)(6), (7)(C)
per CRM

I understand that you two will be traveling to Mountain View next week for interviews, but John and [REDACTED] will not. On our end, [REDACTED] will attend for Google, and I will remain in Arctic DC. That being the case, you should contact [REDACTED] directly once you leave about logistics or any other interview issues.

(b)(6), (7)(C)
per CRM

[REDACTED] email address is above and [REDACTED] mobile # is [REDACTED]

(b)(6), (7)(C)
per CRM

Eric, I have your mobile as [REDACTED]

(b)(6), (7)(C)
per CRM

[REDACTED] I don't have one for you.

BTW, if you know, we would appreciate you sending along the names of the FBI agents who will attend the interviews.

Thanks,

(b)(6), (7)(C)
per CRM

[REDACTED]

(b)(6), (7)(C)
per CRM

Perkins Coie LLP
607 Fourteenth Street, NW
Washington, DC 20005-2003

[REDACTED] tel
[REDACTED] fax
[REDACTED]@perkinscoie.com
www.perkinscoie.com [REDACTED]

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* * * * *

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From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED] (USANJ)
[REDACTED]@usa.doj.gov>; Klumb, Eric
Cc: (b)(6), (7)(C)
per CRM Lynch, John
[REDACTED] (USANJ) [REDACTED]@usa.doj.gov>; [REDACTED] (Perkins
Coie) [REDACTED]@perkinscoie.com>
Bcc:
Subject: RE: Interview Contact Information
Date: Thu Dec 09 2010 15:02:31 EST
Attachments:

Got it - thanks.

[REDACTED]
Perkins Coie LLP
607 Fourteenth Street, NW
(b)(6), (7)(C)
per CRM Washington, DC 20005-2003
[REDACTED] tel
[REDACTED] fax
[REDACTED]@perkinscoie.com
www.perkinscoie.com [REDACTED]

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(b)(6), (7)(C)
per CRM From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: Thursday, December 09, 2010 2:58 PM
To: [REDACTED] (Perkins Coie); Klumb, Eric (CRM)
Cc: Lynch, John (CRM); [REDACTED] (USANJ); [REDACTED] (Perkins Coie)
Subject: RE: Interview Contact Information

This time I'm actually attaching the letters.

(b)(6), (7)(C)
per CRM From: [REDACTED] (USANJ)
Sent: Thursday, December 09, 2010 2:58 PM
To: [REDACTED] (Perkins Coie); Klumb, Eric (CRM)
Cc: Lynch, John (CRM); [REDACTED] (USANJ); [REDACTED] (Perkins Coie)
Subject: RE: Interview Contact Information

(b)(6), (7)(C)
per CRM [REDACTED]

I'm attaching the non-target letters.

(b)(6), (7)(C)
per CRM My cellphone: [REDACTED]

(b)(6), (7)(C)
per CRM Agents: [REDACTED]

(b)(6), (7)(C)
per CRM [REDACTED]

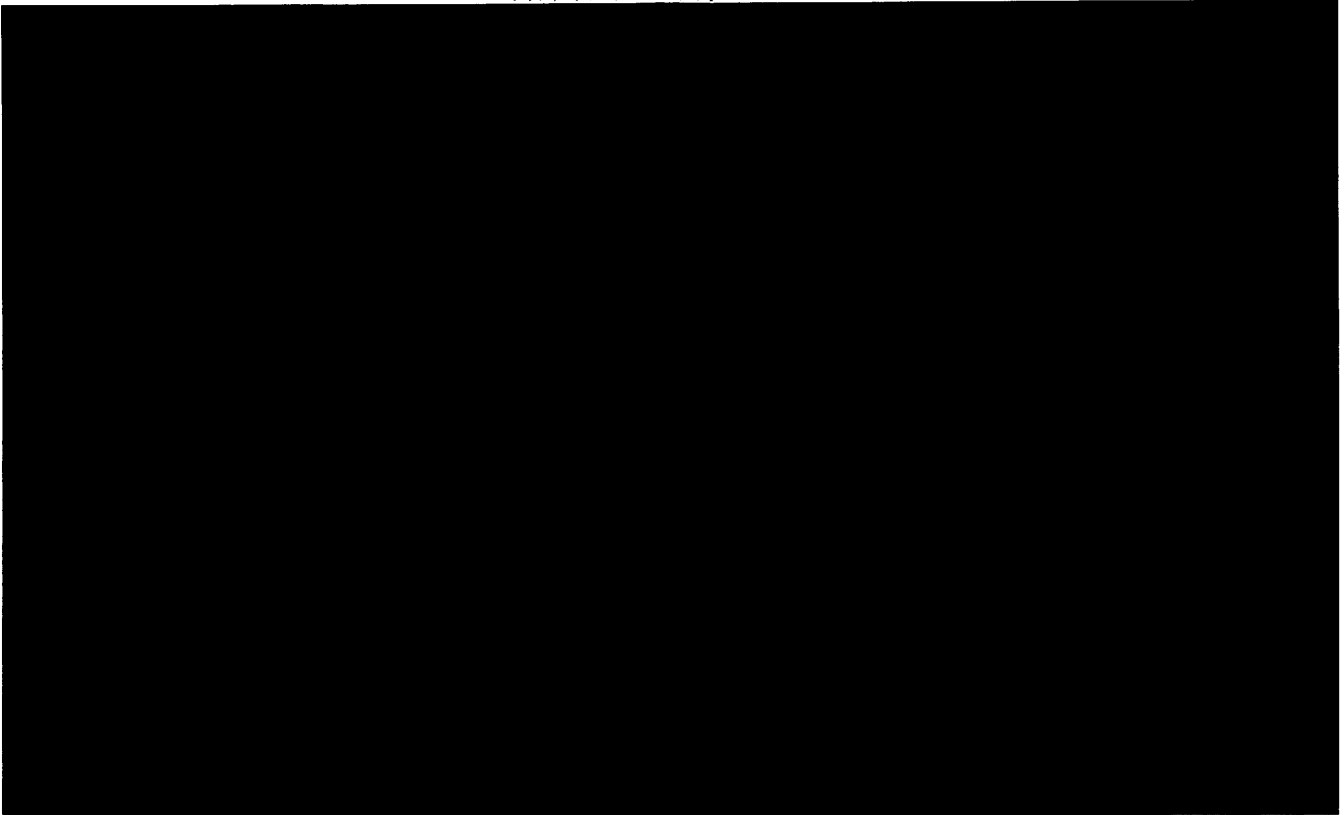
[REDACTED]
Assistant U.S. Attorney

(b)(6), (7)(C)
per CRM [REDACTED]

District of New Jersey

Fax: [REDACTED]

DUPLICATIVE



From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Friday, December 10, 2010 11:47 AM
To: [REDACTED] (USANJ)
Cc: Klumb, Eric (CRM); Lynch, John (CRM); [REDACTED] (USANJ); [REDACTED] (Perkins Coie)
Subject: RE: Interview Contact Information

(b)(6), (7)(C)
per CRM

(b)(6), (7)(C)
per CRM

Unfortunately, we need to ask for a change in the nontarget letters. In each, you refer to the witness (e.g., [REDACTED]) as our client. In fact, Google is our client, and we do not represent the witnesses individually, and they do not have personal counsel.

(b)(6), (7)(C)
per CRM

For your ease, I have redrafted the letter and removed any references to the witnesses being our clients, have combined all witnesses into just one letter (less wear-and-tear on your hand as you sign...), and shorted the first paragraph to make it all fit. If you can sign and resent the letter today, we would appreciate it.

Please let me know if you have any questions.

Thanks,

(b)(6), (7)(C)
per CRM



(b)(6), (7)(C)
per CRM

Perkins Cole LLP
607 Fourteenth Street, NW
Washington, DC 20005-2003
202-434-1637 tel
202-654-9127 fax
[REDACTED]@perkinscoie.com
www.perkinscoie.com/[REDACTED]

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DUPLICATIVE

A large black rectangular redaction box covering the majority of the page content below the 'DUPLICATIVE' text.

From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>; [REDACTED] (USANJ)
Cc: (b)(6), (7)(C) [REDACTED]@usa.doj.gov>
per CRM Klumb, Eric
[REDACTED] Lynch, John
[REDACTED] (USANJ) [REDACTED]@usa.doj.gov>
Bcc:
Subject: RE: Interview Contact Information
Date: Fri Dec 10 2010 17:18:45 EST
Attachments:

(b)(6), (7)(C) [REDACTED] looking forward to seeing you next week. On the food situation, we've been told that gov't visitors
per CRM are permitted to eat in the open cafeteria because there is no sign-in, cash register, or gratuity. On a
per person basis, the cost is minimal and beneath reportable thresholds. Don't know if that helps you
or not, but I believe the cost per person is under \$5.

[REDACTED]
Perkins Coie LLP
(b)(6), (7)(C) 1201 Third Avenue
per CRM Suite 4800
Seattle, WA 98101
[REDACTED] (W)
[REDACTED] (M)

From: [REDACTED] (Perkins Coie)
Sent: Friday, December 10, 2010 2:13 PM
(b)(6), (7)(C) To: [REDACTED] (USANJ)
per CRM Cc: Klumb, Eric (CRM); Lynch, John (CRM); [REDACTED] (USANJ); [REDACTED] (Perkins Coie)
Subject: RE: Interview Contact Information

(b)(6), (7)(C) Thanks for the revised letter. You can probably order in sandwiches, but I'll leave that challenge to you
per CRM and [REDACTED] to work through on Tues. Safe travels, if we don't speak before. And remember - will be a bad
idea when you return home to tell your wife how nice The Four Seasons was. ;-)

From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: Friday, December 10, 2010 4:54 PM
(b)(6), (7)(C) To: [REDACTED] (Perkins Coie)
per CRM Cc: Klumb, Eric (CRM); Lynch, John (CRM); [REDACTED] (USANJ); [REDACTED] (Perkins Coie)
Subject: RE: Interview Contact Information

The revised letter is attached.

(b)(6), (7)(C)
per CRM

██████████ since you raised the lunch issue: I'm looking into it, but the latest word I have from our ethics contact person is that coffee and doughnuts are fine, but a free "meal" is not. Therefore, we'll need to either pay fair market value for it or determine another alternative.

DUPLICATIVE



From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: (b)(6), (7)(C)
per CRM Lynch, John
[REDACTED]
Cc:
Bcc:
Subject: FW: Interviews
Date: Thu Dec 16 2010 18:01:30 EST
Attachments:

(b)(6), (7)(C)
per CRM

Perkins Coie LLP

NOTE NEW ADDRESS/TEL AS OF 12/20/2010:

700 13th Street, N.W.
Washington, DC 20005-3960

(b)(6), (7)(C)
per CRM

[REDACTED] tel
[REDACTED] fax
[REDACTED]@perkinscoie.com
www.perkinscoie.com/[REDACTED]

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(b)(6), (7)(C)
per CRM

On 12/16/10 2:27 21PM, [REDACTED] (Perkins Coie)"
[REDACTED]@perkinscoie.com> wrote:

(b)(6), (7)(C)
per CRM

[REDACTED] and Eric, I hope your return trip went smoothly. I just wanted to thank you for the way in which you conducted the interviews this week. All three of the employees left feeling well respected and fairly treated, and with a positive impression of the process (when as we all know, not all of these things go as well). Of course, it helps when they have nothing to hide! But I sincerely mean it - you guys put the government's best foot forward and we appreciate it.

(b)(6), (7)(C)
per CRM

Please pass this on to [REDACTED] and [REDACTED] as well. I liked them both a lot.

We have some followup ahead, so you'll be hearing from us shortly.

(b)(6), (7)(C)
per CRM

[REDACTED]
Perkins Coie LLP

1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(5), (7)(C)
per CRM

[REDACTED] (W)
[REDACTED] (M)

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From: [REDACTED] (Perkins Coie)
To: (b)(6), (7)(C) [REDACTED]@perkinscoie.com>
per CRM Lynch, John
Cc: [REDACTED]
Bcc:
Subject: FW: Unredacted Design Documents
Date: Thu Dec 16 2010 18:01:50 EST
Attachments: Gstumbler design doc.pdf
Gstumbler Lite design doc.pdf

(b)(6), (7)(C)
per CRM

[REDACTED]
Perkins Coie LLP

NOTE NEW ADDRESS/TEL AS OF 12/20/2010:

700 13th Street, N.W.
Washington, DC 20005-3960

(b)(6), (7)(C)
per CRM

[REDACTED] tel
[REDACTED] fax
[REDACTED]@perkinscoie.com
www.perkinscoie.com [REDACTED]

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(b)(6), (7)(C)
per CRM

On 12/16/10 4:30 19PM, "[REDACTED] (Perkins Coie)"
[REDACTED]@perkinscoie.com> wrote:

Gentlemen: Following up on your request this week, attached are the unredacted copies of the design documents. The one redaction that appears at the top of the cover page is a superimposed email header from inhouse counsel to me forwarding each document and that is redacted for privilege/work product reasons. If you have any questions on these documents, please let me know.

(b)(6), (7)(C)
per CRM

[REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C)
per CRM

[REDACTED] (W)
[REDACTED] (M)

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From: [REDACTED] (Perkins Coie)
To: [REDACTED]@perkinscoie.com>
Cc: [REDACTED]
Bcc: [REDACTED]
Subject: Fw: Interviews
Date: Fri Dec 17 2010 10:16:03 EST
Attachments: [REDACTED]

(b)(6), (7)(C)
per CRM

From: [REDACTED] (Perkins Coie)
Sent: Friday, December 17, 2010 09:04 AM
To: [REDACTED] (USANJ) [REDACTED]@usdoj.gov>; Klumb, Eric (CRM) [REDACTED]
Cc: [REDACTED]@usdoj.gov>
Subject: RE: Interviews

(b)(6), (7)(C)
per CRM

[REDACTED] and Eric, [REDACTED] will be back next Wednesday and we'll get [REDACTED] availability for the next few weeks. I'll be talking to [REDACTED] this morning and will convey how our meetings went and again state that Google has no objection whatsoever to [REDACTED] meeting with you. I am doubtful given that we are now disclosing [REDACTED] name to the State AGs, but who knows. If we don't talk before then, have a great holiday.

(b)(6), (7)(C)
per CRM

[REDACTED]

(b)(6), (7)(C)
per CRM

[REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C)
per CRM

[REDACTED] (W)
[REDACTED] (M)

(b)(6), (7)(C)
per CRM

From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: Thursday, December 16, 2010 9:40 PM
To: [REDACTED] (Perkins Coie); Klumb, Eric (CRM)
Cc: [REDACTED] (Perkins Coie)
Subject: RE: Interviews

(b)(6), (7)(C)
per CRM

Thanks [REDACTED] And thanks for setting up the interviews. It was certainly important for us to interview those individuals. I am still interested in interviewing [REDACTED] and [REDACTED] but that can obviously wait until after the holidays, assuming that all other hurdles are cleared.

From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED] (USANJ)
(b)(6), (7)(C) [REDACTED]@usa.doj.gov>; Klumb, Eric (USANJ)
per CRM [REDACTED]@usa.doj.gov>; Lynch, John
Cc: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
Bcc:
Subject: WiFi - Motion to Dismiss
Date: Sat Dec 18 2010 13:09:20 EST
Attachments: WiFi - Motion to Dismiss.pdf

Gentlemen - I had promised you a copy of Google's Motion to Dismiss when it was filed. It is attached. Opposition is due in mid-January, Reply thereafter and hearing scheduled for first week of March 2011. Please let me know if you have any questions.

And, please don't spend your holiday time reading it :) Best regards of the season to each of you.

(b)(6), (7)(C)
per CRM [REDACTED]

(b)(6), (7)(C)
per CRM [REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101
[REDACTED] (W)
[REDACTED] (M)

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1 DAVID H. KRAMER, State Bar No. 168452
2 MICHAEL H. RUBIN, State Bar No. 214636
3 BART E. VOLKMER, State Bar No. 223732
4 CAROLINE E. WILSON, State Bar No. 241031
5 WILSON SONSINI GOODRICH & ROSATI
6 Professional Corporation
7 650 Page Mill Road
8 Palo Alto, CA 94304-1050
9 Telephone: (650) 493-9300
10 Facsimile: (650) 565-5100
11 Email: mrubin@wsgr.com

12 *Attorneys for Defendant Google Inc.*

13 UNITED STATES DISTRICT COURT
14 NORTHERN DISTRICT OF CALIFORNIA
15 SAN JOSE DIVISION

16 IN RE GOOGLE INC. STREET VIEW
17 ELECTRONIC COMMUNICATIONS
18 LITIGATION

CASE NO.: 5:10-md-02184 JW (HRL)

DEFENDANT GOOGLE INC.'S
MOTION TO DISMISS
PLAINTIFFS' CONSOLIDATED
CLASS ACTION COMPLAINT

Hearing Date: March 21, 2011
Time: 9:00 a.m.
Before: Honorable James Ware

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2	<i>McKinney v. Google, Inc.</i> , No. 10-01177 JW, slip op. (N.D. Cal. Nov. 16, 2010).....	12
3	<i>Pub. Util. Dist. No. 1 of Grays Harbor Cnty. Washington v. IDACORP Inc.</i> , 379 F.3d 641 (9th Cir. 2004).....	14
4	<i>Quintero Family Trust v. OneWest Bank, F.S.B.</i> , No. 09-cv-1561, 2010 WL 392312 (S.D. Cal. Jan. 27, 2010).....	16
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9	<i>Ruiz v. Gap, Inc.</i> , 540 F. Supp. 2d 1121 (N.D. Cal. 2008).....	18, 19
10	<i>Sanders v. Apple Inc.</i> , 672 F. Supp. 2d 978 (N.D. Cal. 2009)	18
11	<i>Schmier v. U.S. Court of Appeals</i> , 279 F.3d 817 (9th Cir. 2002).....	5
12	<i>Schulken v. Washington Mut. Bank</i> , No. 09-02708, 2009 WL 4173525 (N.D. Cal. Nov. 19, 2009).....	17
13	<i>Silvas v. E*Trade Mortg. Corp.</i> , 514 F.3d 1001 (9th Cir. 2008)	13, 15, 16
14	<i>Snow v. DirecTV, Inc.</i> , 450 F. 3d 1314 (11th Cir. 2006)	6, 7, 8
15	<i>Spiegler v. Home Depot U.S.A., Inc.</i> , 552 F. Supp. 2d 1036 (C.D. Cal. 2008).....	18
16	<i>Tellabs, Inc. v. Makor Issues & Rights, Ltd.</i> , 551 U.S. 308 (2007)	5
17	<i>United States v. Ahrndt</i> , No. 08-468, 2010 WL 373994 (D. Ore. Jan. 28, 2010)	10
18	<i>United States v. Santos</i> , 553 U.S. 507 (2008)	9
19	<i>Walker v. Geico Gen. Ins. Co.</i> , 558 F.3d 1025 (9th Cir. 2009).....	18
20	STATUTES	
21	18 U.S.C. § 2510, <i>et seq.</i>	<i>passim</i>
22	18 Pa C.S.A. § 5703, <i>et seq.</i>	15
23	Cal. Bus. & Prof. Code § 17200.....	<i>passim</i>
24	Cal. Bus. & Prof. Code § 17204.....	18
25	M.S.A. § 626A.01, <i>et seq.</i>	15
26	MO St. § 542.200, <i>et seq.</i>	15
27	N.R.S. § 200.610, <i>et seq.</i>	15
28	R.C. § 2933.51, <i>et seq.</i>	15

1 SC St. § 17-30-10, *et seq.*..... 15

2 Tex. Civ. Prac. & Rem. § 123.001, *et seq.*..... 15

3 **RULES**

4 47 C.F.R. § 15, *et seq.* 11

5 Fed. R. Civ. P. 12(b)(6) 1, 5, 8

6 **MISCELLANEOUS**

7 Benjamin D. Kern, *Whacking, Joyriding And War-Driving: Roaming Use Of Wi-Fi*

8 *And The Law*, 21 Santa Clara Computer & High Tech L.J. 101, 138 (2004) 9

9 S. Rep. No. 99-541 (1986), *reprinted in* 1986 U.S.C.C.A.N. 3555 7, 9, 12, 15

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1 **NOTICE OF MOTION & MOTION DISMISS**

2 Please take notice that on March 21, 2011, at 9:00 a.m., before the Honorable James
3 Ware, Defendant Google Inc. ("Google") will and hereby does move to dismiss with prejudice
4 plaintiffs' Consolidated Class Action Complaint ("CCAC"). Google's motion is based on this
5 notice, the accompanying memorandum of points and authorities, the declaration of Michael H.
6 Rubin, the pleadings on file in these actions, arguments of counsel and any other matters that the
7 Court deems appropriate.

8 **STATEMENT OF ISSUE TO BE DECIDED**

9 Does the CCAC state a claim for which relief can be granted under Rule 12(b)(6)?

10 **MEMORANDUM OF POINTS & AUTHORITIES**

11 **I. INTRODUCTION**

12 This case concerns Google's acquisition of radio broadcasts sent over open, unencrypted
13 Wi-Fi networks. Google, like many other companies, collects and uses the presence of Wi-Fi
14 networks to offer "location aware" services, like Google Maps. By allowing individuals to
15 pinpoint their location using the identified Wi-Fi networks around them, Google can provide
16 those people with directions and other location-specific information. Prior to mid-May 2010,
17 Google collected the publicly available identifying information that Wi-Fi networks broadcast by
18 using radio antennae mounted to cars that drove down public streets. If, at the instant Google
19 drove by, a user was broadcasting data over an identified network and the network was
20 configured to be open and unencrypted, Google also collected the data (known as "payload
21 data") that was being broadcast.

22 Shortly after Google announced that it had collected this payload data, lawyers from
23 across the country rushed to file more than a dozen putative class-action lawsuits alleging that
24 Google violated the federal Wiretap Act and other laws. These lawsuits are misguided: it is not
25 unlawful under the Wiretap Act to receive information from networks that are configured so that
26 communications sent over them are "readily accessible to the general public." 18 U.S.C.
27 § 2511(2)(g)(i). Because plaintiffs have already represented that their broadcasts took place over
28 open, unencrypted networks, any broadcasts that Google acquired were, by the Wiretap Act's

plain language, “readily accessible to the general public.” For that reason, Google did not violate the Wiretap Act by collecting payload data.¹

Plaintiffs’ parallel state wiretap claims fail for the identical reason, and because the federal Wiretap Act preempts those claims. Plaintiffs’ claim under Section 17200 of the California Business and Professions Code is also preempted, and fails because plaintiffs have not sufficiently alleged the “actual injury” and “loss of money or property” that the statute requires.

In sum, the CCAC does not state a claim upon which relief can be granted and should be dismissed with prejudice.

