EXHIBIT 91
UNREDACTED VERSION OF DOCUMENT SOUGHT TO BE LODGED UNDER SEAL

From: Konstantinos Papamiltiadis </O=THEFACEBOOK/OU=EXTERNAL

(FYDIBOHF25SPDLT)/CN=RECIPIENTS/CN=942ACCD3D3C54FBEA8B7253E97A8A6D7>

Sent: Wednesday, March 18, 2015 8:32 AM

**To:** Dmitry Alexeenko

Cc: Francesca de Quesada Covey; Roman Fuchs; Steve Kirkham; Jon Park

**Subject:** Re: Question for F8

As promised, please find attached the docs for Hashed Friends API that can be used for social ranking.

Let us know if this would be of interest for you, as we will need to sign an agreement that would allow you access to this API.

In the meantime, let's please defer any convo on the API that could return signals about the authenticity of the account post f8.

Any questions, let us know.

kp

From: Dmitry Alexeenko <dmitry.alexeenko@airbnb.com>

Date: Tuesday, March 17, 2015 at 9:21 PM

To: Konstantinos Papamiltiadis <kpapamiltiadis@fb.com>

Cc: Francesca de Quesada Covey <cesi@fb.com>, Roman Fuchs <roman.fuchs@airbnb.com>, Steve Kirkham

<steve.kirkham@airbnb.com>, Jon Park <park@fb.com>

Subject: Re: Question for F8

Hi KP,

Sure let's sync up at 8am PDT. What's a good phone number to call you?

On Tue, Mar 17, 2015 at 9:14 PM, Konstantinos Papamiltiadis < <a href="mailto:kpapamiltiadis@fb.com">kpapamiltiadis@fb.com</a>> wrote: Hello Dmitry,

Can we synch up at 8am? I will be at a training from 9-6 both tomorrow and Thursday and Francesca is going to be on a plane.

Thanks a lot,

kp

From: Dmitry Alexeenko <dmitry.alexeenko@airbnb.com>

**Date:** Tuesday, March 17, 2015 at 10:39 AM

To: Francesca de Quesada Covey < cesi@fb.com>

Cc: Konstantinos Papamiltiadis <<u>kpapamiltiadis@fb.com</u>>, Roman Fuchs <<u>roman.fuchs@airbnb.com</u>>, Steve Kirkham

<steve.kirkham@airbnb.com>, Jon Park <park@fb.com>

Subject: Re: Question for F8

Hi Francesca,

Would tomorrow (March 18th) at 10am PDT work for you?

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On Tue, Mar 17, 2015 at 8:51 AM, Francesca de Quesada Covey < cesi@fb.com > wrote:

Would it be possible to setup a call today or tomorrow to discuss the different options?

Best,

Cesi

From: Dmitry Alexeenko <dmitry.alexeenko@airbnb.com>

Date: Tuesday, March 17, 2015 at 5:09 AM

**To:** Konstantinos Papamiltiadis < <u>kpapamiltiadis@fb.com</u>>

Cc: Roman Fuchs < roman.fuchs@airbnb.com >, Francesca Covey < cesi@fb.com >, Steve Kirkham

<steve.kirkham@airbnb.com>

Subject: Re: Question for F8

Thanks KP,

Just trying to understand this better from the technical side of things.

If I understand correctly under the covers app scoped user ids can be still connected to actual FB user ids. App scoped user ids are there to prevent leaking user ids from one app to another. However, FB still can figure out what actual user id corresponds to an app scoped id (and figure out user profile creation date).

Is my understanding wrong? Or is it technically infeasible or otherwise not considered as a option? If so why?

On Mon, Mar 16, 2015 at 9:38 PM, Konstantinos Papamiltiadis < <a href="mailto:kpapamiltiadis@fb.com">kpapamiltiadis@fb.com</a> wrote: Understood, that's why we are trying to work out a solution that would work for others and provide strong signal of authenticity.

We will keep you posted, Roman. There is appetite certainly to do something here, I hope after F8 we will have a few meaningful updates to share.