II. FACTUAL BACKGROUND

A. Wi-Fi Technology.

Wi-Fi is a wireless communications protocol that uses radio waves to broadcast information pursuant to the IEEE 802.11 standard. *See* Rubin Dec., Ex. 4 at ¶ 9²; *see also Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1325 (Fed. Cir. 2010). Wi-Fi is commonly used to connect computers and mobile devices to routers providing Internet access. *See* Rubin Dec., Ex. 3 at 1; *Fujitsu*, 620 F.3d at 1325. Each Wi-Fi-compliant device is assigned by its manufacturer a unique number called a MAC address. *See* Rubin Dec., Exs. 1, 2, 3, 4 at ¶ 8. In addition, wireless access points like routers are assigned alpha-numeric names called service set identifiers (“SSIDs”). *Id.*, Exs. 1, 2, 3, 4 at ¶ 16. Most mobile phones and computers can detect a router’s MAC Address and SSID. *Id.*

B. Google’s Geo-Location Services.

Google has long used vehicles to drive down public streets in order to take photographs of their surroundings for use in its Street View service. For a time, those vehicles also collected

¹ As it has stated repeatedly, Google does not want the payload data it collected, did not and will not use the payload data in any product or service, and has taken steps to ensure that payload data is not collected again. But Google’s acknowledgement that the collection was an error does not render Google’s conduct unlawful, nor excuse plaintiffs from the pleading requirements mandated by the unambiguous language of the Wiretap Act.

² Rubin Declaration Exhibits 1, 2, 3, and 4 are all incorporated by reference into the CCAC. *See, e.g.*, CCAC ¶¶ 66, 69-72, 80. Accordingly, this Court may consider them. *See Knievel v. ESPN*, 393 F.3d 1068, 1076 (9th Cir. 2005).

1 identifying information regarding available Wi-Fi networks. CCAC ¶¶ 2, 4. To accomplish this,
2 the vehicles were outfitted with readily available open source software and radio antennae.
3 Rubin Dec., Ex. 4 at ¶¶ 23-28. The process by which Google identified available networks is
4 similar to what happens when a person turns on his laptop or mobile phone to find Wi-Fi
5 networks at a hotel, a coffee shop, or anywhere else. Because the presence of any Wi-Fi network
6 acts as a unique landmark, knowing which combination of networks is nearby at a given time
7 allows Google to help people determine their approximate locations based on which networks
8 they can detect. The collection of publicly broadcast Wi-Fi network identification information is
9 a common practice, and plaintiffs take no issue with it.

10 **C. Google's Payload Collection.**

11 On April 27, 2010, Google published a blog post stating that its Street View cars had
12 been collecting SSID and MAC address information about Wi-Fi networks, but not payload data.
13 CCAC ¶ 69; Rubin Dec., Ex. 1. Shortly thereafter, Google determined that its Street View
14 vehicles were also collecting payload data that was publicly broadcast over open, unencrypted
15 networks at the moment Google's vehicles drove by. CCAC ¶ 71; Rubin Dec., Ex. 2. Google
16 quickly corrected its prior post and described the scope of the payload collection. CCAC ¶ 71;
17 Rubin Dec., Ex. 2.

18 On June 9, 2010, Google released a report from an independent security firm that had
19 analyzed, among other things, how Google collected public Wi-Fi radio broadcasts. Rubin Dec.,
20 Exs. 2, 4. The report describes how Google used freely available open-source software to
21 passively collect radio broadcasts from Wi-Fi networks as its cars traveled down the road. By
22 cycling through Wi-Fi channels five times per second, the software limited any single data-
23 acquisition to two-tenths of one second. *Id.*, Ex. 4 at ¶ 28. The report confirmed that only
24 payload data that was broadcast over open, unencrypted networks was collected. *Id.*, Ex. 4 at ¶
25 20.

26 **D. The Putative Class Action Lawsuits.**

27 Since mid-May 2010, 19 putative class-action lawsuits have been filed across the country
28 concerning Google's acquisition of payload data. The complaints collectively included the

1 following claims for relief: (1) the federal Wiretap Act; (2) the federal Computer Fraud and
 2 Abuse Act; (3) the federal Stored Communications Act; (4) Section 705 of the federal
 3 Communications Act; (5) state wiretap statutes; (6) common law privacy torts; (7) state data
 4 protection statutes; (8) conversion; (9) unjust enrichment; (10) trespass; (11) unfair competition;
 5 (12) accounting; and (13) California Penal Code Section 502. Most of plaintiffs' original
 6 complaints premised liability on Google's alleged acquisition of payload data broadcast over
 7 "open" or "open [and] unencrypted" networks. None of the plaintiffs named in the CCAC have
 8 alleged that they configured their Wi-Fi network to be closed or encrypted.³ See Appendix A
 9 (chart detailing plaintiffs' prior statements that their networks were open and unencrypted,
 10 including (i) plaintiffs' core allegations in their original complaints, and (ii) the first joint case
 11 management statement in this action).

12 The parties filed motions with the Judicial Panel on Multidistrict Litigation ("MDL
 13 Panel") to have the extant cases transferred to a single court for pre-trial activities. On August
 14 17, 2010, the MDL panel concluded that transfer was appropriate because the cases were
 15 predicated on the shared factual allegation that Google had acquired information from "class
 16 members' *open, non-secured wireless networks*." See MDL August 17, 2010 Transfer Order at 1
 17 (emphasis added), Docket No. 1. Eight other cases were transferred by related case orders issued
 18 by this Court. Docket Nos. 17, 31, 48; Rubin Dec., Ex. 5. Two other cases were conditionally
 19 transferred by the MDL Panel. Docket Nos. 32, 59. All of these actions are consolidated for
 20 pre-trial purposes before this Court. See Docket No. 53.

21 On November 8, 2010, plaintiffs filed a consolidated complaint. The CCAC contains
 22 only three claims for relief: (1) the federal Wiretap Act; (2) state law wiretap statutes; and
 23 (3) California's Business and Professions Code Section 17200. Plaintiffs allege that Google's
 24 Street View vehicles used "packet sniffers" to collect "all types of data sent and received over

25 ³ Notably, the group of plaintiffs in the *Berlage* case had amended their complaint to add a
 26 new plaintiff, Denise Bergin, who alleged that she used a "closed or encrypted wireless network
 27 and internet connection." Rubin Dec., Ex. 11 (*Berlage* First Am. Compl. at ¶¶ 8, 15). Of the
 28 *Berlage* plaintiffs, Ms. Bergin alone was chosen to be excluded from the case upon filing of the
 CCAC.

the Wi-Fi connections.” CCAC ¶ 4. Plaintiffs do not allege that Google used Wi-Fi payload data in any product or service. Instead, they plead that Google merely “stored the data on its servers.” *Id.* at ¶ 6.

III. ARGUMENT

Under Rule 12(b)(6), a complaint should be dismissed when it “fail[s] to state a claim upon which relief can be granted.” Fed. R. Civ. P. 12(b)(6). “[O]nly a complaint that states a plausible claim for relief survives a motion to dismiss.” *Ashcroft v. Iqbal*, 129 S. Ct. 1937, 1950 (2009). While the Court accepts as true all material allegations in the complaint, it need not accept the truth of conclusory allegations or unwarranted inferences, nor should it accept legal conclusions as true merely because they are cast in the form of factual allegations. *Id.* at 1949. (“Threadbare recitals of the elements of a cause of action, supported by mere conclusory statements, do not suffice.”); *Schmier v. U.S. Court of Appeals*, 279 F.3d 817, 820 (9th Cir. 2002). On a motion to dismiss, the Court may consider “documents incorporated into the complaint by reference, and matters of which a court may take judicial notice.” *Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, 551 U.S. 308, 322 (2007).

Here, the CCAC fails to state a claim upon which relief can be granted. Because plaintiffs cannot cure the CCAC’s pleading deficiencies through amendment, the CCAC should be dismissed with prejudice.

A. Plaintiffs Have Failed To State A Federal Wiretap Act Claim.

The federal Wiretap Act, 18 U.S.C. § 2510, *et seq.*, prohibits the intentional interception of wire, oral, or electronic communications. 18 U.S.C. § 2511(1)(a). Plaintiffs’ Wiretap Act claim here is based on the allegation that Google acquired “electronic communications” sent over “Wi-Fi networks.” CCAC ¶¶ 1, 18-38, 129. The radio waves broadcast by those Wi-Fi networks (“Wi-Fi Radio Broadcasts”) are the “electronic communications” at issue in this case. *See* 18 U.S.C. § 2510(10) (defining “electronic communication” to include those that occur “in whole or in part” by radio). But, as noted, plaintiffs have admitted that their Wi-Fi networks were configured to be “open,” or “open [and] unencrypted.” *See* Appendix A. That is fatal to their wiretapping allegations. It is not unlawful under the Wiretap Act to acquire information

1 from networks configured in a way that makes communications sent over them “readily
 2 accessible to the general public.” 18 U.S.C. § 2511(2)(g)(i); *Snow v. DirecTV, Inc.*, 450 F.3d
 3 1314, 1320-21 (11th Cir. 2006) (“Congress did not intend to criminalize or create civil liability
 4 for acts of individuals who ‘intercept’ or ‘access’ communications that are otherwise readily
 5 accessible by the general public.”). Plaintiffs’ Wi-Fi Radio Broadcasts were “readily accessible
 6 to the general public” under the Wiretap Act. That is confirmed by the plain text of the statute,
 7 its structure, and the case law.

8 **1. Plaintiffs Have Failed To Plead Facts Showing That Their Wi-Fi**
 9 **Radio Broadcasts Were Not “Readily Accessible To The General**
 10 **Public.”**

11 To state a claim under the Wiretap Act, a plaintiff must plead facts showing that their
 12 communications were not “readily accessible to the general public.” 18 U.S.C. § 2511(2)(g)(i)
 13 (“It shall not be unlawful ... to intercept or access an electronic communication made through an
 14 electronic communication system that is configured so that such electronic communication is
 15 readily accessible to the general public”); *see Snow*, 450 F.3d at 1321 (describing pleading
 16 requirements and stating: “the requirement that the electronic communication not be readily
 17 accessible by the general public is material and essential to recovery”).

18 All radio broadcasts, including plaintiffs’ Wi-Fi Radio Broadcasts, are by statutory
 19 definition “readily accessible to the general public” unless they are:

- 20 (A) scrambled or encrypted;
- 21 (B) transmitted using modulation techniques whose essential
 22 parameters have been withheld from the public with the intention
 23 of preserving the privacy of such communication;
- 24 (C) carried on a subcarrier or other signal subsidiary to a radio
 25 transmission;
- 26 (D) transmitted over a communication system provided by a common
 27 carrier, unless the communication is a tone only paging system
 28 communication; or
- (E) transmitted on frequencies allocated under part 25, subpart D, E, or
 F of part 74, or part 94 of the Rules of the Federal
 Communications Commission, unless, in the case of a
 communication transmitted on a frequency allocated under part 74

that is not exclusively allocated to broadcast auxiliary services, the communication is a two-way voice communication by radio.

18 U.S.C. § 2510(16)(A)-(E) (defining what “readily accessible to the general public” means with respect to radio communications). Thus, a radio broadcast is “readily accessible to the general public” unless the plaintiff has pled facts to support one of the five exceptions set forth above.

A clear policy animates the statute: anyone may freely receive radio broadcasts as a matter of course unless the broadcast is scrambled or encrypted, uses particular modulation techniques, or is transmitted using specified non-public systems or frequencies. S. Rep. No. 99-541, at 14 (1986), *reprinted in* 1986 U.S.C.C.A.N. 3555 (“Radio communications are considered readily accessible to the general public unless they fit into one of five specified categories.”). These are objective technical standards; the subjective beliefs or expectations of the broadcaster concerning public accessibility are irrelevant. S. Rep. No. 99-541, at 18 (Section 2511(2)(g)(i) creates “an objective standard of design configuration for determining whether a system receives privacy protection”).

Plaintiffs do not even attempt to plead facts showing that their Wi-Fi Radio Broadcasts fall within one of the five narrow exceptions to the “readily accessible” presumption for radio broadcasts. Without a single supporting fact, plaintiffs merely recite the bare legal conclusion that their Wi-Fi Radio Broadcasts were “not readily accessible to the general public.” CCAC ¶¶ 18-38, 130, 142. That is insufficient. *See Ashcroft*, 129 S. Ct. at 1949 (“A pleading that offers ‘labels and conclusions’ or ‘a formulaic recitation of the elements of a cause of action will not do.’”) (citations omitted); *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544 (2007); *Snow*, 450 F.3d at 1321 (conclusory allegation that website was not readily accessible insufficient); *Birdsong v. Apple, Inc.*, No. 06-2280, 2008 WL 7359917, at *3 (N.D. Cal. June 13, 2008) (“Plaintiffs’ legal conclusion . . . is insufficient. Rather, a plausible set of facts must either be alleged or be apparent to the Court upon which Plaintiffs could prevail.”). These plaintiffs must plead *facts*, which, if taken as true, would bring their broadcasts within Section 2510(16). *Snow*, 450 F.3d at 1321 (“To survive a motion to dismiss, [plaintiff] must have alleged, at a minimum, facts from

1 which we could infer that his electronic bulletin board was not readily accessible to the general
 2 public.”). They have not done so and their Wiretap Act claim should be dismissed. *See, e.g.,*
 3 *Freeman v. DirecTV, Inc.*, 457 F.3d 1001, 1009 (9th Cir. 2006) (affirming dismissal of ECPA
 4 case under Rule 12(b)(6) based on the plain language of the statute); *Crowley v. CyberSource*
 5 *Corp.*, 166 F. Supp. 2d 1263, 1265-72 (N.D. Cal. 2001) (dismissing under Rule 12(b)(6) a
 6 putative class action brought under the Wiretap Act and ECPA).

7 **2. Plaintiffs Cannot Plead Facts Supporting A Claim That Their Wi-Fi**
 8 **Radio Broadcasts Were Not “Readily Accessible To The General**
 9 **Public.”**

10 Plaintiffs would not be able to cure the pleading defects in the CCAC by amendment
 11 because the exceptions to the “readily accessible” presumption are at odds with the facts
 12 plaintiffs have pled and the central premise of their case. Accordingly, no leave to amend should
 13 be granted. *See, e.g., Leadsinger, Inc. v. BMG Music Publ’g*, 512 F.3d 522, 532 (9th Cir. 2008)
 14 (leave to amend should not be granted when doing so would be futile).

15 **a. Plaintiffs Cannot Plead Facts Alleging That Their Wi-Fi Radio**
 16 **Broadcasts Were “Scrambled Or Encrypted.”**

17 Plaintiffs have not alleged in the CCAC that they configured their Wi-Fi networks to be
 18 “scrambled or encrypted.” 18 U.S.C. § 2510(16)(A). Nor could they given their repeated
 19 admissions that they broadcast using *open, unencrypted* wireless networks:

- 20 • Each plaintiff “used and maintained at all times relevant and
 21 material hereto an unencrypted wireless internet connection at his
 22 home.” Berlage First Am. Compl. ¶¶ 5-7 (Rubin Dec., Ex. 10).
- 23 • “During all relevant times [plaintiffs] used an open Wi-Fi network
 24 at their residence.” Carter Compl. ¶ 6 (Rubin Dec., Ex. 9).
- 25 • “During all times relevant herein, [plaintiff] used and maintained
 26 an open wireless internet connection at his home which he shares
 27 with his wife and family.” Colman Compl. ¶ 5 (Rubin Dec., Ex.
 28 7).
- Plaintiffs “maintained and used an open wireless internet
 connection.” Van Valin Compl. ¶¶ 4-5 (Rubin Dec., Ex. 6).

See also Appendix A.

1 Instead of asserting that they scrambled or encrypted their networks, plaintiffs allege that
 2 it takes sophisticated technology to acquire their publicly available Wi-Fi Radio Broadcasts.
 3 *See, e.g.,* CCAC ¶ 55. Regardless of whether that allegation is true, it is entirely beside the point.
 4 The Wiretap Act is clear that all radio broadcasts are open to the public unless the system over
 5 which they are sent scrambles or encrypts them. *See* 18 U.S.C. § 2511(2)(g)(i); 18 U.S.C.
 6 § 2510(16)(A). The legislative history confirms this plain meaning and instructs that anyone
 7 wishing to invoke the “scrambled or encrypted” exception for radio networks must configure
 8 their networks to convert their “signal[s] into unintelligible form.” S. Rep. No. 99-541, at 15.
 9 The encryption inquiry does not turn on the sophistication of radio receivers, but on the technical
 10 network configuration steps that one must take to render a radio broadcast unintelligible to the
 11 public. *Id.*⁴ Plaintiffs here have not alleged that they configured their networks to encrypt or
 12 scramble their Wi-Fi Radio Broadcasts. They have alleged the opposite – that their networks
 13 were open and unencrypted – and that permanently dooms their wiretap claim. *See* Benjamin D.
 14 Kern, *Whacking, Joyriding And War-Driving: Roaming Use Of Wi-Fi And The Law*, 21 Santa
 15 Clara Computer & High Tech L.J. 101, 138 (2004) (the definition of “readily accessible” with
 16 respect to radio broadcasts “removes all Wi-Fi networks that do not use encryption from the
 17 ECPA’s protection.”)⁵

18 ⁴ The Senate Report leaves no room for debate about what constitutes scrambling or
 19 encryption: “These terms are used in their technical sense. To ‘encrypt’ or to ‘scramble’ means
 20 to convert the *signal* into unintelligible form by means intended to protect the contents of a
 21 communication from unintended recipients. Methods which merely change the form of a
 22 plaintext message, e.g., a device which converts an analog signal to a digital stream, does not
 23 provide ‘encryption’ within the meaning of this bill.” S. Rep. No. 99-541 at 15 (emphasis
 24 added).

25 ⁵ Plaintiffs include a smattering of allegations in the CACC about the alleged scarcity of
 26 devices that could acquire their Wi-Fi Radio Broadcasts. Such incorporeal allegations offer no
 27 future salvation. The notion that alleged scarcity of receiving devices is relevant to the encryption
 28 or scrambling analysis is foreclosed not only by the statute itself, but also by the rule of lenity.
 That canon of statutory interpretation “requires ambiguous criminal laws to be interpreted in favor
 of the defendants subjected to them.” *United States v. Santos*, 553 U.S. 507, 514, 523 (2008) (rule
 applies to statutes like the Wiretap Act that have both civil and criminal applications). And the
 rule would be violated by an interpretation of “scrambled or encrypted” that allowed liability to be
 found one day based on a supposed scarcity of receiving devices, but not the next when such
 devices passed some undefined threshold of prevalence. *See id.* at 514 (the rule of lenity ensures
 that “no citizen should be held accountable for a violation of a statute whose commands are

(continued...)

1 Given that plaintiffs did not scramble or encrypt their Wi-Fi Radio Broadcasts, there is no
 2 doubt that those broadcasts were “readily accessible to the general public” under §2510(16)(A) of
 3 the Wiretap Act. Indeed, in a similar case, the district court in Oregon recently held just that. *See*
 4 *United States v. Ahrndt*, No. 08-468, 2010 WL 373994 (D. Or. Jan. 28, 2010). In *Ahrndt*, a woman
 5 logged on to her neighbor’s open Wi-Fi network and accessed an iTunes folder on his personal
 6 computer that appeared to contain child pornography. *Id.* at *1. She alerted the police, and an
 7 officer came to her house and duplicated her steps. *Id.* That led to search warrants and the
 8 defendant’s arrest. *Id.* at *1-*2. The defendant moved to suppress on the ground, *inter alia*, that
 9 the officer violated the Wiretap Act by using the defendant’s open Wi-Fi network to access the
 10 computer files at issue. The Court rejected that position because “defendant’s wireless network
 11 system was configured so that any electronic communications emanating from his computer via his
 12 iTunes program were readily accessible to any member of the general public with a Wi-Fi enabled
 13 laptop.” *Id.* at *8.

14 The logic of *Ahrndt*—that files accessed directly *on* the defendant’s home computer were
 15 “readily accessible to any member of the general public” because his Wi-Fi network was
 16 configured to be open and unsecured—compels the conclusion that the Wi-Fi Radio Broadcasts in
 17 this case are likewise “readily accessible to the general public” under the statute. *See id.* at *1,
 18 *8. Indeed, the defendant’s files in *Ahrndt* were far *less* accessible to the general public than
 19 plaintiffs’ Wi-Fi Radio Broadcasts were here. The materials in that case resided on the
 20 defendant’s personal computer in his home and were not broadcast onto the street over radio
 21 waves. To access the materials at issue in *Ahrndt*, the police needed to take a number of
 22 volitional steps: (1) logging on to the defendant’s network; (2) accessing his iTunes library;
 23 (3) viewing the folder structure; (4) opening a folder; and (5) opening a file. In sharp contrast,
 24 plaintiffs base their Wiretap claim on Google’s passive, non-targeted collection of Wi-Fi Radio

25

 (...continued from previous page)
 26 uncertain, or subjected to punishment that is not clearly prescribed.”); *Facebook, Inc. v. Power*
 27 *Ventures, Inc.*, No. C 08-05780, 2010 WL 3291750, at *11 (N.D. Cal. July 20, 2010) (rejecting
 28 statutory interpretation under rule of lenity that would allow liability to be predicated on web sites’
 malleable user agreement as that “would create a constitutionally untenable situation in which
 criminal penalties could be meted out on the basis of violating vague or ambiguous terms of use”).

1 Broadcasts transmitted publicly over open, unencrypted networks as Google Street View vehicles
2 passed by.

3 * * *

4 Given plaintiffs' prior admissions about their use of open, unencrypted Wi-Fi networks, it
5 would be futile to provide them an opportunity to try to plead that the Wi-Fi Radio Broadcasts
6 were not "readily accessible to the general public" because they were "scrambled or encrypted."
7 18 U.S.C. § 2510(16)(A).

8 **b. Plaintiffs Cannot Plead Facts Alleging That Their Wi-Fi Radio**
9 **Broadcasts Meet Any Other Exception To The "Readily**
Accessible" Presumption.

10 It would be equally futile to allow plaintiffs to try to plead that their Wi-Fi Radio
11 Broadcasts were not readily accessible based on one of the other provisions of 18 U.S.C. §
12 2510(16)(B-E).

13 **First**, plaintiffs cannot plead that their Wi-Fi Radio Broadcasts were "transmitted using
14 modulation techniques whose essential parameters have been withheld from the public with the
15 intention of preserving the privacy of such communication." 18 U.S.C. § 2510(16)(B).
16 Unencrypted Wi-Fi communications are transmitted pursuant to detailed parameters set forth in
17 federal regulations and using a standard—802.11—that has been publicized widely and discussed
18 in patents, industry groups, business literature, and the press. *See* 47 C.F.R. § 15 *et seq.*; *Fujitsu*,
19 620 F.3d at 1325. The point of having a standard govern Wi-Fi broadcasts is so that businesses
20 and individuals may know precisely how the protocol works to enable them to build and use
21 interoperable devices and systems. *See, e.g., Fujitsu*, 620 F.3d at 1325 ("Products in this industry
22 adhere to standards to ensure interoperability."). Because the standard is by design open to the
23 public, plaintiffs cannot meet this exception.

24 **Second**, plaintiffs cannot allege that their Wi-Fi Radio Broadcasts were "carried on a
25 subcarrier or other signal subsidiary to a radio transmission." 18 U.S.C. § 2510(16)(C).
26 Subcarrier and subsidiary radio transmissions relate to collateral information that accompanies
27 commercial radio and television broadcasts; they have nothing to do with Wi-Fi. *See* S. Rep. No.
28 99-541, at 15 ("this category includes, for example, data and background music services carried

1 on FM subcarriers. It also includes data carried on the Vertical Blanking Interval (VBI) of a
2 television signal.”).

3 **Third**, plaintiffs cannot allege that their Wi-Fi Radio Broadcasts were “transmitted over
4 a communication system provided by a common carrier.” 18 U.S.C. § 2510(16)(D). Plaintiffs
5 are natural persons who plainly do not qualify for common-carrier status. Nor would some new
6 allegation that their Wi-Fi networks were “provided by” an Internet Service Provider (“ISP”)
7 change the result. ISPs that offer enhanced services like Internet access are not regulated as
8 common carriers. *See Howard v. America Online, Inc.*, 208 F.3d 741, 752 (9th Cir. 2000);
9 *McKinney v. Google, Inc.*, No. 10-01177 JW, slip op. at 13-14 (N.D. Cal. Nov. 16, 2010)
10 (“Internet Service Providers are generally not common carriers.”).

11 **Fourth**, plaintiffs could not claim that their Wi-Fi Radio Broadcasts were sent over the
12 specific non public radio frequencies referenced in 18 U.S.C. § 2510(16)(E). Wi-Fi
13 transmissions do not use those frequencies. And this subsection of the Wiretap Act shows that
14 Congress knows how to place entire radio frequencies off-limits from consumption by the
15 general public. If Congress had wanted to create a blanket prohibition on the acquisition of Wi-
16 Fi transmissions, it had an easy and ready mechanism to do so. But it did not. Hence,
17 unencrypted Wi-Fi radio broadcasts are readily accessible to the general public.

18 * * *

19 The plain text and structure of the Wiretap Act make clear that the radio broadcasts at
20 issue in this case were “readily accessible to the general public.” Under Section 2511(2)(g)(i),
21 there can be no Wiretap Act liability.

22 **B. Plaintiffs’ State Law Wiretap Claims Fail.**

23 In addition to the federal Wiretap Act, plaintiffs have asserted claims under the wiretap
24 laws of Arizona, Hawaii, Minnesota, Nebraska, Ohio, South Carolina, Utah, Tennessee, Missouri,
25 Washington, Pennsylvania, Nevada and Texas. CCAC ¶ 141. Plaintiffs allege that these statutes
26 are “substantially similar to 18 U.S.C. § 2511.” *Id.* These claims must be dismissed for the same
27 reason that plaintiffs’ federal Wiretap Act claim fails: plaintiffs’ Wi-Fi Radio Broadcasts were
28

1 “readily accessible to the general public.” Regardless, the state wiretap claims should be
2 dismissed based on federal preemption.

3 Federal law may preempt state law in three ways: (1) expressly; (2) by pervasive
4 regulation demonstrating implicit intent to displace state law in a particular field; or (3) where
5 there is a conflict between state law and federal law and enforcement of the state law “stands as
6 an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.”
7 *Silvas v. E*Trade Mortg. Corp.*, 514 F.3d 1001, 1004 (9th Cir. 2008) (quoting *Bank of Am. v.*
8 *City & Cnty. of S.F.*, 309 F.3d 551, 558 (9th Cir. 2002)). All three doctrines of preemption bar
9 plaintiffs’ state wiretap claims here.

10 **1. Plaintiffs’ State Wiretap Claims Are Expressly Preempted.**

11 The Wiretap Act contains an express preemption clause: “[t]he remedies and sanctions
12 described in this chapter with respect to the interception of electronic communications are the
13 *only* judicial remedies and sanctions for nonconstitutional violations of this chapter involving
14 such communications.” 18 U.S.C. § 2518(10)(c) (emphasis added). Yet plaintiffs assert state
15 wiretap law claims because they allegedly “provide a remedy *in addition* to the Federal Wiretap
16 Statute.” CCAC ¶ 144 (emphasis added). The federal statute is unambiguous, and any
17 “additional remedies” that plaintiffs seek from state laws are preempted. *See Connecticut Nat.*
18 *Bank v. Germain*, 503 U.S. 249, 253-54 (1992) (“We have stated time and again that courts must
19 presume that a legislature says in a statute what it means and means in a statute what it says
20 there.”); *Bunnell v. MPAA*, 567 F. Supp. 2d 1148, 1154 (C.D. Cal. 2007) (holding federal Wiretap
21 Act expressly preempts parallel state law claims); *Quon v. Arch Wireless*, 445 F. Supp. 2d 1116,
22 1138 (C.D. Cal. 2006) (“Only those remedies outlined in the [statute] are the ones, save for
23 constitutional violations, that a party may seek for conduct prohibited by the [statute].”), *rev’d on*
24 *other grounds*, 529 F.3d 892 (9th Cir. 2008).⁶

25
26 ⁶ Some courts have ruled that the Wiretap Act’s preemption clause operates only to prevent
27 the exclusion of evidence in a criminal proceeding. *See, e.g., In re Nat’l Sec. Agency*
28 *Telecomms. Records Litig.*, 483 F. Supp. 2d 934, 938-39 (N.D. Cal. 2007); *Bansal v. Russ*, 513
F. Supp. 2d 264, 282-83 (E.D. Pa. 2007). Those constructions should be rejected because they
conflict with the plain language of the Wiretap Act, which precludes all other remedies. *See* 18
U.S.C. § 2518(10)(c).

2. Plaintiffs' State Wiretap Claims Are Barred Based On Field Preemption.

In addition to being expressly preempted, plaintiffs' state wiretap claims also fail based on field preemption. That doctrine applies where federal law "is sufficiently comprehensive to infer that Congress left no room for supplementary regulation by the states. When the federal government completely occupies a given field or an identifiable portion of it . . . the test of preemption is whether the matter on which the state asserts the right to act is in any way regulated by the federal government." *Pub. Util. Dist. No. 1 of Grays Harbor Cnty. Washington v. IDACORP Inc.*, 379 F.3d 641, 647 (9th Cir. 2004) (internal quotation marks and citations omitted). This is the case here.

The federal Wiretap Act, as amended by ECPA in 1986, comprehensively regulates privacy claims concerning electronic communications. *See* 18 U.S.C. §§ 2510-22.⁷ As a matter of law, this detailed regulatory scheme setting forth privacy standards for electronic communications leaves no room for supplementary state regulation. *See Bunnell*, 567 F. Supp. 2d at 1154-55 (dismissing plaintiff's state wiretap act claims because "[t]he scheme of the ECPA is very comprehensive: it regulates private parties' conduct, law enforcement conduct, outlines a scheme covering both types of conduct and also includes a private right of action for violation of the statute. As such, it is apparent to this Court that Congress left no room for supplementary state regulation.") (internal quotation marks and citations omitted); *cf. Quon*, 445 F. Supp. 2d at 1138 (holding that ECPA preempts state law invasion of privacy and constitutional law claims because "[t]he intricacies of the regulatory scheme crafted by the ECPA (and the SCA) are fairly

⁷ Section 2511 proscribes the circumstances in which private parties and government officials may intercept, disclose or use electronic communications. 18 U.S.C. § 2511(1). The Act also sets forth in detail numerous instances where interception is lawful, notwithstanding the prohibitions contained in Section 2511(1). 18 U.S.C. § 2511(2). Violators of Section 2511 face criminal penalties, *see* 18 U.S.C. § 2511(4), and suit by the federal government for the interception of certain satellite and radio communications, *see* 18 U.S.C. § 2511(5). Sections 2512 and 2513 regulate the manufacture and possession of interception devices. *See* 18 U.S.C. §§ 2512-13. Sections 2515 through 2519 describe the manner in which electronic communications may be lawfully intercepted and used by government officials. *See* 18 U.S.C. §§ 2515-19. And Section 2520 provides a private right of action for any person whose electronic communication has been unlawfully intercepted. *See* 18 U.S.C. § 2520.

comprehensive: Regulating private parties' conduct, law enforcement efforts to uncover stored electronic communications, and devising a fairly complicated scheme to accomplish both, including a private right of action for violations of the statute's provisions.").

The original Wiretap Act was Congress's response, "in a comprehensive fashion," to an evolving need to provide for the security of communications while also authorizing certain interceptions. S. Rep. No. 99-541, at 2. When it enacted ECPA in 1986, Congress extended the Wiretap Act to include a pervasive legal regime governing electronic communications, including radio communications. *See Bartnicki v. Vopper*, 532 U.S. 514, 524 (2001). Congress could not have intended to allow the states to disrupt that effort by enforcing their own disparate—and conflicting—set of laws and remedies regarding electronic-communications privacy.⁸ And because the patchwork of state laws plaintiffs assert here do just that, the claims based on those laws should be dismissed with prejudice under the doctrine of field preemption.

3. Plaintiffs' State Wiretap Claims Are Barred Based On Conflict Preemption.

Plaintiffs' state wiretap claims are also barred based on conflict preemption. The federal government authorized the unlicensed radio spectrum for public use to encourage innovation in wireless communications technology without governmental interference. Plaintiffs' state wiretap claims would erect an "obstacle to the accomplishment and execution of the full purposes and objectives" of that policy. *Silvas*, 514 F.3d at 1004 (citation omitted). For many years, the FCC prohibited public use of unlicensed radio frequencies altogether. Rubin Dec., Ex. 16 (FCC Docket No. 81-413 at 1). But in 1985, the FCC opened up three bands of the spectrum for unlicensed use, including the 2.4 GHz band over which Wi-Fi network routers broadcast. *Id.* at 9. The Commission did so to encourage "rapid development" of civilian wireless technologies with minimal governmental interference. *Id.* at 11. The following year, Congress decided that all

⁸ Some of the state laws vary the available civil remedies. *See* M.S.A. § 626A.01, *et seq.*; Ohio R.C. § 2933.51, *et seq.*; SC St. § 17-30-10, *et seq.*; 18 Pa C.S.A. § 5703, *et seq.* And still others are antiquated and mirror the pre-ECPA federal Wiretap Act. *See* MO St. § 542.200, *et seq.*; N.R.S. § 200.610, *et seq.*; Tex. Civ. Prac. & Rem. § 123.001, *et seq.*

radio transmissions, including those sent over unlicensed bands should be considered “readily accessible to the general public” unless one of five specific exceptions applied. 18 U.S.C. § 2511(2)(g)(i); 18 U.S.C. § 2510(16)(A)-(E). Congress easily could have prohibited the acquisition of radio broadcasts sent over unlicensed radio bands, but elected not to.

Given this framework, a state may not make unlawful the acquisition of unencrypted broadcasts sent over the unlicensed spectrum. To do so would thwart the federal policy of encouraging open communications on that spectrum, without technology-stifling government intrusion. Indeed, Congress understood that a balance needed to be struck between open, free radio networks and communication privacy. To resolve those competing interests, Congress made clear that users of the public spectrum who desired privacy needed to configure their systems in a manner to make their broadcasts “not readily accessible” by using encryption, scrambling, or non-public modulation techniques. That careful balance would be undone by state laws that make unlawful the very acts that Congress has approved. *See Buckman Co. v. Plaintiffs’ Legal Comm.*, 531 U.S. 341, 353 (2001) (state laws preempted because they “would exert an extraneous pull on the scheme established by Congress”); *Quon*, 445 F. Supp. 2d at 1137 (finding “great appeal” in argument that a defendant “cannot be held liable for something . . . that is specifically condoned” by ECPA).

Plaintiffs’ state wiretap claims fail based on express, field, and conflict preemption. They should be dismissed with prejudice.

C. Plaintiffs’ Section 17200 Claim Should Be Dismissed.

Section 17200 prohibits unlawful, unfair, or fraudulent business practices. “A plaintiff alleging unfair business practices under Section 17200 must state with reasonable particularity the facts supporting the statutory elements of the violation.” *Quintero Family Trust v. OneWest Bank, F.S.B.*, No. 09-cv-1561, 2010 WL 392312, at *12 (S.D. Cal. Jan. 27, 2010) (internal citations and quotation marks omitted). Plaintiffs’ Section 17200 claim should be dismissed for three independent reasons: (1) federal law preempts plaintiffs’ state law claims; (2) plaintiffs

1 have failed to plead facts stating a substantive Section 17200 violation; and (3) plaintiffs have not
2 alleged adequately the loss of “money or property” to demonstrate Proposition 64 standing.

3 **1. Plaintiffs’ Section 17200 Claim Is Preempted.**

4 Just like the state wiretap claims, plaintiffs’ Section 17200 claim is preempted by federal
5 law because it concerns the alleged interception of radio communications. Federal law provides
6 the exclusive avenue for such claims. *See, supra*, Section III.B.

7 **2. Plaintiffs Have Not Stated A Section 17200 Claim.**

8 In any event, plaintiffs have failed to plead facts to support a Section 17200 claim.
9 Plaintiffs assert claims under the “unlawful” and “unfair” prongs of California’s unfair
10 competition law (“UCL”). CCAC ¶¶ 136-37. The “unlawful” prong necessarily fails because, for
11 the reasons stated above, Google’s collection of Wi-Fi Radio Broadcasts from open, unencrypted
12 Wi-Fi networks was not unlawful. *See Kariguddaiah v. Wells Fargo Bank, N.A.*, No. C 09-5716,
13 2010 WL 2650492, at *7 (N.D. Cal. July 1, 2010) (dismissing § 17200 claim due to plaintiff’s
14 failure to state a claim for either breach of contract or wrongful foreclosure upon which the §
15 17200 claim was based); *Berryman v. Merit Property Mgmt. Inc.*, 152 Cal. App. 4th 1544, 1554
16 (2007) (“Thus, a violation of another law is a predicate for stating a cause of action under” the
17 “unlawful” prong).

18 The basis for plaintiffs’ invocation of the “unfair” prong is difficult to discern, and that is
19 reason enough to dismiss their UCL claim. *See Schulken v. Washington Mut. Bank*, No. 09-
20 02708, 2009 WL 4173525, at *8 (N.D. Cal. Nov. 19, 2009) (“the Court finds that Plaintiffs’ UCL
21 claim fails because Plaintiffs have not alleged sufficient facts to give Defendants notice of what
22 fraudulent or unfair conduct is being asserted against them”). Regardless, the CCAC does not
23 remotely plead facts that would support a UCL claim under that theory.

24 The law is unsettled regarding how to evaluate the “unfair” prong. Some courts have held
25 that a plaintiff must plead facts showing a violation of a public policy that is “tethered to specific
26 constitutional, statutory, or regulatory provisions.” *Bardin v. Daimlerchrysler Corp.*, 136 Cal.
27 App. 4th 1255, 1260-61 (2006). Other courts have articulated a more amorphous test under
28 which conduct that is “immoral, unethical, oppressive, unscrupulous or substantially injurious to

consumers” may support liability. *Id.* at 1260. It does not matter which test the court employs here because plaintiffs have not stated a claim under either one.

Google’s conduct was lawful under the Wiretap Act. It therefore cannot be immoral, unethical, oppressive, unscrupulous or violative of public policy. *See, e.g., Facebook, Inc.*, 2010 WL 3291750, at *15; *Sanders v. Apple Inc.*, 672 F. Supp. 2d 978, 989 (N.D. Cal. 2009). That leaves a single issue: whether the CCAC alleges facts supporting a claim that Google’s actions were “substantially injurious to consumers.” It does not. Plaintiffs merely allege that Google collected and stored payload data sent from open, unencrypted Wi-Fi networks and for a time stored that data on its servers. They do not claim that Google used that information or disclosed it to anyone. The CCAC does not describe any injury to consumers, let alone a substantial one. *See, e.g., Spiegler v. Home Depot U.S.A., Inc.*, 552 F. Supp. 2d 1036, 1044-47 (C.D. Cal. 2008); *Birdsong*, 2008 WL 7359917, at *6 (rejecting “conjectural or hypothetical” injury claims under Section 17200). Plaintiffs’ Section 17200 claim should be dismissed for failing to plead facts that would support liability.

3. Plaintiffs Have Not Demonstrated Proposition 64 Standing.

Plaintiffs’ UCL claim also fails based on their failure to demonstrate Proposition 64 standing. Section 17200 “requires a plaintiff to establish that it has ‘suffered injury in fact *and* has lost money or property.’” *Walker v. Geico Gen. Ins. Co.*, 558 F.3d 1025, 1027 (9th Cir. 2009) (quoting Cal. Bus. & Prof. Code § 17204) (emphasis added); *Robinson v. HSBC Bank USA*, -- F. Supp. 2d --, 2010 WL 3155833, at *9 (N.D. Cal. Aug. 9, 2010) (dismissing with prejudice Section 17200 claim where plaintiffs “have not and cannot allege lost ‘money or property’ and thus have no standing.”). The CCAC does not allege facts meeting this requirement.

Plaintiffs do not assert that they lost money, but plead in conclusory fashion that they lost “property.” CCAC ¶ 138. The only “property” referenced in the CCAC is the data that plaintiffs broadcast over open, unencrypted Wi-Fi networks. Plaintiffs voluntarily sent out that information over a radio network without any plausible expectation of it being returned. Those broadcasts have not been “lost” under any definition of the term. *See Ruiz v. Gap, Inc.*, 540 F. Supp. 2d 1121, 1127 (N.D. Cal. 2008) (rejecting claim of “loss of property” under Section 17200 over

1 personal information contained on a stolen laptop and noting the lack of authority for the
 2 proposition that the “unauthorized release of personal information constitutes a loss of property”).
 3 Nor is plaintiffs’ claim of entitlement to statutory damages sufficient to confer Section 17200
 4 standing. *See Butler v. Adoption Media, LLC*, 486 F. Supp. 2d 1022, 1062 (N.D. Cal. 2007).
 5 Plaintiffs have not demonstrated the loss of “money” or “property,” and their Section 17200 claim
 6 therefore should be dismissed.

7 Finally, plaintiffs would not be able to demonstrate the loss of “money” or “property” in
 8 an amended pleading. Their basic contention is that Google acquired payload data from open,
 9 unencrypted Wi-Fi networks. There are no allegations of subsequent use or disclosure of the
 10 payload collected. Nor is there any allegation from any plaintiff of actual injury resulting from
 11 Google’s conduct. On these facts, it would be impossible for plaintiffs to assert that they
 12 somehow lost “money” or “property” because their Wi-Fi transmissions were collected and sat on
 13 Google’s servers. *See Bell v. Acxiom Corp.*, No. 4:06CV00485, 2006 WL 2850042 (E.D. Ark.
 14 Oct. 3, 2006) (dismissing privacy class action where plaintiff failed to allege any tangible injury
 15 resulting from access to database containing consumer information); *Key v. DSW, Inc.*, 454 F.
 16 Supp. 2d 684 (S.D. Ohio 2006) (same). Accordingly, their Section 17200 claim should be
 17 dismissed with prejudice. *See, e.g., Birdsong v. Apple, Inc.*, 590 F.3d 955, 961-62 (9th Cir. 2009).

Appendix A: Plaintiffs' Prior Statements Regarding Their Use of Open, Unencrypted Wi-Fi Networks

Rubin Dec. Ex. No.	Court Filing in which statement was made	Plaintiff Name	Statement
11	Locsin Complaint (filed 7/26/10) N.D. Cal. Case No: 5:10-cv-03272-PVT	General Allegations	¶31: "At all relevant times, Plaintiffs have used open Wi-Fi network at their place of residence which are the type of networks susceptible to unauthorized access by Google Street View vehicles."
		Locsin, Jennifer	¶10: "Plaintiff Jennifer Locsin is a resident of Contra Costa County, California. During all relevant times, she used an open Wi-Fi network at her residence . . ."
		Blackwell, James	¶11: "Plaintiff James Blackwell is a resident of Alameda County, California. During all relevant times, he used an open Wi-Fi network at his residence . . ."
12	Joffe Complaint (filed 9/9/10) N.D. Cal. Case No.: 5:10-cv-04007-JW	Joffe, Benjamin	¶3: "During all times relevant herein, Plaintiff used and maintained an open, unencrypted wireless internet connection at his home."
13	Marigza Complaint (filed 9/10/10) N.D. Cal. Case No.: 5:10-cv-04084-JW	General Allegations	¶21: "Plaintiffs Lilla Marigza, Wesley Hartline, David Binkley, and Blake Carter (collectively 'Class and Subclass Representative Plaintiffs') each consistently maintained an open wireless network at their homes since and through the time Google began collecting individuals' payload data with its GSV vehicles."
		Marigza, Lilla	¶3: "Plaintiff Lilla Marigza is an individual residing in Davidson County, Tennessee. During the class period, Mrs. Marigza used and maintained an open wireless connection ('WiFi connection') at her home."
		Hartline, Wesley	¶4: "Plaintiff Wesley Hartline is an individual residing in Davidson County, Tennessee. During the class period, Mr. Hartline used and maintained an open wireless connection ('WiFi connection') at his home."
		Binkley, David	¶5: "Plaintiff David Binkley is an individual residing in Davidson County, Tennessee. During the class period, Mr. Binkley used and maintained an open wireless connection ('WiFi connection') at his home."
14	Davis Complaint (filed 9/10/10) N.D. Cal. Case No.: 5:10-cv-04079-JW	General Allegations	¶31: "At all relevant times, Plaintiffs have used an open Wi-Fi network at their place of residence . . ."
		Davis, Bertha	¶10: "Plaintiff BERTHA DAVIS is a resident of Solano County, California. During all relevant times, she used an open Wi-Fi network at her residence . . ."
		Taylor, Jason	¶11: "Plaintiff JASON TAYLOR is a resident of Alameda County, California. During all relevant times, he used an open Wi-Fi network at his residence . . ."