Cheers,

kр

From: Roman Fuchs < roman.fuchs@airbnb.com >

Date: Monday, March 16, 2015 at 9:03 PM

**To:** Konstantinos Papamiltiadis <<u>kpapamiltiadis@fb.com</u>> **Cc:** Francesca de Quesada Covey <cesi@fb.com>, Dmitry Alexeenko <dmitry.alexeenko@airbnb.com>, Steve Kirkham

<steve.kirkham@airbnb.com>

Subject: Re: Question for F8

Ні Кр,

Yes, that is correct. As our hosts invite guests to stay at their home, building trust is of utmost importance to us. A central piece in this context is our product "Verified Identity", where users verify a piece of their online and offline identity.

A Facebook profile without a creation date is losing one of the best signals to evaluate the authenticity. While the number of friends is definitely one of the signals we evaluate, it's much easier to create for a fake account with a profile picture of a pretty girl or so.

Best regards, Roman

On Mon, Mar 16, 2015 at 8:32 PM, Konstantinos Papamiltiadis < <a href="mailto:kpapamiltiadis@fb.com">kpapamiltiadis@fb.com</a>> wrote: Hello Roman,

I suspect you use the creation date as a signal for authenticity of the account; please correct me if I am wrong.

We are aware this is a useful signal for a few of our partners and are working on getting a solution in place that will address this.

However, until then, the only signal that you can use that comes from free is the number of friends a user has. The reason creation day can't be used as a signal any more is related to the fact we use app scoped ID that are not generated randomly and don't reflect the date the account was created.

Best, kp

From: Francesca de Quesada Covey <cesi@fb.com>

**Date:** Monday, March 16, 2015 at 8:09 PM **To:** Roman Fuchs <<u>roman.fuchs@airbnb.com</u>>

Cc: Dmitry Alexeenko <dmitry.alexeenko@airbnb.com>, Steve Kirkham <steve.kirkham@airbnb.com>, Konstantinos

Papamiltiadis < kpapamiltiadis@fb.com >

Subject: Re: Question for F8

+ KP to help answer any question ASAP today pacific time if needed; if not will look into this in am gmt.

Thanks!

Sent from my iPhone

On 16 Mar 2015, at 20:23, Roman Fuchs < roman.fuchs@airbnb.com> wrote:

Hi Francesca,

This is really unfortunate to hear, as it's probably the most successful signal right now to verify a Facebook profile.

Also, the mutual friends API doesn't seem to be fulfilling our needs. Imagine we want to surface hosts in London, that you have a social connection with. We are obviously not able to query this API endpoint for every host in London with your access token individually.

I would assume this is a common scenario for other companies as well. I remember, when I worked at Bing, we had the same scenario as well. How do other companies solve this?

Best regards,

Roman

On Mon, Mar 16, 2015 at 11:22 AM, Francesca de Quesada Covey < cesi@fb.com > wrote: Hi Roman -

Hope you had a lovely weekend!

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I've spoken with the team and unfortunately there's no way to request the creation date for a profile. The reason we are not allowing this is in order to protect our users. I understood from our conversation why and how you use it. I'm trying to figure out the best work around. Will get back to you ASAP>

I've included the information on the mutual friends api below. This will be important to roll out as your currently ask for this permission and it will not work with the new version of login how you are doing it. I've gone ahead and proactively whitelisted your app.

Please let me know if you have any questions.

Best,

Cesi

## 1/API

**Endpoint:** graph.facebook.com/v2.2/USER B ID?fields=name,id,context.fields(all mutual friends)&access t oken=USER A TOKEN – where both user A and B must be app users

Note that this API is available in v2.0, v2.1 and v2.2, but not v1.0. By default it returns a total count, and up to 5 mutual friends. If you want more mutual friends, you can specify a limit param: ...?fields=name,id,context.fields(all mutual friends.limit(200))