Appendix A: Plaintiffs' Prior Statements Regarding Their Use of Open, Unencrypted Wi-Fi Networks

Rubin Dec. Ex. No.	Court Filing in which statement was made	Plaintiff Name	Statement
15	<i>Myhre First Amended Complaint</i> (filed 9/17/10) W.D. Wa. Case No. 2:10-cv-01444-JPD	Myhre, Eric	¶19: ""Plaintiff Eric Myhre is a United States citizen and resident of Seattle, Washington. Plaintiff used and maintained an unencrypted wireless internet connection at his home . . ."
Dkt. No. 18 (not included in Rubin Dec.)	<i>Joint Case Management Statement</i> (filed 9/3/10) N.D. Cal. Case No. 10-md-02184 -JW	Plaintiffs	¶2: "As the JPML stated in its Transfer Order, the principal factual issues 'aris[e] out of allegations that Google intentionally intercepted electronic communications sent or received over class members' open, non-secured wireless networks.'"



From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]

Sent: Thursday, January 06, 2011 11:38 AM

(b)(6), (7)(C)
per CRM

To: Klumb, Eric; [REDACTED] (USANJ); [REDACTED] (Perkins Coie)

Cc: [REDACTED] (USANJ); Lynch, John

Subject: RE: [REDACTED]

(b)(6), (7)(C)
per CRM

Eric, I don't want to mess with logistics, or your interview methodology, but the quick response from google is that they would prefer DC and doing it in Google's office there where the Google lawyer can join by VC rather than traveling to Newark - [REDACTED] has a bunch of other matters at the end of the month. [REDACTED] preferred DC and our office when we spoke, but I also want to be sensitive to your needs.

(b)(6), (7)(C)
per CRM

I also hate to fly [REDACTED] to Newark or DC as I don't think [REDACTED] will be a long interview either based on [REDACTED] knowledge - [REDACTED] is much more like [REDACTED] than [REDACTED] on this save for one email exchange. We could easily do the VC there in Google's office.

Is that a reasonable approach for you?

(b)(6), (7)(C)
per CRM

[REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(W)
(M)

(b)(6), (7)(C)
per CRM

From: Klumb, Eric [REDACTED]@usdoj.gov]
Sent: Thursday, January 06, 2011 8:34 AM
To: [REDACTED] (Perkins Coie); [REDACTED] (USANJ); [REDACTED] (Perkins Coie)
Cc: [REDACTED] (USANJ); Lynch, John
Subject: RE: [REDACTED]

(b)(6), (7)(C)
per CRM

I think I might have said DC when talking to [REDACTED] sorry. It would make more sense for me to go to Newark than for three or four to travel here, so I'll double-back with [REDACTED] and straighten that out, unless NJ wants to come here.

(b)(6), (7)(C)
per CRM

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Thursday, January 06, 2011 11:29 AM
To: [REDACTED] (USANJ); [REDACTED] (Perkins Coie)
Cc: Klumb, Eric; [REDACTED] (USANJ); Lynch, John
Subject: RE: [REDACTED]

(b)(6), (7)(C)
per CRM

Happy New Year [REDACTED] Eric and [REDACTED] adding John to the best wishes too - I talked to [REDACTED] lawyer yesterday and was glad to hear that we may actually get a proffer before you. [REDACTED] said Washington, DC, of course, for the location of the interview. But I think I'll leave those logistics to you guys and we'll plan to go to either place. I was going to check with you this week on [REDACTED] - I think [REDACTED] is generally available in January - but I was going to see if you wanted to set up the interview earlier in the month by VC. Are you sure you want them back-to-back? I'm happy to try to arrange whatever is most convenient. Let me know.

(b)(6), (7)(C)
per CRM

[REDACTED]

[REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C)
per CRM

[REDACTED] (W)
[REDACTED] (M)

From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]

Sent: Thursday, January 06, 2011 8:06 AM

(b)(6), (7)(C)
per CRM

To: [REDACTED] (Perkins Coie); [REDACTED] (Perkins Coie)

Cc: Klumb, Eric (CRM); [REDACTED] (USANJ)

Subject: [REDACTED]

(b)(6), (7)(C)
per CRM

[REDACTED] and [REDACTED]

(b)(6), (7)(C)
per CRM

We are looking to complete our interviews on January 27 and 28 in Newark. My understanding is that this will work for [REDACTED]. We are hopeful that this will also work for [REDACTED]

Please let us know.

Regards,

(b)(6), (7)(C)
per CRM

[REDACTED]
Assistant U.S. Attorney

(b)(6), (7)(C)
per CRM

[REDACTED]
District of New Jersey

Fax: [REDACTED]

IRS CIRCULAR 230 DISCLOSURE: To ensure compliance with Treasury Department and IRS regulations, we inform you that, unless expressly indicated otherwise, any federal tax advice contained in this communication (including any attachments) is not intended or written by Perkins Coie LLP to be used, and cannot be used by the taxpayer, for the purpose of (i) avoiding penalties that may be imposed on the taxpayer under the Internal Revenue Code or (ii) promoting, marketing or recommending to another party any transaction or matter addressed herein (or any attachments).

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From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>; Klumb, Eric
(b)(6), (7)(C)
per CRM [REDACTED]
[REDACTED]@usa.doj.gov>; [REDACTED]@jonesday.com
[REDACTED]@jonesday.com>
Cc: [REDACTED] (USANJ)
[REDACTED]@usa.doj.gov>; Lynch, John
Bcc:
Subject: (b)(6), (7)(C) Re: [REDACTED] Interview
per CRM
Date: Mon Jan 10 2011 12:57:05 EST
Attachments:

The following week is fine with me. Best wishes, Eric.

(b)(6), (7)(C)
per CRM On 1/10/11 11:09 28AM, [REDACTED] (Perkins Coie)"
[REDACTED]@perkinscoie.com> wrote:

I can do the week following - I hope all is well.

(b)(6), (7)(C)
per CRM [REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C)
per CRM [REDACTED] (W)
[REDACTED] (M)
From: Klumb, Eric [REDACTED]@usdoj.gov]
Sent: Monday, January 10, 2011 8:00 AM
(b)(6), (7)(C)
per CRM To: [REDACTED] (Perkins Coie); [REDACTED] (USANJ); [REDACTED]
[REDACTED] (Perkins Coie); [REDACTED]@jonesday.com
Cc: [REDACTED] (USANJ); Lynch, John
Subject: [REDACTED] Interview

All,
(b)(6), (7)(C)
per CRM Sorry to do this, [REDACTED]
[REDACTED] How does the week after that look?
Thanks,
Eric

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From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Friday, January 14, 2011 10:56 AM
(b)(6), (7)(C) per CRM
To: [REDACTED] (USANJ); Klumb, Eric (CRM); [REDACTED] (Perkins Coie)
Cc: Lynch, John (CRM); [REDACTED] (USANJ)
Subject: Re: [REDACTED] Interview

(b)(6), (7)(C) per CRM [REDACTED]

As you and I discussed briefly by phone, I think we would like to follow-up the interview(s) with the resolution discussion.

(b)(6), (7)(C) per CRM Apart from our general interest in keeping up the pace, [REDACTED] and I really would like to take advantage of our all being in the same city, and avoid another trip.

Thanks,

(b)(6), (7)(C) per CRM [REDACTED]

From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: Friday, January 14, 2011 09:50 AM
(b)(6), (7)(C) per CRM
To: Klumb, Eric (CRM) [REDACTED]@usdoj.gov>; [REDACTED] (Perkins Coie)
Cc: Lynch, John (CRM) [REDACTED]@usdoj.gov>; [REDACTED] (Perkins Coie); [REDACTED] (USANJ) [REDACTED]@usdoj.gov>
Subject: RE: [REDACTED] Interview

(b)(6), (7)(C) per CRM [REDACTED]

(b)(6), (7)(C) per CRM Sounds like we're all set for the 3rd for [REDACTED] Can [REDACTED] be available for the same day?

Also, did we want to use the opportunity to discuss resolution?

Thanks,

(b)(6), (7)(C) per CRM [REDACTED]

From: Klumb, Eric (CRM)
Sent: Thursday, January 13, 2011 6:56 PM
(b)(6), (7)(C) per CRM
To: [REDACTED] (Perkins Coie); [REDACTED]
Cc: [REDACTED] (USANJ); Lynch, John (CRM); [REDACTED] (Perkins Coie); [REDACTED] (USANJ)

(b)(6), (7)(C)
per CRM Subject: RE: [REDACTED] Interview

Works for me. Actually, is better for me.

(b)(6), (7)(C)
per CRM From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Thursday, January 13, 2011 6:55 PM
To: [REDACTED]; Klumb, Eric
Cc: [REDACTED] (USANJ); Lynch, John; [REDACTED] (Perkins Coie); [REDACTED]
(USANJ)
Subject: RE: [REDACTED] Interview

If you all really have flexibility, would Feb 3d work as well? I have a hearing on Feb 2 and would love to have the 1st open for prep/travel. But if that is not truly convenient for everyone else, I'll make due.

(b)(6), (7)(C)
per CRM [REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C)
per CRM [REDACTED] (W)
[REDACTED] (M)

(b)(6), (7)(C)
per CRM From: [REDACTED]@JonesDay.com]
Sent: Thursday, January 13, 2011 4:51 PM
To: Klumb, Eric
Cc: [REDACTED] (Perkins Coie); [REDACTED] (USANJ); Lynch, John; [REDACTED] (Perkins
Coie); [REDACTED] (USANJ)
Subject: RE: [REDACTED] Interview

That's fine with me, on the assumption that you and I will have worked through the couple issues I raised by then.

Jones Day

(b)(6), (7)(C)
per CRM [REDACTED]
[REDACTED]
San Francisco Office
555 California Street
26th Floor
San Francisco, CA 94104.1500

(b)(6), (7)(C)
per CRM [REDACTED] Direct
[REDACTED] Fax

(b)(6), (7)(C)
per CRM [REDACTED]@jonesday.com

From:

(b)(6), (7)(C)
per CRM "Klumb, Eric" [REDACTED]@usdoj.gov>

To:

(b)(6), (7)(C)
per CRM [REDACTED]@JonesDay.com>

Cc:

(b)(6), (7)(C)
per CRM [REDACTED] (Perkins Coie)" [REDACTED]@perkinscoie.com>, [REDACTED] (USANJ)" [REDACTED]
[REDACTED]@usdoj.gov>, "Lynch, John" [REDACTED]@usdoj.gov>, [REDACTED] (Perkins
Coie)" [REDACTED]@perkinscoie.com>, [REDACTED] (USANJ)" [REDACTED]@usdoj.gov>

Date:

01/13/2011 12:57 PM

Subject:

(b)(6), (7)(C)
per CRM RE: [REDACTED] Interview

Thank you all for accommodating my schedule. I'll propose Tuesday, February 1, but the rest of my week is very open for me. Only Monday 1/31 is bad. Let me know.

From: [REDACTED]@JonesDay.com [REDACTED]@JonesDay.com>]
Sent: Monday, January 10, 2011 11:18 AM

(b)(6), (7)(C)
per CRM To: Klumb, Eric

Cc: [REDACTED] (Perkins Coie); [REDACTED] (USANJ); Lynch, John [REDACTED] (Perkins
Coie); [REDACTED] (USANJ)
Subject: Re: [REDACTED] Interview

(b)(6), (7)(C)
per CRM Eric -- [REDACTED], though coincidentally I had meant to call you because the next week is better for [REDACTED] as well. Let me know what day that week works best.

Jones Day

(b)(6), (7)(C)
per CRM [REDACTED]

San Francisco Office
555 California Street

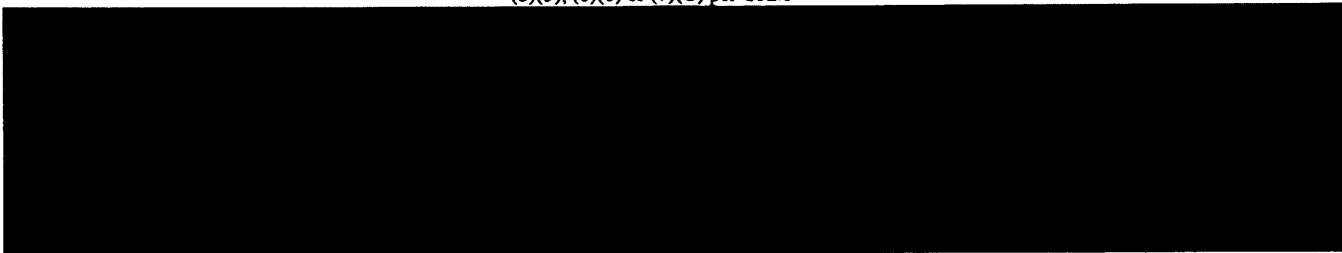
26th Floor
San Francisco, CA 94104.1500

(b)(6), (7)(C)
per CRM



Direct
Fax
@jonesday.com

DUPLICATIVE



From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Monday, January 31, 2011 9:24 PM
To: [REDACTED] (USANJ)
Cc: [REDACTED] (Perkins Coie)
Subject: This week

(b)(6), (7)(C)
per CRM

(b)(6), (7)(C)
per CRM

[REDACTED] and I had some time to catch up, after you and I spoke. We now understand, as well, that your [REDACTED] interview will not proceed this week. However, in the interest of moving your review forward and, hopefully toward conclusion, here is our proposal.

(b)(6), (7)(C)
per CRM

(b)(6), (7)(C)
per CRM

First, we can have [REDACTED] available for a telephone interview on Wednesday, from 11 am to 1 pm (Eastern time). [REDACTED]

(b)(6), (7)(C)
per CRM

Second, we would like to discuss the privacy reforms set forth in our letter, and the steps we all can take toward conclusion of this matter, either on Wednesday afternoon, at the conclusion of the [REDACTED] interview, or on Friday afternoon. For several reasons -- including uncertainty about the weather, and the likelihood of a trip to DC or NJ in the coming weeks -- [REDACTED] prefers not to travel this week, and so the Wednesday or Friday discussions we are proposing would be via conference call.

Please circle back with your colleagues and let us know if the above plan will work.

Thanks,

(b)(6), (7)(C)
per CRM

(b)(6), (7)(C)
per CRM

Perkins Coie LLP

PLEASE NOTE NEW ADDRESS/TEL:

700 13th Street, N.W.

Washington, DC 20005-3960

dir

fax

@perkinscoie.com

www.perkinscoie.com

(b)(6), (7)(C)
per CRM

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From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: (b)(6), (7)(C)
per CRM Lynch, John
[REDACTED]
Cc:
Bcc:
Subject: Fw: This week
Date: Tue Feb 01 2011 14:57:18 EST
Attachments:

FYI. Will call you in a little while.

From: [REDACTED] (Perkins Coie)
Sent: Tuesday, February 01, 2011 01:55 PM
(b)(6), (7)(C)
per CRM To: [REDACTED]@usdoj.gov' [REDACTED]@usdoj.gov>
Cc: [REDACTED] (Perkins Coie)
Subject: Re: This week

(b)(6), (7)(C)
per CRM [REDACTED]

(b)(6), (7)(C)
per CRM Monday is good for me, but I can't speak to [REDACTED] availability ([REDACTED] can). If not all day, what part of Monday are you free to do both calls?

Thanks,

(b)(6), (7)(C)
per CRM [REDACTED]

From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: Tuesday, February 01, 2011 01:50 PM
(b)(6), (7)(C)
per CRM To: [REDACTED] (Perkins Coie)
Cc: [REDACTED] (Perkins Coie)
Subject: RE: This week

(b)(6), (7)(C)
per CRM [REDACTED]

I have to run to a meeting, but before I take longer in getting back to you I wanted to drop a super quick note.

Eric has suggested that timing issues are not working out for him for this week. Can we set things up for Monday? Both a phone interview and subsequent call?

From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED] (USANJ)
(b)(6), (7)(C) [REDACTED]@usa.doj.gov>; Klumb, Eric
per CRM [REDACTED]
(Perkins Coie) [REDACTED]@perkinscoie.com>
(USANJ) [REDACTED]@usa.doj.gov>; Lynch, John
[REDACTED]
Cc:
Bcc:
Subject: RE: This week
Date: Fri Feb 04 2011 17:18:41 EST
Attachments:

(b)(6), (7)(C) per CRM I hate to leave things in flux on a Friday late in the day, but if it is more convenient to move right into the privacy discussion after [REDACTED] interview, I can now do that as the previously scheduled meeting I had just cancelled. Thank you for being flexible on Monday and I can do whatever works for you folks now.

(b)(6), (7)(C) per CRM [REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C) per CRM [REDACTED] (W)
[REDACTED] (M)

From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: Friday, February 04, 2011 11:35 AM
(b)(6), (7)(C) per CRM To: Klumb, Eric (CRM); [REDACTED] (Perkins Coie); [REDACTED] (USANJ); Lynch, John (CRM)
Cc: [REDACTED] (Perkins Coie)
Subject: RE: This week

It's good for me.

From: Klumb, Eric (CRM)
Sent: Friday, February 04, 2011 2:29 PM
(b)(6), (7)(C) per CRM To: [REDACTED] (Perkins Coie); [REDACTED] (USANJ); Lynch, John (CRM); [REDACTED] (USANJ)
Cc: [REDACTED] (Perkins Coie)
Subject: RE: This week

Works for me.

(b)(6), (7)(C)
per CRM
From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Friday, February 04, 2011 2:15 PM
To: [REDACTED] (USANJ); Lynch, John; [REDACTED] (USANJ); Klumb, Eric
Cc: [REDACTED] (Perkins Coie)
Subject: RE: This week

Gov --

Can we reconvene at 4 pm on Monday (we have something from 2-4)? If we take 2 hours, could mean we're running until 6 pm, and that may not work for everyone.

Pls let us know.

Thanks,

(b)(6), (7)(C)
per CRM

(b)(6), (7)(C)
per CRM

Perkins Coie LLP

PLEASE NOTE NEW ADDRESS/TEL:

700 13th Street, N.W.

Washington, DC 20005-3960

(b)(6), (7)(C)
per CRM

dir

fax

[REDACTED]@perkinscoie.com

www.perkinscoie.com/[REDACTED]

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(b)(6), (7)(C)
per CRM
From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: Friday, February 04, 2011 12:55 AM
To: [REDACTED] (Perkins Coie); [REDACTED] (Perkins Coie)
Subject: RE: This week

(b)(6), (7)(C)
per CRM

Sorry, I think we were all set but I never double-confirmed. So the crew is all set for Noon on Monday to do a phone interview with [REDACTED] and then discuss further.

Do you want to send a call-in?

Thanks,

(b)(6), (7)(C)
per CRM

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Wednesday, February 02, 2011 10:42 AM
To: [REDACTED] (Perkins Coie); [REDACTED] (USANJ)
Subject: RE: This week

(b)(6), (7)(C)
per CRM

[REDACTED] can be flexible on [REDACTED] appt so we can go 2 hours if needed. So noon EST it is.

(b)(6), (7)(C)
per CRM

Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C)
per CRM

[REDACTED] (W)
[REDACTED] (M)

(b)(6), (7)(C)
per CRM

From: [REDACTED] (Perkins Coie)
Sent: Wednesday, February 02, 2011 5:20 AM
To: [REDACTED]@usdoj.gov; [REDACTED] (Perkins Coie)
Subject: Re: This week

Ok w/ me.

(b)(6), (7)(C)
per CRM

From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: Wednesday, February 02, 2011 07:08 AM
To: [REDACTED] (Perkins Coie); [REDACTED] (Perkins Coie)
Subject: RE: This week

11am is a conflict here, but we can do Noon EST on Monday. Does that work?

(b)(6), (7)(C)
per CRM

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]

Sent: Tuesday, February 01, 2011 7:11 PM
(b)(6), (7)(C) per CRM To: [REDACTED] (USANJ); [REDACTED] (Perkins Coie)
Subject: RE: This week

(b)(6), (7)(C) per CRM [REDACTED] can we do [REDACTED] at 8 am PST/11am EST on Monday, Feb 7th? [REDACTED] and I will propose a second call on resolution/privacy stuff shortly, but I want to lock in [REDACTED] schedule.

(b)(6), (7)(C) per CRM [REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C) per CRM [REDACTED] (W)
[REDACTED] (M)

DUPLICATIVE

From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED] (USANJ)
[REDACTED]@usa.doj.gov> [REDACTED] (USANJ)
(b)(6), (7)(C) [REDACTED]@usa.doj.gov>; Lynch, John
per CRM [REDACTED]
[REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>; Klumb, Eric
Cc:
Bcc:
Subject: code
Date: Mon Feb 07 2011 11:58:00 EST
Attachments:

(b)(6), (7)(C) just to be sure - the passcode is [REDACTED]
per CRM

everyone have it right?

(b)(6), (7)(C) [REDACTED]
per CRM Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C) [REDACTED] (W)
per CRM [REDACTED] (M)

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From: Klumb, Eric
To: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>; [REDACTED] (Perkins Coie)
(b)(6), (7)(C) [REDACTED]@perkinscoie.com>; [REDACTED] (USANJ)
per CRM [REDACTED]@usa.doj.gov>; [REDACTED] (USANJ)
[REDACTED]@usa.doj.gov>; Lynch, John
Cc:
Bcc:
Subject: RE: 130 EST call in
Date: Mon Feb 07 2011 13:34:16 EST
Attachments:

We're 5 minutes behind. Be there soon. My apology.

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Monday, February 07, 2011 1:11 PM
To: [REDACTED] (Perkins Coie); [REDACTED] (USANJ); [REDACTED] (USANJ); Klumb,
Eric; Lynch, John
Subject: 130 EST call in

We'll reconvene on the same bridge in 20 minutes.

(b)(6), (7)(C)
per CRM [REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101
(b)(6), (7)(C) [REDACTED] (W)
per CRM [REDACTED] (M)

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From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: Klumb, Eric
[REDACTED]
(USANJ) [REDACTED]@usa.doj.gov>
Cc: (b)(6), (7)(C) [REDACTED] (USANJ)
per CRM [REDACTED]@usa.doj.gov>; Lynch, John
[REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
Bcc:
Subject: (b)(6), (7)(C) RE: [REDACTED] Proffer
per CRM
Date: Fri Feb 11 2011 10:13:54 EST
Attachments:

(b)(6), (7)(C) per CRM Thanks for the clarification Eric - it was a one line email and I haven't talked to [REDACTED] yet. [REDACTED] did say that you reserved all rights to decide the next step and we are absolutely fine with that - we want you to get all the information you need to be satisfied. My only purpose in sending the email was to be sure we could attend [REDACTED] proffer and to be helpful if you had questions, not to imply a formal agreement to do no more. I hope this helps the process rather than delay it, but either way, [REDACTED] has to represent [REDACTED] client even if our preference was to have [REDACTED] in DC last week!

(b)(6), (7)(C) per CRM

Thanks, [REDACTED]

(b)(6), (7)(C) per CRM

[REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C) per CRM

(W)
(M)

From: Klumb, Eric [REDACTED]@usdoj.gov]
Sent: Friday, February 11, 2011 6:51 AM
(b)(6), (7)(C) per CRM To: [REDACTED] (Perkins Coie); [REDACTED] (USANJ)
Cc: [REDACTED] (USANJ); Lynch, John; [REDACTED] (Perkins Coie)
Subject: RE: [REDACTED] Proffer

(b)(6), (7)(C) per CRM

Because I don't know what [REDACTED] communicated to you, I just want to make sure you understand our position on this. Early on in this process, I think we made it clear that we considered an interview of [REDACTED] to be probably the most important step toward resolution. We never have considered an attorney proffer to be an adequate substitute. We have agreed to participate in the attorney proffer as a next step, and to take that into consideration in deciding the step after that, but I didn't want you to think that we "agreed" to a proffer as a substitute for questioning [REDACTED] in person. We will try to do the proffer as soon as possible, but I expect this obstacle will slow us down some.

(b)(6), (7)(C) per CRM

Eric

(b)(6), (7)(C)
per CRM

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Thursday, February 10, 2011 10:28 PM
To: [REDACTED] (USANJ); Klumb, Eric
Cc: [REDACTED] (USANJ); Lynch, John; [REDACTED] (Perkins Coie)
Subject: [REDACTED] Proffer

(b)(6), (7)(C)
per CRM

[REDACTED] and Eric, I had an email from [REDACTED] that you two have agreed to proceed with an oral attorney proffer (i.e., [REDACTED] proffer). As we previously discussed, we would like to "attend" on behalf of Google, as the witness for whom [REDACTED] is proffering [REDACTED] is still a Google employee and we would want to be sure we don't stray into Google attorney-client communications (even though you have been great about that in all our interviews). Other than protecting privilege, we expect to sit quietly and say nothing unless you ask us something. Please let me know if you have any concerns and/or have any ground rules to propose. It would be me and [REDACTED] for the company, or just me if you prefer. Thanks.

PS - We are really glad you are getting the proffer as soon as possible.

(b)(6), (7)(C)
per CRM

[REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C)
per CRM

[REDACTED] (W)
[REDACTED] (M)

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From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED] (USANJ)
[REDACTED]@usa.doj.gov>; [REDACTED] (USANJ)
(b)(6), (7)(C) per CRM [REDACTED]@usa.doj.gov>; Klumb, Eric
[REDACTED] Lynch, John
Cc: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
Bcc:
Subject: WiFi - Google Supplemental Documents
Date: Mon Feb 14 2011 14:37:13 EST (b)(4) per CRM
Attachments: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

(b)(6), (7)(C) per CRM
Gentlemen: Following up on our call last week, you requested some additional information about the implementation of Google's privacy program. We enclose the following information, and mention again that these are confidential documents: [REDACTED] and [REDACTED] emails to all Google employees regarding the implementation of the privacy design documentation process; new employee training slides; UK and Australia undertakings for assessing privacy impacts of new products and services; and lastly, but we think most informative, one of the first privacy design reviews done under the new system, which we hope illustrates the comprehensive nature of review process.

If you have any questions concerning these documents, please let us know.

(b)(6), (7)(C) per CRM [REDACTED]

(b)(6), (7)(C) per CRM [REDACTED]

Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C) per CRM [REDACTED]

(W)
(M)

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* * * * *

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From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com> [REDACTED]@usdoj.gov
(b)(6), (7)(C) [REDACTED]@usa.doj.gov>; [REDACTED]@JonesDay.com
per CRM [REDACTED]@jonesday.com>; Klumb, Eric
[REDACTED]@usdoj.gov
[REDACTED]@usa.doj.gov>; Lynch, John
Cc:
Bcc:
Subject: (b)(6), (7)(C) Re: [REDACTED] Attorney Proffer
per CRM
Date: Tue Feb 15 2011 07:39:30 EST
Attachments:

I am not planning to join the call.

From: [REDACTED] (Perkins Coie)
Sent: Monday, February 14, 2011 11:33 PM
To: [REDACTED] (USANJ) [REDACTED]@usdoj.gov>; [REDACTED]
(b)(6), (7)(C) [REDACTED]@JonesDay.com>; Klumb, Eric (CRM) [REDACTED]@usdoj.gov>; [REDACTED] (USANJ)
per CRM [REDACTED]@usdoj.gov>; Lynch, John (CRM) [REDACTED]@usdoj.gov>
Cc: [REDACTED] (Perkins Coie)
Subject: RE: [REDACTED] Attorney Proffer

(b)(6), (7)(C) I can see that [REDACTED] We'll plan on it unless Eric or others need to change it.
per CRM

(b)(6), (7)(C) [REDACTED]
per CRM Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C) [REDACTED] (W)
per CRM [REDACTED] (M)

From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: Monday, February 14, 2011 9:33 PM
(b)(6), (7)(C) To: [REDACTED] (Perkins Coie); [REDACTED]; Klumb, Eric (CRM); [REDACTED] (USANJ); Lynch, John
per CRM (CRM)
Cc: [REDACTED] (Perkins Coie)
Subject: RE: [REDACTED] Attorney Proffer

Works for me, albeit my day seems to end rather late these days...

So call at 2pm EST, 11am PST, unless we hear otherwise from Eric.

(b)(6), (7)(C)
per CRM

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Tuesday, February 15, 2011 12:31 AM
To: [REDACTED] (USANJ); Klumb, Eric (CRM); [REDACTED] (USANJ); Lynch, John (CRM)
Cc: [REDACTED] (Perkins Coie)
Subject: RE: [REDACTED] Attorney Proffer

I would hate to jam everyone at the end of their day on the east coast. To be sure you cover everything, can I suggest 11 am PST then? My bridge is below.

(b)(6), (7)(C)
per CRM

(b)(6), (7)(C)
per CRM

Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C)
per CRM

(W)
(M)

(b)(6), (7)(C)
per CRM

From: [REDACTED]@JonesDay.com]
Sent: Monday, February 14, 2011 9:23 PM
To: [REDACTED] (USANJ); [REDACTED] (Perkins Coie); Klumb, Eric (CRM); [REDACTED] (USANJ); Lynch, John (CRM)
Cc: [REDACTED] (Perkins Coie)
Subject: Re: [REDACTED] Attorney Proffer

I can do either time.

This e-mail (including any attachments) may contain information that is private, confidential, or protected by attorney-client or other privilege. If you received this e-mail in error, please delete it from your system without copying it and notify sender by reply e-mail, so that our records can be corrected.

(b)(6), (7)(C)
per CRM

From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: 02/15/2011 12:14 AM EST
To: [REDACTED] (Perkins Coie)" [REDACTED]@perkinscoie.com>; "Klumb, Eric (CRM)" [REDACTED]@usdoj.gov>; [REDACTED] (USANJ)" [REDACTED]@usdoj.gov>; "Lynch, John (CRM)" [REDACTED]@usdoj.gov>;
Cc: [REDACTED] (Perkins Coie)" [REDACTED]@perkinscoie.com>
Subject: RE: [REDACTED] Attorney Proffer

Hey all,

I had it down for 2pm EST. I could also do 5pm EST.

(b)(6), (7)(C)
per CRM Either way, [REDACTED] it would be great if you provided your bridge for the call. Let's just make sure we all know the correct time.

Thanks,

(b)(6), (7)(C)
per CRM [REDACTED]

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]

Sent: Monday, February 14, 2011 2:25 PM

(b)(6), (7)(C)
per CRM

To: [REDACTED] (USANJ); Klumb, Eric (CRM); [REDACTED] (USANJ); Lynch, John (CRM); [REDACTED]

Cc: [REDACTED] (Perkins Coie)

Subject: [REDACTED] Attorney Proffer

(b)(6), (7)(C)
per CRM

[REDACTED] tells me we are planning on a call for tomorrow at 2 pm PST - I'm not sure how many people will participate from your end - would you like to use my bridge for convenience?

(b)(6), (7)(C)
per CRM

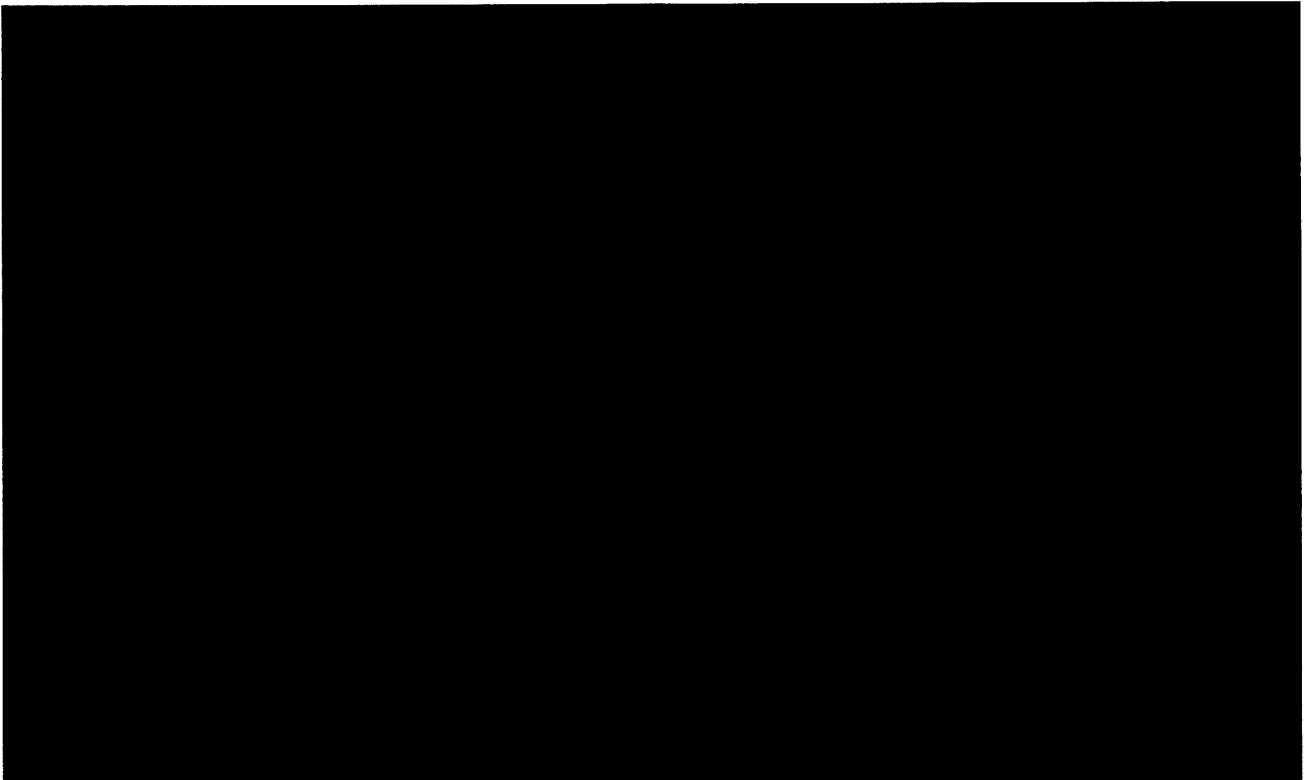
[REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C)
per CRM

[REDACTED] (W)
[REDACTED] (M)

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(b)(6), (7)(C)
per CRM

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Tuesday, February 15, 2011 5:14 PM
To: Klumb, Eric
Subject: RE: WiFi email

(b)(6), (7)(C)
per CRM

Is this the one you mean Eric? We supplemented the response by giving them [REDACTED] name after we gave it to the CT AG in response to their CID; and we also provided them our Motion to Dismiss subsequently too.

Let me know if you have any questions on this.

Thanks for the time earlier today.

(b)(6), (7)(C)
per CRM

[REDACTED]
Perkins Coie LLP
1201 Third Avenue
Suite 4800

Seattle, WA 98101

(b)(6), (7)(C)
per CRM

(W)
(M)

From: Klumb, Eric [REDACTED]@usdoj.gov]

(b)(6), (7)(C)
per CRM

Sent: Tuesday, February 15, 2011 1:21 PM

To: [REDACTED] (Perkins Coie); [REDACTED] (USANJ); [REDACTED] (USANJ); Lynch, John

Subject: RE: WiFi email

(b)(6), (7)(C)
per CRM

Thanks, [REDACTED] I apologize if we already have it and I lost track of it, but could you provide me with a copy of Google's response to the FCC regarding their request for documents? Thanks.

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]

(b)(6), (7)(C)
per CRM

Sent: Tuesday, February 15, 2011 2:08 PM

To: [REDACTED] (USANJ); [REDACTED] (USANJ); Klumb, Eric

Subject: FW: WiFi email

(b)(6), (7)(C)
per CRM

Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C)
per CRM

(W)
(M)

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From: DuBose, Michael
[REDACTED]
To: (b)(6), (7)(C)
per CRM Lynch, John
[REDACTED]
Klumb, Eric
Cc:
Bcc:
Subject: FW: Draft Google SV declination letter
Date: Tue May 03 2011 12:45:46 EDT
Attachments:

From: Weinstein, Jason
Sent: Tuesday, May 03, 2011 12:44 PM
To: DuBose, Michael
Subject: RE: Draft Google SV declination letter

(b)(5)
per CRM [REDACTED]

From: DuBose, Michael
Sent: Monday, May 02, 2011 4:48 PM
To: Weinstein, Jason
Subject: FW: Draft Google SV declination letter

(b)(5)
per CRM [REDACTED]

(b)(4), (b)(6) & (7)(C) per CRM
[REDACTED]

(b)(4), (b)(6) & (7)(C) per CRM



From: [REDACTED]@usdoj.gov>

Date: Fri, 22 Apr 2011 09:18:58 -0500

(b)(6), (7)(C)
per CRM

To: [REDACTED]@perkinscoie.com>, [REDACTED]@perkinscoie.com>

Cc: [REDACTED] (USANJ)" [REDACTED]@usdoj.gov>, John Lynch [REDACTED]@usdoj.gov>, Klumb

Eric [REDACTED]@usdoj.gov>

Subject: Draft Google SV declination letter

(b)(6), (7)(C)
per CRM

You had requested to see a draft of the Government's declination letter.

Typically, we do not provide such a draft in advance, but we have decided to make it available in this matter. Accordingly, I enclose a draft. This draft is not for circulation to anyone outside of Google.

We understand in providing this draft that you may have comments and we are willing to discuss at your earliest convenience.

Thanks,

(b)(6), (7)(C)
per CRM

John and Eric

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* * * * *

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----- Original Message -----

From: Klumb, Eric (CRM)

Sent: Wednesday, May 04, 2011 07:11 PM

(b)(6), (7)(C) To: Lynch, John (CRM); [REDACTED] (USANJ); [REDACTED] (USANJ)

per CRM

Subject: Re: Draft Google SV declination letter

Good here.

----- Original Message -----

From: Lynch, John

To: [REDACTED] (USANJ); Klumb, Eric; [REDACTED]@usa.doj.gov' [REDACTED]@usa.doj.gov>

(b)(6), (7)(C) per CRM

Sent: Wed May 04 18:45:53 2011

Subject: Re: Draft Google SV declination letter

If that's okay by Eric, it's okay by me.

----- Original Message -----

From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov>

(b)(6), (7)(C) per CRM

To: Lynch, John; Klumb, Eric; [REDACTED] (USANJ) [REDACTED]@usa.doj.gov>

Sent: Wed May 04 18:44:18 2011

Subject: RE: Draft Google SV declination letter

How's 10am?

-----Original Message-----

From: Lynch, John (CRM)

Sent: Wednesday, May 04, 2011 6:42 PM

(b)(6), (7)(C) per CRM

To: [REDACTED] (USANJ); Klumb, Eric (CRM); [REDACTED] (USANJ)

Subject: RE: Draft Google SV declination letter

I'm available tomorrow, pretty much any time.

-----Original Message-----

From: [REDACTED] (USANJ) [mailto:[REDACTED]@usdoj.gov]

(b)(6), (7)(C) per CRM

Sent: Wednesday, May 04, 2011 6:36 PM

To: Lynch, John; Klumb, Eric; [REDACTED] (USANJ)

Subject: RE: Draft Google SV declination letter

(b)(5)
per CRM

[REDACTED]

(b)(5)
per CRM

[REDACTED]

Can we discuss tomorrow?

DUPLICATIVE

[REDACTED]

From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED] (Perkins Coie)
(b)(6), (7)(C) [REDACTED]@perkinscoie.com>; [REDACTED] (USANJ)
per CRM [REDACTED]@usa.doj.gov>
Cc: Lynch, John
[REDACTED]
Bcc:
Subject: RE: Media
Date: Wed May 25 2011 19:04:56 EDT
Attachments:

(b)(6), (7)(C) Thanks [REDACTED] and John for bringing this to a conclusion. Just to be clear on the letter, we periodically
per CRM update the States, FCC and FTC on the status of proceedings and would expect to give them a copy if they ask. Unlike your department, they don't have the best track record on keeping things confidential. We have a followup meeting in two weeks with the FCC (they acknowledged last week [at least in agency speak] that section 705 of title 47 was inapplicable), and if they asked, we would provide them the letter.

(b)(6), (7)(C) [REDACTED]
per CRM Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C) [REDACTED] (W)
per CRM [REDACTED] (M)

From: [REDACTED] (Perkins Coie)
(b)(6), (7)(C) Sent: Wednesday, May 25, 2011 3:55 PM
per CRM To: [REDACTED] (USANJ)
Cc: John Lynch; [REDACTED] (Perkins Coie)
Subject: Media

(b)(6), (7)(C) [REDACTED]
per CRM

I checked with the company. They will not publicly release the declination letter, nor will they make a public statement concerning the declination letter or the declination itself.

(b)(6), (7)(C) [REDACTED]
per CRM

(b)(6), (7)(C) [REDACTED]
per CRM

Perkins Coie LLP
700 13th Street, N.W.
Washington, DC 20005-3960

(b)(6), (7)(C)
per CRM

[REDACTED] dir
[REDACTED] fax
[REDACTED]@perkinscoie.com
www.perkinscoie.com [REDACTED]

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* * * * *

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From: Lynch, John
To: [REDACTED] (USANJ)
(b)(6), (7)(C)
per CRM [REDACTED]
(USANJ) [REDACTED]@usa.doj.gov>
Cc: Klumb, Eric
Bcc: [REDACTED]
Subject: RE: Google Streetview
Date: Fri May 27 2011 14:16:17 EDT
Attachments:

Handwritten. I use a fountain pen with an italic (flat) nib. Fortunately, it is the only thing presidential about me.

-----Original Message-----

(b)(6), (7)(C)
per CRM From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: Friday, May 27, 2011 2:14 PM
To: Lynch, John; [REDACTED] (USANJ)
Cc: Klumb, Eric
Subject: RE: Google Streetview

(b)(5)
per CRM Our pleasure working with you guys on this. I think the right result was reached. [REDACTED]
[REDACTED]

One question: how does one get such presidential signature? Was that handwritten or typed?

-----Original Message-----

(b)(6), (7)(C)
per CRM From: Lynch, John (CRM)
Sent: Friday, May 27, 2011 2:13 PM
To: [REDACTED] (USANJ); [REDACTED] (USANJ)
Cc: Klumb, Eric (CRM)
Subject: RE: Google Streetview

(b)(6), (7)(C)
per CRM Thanks very much [REDACTED]

-----Original Message-----

(b)(6), (7)(C)
per CRM From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: Friday, May 27, 2011 2:11 PM
To: [REDACTED]
Cc: Lynch, John; Klumb, Eric; [REDACTED] (USANJ)
Subject: Google Streetview

(b)(6), (7)(C)
per CRM [REDACTED]

(b)(6), (7)(C)
per CRM Attached please find a PDF copy of the Government's declination letter. As I discussed with [REDACTED] it would be helpful if you could give us a heads up if/when you expect it to get press coverage.

An original copy of the letter will follow.

Have a great holiday weekend,

(b)(6), (7)(C)
per CRM

[REDACTED]

[REDACTED]
Assistant U.S. Attorney

(b)(6), (7)(C)
per CRM

[REDACTED]

District of New Jersey

[REDACTED]

Fax: [REDACTED]

From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED]@usdoj.gov
[REDACTED]@usa.doj.gov>; [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
Cc: (b)(6), (7)(C)
per CRM Lynch, John
[REDACTED]
Klumb, Eric
[REDACTED]@usdoj.gov [REDACTED]@usa.doj.gov>
Bcc:
Subject: Re: Google Streetview
Date: Fri May 27 2011 14:19:14 EDT
Attachments:

Got it. Thanks.

DUPLICATIVE



From: [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
To: [REDACTED] (USANJ)
[REDACTED]@usa.doj.gov>; [REDACTED] (Perkins Coie)
[REDACTED]@perkinscoie.com>
Cc: (b)(6), (7)(C) per CRM Lynch, John
[REDACTED]
Klumb, Eric
[REDACTED] (USANJ) [REDACTED]@usa.doj.gov>
Bcc:
Subject: RE: Google Streetview
Date: Fri May 27 2011 14:19:56 EDT
Attachments:

(b)(6), (7)(C) per CRM Thank you, [REDACTED] and to the entire team for the professional and cooperative manner in which you handled the inquiry. It was not Google's finest hour, but the Company is committed to implementing a rigorous program to avoid these kinds of things in the future.

There are no plans to make a public disclosure of this declination. The FCC repeatedly has asked about the status of your review, and if they ask, we will provide them the letter. The same is true about the States, but they haven't asked lately and we won't offer it. I'll keep you in the loop in advance should we have any other disclosures.

Thanks again.

(b)(6), (7)(C) per CRM [REDACTED]
Perkins Coie LLP
1201 Third Avenue
48th Floor
Seattle, WA 98101

(b)(6), (7)(C) per CRM [REDACTED] (fax)
[REDACTED] (mobile)

DUPLICATIVE



From: [REDACTED] (USANJ)
[REDACTED]@usdoj.gov>
To: [REDACTED]@perkinscoie.com
[REDACTED]@perkinscoie.com>; [REDACTED] (USANJ)
(b)(6), (7)(C) [REDACTED]
per CRM [REDACTED]@usa.doi.gov>; Lynch, John
Klumb, Eric
Cc: [REDACTED]@perkinscoie.com
[REDACTED]@perkinscoie.com>
Bcc:
Subject: Re: Google Declination Letter
Date: Sat Jun 04 2011 10:37:43 EDT
Attachments:

Thanks. Have a great weekend.