## 2/ Sample response:

NOTE: we only return the ID field if the mutual friend is an app user. We return a token in all cases. The token will eventually be usable to redirect the user to the FB profile for that person I.e. <a href="https://www.facebook.com/">www.facebook.com/</a><a href="https://www.facebook.com/">TOKEN</a>> but that's not done yet.

```
"name": "Carl Sjogreen",
  "id": "5943",
  "context": {
   "all mutual friends": {
      "data": [
         "name": "Arthur Rudolph",
         "token":
"AS14nbpfmyXr44MjWyP8Ge1 RmMlUjACrq0MH7581CzqG9DC25kophaa6jvUVZEYqpkFXU9kMMcTXY-nxc-N8acQ",
         "picture": {
            "data": {
              "is silhouette": false,
              "url": "https://fbcdn-profile-a.akamaihd.net/hprofile-ak-xaf1/v/t1.0-
1/c0.5.50.50/p50x50/1928902 665659915031_7800815_n.jpg?oh=cf5d0386a572d440c75fc7da70b2dbda&
oe=5539B823&__gda__=1428955376_232d7d0dd9758afadcbaa4936f949760"
         }
       },
         "id": "9074",
         "name": "Mike Vernal",
         "token":
"ASnSiFqA0ZaebCx4Jok5bin237ez66NvcFeqKe4Ze24m4PTNJITfcA9 2FHZ2uXoupOxMvAFTRpStcmeLuqRjvhe",
         "picture": {
           "data": {
             "is silhouette": false,
             "url": "https://fbcdn-profile-a.akamaihd.net/hprofile-ak-xfp1/v/t1.0-
1/p50x50/10245425_10101720899420561_4711891193667829994_n.jpg?oh=0659432782fe60c8ddb7ff1e23
685d8d&oe=55337F5Ā& qda =1433214769 d0fec12c86fd53d5986f83fb1a344750"
       },
         "id": "11230",
"name": "Spencer Lazar",
```

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```
"token": "ASmfs9WPcAYUcSZkZYYI9d4Ovo5ZiN11A7-
Uazvxq55Cpyc971SdzpLvKe2kkBqaAdRU xMUtBt0RMLIT0MaT9So",
         "picture": {
           "data": {
            "is silhouette": false,
            "url": "https://fbcdn-profile-a.akamaihd.net/hprofile-ak-xaf1/v/t1.0-
1/c8.0.50.50/p50x50/1959792 10101273193691431 1742964517 n.jpg?oh=bd9cdef942497b46d90d54d89
8f865cd&oe=5537CE18& gda =1430135507 e1ee33a42ffb8c50f9f3191a7f4525bc"
         }
       },
         "id": "11674",
         "name": "Jonathan Matus",
         "token":
"ASn9N1X_vVUeUr09CT3OeUJSufq3S3_M1s1GsdsaTZyPaCCtgeKBSDFerRtCKhlCZQBJfilXftAOE7smi5ddwVp6",
         "picture": {
           "data": {
            "is silhouette": false,
            "url": "https://fbcdn-profile-a.akamaihd.net/hprofile-ak-xpa1/v/t1.0-
73d58b\&oe=556B842E\& qda =1429703571 c79cc0934c3d703c44fe77b92e9427a6"
         }
       },
         "id": "15150",
         "name": "Zoran Martinovic",
         "token": "ASnm0XryCoUFSd-0YxEXSZfQMw52Jxf_sJfu2ZIrqIDhTOQ2dv_bBhnS-U6ZuGkrsXdf-
zstP0NcMIgEWjvoL8ac",
         "picture": {
           "data": {
             "is silhouette": false,
             "url": "https://fbcdn-profile-a.akamaihd.net/hprofile-ak-xap1/v/t1.0-
1/c11.11.141.141/s50x50/66942 762747565601_1090639_n.jpg?oh=ec23095d699be1d55cf511d9ea1138c
6&oe=5533F271& gda =1433120160 2f43bc8695455e4f959921c96a02a6c0"
         }
       }
     "paging": {
       "cursors": {
         "before": "MTAxMDE4NDkzNTI2OTkxNjE=",
        "after": "MTUxNTA="
       "next":
"https://graph.intern.facebook.com/v2.0/5943?pretty=0&fields=context.fields(all mutual frie
nds.limit(5).after(MTUxNTA=))"
     "summary": {
       "total_count": 109
    }
  }
}
```

From: Roman Fuchs < roman.fuchs@airbnb.com > Date: Sunday, March 15, 2015 at 1:15 AM

**To:** Francesca Covey <<u>cesi@fb.com</u>>

Subject: Re: Question for F8

Hi Francesca,

Yeah, likewise. Looking forward to the API information.

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if that works.
Best regards, Roman
On Sat, Mar 14, 2015 at 1:24 PM, Francesca de Quesada Covey < <u>cesi@fb.com</u> > wrote: Hi Roman -
Great speaking with you yesterday. I'll send over the api info first thing Monday.
Our designers love the AirBnB login flow. Would you be willing to talk to them before F8 to learn about your design?
Warmly,
Francesca

Sent from my iPhone