From: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com]
Sent: Saturday, June 04, 2011 10:35 AM
(b)(6), (7)(C) [REDACTED]
per CRM [REDACTED]
To: [REDACTED] (USANJ); [REDACTED] (USANJ); Lynch, John (CRM); Klumb, Eric (CRM)
Cc: [REDACTED] (Perkins Coie) [REDACTED]@perkinscoie.com>
Subject: Google Declination Letter

Gentlemen, on Friday, Google provided a copy of the declination letter to the FCC in response to their request. We submitted it with a request for confidentiality as we have done with all other materials we have provided the FCC. I don't think it will be leaked or discussed publicly but wanted to let you know as a courtesy anyway. As I mentioned previously, Google continues to have no plans to tout the declination or publish the letter -- we were just pleased we were able to wrap up the matter -- but I'll continue to provide you with updates as I know you would like to have the press folks prepared if it is released by anyone.

Enjoy the weekend.

(b)(6), (7)(C)
per CRM [REDACTED]

(b)(6), (7)(C)
per CRM [REDACTED]

Perkins Coie LLP
1201 Third Avenue
Suite 4800
Seattle, WA 98101

(b)(6), (7)(C)
per CRM [REDACTED]

(W)
(M)

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From: Lynch, John
To: [REDACTED] (USANJ)
(b)(6), (7)(C) per CRM [REDACTED]; Klumb, Eric
Cc: [REDACTED]@usa.doj.gov
[REDACTED]@usa.doj.gov>; [REDACTED]@usa.doj.gov [REDACTED]@usa.doj.gov>
Bcc:
Subject: Re: Google Street View
Date: Thu Apr 26 2012 08:51:44 EDT
Attachments:

Not me, just woke up in the middle of the night and thought I could spend the time productively responding.

(b)(6), (7)(C) per CRM
From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]
Sent: Thursday, April 26, 2012 08:44 AM
To: Lynch, John; Klumb, Eric
Cc: [REDACTED] (USANJ) [REDACTED]@usa.doj.gov>; [REDACTED] (USANJ) [REDACTED]@usa.doj.gov>
Subject: Re: Google Street View

(b)(5) per CRM

By the way, at 3:21am, I got an email from a DOJ official in the Philippines. And then at 3:24am, the email below... from DC? An all nighter?

(b)(6), (7)(C) per CRM
From: Lynch, John [REDACTED]@usdoj.gov]
Sent: Thursday, April 26, 2012 03:23 AM
To: [REDACTED] (USANJ); Klumb, Eric (CRM)
Cc: [REDACTED] (USANJ); [REDACTED] (USANJ)
Subject: Re: Google Street View

(b)(5), (b)(6) & (7)(C) per CRM

[REDACTED]

(b)(5)
per CRM

From: [REDACTED] (USANJ) [REDACTED]@usdoj.gov]

Sent: Wednesday, April 25, 2012 09:25 PM

(b)(6), (7)(C)
per CRM

To: Klumb, Eric; Lynch, John

Cc: [REDACTED] (USANJ) [REDACTED]@usa.doj.gov>; [REDACTED] (USANJ) [REDACTED]@usa.doj.gov>

Subject: RE: Goofle Street View

Guys,

(b)(5), (b)(6) & (7)(C) per CRM

Thoughts?

(b)(6), (7)(C)
per CRM

From: Klumb, Eric [REDACTED]@usdoj.gov]

(b)(6), (7)(C)
per CRM

Sent: Wednesday, April 25, 2012 10:08 AM

To: Lynch, John (CRM); [REDACTED] (USANJ)

Subject: Goofle Street View

Gents,

Got a call from FCC lawyers. [REDACTED]

(b)(5)
per CRM

[REDACTED] Please let me know your thoughts. Thanks.

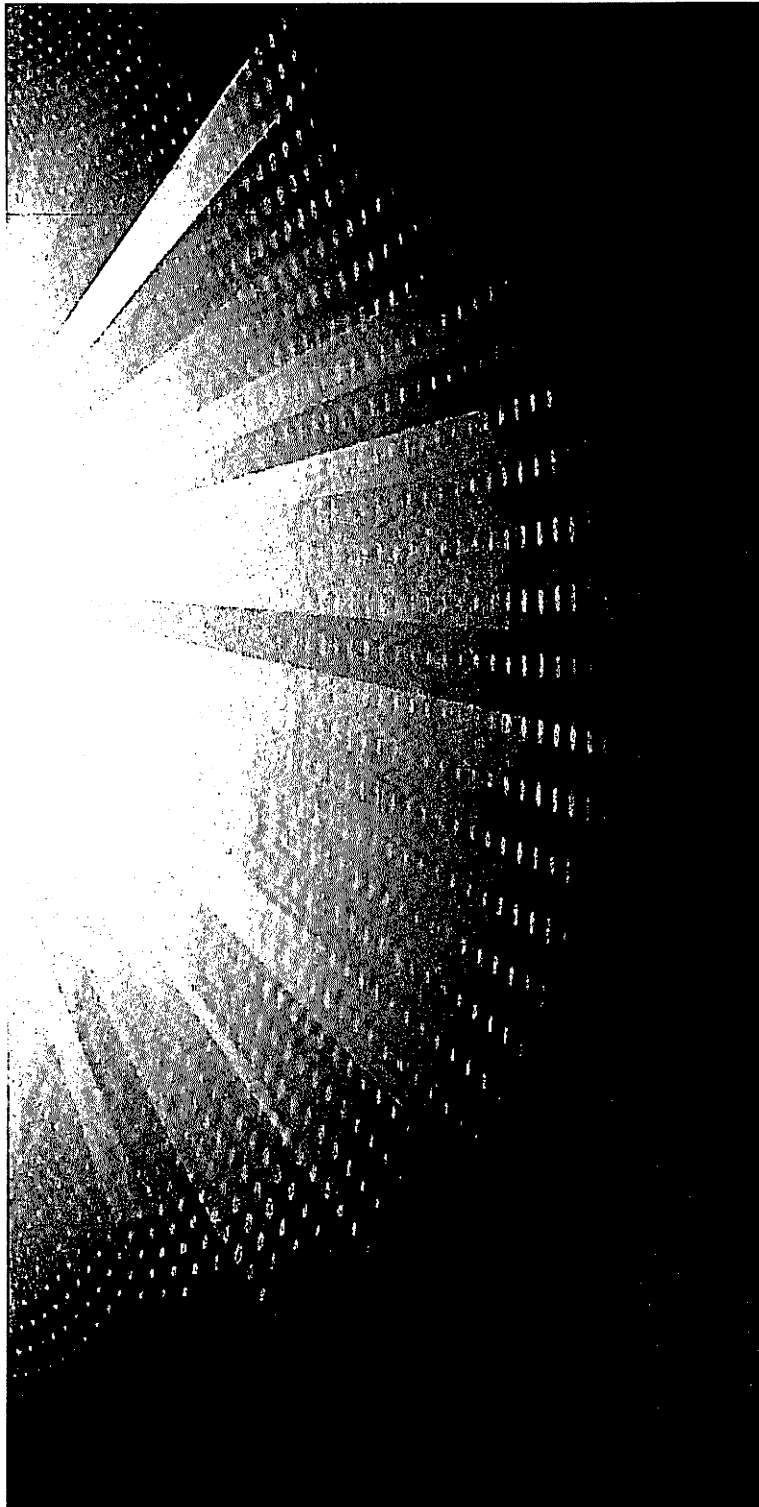
Eric

From: Klumb, Eric
To: (b)(6), (7)(C)
per CRM [REDACTED]
Cc: [REDACTED]
Bcc: [REDACTED]
Subject: Google Street View - letter due 6/26
Date: Wed Jun 20 2012 18:42:32 EDT
Attachments:

John,

[REDACTED]

(b)(5)
per CRM



Source Code Analysis of gstumbler

Prepared for Google and Perkins Coie

Prepared by STROZ FRIEDBERG

June 3, 2010

STROZ FRIEDBERG

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I. Introduction

1. Stroz Friedberg, LLC ("Stroz Friedberg") is a consulting and technical services firm that specializes in digital forensics, data breach and cyber-crime response, on-line and traditional investigations, and electronic discovery. The firm was founded in February 2000 by Edward M. Stroz. For ten years, Mr. Stroz has been a leader in the computer security and digital forensics field, and has pioneered the use of a blend of behavioral science and digital forensics in addressing the insider threat. Before founding what was then Stroz Associates, Mr. Stroz founded and then ran the Computer Crimes Unit of the F.B.I.'s New York office during his sixteen year career with the Bureau. Eric Friedberg, Mr. Stroz's Co-President at Stroz Friedberg, hails from the U.S. Attorney's Office in the Eastern District of New York, where he was the lead cyber-crime prosecutor and the Chief of the Narcotics Unit during his eleven year tenure as an Assistant United States Attorney there. Mr. Friedberg is an expert in cybercrime response, computer forensic investigations, and electronic discovery. Messrs. Stroz and Friedberg, together with the firm's Executive Management, manage the firm's operations. Stroz Friedberg's principal offices are in New York (HQ), Los Angeles, Washington, D.C., London, Dallas, Minneapolis, San Francisco, and Boston. The firm has handled many significant, high-profile digital forensics matters, including a number of source code analyses in the civil, regulatory, and criminal arenas. Mr. Friedberg led the team that conducted the source code analysis in this case.

2. Stroz Friedberg was retained by Perkins Coie, on behalf of Google, to evaluate the source code of an executable deployed on the vehicles otherwise collecting data for Google's Street View service offerings. Specifically, we were asked to provide a third-party assessment of the functionality of the source code for a Google project named "gstumbler" and its main binary executable, "gslite," with particular focus on the elements of wireless network traffic that the code captured, analyzed, parsed, and/or wrote to disk. Stroz Friedberg has no stake in the outcome of this matter and has been asked by Google and Perkins Coie to render a neutral, technical opinion regarding the functionality of gstumbler. Stroz Friedberg is being compensated on a time and materials basis. The project team consisted of three primary examiners/code reviewers and two engagement managers, and our report was internally peer-reviewed by others in the firm.

3. Between May 20 and May 26, 2010, Stroz Friedberg received the gslite source code from Google. The gslite source code is comprised of approximately thirty-two source code files, along with twelve additional files including configuration files, shell scripts, source code repository changelog information, binary executables, and kernel modules. A full inventory of the reviewed source code files and shell scripts is provided in Appendix A. It is our understanding that the provided source code and accompanying shell scripts represent the most current version of the gstumbler application deployed as of May 6, 2010, on vehicles otherwise capturing data for Google Street View. Our findings regarding the application's functionality, based upon our review of the source code, are set forth below: first, in the Executive Summary, and then more specifically in the Overview of Findings and the body of this report.

A. Executive Summary

4. The executable program, gslite, works in conjunction with an open source network and packet sniffing program called Kismet, which detects and captures wireless network traffic. The program facilitates the mapping of wireless networks. It does so by parsing and storing to a hard drive identifying information about these wireless networks – including but not limited to their component devices' numeric addresses, known as MAC addresses, and the wireless network routers' manufacturer-given or user-given names, known as "service set identifiers," or "SSIDs." The "parsing" involves separating these identifiers into discrete fields. Gslite then associates these identifiers with GPS information that the program obtains from a GPS unit operating in the Google Street View vehicle. Gslite captures and stores to a hard drive the header information for both encrypted and unencrypted wireless networks.

5. While gslite parses the header information from all wireless networks, it does not attempt to parse the body of any wireless data packets. The body of wireless data packets is where user-created content, such as e-mails or file transfers, or evidence of user activity, such as Internet browsing, may be found. While running in memory, gslite permanently drops the bodies of all data traffic transmitted over encrypted wireless networks. The gslite program does write to a hard drive the bodies of wireless data packets from unencrypted networks. However, it does not attempt to analyze or parse that data.¹

B. Basic Technical Descriptions and Definitions

6. To understand the functionality of the gslite source code, and to understand the Overview of Findings set forth below in Section 1(C), it is important to understand the basic technical concepts critical to the architecture of wireless 802.11 networks and the transmission of data over such wireless networks.

7. Data is transmitted over the Internet via packet switching technology. Briefly, a communication transmitted via the Internet is broken up into "packets" at the point of origination, and the packets of data are routed from the originating device to various other computer devices on the Internet until they reach their final destination. Each packet is comprised of a packet header which contains network administrative information and the addressing information (or "envelope" information) necessary to transmit the data packet from one device to another along the path to its final destination. Each packet also contains a "payload" which is a fragment of the "content" of the communication or data transmission sent and received over the Internet; payload information can include, for example, fragments of requests for URLs, files transferred across the Internet, email bodies, and instant messages, among other things. The packets associated with a particular data transmission may travel over different routes across the Internet to reach their final destination; once they reach the destination device, the packets are reassembled to create the entire transmission.

8. A router is a device on a network that receives a data packet and transmits it to the next router or device on the network. A MAC address is a unique number assigned to a piece of networking hardware, such as a router, by that hardware's manufacturer. Each device and router on a wireless network has a MAC address uniquely identifying that machine.

9. Packets are encapsulated into larger data packages called frames for routing over various network types. Multiple specifications for the transmission of packets using frames have been promulgated by the Institute of Electrical and Electronics Engineers. This report focuses on

¹ From an analysis of the source code alone, we cannot ascertain the extent to which gslite captures of unencrypted wireless data would be fragmented or complete. Given the factors that the Google Street View vehicles can be moving or stationary and, as discussed below, the Kismet device is set to hop rapidly between wireless channels, the numerous wireless data packets that constitute any single user communication may or may not be captured by Kismet.

data transmitted over wireless networks pursuant to the 802.11 protocols, the specifications for which provide the international standard for the transmission of data over wireless networks operating in the 2.4, 3.6, and 5 GHz frequency radio bands.

10. There are three primary types of 802.11 frames, which contain information necessary to transmit data packets from one device to another over wireless networks. The three types of 802.11 frames are Control frames, Management frames, and Data frames, each of which is described below:

a. *Control Frames* control access to particular types of networks and facilitate exchanges of Data frames between wireless links. Control frames send the Request to Send (RTS) and Clear to Send (CTS) messages necessary to establish a connection between two links on a network prior to transmitting a data packet (sometimes referred to as a "two-way handshake"). Control frames also transmit the Acknowledgement (ACK) information once a Data frame is received by a link. A diagram of a generic Control frame is provided in Appendix B.1.

b. *Management Frames* contain information necessary to manage a data transmission over the network. Management frames contain, for example, authentication information, information necessary to allocate resources to a transmission, data transmission rates, SSIDs (i.e., network names), information necessary to terminate a connection, and periodic beacon signals. These properties are stored, in part, as Information Elements, that is, id-value pairs in the payload of Management frames. A diagram of a generic Management frame is provided in Appendix B.2.

c. *Data Frames* serve the function of encapsulating and transmitting packets of data over wireless networks. Generally, the body of each Data frame contains the "content" data of the encapsulated packet transmitted over the Internet, including such user-created data as email header information and bodies, URL requests, file transfers, instant messages, or any other communication over the Internet, as well as the addressing information for such transmissions. A diagram of a generic Data frame is provided in Appendix B.3.

d. Each of these frame types have numerous subtypes, which determine, among other things, the fields present in the 802.11 frame. A frame's type and subtype information is stored in the *Frame Control* header field of the 802.11 frame, which is discussed in more detail below.

11. At a high level, an 802.11 frame can be considered to have two distinct sections: the header data and the body data. The header data is comprised of the Frame Control, duration or id, MAC addresses, sequence control number, and quality of service, or QoS, control information. The body data is comprised of the frame body component of an 802.11 frame, to the extent the frame's type and subtype calls for this field. As noted, the body of a Data frame may contain packet content data.

12. A diagram of a generic 802.11 frame showing its various components is below:

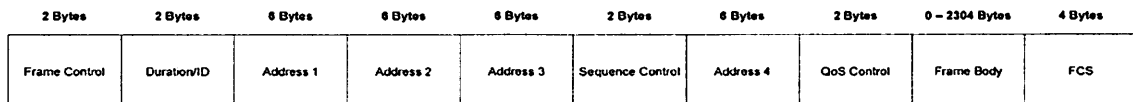


Figure 1. Generic 802.11 Frame Format.

The Frame Control, Duration/Id, Address, Sequence Control, and QoS control fields are considered the 802.11 *frame header*, while the frame body contains the payload data previously discussed. The FCS field contains checksum information used to confirm that the wireless frame was accurately received.

13. Every 802.11 frame contains a 16 bit Frame Control field that contains information regarding the status of the frame and the wireless transmitter of the frame. Specifically, the Frame Control field contains the following properties: Protocol Version; Type; Subtype; To DS; From DS; More Fragments; Retry; Power Management; More Data; Protected Frame; and Order. The Type field is a two bit field that will be 00, 01, or 10 to indicate if a frame is a Management, Control, or Data frame respectively, and the Subtype is a four bit field used to specify the frame's subtype. The To DS and From DS fields are single bit values that specify the routing of the 802.11 frame across the wireless network.

14. The Protected Frame bit in the Frame Control field is also known as the frame's "encryption flag." The Protected Frame field is a single bit which identifies whether the wireless network's transmissions are encrypted; it has no relation to the payload within any Data frame or whether that encapsulated packet transmission is itself independently encrypted. For example, if a fragment of a secure, encrypted HTTP session (HTTPS) were encapsulated in the payload of a Data frame on an unencrypted wireless network, the Data frame's encryption flag would still be set to "0", i.e. "false", indicating that the frame is unencrypted. The 802.11w-2009 amendment to the 802.11 specification, which was approved on September 11, 2009, provides a mechanism to also encrypt unicast Robust Management frames, which will result in the Protected Frame field being set to "1", i.e. "true."

15. Each 802.11 frame type contains at least one MAC address associated with the wireless local area network (LAN). 802.11 frames can contain up to four such MAC addresses associated with a particular wireless LAN.

16. Each wireless network has a public name, known as the SSID. The SSID name may be set by the owner of the wireless network. The SSID can be publicly broadcast to all wireless devices within its range. The broadcast feature also can be disabled so that the SSID for a particular wireless network is not readily visible to devices seeking wireless networks even though the SSID is still ascertainable from the transmitted packets.

17. The 802.11 wireless specifications divide each of the frequency bands into *channels*, analogous to TV channels. The division is regulated by individual countries, resulting in different locales having different numbers of permitted channels in each band. For example, in European countries, the frequency bands are regulated such that transmission is permitted across thirteen overlapping channels between 2.4 and 2.4835 GHz, each of which is 5 MHz apart and 22 MHz in width. A particular communication is transmitted over only one channel; thus, to the extent a packet sniffer is set to "hop" through channels—similar to changing a radio or TV channel—it may only collect fragments of a particular communication.

C. Overview of Findings

18. Using the more technical terminology in the above section, we expand on our high-level findings.

19. As set forth above, the executable program, *gslite*, is an 802.11 wireless frame parsing and collection tool that associates GPS coordinates with wireless network frames. While running in memory, the program parses frame header information, such as frame type, MAC addresses, and other network administrative data from each of the captured frames. The parsing separates the information into discrete fields for easier analysis. In addition, per-packet information regarding the wireless transmission's strength and quality is captured and associated with each frame. All available MAC addresses contained in a frame are also parsed. All of this parsed header information is written to disk for frames transmitted over both encrypted and unencrypted wireless networks.

20. The gslite program discards the frame bodies of 802.11 Data frames sent over encrypted wireless networks. The program inspects the encryption flag contained in each frame header to determine whether the frame is encrypted, i.e., whether it is being transmitted over an encrypted wireless network. If the encryption flag identifies the wireless frame as encrypted, the payload of the frame is cleared from memory and permanently discarded. If the frame's encryption flag identifies the frame as not encrypted, the payload—which exists in memory in a non-structured bit stream of ones and zeros—is written to disk in a serialized format, as further described below.

21. The gslite program parses Management frame bodies and stores the parsed data as "Information Elements." The gslite program also parses Control frames' subtype information before writing it to disk. By contrast, gslite does not parse Data frames' bodies, which may contain user-created content. Rather, unencrypted Data frames' bodies pass through memory unparsed and are written to disk in their unparsed format. (Again, encrypted frame bodies are dropped entirely.)

22. As set forth above, the gslite source code includes logic that examines wireless frames' type and encryption status, and determines whether to discard them in whole or in part. The default behavior of gslite is to record all wireless frame data, with the exception of the bodies of encrypted 802.11 Data frames. The gstumbler application is configurable through the use of command line arguments that make it possible to specify, at the time the program is run, what types of wireless frames to record. Based on our review of the provided configuration files and shell scripts used to launch gslite, prior to May 6, 2010, the gstumbler application used the default configurations described above, which is to say that all wireless frame data was recorded except for the bodies of 802.11 Data frames from encrypted networks.²

II. Overview and History of gstumbler, gslite, and Kismet

23. The source code reviewed is from a project referred to at Google as "gstumbler." According to internal Google documentation, gstumbler was first created and used in 2006. At that time, the program executable was itself also named "gstumbler," but at some point in or after late 2006, the executable deployed to vehicles otherwise capturing data for Google's Street View services was revised and renamed "gslite." The gslite program is the focus of this source code review. In this report, "gslite" refers to the specific executable program for which Stroz Friedberg reviewed the source code; and "gstumbler" refers to the overall application, including the configuration files and shell scripts that the Google Wifi project has used to detect and collect wireless network data.

24. The gslite source code is written in C++. C++ is an object oriented programming language, where objects are defined as data structures comprised of properties and methods, i.e. values and functions. An "object" refers to an instance of a data structure in memory. The gslite program makes use of object oriented programming to represent 802.11 frames in memory, parsing the raw frame data and storing its structural elements in a Dot11Frame object as defined in the source code file packet.proto. The Dot11Frame object is defined using a framework called Protocol Buffers, which was developed at Google to provide a means for writing complex data structures to disk. Protocol Buffers are discussed more fully in Appendix C.

25. The gslite program parses some, though not all, information from 802.11 wireless frames read in from a source of wireless frames. It simultaneously receives geolocation coordinates from a GPS system and then associates each wireless frame with the time and approximate location in which it was received. The gslite program works in concert with a second program, Kismet, which must run simultaneously. Kismet controls one or more wireless cards on a Google vehicle

² It is our understanding that on May 6, 2010, in response to regulatory attention, the gstumbler shell script was revised to disable *all* Data frame capture. We have inspected that revised shell script and have confirmed that revision.

and provides gslite with the stream of detected wireless frames. The relationship between gslite and Kismet is depicted in Figure 2.

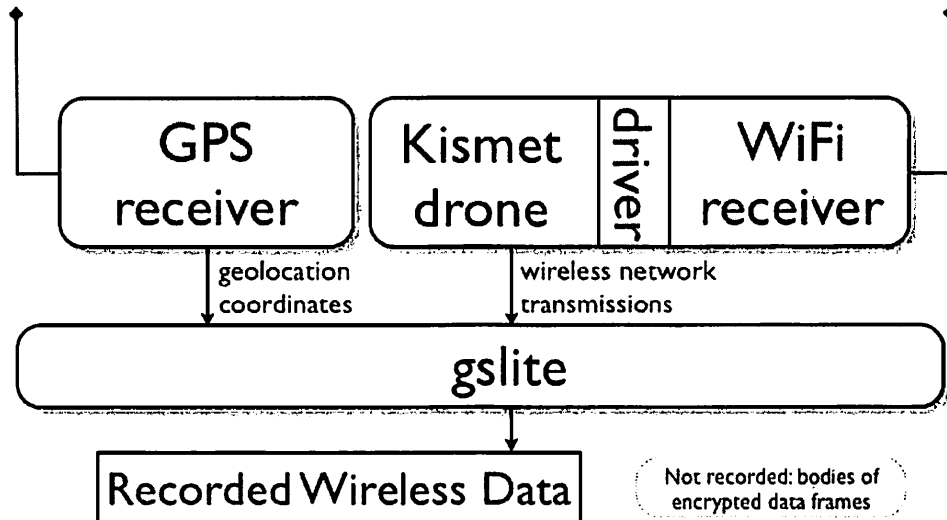


Figure 2. Inputs to gslite.

26. Kismet is a freely available, open-source application for wireless network detection and packet sniffing. Kismet captures wireless frames using wireless network interface cards set to monitoring mode. The use of monitoring mode means that Kismet directs the wireless hardware to listen for and process all wireless traffic regardless of its intended destination. Kismet captures wireless frames passively, meaning that that Kismet receives such transmissions without actively transmitting to nearby wireless networks. Kismet only detects packets passively. Through the use of passive packet sniffing, Kismet can also detect the existence of networks with non-broadcast SSIDs, and will capture, parse, and record data from such networks.

27. Kismet is a standalone application capable of capturing and filtering wireless frames. However, it can also be deployed in a configuration called a "drone," which does not record or analyze network traffic but instead forwards captured traffic to a server listening for such traffic. The Kismet drone program places a Kismet header describing the properties of the wireless transmission in front of the raw 802.11 frame and passes it to gslite for further processing. The gslite application listens for data from a Kismet drone running simultaneously within the Street View vehicle.

28. A Kismet drone is configured through the use of a file named `kismet_drone.conf`, which provides, among other things, instructions for Kismet to "channel hop." Channel hopping is the act of cycling through numerous 802.11 channels per second in order to capture frames from as many nearby networks as possible. In the `gstumbler` project, Kismet's configuration file is created using a predefined template file, and entries in Google's template instruct the drone to change wireless channels five times per second, as shown below (`kismet_drone.conf.template` lines 37-41):

```
# Do we channelhop?
channelhop=true

# How many channels per second to we hop? (1-10)
channelvelocity=5
```

As discussed above, the number of permitted channels for broadcast in a given frequency is regulated by a country's local authorities, and the number of permitted channels for broadcast in a frequency ranges between 11 and 14. The `kismet_drone.conf.template` file directs which channels should be monitored and the order through which they are hopped. In the United States, for example, there are 11 channels that may be used to wirelessly transmit data within the 2.4 Ghz band. Accordingly, when configured for the United States, Kismet listens to each of the 11 channels for one fifth of a second, thus listening to every channel for one 0.2 second interval during each 2.2 second channel hopping cycle.

III. Scope of Review and Methodology

29. Upon receipt of the `gslite` source code, Stroz Friedberg conducted a high-level review of the `gslite` framework code and associated modules. The purpose was to understand the basic logic flow and functionality of the program, and the significance and dependencies of the various components.

30. Based on our high level review, Stroz Friedberg identified key modules and dependencies for closer scrutiny, and assessed the significance of Google commands and code modules called from libraries external to the `gslite` code for use within the program. We received confirmation that particular functions and modules were borrowed from standard, shared libraries within Google. Because we also confirmed that such functions and codes were not customized for use in `gslite`, but were merely imported to perform standard functions, we focused on the core functionality and key programming modules unique to `gslite`.

31. We also did not independently review the Kismet program. As noted above, 802.11 frames initially are captured by the Kismet program, an open source packet sniffing program. It is our understanding based upon representations from Google that Kismet source code was not modified or adapted in any way as part of the `gstumbler` project.

32. We compared 802.11 frame specifications to the `gslite` frame parsing parameters encoded into the program to verify that the code's parameters are consistent with the specifications. That is, if the code parses particular bits of frame header information to determine, for example, the type of frame or whether the wireless network is encrypted, we confirmed that the program looks at the correct frame bits to parse the expected field from the raw data.

33. We closely scrutinized the parsing functionality of the `gslite` program as it pertains to each type of 802.11 frame. We determined how different types of frames are parsed, the different fields parsed for each frame type, what 802.11 frame fields are written to disk in parsed formats versus raw formats, and what 802.11 fields are discarded and not written to disk.

34. We analyzed the overall structure of code to determine the program's default behavior and the ways in which default behavior may be changed by command line arguments. We also examined the command line configuration settings over the course of `gslite`'s deployment.

35. We confirmed our understanding as to other secondary functions of the program, including its logic to detect bad frames and not process them, its diagnostic capabilities for assessing proper functioning of the program, its calculation and correlation of GPS geolocation information with detected wireless networks, and its decision as to how and when to write data to disk.

36. Stroz Friedberg did not receive or analyze earlier versions of the `gslite` source code or its predecessors. We did, however, review the modification history and did not observe significant changes to the program regarding how frames are parsed and recorded. We also reviewed all available versions of the shell scripts used to launch Kismet and `gslite` to verify what command line arguments were used.

IV. Detailed Analysis and Findings

A. *Source Code Flow and Functionality*

37. At the highest level of description, Google's gstumbler program creates a series of servers and objects that interface with the Google Street View vehicle's GPS system and the Kismet drone, pulls wireless frames from a stream provided by the Kismet drone, and then assigns timestamp and geolocation information to each wireless frame it encounters, saving the results to disk. The general description of how gstumbler operates is illustrated in Figure 3, below, and in the following paragraphs.

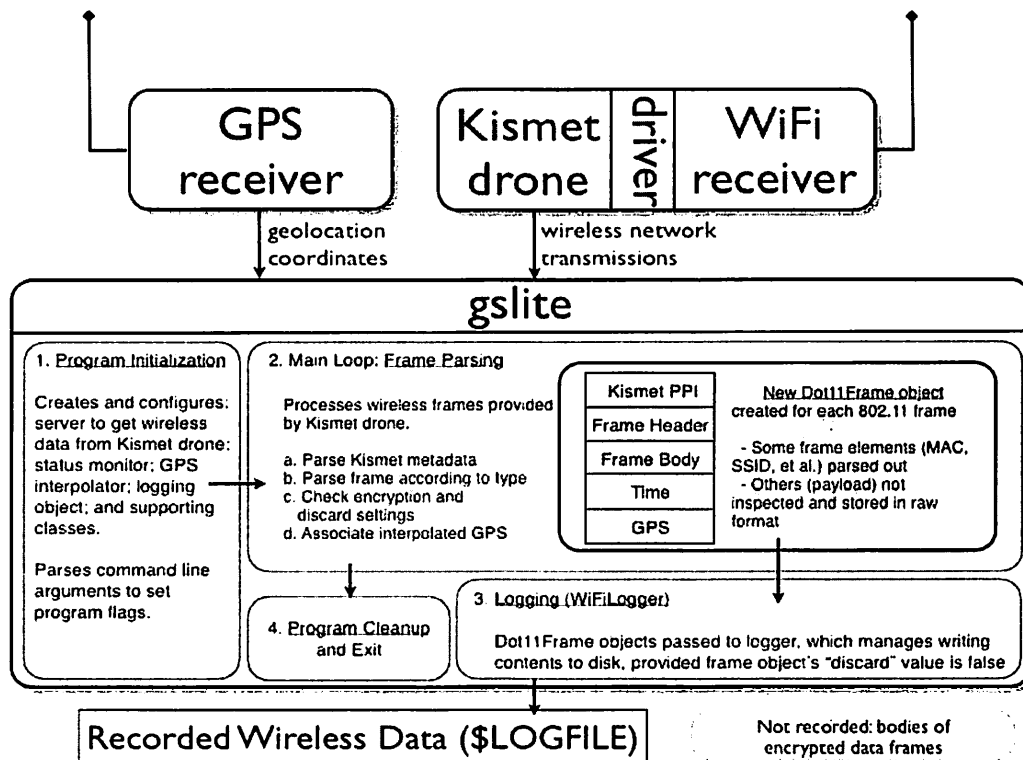


Figure 3: High-level representation of gslite program execution

38. The program first parses any command line arguments passed to it from the shell script, `run_gstumbler`, used to launch `gslite`. The program starts and configures a series of services, including, but not limited to: a `WifiRecordLogger`, which manages the storing of 802.11 frame data to disk; and a `WifiLiteServer` object, which listens for Kismet data on a predefined port.

39. For each frame being processed, the program creates a new `Dot11Frame` object in which to store the parsed 802.11 frame fields, along with a pointer to it. The `Dot11Frame` is a data structure that is built using Google's Protocol Buffers libraries. As noted previously, information about `Dot11Frame` objects and Protocol Buffers in general is provided in Appendix C.

40. The program parses the per-packet information (PPI) header information Kismet affixes to a captured 802.11 frame. PPI includes the quality of the signal, the signal strength, the signal noise, if the capture source indicated there was an error in the capture to Kismet, transmission channel, the signal carrier, the signal encoding, and the data transmission rate. The program

also sets the Dot11Frame's time received, time sent, and raw data properties to match those of the corresponding incoming frame.

41. The program proceeds to parse the 802.11 frame as described more fully in section B, below. The gslite program runs the Parse() method of a number of PacketParser objects against the incoming 802.11 frames: Dot11ParserImpl::Parse(); CtrlParserImpl::Parse(); MgmtParserImpl::Parse(); and TruncateParserImpl::Parse(). Although the forms of information available in a given frame vary according to its type and subtype, the packet parsers are applied to all frames regardless of type. The parsing process populates numerous properties of the Dot11Frame object with information extracted from the 802.11 frame. Parsing does not include inspection of the bodies of Data frames.

42. During the TruncateParserImpl::Parse() parsing function, gslite reads the encryption flag on each frame. That bit is located within the second byte of the Frame Control on an 802.11 frame. If the encryption flag is set to "true," then the frame's body, or payload, is cleared from memory and permanently discarded. If it is "false" the frame's body is retained for writing to disk.

43. The GPS interpolator associates geolocation coordinates with the frame and writes the coordinates into the Position property of the Dot11Frame.

44. The parsed 802.11 frame object is written to disk using WriteProtocolMessage() method of the RecordWriter object. In the case of Management frames, the body is written to disk as parsed Information Elements, while in the case of unencrypted Data frames, the body is written to disk in unparsed format. It is our understanding based upon representations from Google that the RecordIO module, used to write the Dot11Frame objects to disk, is a common shared library within Google, and it is utilized unchanged in gslite.

45. The main loop of the program continues parsing, collecting, and geolocating each 802.11 frame as it is detected and forwarded by the Kismet drone. An interrupt signal sent from a user or from the operating system will cause the program to exit the main loop, clean up objects in memory, and exit.

46. The gslite program also writes logging information, largely regarding program status and error conditions, to a default system location. Our review found one line of code that, when executed, writes the content of a wireless frame to disk, through the use of a protocol buffer method for formatting a data structure as a string (scanner.cc lines 114-115):

```
if (!parser_-->Parse(frm)) {
    LOG(ERROR) << "Error parsing frame: " << frm->ShortDebugString();
```

The second line of code above writes the wireless frame to disk, including its body, regardless of frame type or encryption flag. However, the program only performs this logging when a wireless frame cannot be successfully parsed and the Parse() method returns false. Our review of the Parse() method determined that this condition is met only when a frame's length is too short to constitute a valid frame header. In such an event, the frame also would be too short to contain a frame body. Furthermore, any such invalid frame would be discarded by Kismet or the wireless card prior to being forwarded to gslite. Accordingly, the circumstances necessary to invoke this logging action preclude the possibility that frame payload content would be written to the error log.

47. During execution, gslite also reports certain diagnostic information in HTML format to the HTTP server to provide in-vehicle feedback regarding the status and operating state of gslite. This status monitor does not write output to disk.

48. Finally, we note that the gslite source code contains functions and methods that are never executed, and which appear to constitute vestigial or uncalled code. Stroz Friedberg

inspected such code but found no control flow that would lead to the execution of such code areas.

B. Frame Parsing

49. Following capture of the data by Kismet, gslite uses a Dot11Frame object to represent the structure of an 802.11 frame in memory, prior to writing the frame to disk. The gslite program processes these Kismet packets by removing the Kismet header, and then processing the underlying raw data, which is an 802.11 frame.

50. "Parsing" a property of an 802.11 frame results in its value being assigned to a property of Dot11Frame object, making it readily accessible for further analysis by gslite without additional decoding. Some 802.11 frame fields are analyzed by gslite and never assigned to a specific property of the Dot11Frame field object. Only some 802.11 frame fields are assigned to properties of Dot11Frame objects in their parsed form by gslite prior to being written to disk; others are stored in memory in a property field named "raw" and are written to disk without being further processed. By default, in the case of encrypted 802.11 Data frames, the frame's body, which was temporarily stored in the Dot11Frame's raw field, is cleared from memory and never written to disk.

51. Specifically, gslite parses all available 802.11 frame header information and stores those properties in memory in a Dot11MacHeader object. The remaining frame data, the body, is stored in its raw form in the raw property field of a Dot11FrameBody object. A Dot11MacHeader object is a representation of the 802.11 frame header in the memory of a computer. Similarly, a Dot11FrameBody is a representation of the body or payload of an 802.11 frame body.

52. The Dot11MacHeader's properties and the Dot11FrameBody object may be further analyzed or parsed depending on the type of frame. Dot11FrameBody objects contain ManagementFrameBody and ControlFrameBody objects to represent metadata specific to Management and Control frames respectively:

- a. Control frames undergo the least additional analysis as they contain comparatively less data than other frame types. Only the subtype information from an 802.11 Control frame's Frame Control field will be parsed and stored in memory as its own parsed property.
- b. Management frames, which contain the administrative information necessary to manage wireless transmissions, undergo both additional analysis, and parsing. Management frames' Frame Control properties are analyzed to determine the values of the To DS and From DS fields, which indicate the number of MAC addresses within the frame; however, these values are not stored in their own property fields in memory. Furthermore, Management frames' bodies are parsed and stored as a series of Information Elements in the ManagementFrameBody's collection of InformationElement objects. Included in the Information Elements properties is the SSID. The gslite program parses and stores the SSID information for all wireless networks, whether the SSID is broadcast or not. Any extra data stored in the ManagementFrameBody is stored in the "extra" property. Once this process is complete, the raw property of the Dot11FrameBody object is then cleared for Management Frames.

53. Although Data frame header information is further analyzed during the parsing process, Data frame bodies are not parsed. Specifically, gslite analyzes a Data frame's Frame Control field to determine the values of the To DS and From DS fields contained therein; however, these values are not parsed or stored in their own properties in memory.

54. In summary, the parsing function of the gslite program does the following:

- a. All 802.11 frames have all of their available 802.11 frame header information parsed and stored in properties of a Dot11MacHeader object in memory, regardless of frame type. A frame's body will be stored as raw data in a Dot11FrameBody's raw property, and this raw data may be further parsed if the frame is a Management Frame. The frame type information from a frame's Frame Control field is parsed and stored in memory as its own value, regardless of frame type.
- b. If the frame is a Control frame, the subtype information from the Frame Control field will be parsed and stored in memory as its own value. No additional parsing is performed on Control frames.
- c. If the frame is a Management frame, the To DS and From DS fields from the Frame Control field are analyzed, but are not parsed and stored in memory as their own properties. Management frame bodies are parsed and stored as a series of Information Elements in ManagementFrameBody's collection of InformationElement objects (which is in the Dot11Frame's Dot11FrameBody object). Any extra data in the body is stored in the ManagementFrameBody's "extra" property, and the "raw" property of the Dot11FrameBody object is cleared.
- d. If the frame is a Data frame, the To DS and From DS fields from the Frame Control field are analyzed, but are not parsed and stored in memory as their own properties. Data frame bodies are not parsed. As discussed more fully below, the body of a Data frame is discarded if the Protected Frame bit is set to "true", which indicates the frame is encrypted; otherwise, the body is written as unparsed data to disk.

C. Default Settings Governing Discard of Data and Writing to Disk

55. After gslite's program logic parses each 802.11 frame according to its type, a Dot11Frame object exists with all available frame properties parsed and stored in the appropriate property fields. At this point in the execution of the program, the program's settings are checked to determine whether or not to retain the current frame data in whole or in part.

56. By default, gslite records all wireless frame data, except for the bodies of Data frames from encrypted wireless networks. The code governing whether data elements of a frame should be retained or discarded occurs in the file "packetparserimpl.cc." Four variables, or flags, are assigned default Boolean values to establish the program's default behavior regarding what to discard from memory and what to retain. In particular, the default settings, as shown below, are set to discard the bodies of encrypted frames³ and to retain everything else (packetparserimpl.cc lines 14-21):

```
DEFINE_bool(discard_encrypted_body, true,
    "Discard bodies of encrypted 802.11 frames");
DEFINE_bool(discard_control_frame, false,
    "Discard 802.11 control frames");
DEFINE_bool(discard_data_frame, false,
    "Discard all 802.11 data frames");
DEFINE_bool(discard_management_frame, false,
    "Discard all 802.11 management frames");
```

³Although a Management frame of the subtype Authentication would have its encryption flag set to "true," the sequence of the execution path causes such Management frame bodies to be stored in the "extra" property and written to disk. Management frames do not contain user content.

57. The same file, packetparserimpl.cc, contains the code that checks each wireless frame processed and determines whether or not to retain it in whole or in part, based upon the Boolean values of the flags defined above. The program checks to see whether the "discard_encrypted_body" flag is set to "true", which is the default setting. If so, gslite checks the frame being parsed to see whether its encryption flag is set to "true." If both checks return "true" then the frame is encrypted and the program discards the encrypted frame's body. The frame body is cleared, using the accessor method clear_body().

```
if (FLAGS_discard_encrypted_body && PacketUtil::IsEncrypted(f)) {
    // Discard just the body of encrypted frames
    f->clear_body();
}
```

Subsequently, when the remainder of the frame is written to disk, its body is not recorded.

58. The program checks the type of the frame being parsed (that is, whether it is a Control, Data, or Management frame) and then checks the value of the corresponding Boolean flag from among the discard flags above. If it is "true", the discard flag of the current frame object is set using the Dot11Frame accessor method set_discard(true).

```
switch (PacketUtil::Type(f)) {
case Dot11FrameBody::CONTROL:
    if (FLAGS_discard_control_frame)
        f->set_discard(true);
    break;
case Dot11FrameBody::DATA:
    if (FLAGS_discard_data_frame)
        f->set_discard(true);
    break;
case Dot11FrameBody::MANAGEMENT:
    if (FLAGS_discard_management_frame)
        f->set_discard(true);
    break;
default:
    break;
}
```

59. At a subsequent point in program execution when a parsed frame is to be written to disk, the discard flag of the frame object is checked: if the flag is set to "true", the frame is not written to disk (scanner.cc lines 105-111):

```
void WifiScanner::TryLog(Dot11Frame * frm) {
    if (is_logging_ &&
        logger_ &&
        !frm->discard() &&
        !logger_->Write(frm))
        LOG(ERROR) << "Error writing to log";
}
```

D. GPS Interpolation

60. The onboard GPS system provides geolocation coordinates at some rate slower than the rate at which wireless frames can be received. Accordingly, gslite interpolates the position at which each wireless frame was received and associates the interpolated position with the frame object. Stroz Friedberg's review of source code relating to GPS coordinate interpolation found no code execution paths that would affect the wireless data written to disk by gslite.

E. Command Line Arguments in Configuration Files

61. The Boolean flag definitions set forth in section C above provide the default program behavior. However, the flags can be superseded by command line arguments defined in accordance with Google's coding standards. The first line of code executed by gslite processes any and all command line arguments (see gslite.cc lines 12 and 128-129, below). It is our understanding from Google that InitGoogle(), a method defined outside the scope of the provided source code, sets the values of program variables using the command line arguments. The Google standards for using command line flags is documented at <http://google-gflags.googlecode.com/svn/trunk/doc/gflags.html>.

```
#include "base/commandlineflags.h"
...
int main(int argc, char** argv) {
    InitGoogle(argv[0], &argc, &argv, true);
```

62. Command line arguments will supersede the default values for the discard and encryption flags discussed above and change the behavior of gslite. Since the flag "discard_data_frame" is false by default, gslite will discard entire Data frames if and only if the flag "discard_data_frame" is run on the command line at the time of program execution (or until such time as the default behavior is revised in source code).

V. Conclusion

63. Gslite is an executable program that captures, parses, and writes to disk 802.11 wireless frame data. In particular, it parses all frame header data and associates it with its GPS coordinates for easy storage and use in mapping network locations. The program does not analyze or parse the body of Data frames, which contain user content. The data in the Data frame body passes through memory and is written to disk in unparsed format if the frame is sent over an unencrypted wireless network, and is discarded if the frame is sent over an encrypted network.

APPENDIX A

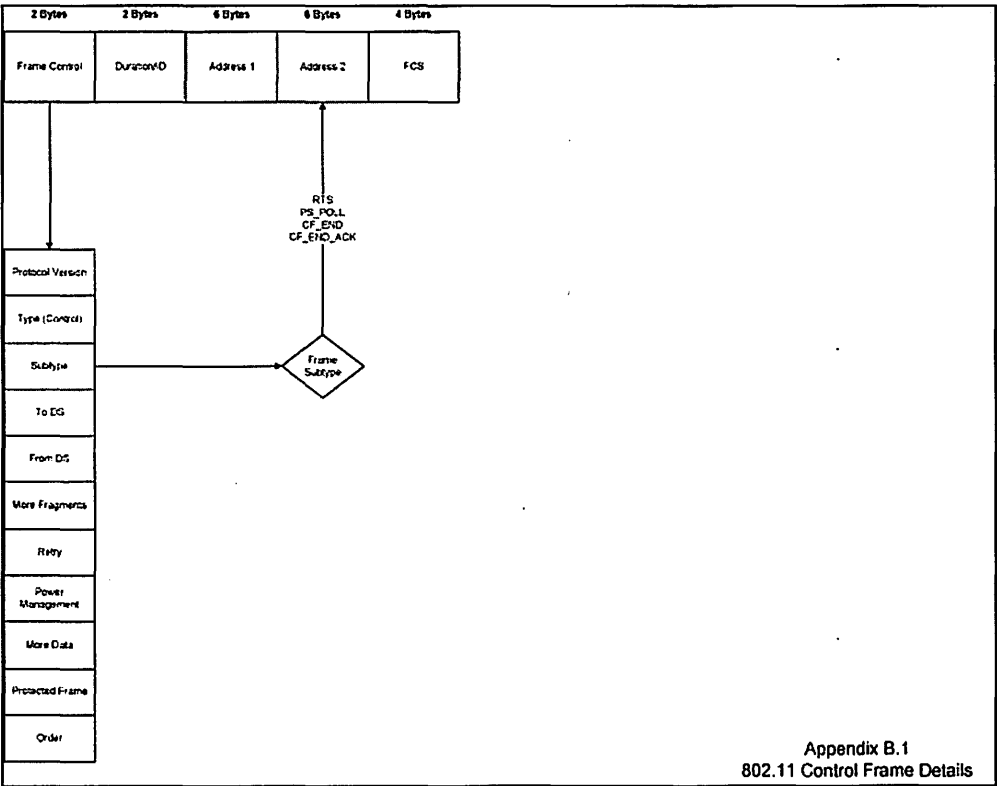
INVENTORY OF REVIEWED SOURCE CODE FILES AND SHELL SCRIPTS

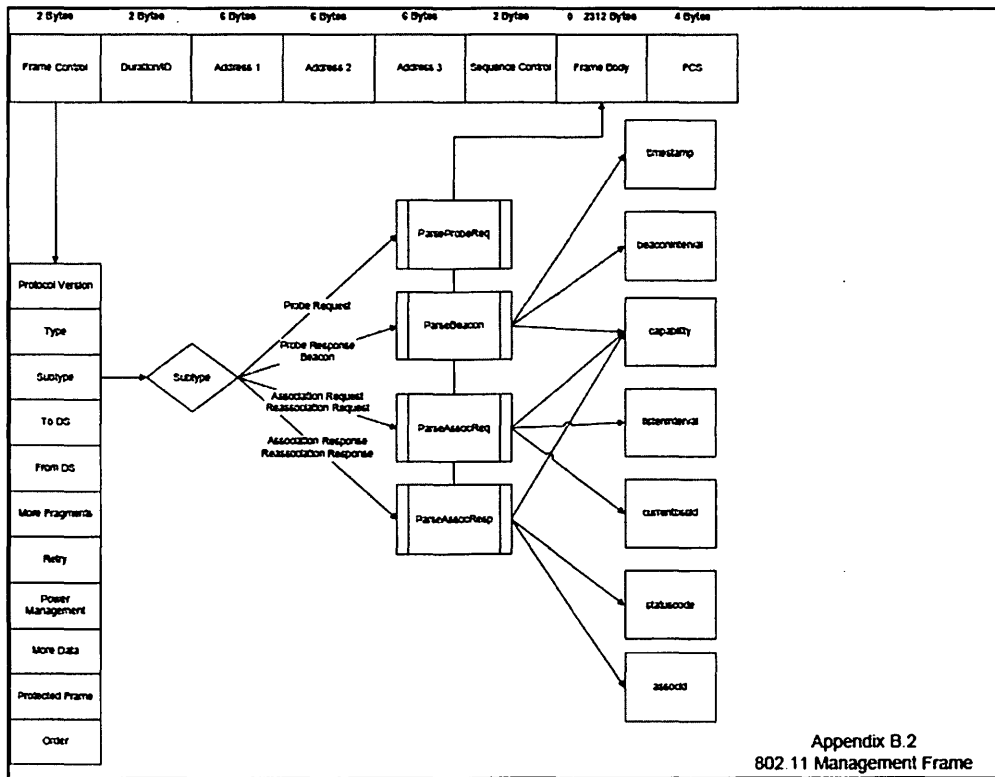
Stroz Friedberg reviewed the following provided C++ source code, configuration files, and shell scripts as part of its static source code analysis. The dates of last modification are derived from the compressed tar files in which the source code was provided and are believed to correspond to the dates of modification of official, checked-in source code.

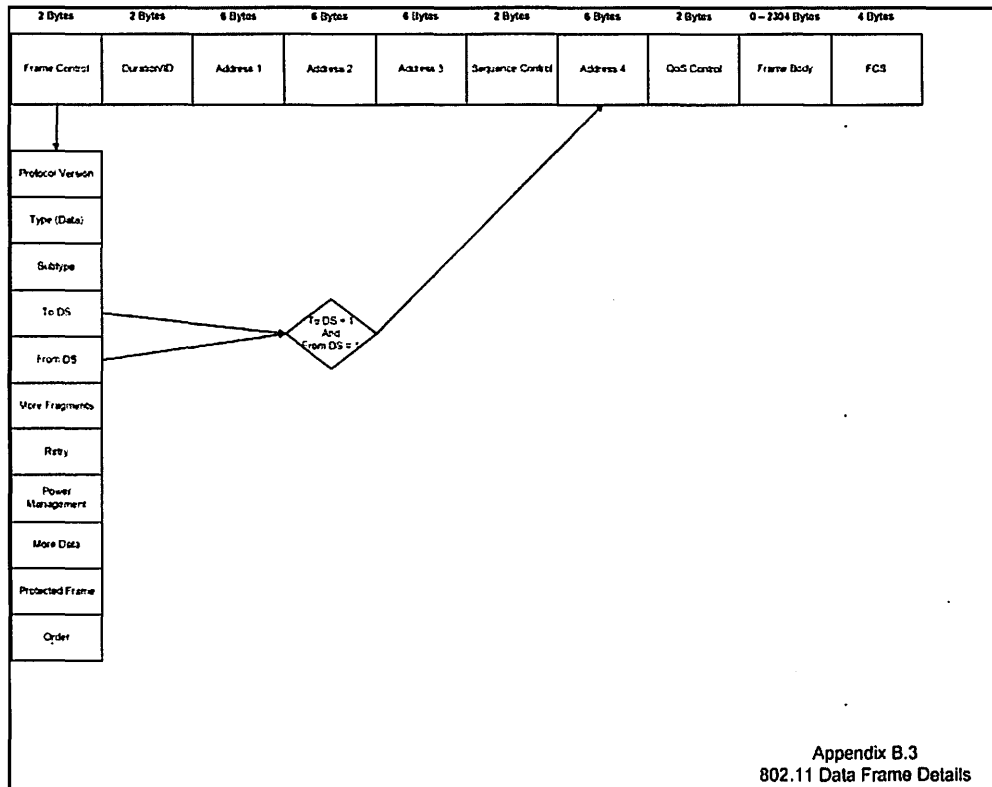
File Name	Last Written On	SHA-1 Hash Value
gstumbler Source Code Provided as gstumbler-src.tgz on 5/20/2010		
BUILD	7/1/2009	7de19d35307cfdc9fc8c03c9d8d44aee3cebcbaa
gps_messages.h	3/31/2010	aa9cef443f3e1352056751cdc3ca8d35705cbf1f
gps-interpolator.cc	11/7/2007	37001680b7e4acd0410fd890523fa911371cdf63
gps-interpolator.h	4/30/2008	688d310771e66e2ecc92c7069059bda2e378d1d8
gps-interpolator_test.cc	2/2/2010	21e241b6cdb0ae65f2d395f38d5541d0ef2b3ed8
gps-ipc.cc	3/31/2010	2413c0538add232332fa25ba1498274f54e2d76f
gps-ipc.h	3/31/2010	175193adb5116594e6f644c9b9bb8a9920476d8a
gps-ipc_test.cc	3/31/2010	3ea76455f6fd12391c6e60ad9d8b0fe9bffb0db4
gslite.cc	3/31/2010	796c67b420ffd5ff0afbc65c42c07d08256686d3
gstumbler.cc	4/30/2008	2104989fdc44b9c53acbf5bc6857ee8f1fc2594e
gstumbler-run.sh	3/5/2007	e5045fac3b9e6de3ce36b3b797e504a9c741254a
kismetconnection.cc	6/19/2009	4b3cb2dcfef03c53bdf3f46088039c1105d29fe3
kismetconnection.h	6/19/2009	cacb6ca54136cc1bcf3a64f9a54a25b4939f2a7f
logger.cc	11/7/2007	03f2733398191d36fae6297564b455086bdfda83
logger.h	11/7/2007	83df2ff3e50f5e070af8f4ac1c032ca6a2f8682
monitor.cc	10/31/2006	7b5381eb9adeb12e09589f84e817f170bc783ade
monitor.h	10/31/2006	64870c0f3df0b169ef352b0c3f920bd48ff6073c
packet.proto	3/31/2010	872e43bb2477b3d50dfdd34f68adad7290f49f6c
packetparser.cc	10/31/2006	142687c8f5bef580ce46476eb840e002280d969
packetparser.h	7/1/2009	3855b17808778d752824ea6a2efbe875307933ac
packetparser_test.cc	2/2/2010	dc795a3e99ec890db87d1e97ac835ed3f74a3f7b
packetparserimpl.cc	10/31/2006	ec094b96ab14ba7bf251160ad6d3285d4fa3a714
packetparserimpl.h	10/31/2006	d8f5c40b3954133c8be46e6cabf9f23f91de6ecc
packetsource.cc	10/31/2006	bfe6dec9aa9d4a4095c0ad34c9f103b7344154d5
packetsource.h	3/4/2010	69f2b4ffa32e925e56bdf0f56097cf5bd7ce0ed9
packetsourceimpl.cc	12/16/2009	75828b368c1682ebac547c1193e9d3fbcc27f54a
packetsourceimpl.h	7/1/2009	bff09f7f55cdd080eaf1d9057a8a33c1d9cbb8f8
packetutil.h	1/28/2008	8dedee1c5b43811bd7a16ea9b5afc58b69adf2f2
resources\drive_status.tpl	10/18/2007	065c489ee01d5de2ff85f92829fceebed58359e9
scanner.cc	3/31/2010	33d4a92a87a679faf0932e492f1be6cf32a9534a
scanner.h	3/31/2010	4a869a3f54a4f2662c09b8fd90e4e14bf631cb83
scanner_test.cc	2/2/2010	7a8004d0c19cc1337ca9cb888bd3f7830a26413b
Configuration files and shell scripts -- most recent versions Provided as gstumbler-config.tgz on 5/20/2010		
config_interfaces.sh	5/18/2010	51c00340e9744dda850ca0ee546bcce067327caa
kismet_drone.conf.template	5/18/2010	f5bd93b3fc1ba8ada0827cc04fc6ca5c24aab99c

run_gstumbler.template	5/18/2010	7b3aacb15f8b878b8bd91d34242c6b4a1e958691
run_kismet	5/18/2010	7c8b2b13061b6cb8280256556910d56b93848a20
Configuration files and shell scripts -- historical versions		
Provided as gstumbler-scripts2.tgz on 5/26/2010		
config_interfaces.sh#1	5/26/2010	7b85ea7c7babd7a7115f0caa1fc1e3a2814f9d75
config_interfaces.sh#2	5/26/2010	faeeebfae425597af82acebdedccc2c972088b10
config_interfaces.sh#3	5/26/2010	5816de44b2cf67116958e7bd35240bf1f3186953
config_interfaces.sh#4	5/26/2010	fc5ee14d002970d532ec55cee09962959b78d28b
run_gstumbler.template#1	5/26/2010	9a718b8727a2c590e670fc08ea27fa4818309253
run_gstumbler.template#2	5/26/2010	4f4ca3f5d2175eecdaf1c104a8aba702cce34778
run_kismet#1	5/26/2010	27df00844852cd7e0070d82324ab5cc2fb81881c
Supporting library for managing record writing		
Provided as bulkstorage.tgz on 5/26/2010		
bulkstorageblock.h	11/1/2006	d7240f808766bd718e80f1293dcaba95ff50af18
bulkstoragewriter.cc	3/12/2007	e361e6c9d16cc64af15bb3df6a6cfd58e049b6f
bulkstoragewriter.h	3/12/2007	d0dad037253f4f83a9107c7ea004c8d8e26f78d1
bulkstoragewritermanaged.cc	3/4/2010	bab20ee94c25d62c2d8a18259915bf0906d68115
bulkstoragewritermanaged.h	3/4/2010	1d8b67f468f0b3d7dbe4f609548261b37fed4eb0
disk_write_methods.cc	3/12/2007	134aea15d93f667e322e7c70c7b89609755e2052
disk_write_methods.h	12/29/2006	4609dcf39b55cc2e111f338b7dbc4a3caf891109
performancemonitor.cc	8/10/2007	f4aece5bd4bcd520e654ab0d9802c560c2efc09
performancemonitor.h	11/29/2006	b8c37eb8a427fdd72f707985661a71641c7436ec
sectensecminstats.cc	11/29/2006	34d884b123216a4fb5bd640bf51d2e8f2ad42ef1
sectensecminstats.h	6/22/2009	38c8bf84879ecdade44a31642b5aba0e30e6cccd

APPENDIX B **802.11 FRAME ELEMENTS**







APPENDIX C

THE GSTUMBLER DOT11FRAME PROTOCOL BUFFER AND SUMMARY OF RECORDED CONTENT

C-1. Google source code employs a serialization format, accomplished through the use of objects developed at Google called Protocol Buffers, which are used to exchange and write structured data. Protocol Buffers take an object representing a complex data structure and transform that structured object into a bitstream, suitable for transmission or writing to disk, through a transformation called serialization. The source code for protocol buffers was released under an open source license by Google in 2008. An overview of documentation regarding protocol buffers is available at (<http://code.google.com/apis/protocolbuffers/docs/overview.html>).

C-2. Each type of object to be serialized is specified as a Protocol Buffer "message," which establishes the structure of each object type. In the gstumbler project source code, Protocol Buffers are declared in the file packet.proto. The protocol buffer message of central importance to gslite's functionality is the Dot11Frame object, a message that is a structured representation of a single 802.11 wireless frame. The Dot11Frame object contains multiple other protocol buffer messages, also defined in packet.proto, that represent various components and types of wireless frames.

C-3. Protocol buffers provide accessor functions to set and retrieve the values of fielded data within a message. Standard accessor functions include get_<fieldname>, set_<fieldname>, and clear_<fieldname>, where <fieldname> is one of the defined data elements within the message. As discussed in paragraphs 57 and 58 of this report, the Dot11Frame accessor methods clear_body() and set_discard(true) will be called if certain flags and conditions are true. These methods serve, respectively, to clear only the content of the Dot11Frame's Body field and to set the Discard Boolean flag of a Dot11Frame message to true. These two methods are the means by which a frame is written to disk without its payload or not at all.

C-4. The following tables summarize the properties within each of the protocol buffer messages defined in packet.proto.

Dot11Frame Object	
Property	Description
Raw	A buffer used to store the unprocessed data; this buffer contains the raw frame data parsed throughout frame processing and is cleared prior to the data being written to disk.
Header	A Dot11MacHeader object in the protocol buffer message format described below.
Body	A Dot11FrameBody object in the protocol buffer message format described below.
Position	A cityblock.PositionInfo object containing GPS coordinates.
PositionComment	An optional string.
TimeRecvd	The time the frame arrived for processing.
TimeSent	The estimated time the frame was transmitted.
KismetMetadata	A KismetMetadata object, described below, containing per-packet information including 802.11 channel, signal quality, and frame length.
Discard	A boolean flag that indicates whether or not the entire frame – metadata and body – should be written to disk.

Dot11MacHeader	
Property	Description
Raw	The raw data buffer containing the data that is processed and stored in the header's fields.
FrameControl	A thirty-two bit integer used to store the sixteen bit Frame Control field in an 802.11 frame.
DurationOrId	A thirty-two bit integer used to store the sixteen bit field in position bytes 2 to 3 in an 802.11 frame. These sixteen bits are either the duration or id depending on the type and subtype of the frame.
Address1	The first Media Access Control (MAC) address in an 802.11 frame. A MAC address is a six byte hexadecimal address specifying a network device.
Address2	The second MAC address in an 802.11 frame.
Address3	The third MAC address in an 802.11 frame.
SequenceControl	The sixteen bit sequence control number present in data and management frames. Data may be fragmented for transmission or re-transmission. If the data is fragmented, this number is used to determine where in sequence a fragment fits. This field is zero for the first or only fragment of data, and incremented for each successive fragment sent.
Address4	The fourth MAC address in an 802.11 frame.
QoSControl	Sixteen bits of quality of service related information and policies sent by hardware supporting quality of service.

Dot11FrameBody	
Property	Description
Raw	The raw data buffer containing the data that is processed and stored in the body's fields.
FrameType	An enumerated type that specifies if a frame is: a Management frame (0); a Control frame (1); a Data frame (2); a Reserved type frame (3); or if there is no frame type detected (9999).
Ctrl	An optional ControlFrameBody object, defined below.
Mgmt	An optional ManagementFrameBody object, defined below.

ControlFrameBody	
Property	Description
Subtype	An enumerated type specifying the subtype of a Control frame. Its potential values are: PS_POLL (10); RTS (11); CTS (12); ACK (13); CF_END (14); CF_END_ACK (15); and NO_CTRL_SUBTYPE (9999).

ManagementFrameBody	
Property	Description
Subtype	An enumerated type specifying the subtype of a Management frame. Its potential values are: ASSOC_REQ (0); ASSOC_RESP (1); REASSOC_REQ (2); REASSOC_RESP (3); PROBE_REQ (4); PROBE_RESP (5); BEACON (8); ATIM (9); DISASSOC (10); AUTH (11); DEAUTH (12); and NO_MGMT_SUBTYPE (9999).
AuthAlgorithm	A thirty-two bit integer that is not set in the code reviewed.
AuthTransaction	A thirty-two bit integer that is not set in the code reviewed.
BeaconInterval	A thirty-two bit integer that is used to store the sixteen bit value of the number of time units between target beacon transmission times.
Capability	A thirty-two bit integer that is used to store the sixteen bit series of flags outlining the functionality of the transmitter.

CurrentBSSID	A sixty-four bit integer that is used to store the forty-eight bit MAC address of the access point with which the transmitter is currently associated with.
ListenInterval	A thirty-two bit integer used to store the sixteen bit value of how often a receiver in power saver mode wakes to listen to Beacon management frames.
ReasonCode	A thirty-two bit integer that is not set in the code reviewed.
AssocID	A thirty-two bit integer that is used to store the sixteen bit value assigned by an access point during the association process.
StatusCode	A thirty-two bit integer that is used to store the value used in a response management frame to indicate the success or failure of a requested operation.
Timestamp	A sixty-four bit integer used to store the value of the timing synchronization function timer of a frame's source.
IEs	A collection of Information Elements, or key-value pairs regarding a transmitter.
SSID	A string containing the name of the access point.
Channel	A thirty-two bit integer used to store the channel on which a frame was sent.

KismetMetadata	
Property	Description
hdrlen	A thirty-two bit integer used to store the length of the Kismet header.
drone_ver	A thirty-two bit integer used to store the sixteen bit value of the version of the Kismet drone.
datalen	A thirty-two bit integer used to store the length of the data captured by Kismet.
caplen	A thirty-two bit integer used to store the length of the data originally captured by Kismet.
tv_sec	A sixty-four bit integer storing a timestamp in seconds.
tv_usec	A sixty-four bit integer storing a timestamp in microseconds.
quality	A thirty-two bit integer used to store the sixteen bit value signal quality.
signal	A thirty-two bit integer used to store the sixteen bit value signal strength.
noise	A thirty-two bit integer used to store the sixteen bit value signal noise level.
error	A thirty-two bit integer used to store the eight bit value whether the capture source told Kismet the frame was bad.
channel	A thirty-two bit integer used to store the eight bit value of the hardware channel that received the frame.
carrier	A thirty-two bit integer used to store the eight bit value of the signal carrier.
encoding	A thirty-two bit integer used to store the eight bit value of the signal encoding.
datarate	A thirty-two bit integer used to store the value of the data rate, which is in units of 100 kbps.
adapter	A thirty-two bit integer used to store the mapped value of an adapter name.

Attorneys for Defendant Google Inc.

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APPENDIX A

Appendix A: Plaintiffs' Prior Statements Regarding Their Use of Open, Unencrypted Wi-Fi Networks

Rubin Dec. Ex. No.	Court Filing in which statement was made	Plaintiff Name	Statement
6	<i>Van Valin Complaint</i> (filed 5/17/10) D. Or. Case No: 3:10-cv-00557-MO	Van Valin, Vicki	¶4: "During the class period, Van Valin used and maintained and used [sic] an open wireless internet connection ('WiFi connection') at her home."
7	<i>Colman Complaint</i> (filed 5/26/10) D.D.C. Case No.: 1:10-cv-00877-JDB	Colman, Jeffrey	¶5: "During all times relevant herein, Colman used and maintained an open wireless internet connection at his home . . ."
8	<i>Keyes Complaint</i> (filed 5/28/10) D.D.C. Case No.: 1:10-cv-00896-JDB	Keyes, Patrick	¶1: "Defendant intentionally intercepted electronic communications sent or received on open wireless connection ("WiFi connections") by the Class . . ."
9	<i>Carter Complaint</i> (filed 6/2/10) E.D. Pa. Case No.: 2:10-cv-02649-JHS	Carter, Stephanie & Russell	¶6: "Plaintiffs Stephanie and Russell Carter, husband and wife, are residents of Philadelphia, PA. During all relevant times they used an open Wi-Fi network at their residence." ¶7: "Plaintiffs used their open, unencrypted internet connection to transmit and receive personal and private data."
10	<i>Berlage First Amended Complaint</i> (filed 6/3/10) N.D. Cal. Case No.: 5:10-cv-02187-JW (PVTx)	General Allegations	¶15: "[P]laintiffs Berlage, Linsky, and Fairbanks maintained open wireless network and internet connections at their residences, while plaintiff Bergin maintained a closed or encrypted wireless network and internet connection." ¹
		Berlage, Matthew	¶5: "Mr. Berlage used and maintained at all times relevant and material hereto an unencrypted wireless internet connection at his home . . . As used herein, 'unencrypted' is intended to mean that a 'key' was not needed to decode intercepted communications . . ."
		Linsky, Aaron	¶6: "Mr. Linsky used and maintained at all times relevant and material hereto an unencrypted wireless internet connection at his home . . . As used herein, 'unencrypted' is intended to mean that a 'key' was not needed to decode intercepted communications . . ."
		Fairbanks, James	¶7: "Mr. Fairbanks used and maintained at all times relevant and material hereto an unencrypted wireless internet connection at his home . . . As used herein, 'unencrypted' is intended to mean that a 'key' was not needed to decode intercepted communications . . ."

¹ Plaintiff Denise Bergin was excluded from the Consolidated Class Action Complaint ("CCAC").