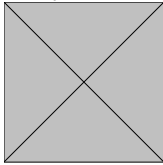

From: ishay snapaid.com[ishay@snapaid.com]
Sent: Thur 9/14/2017 11:11:35 AM (UTC)
To: Igor Gankin[igor.gankin@samsung.com]
Subject: Re: Statistics for SnapAid SDK performance
Attachment: SnapAid patent portfolio.pdf

Hi Igor,
Attached.
Please let me know if it is clear or you would like any more info.

Regards,
Ishay



Ishay Sivan
CEO, SnapAid
p: +972-546549030 +972-9-8787834
s: www.snapaid.com e: ishay@snapaid.com

On 12 Sep 2017, at 13:47, Igor Gankin <igor.gankin@samsung.com> wrote:

Hi,
Good luck!

Please send me the list of patents and ill check it with the relevant team.

BR
Igor

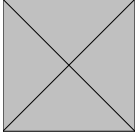
From: Ishay [<mailto:ishay@snapaid.com>]
Sent: Tuesday, September 12, 2017 10:21
To: igor.gankin <igor.gankin@samsung.com>
Subject: Re: Statistics for SnapAid SDK performance

Hi Igor,

It's been a while.
How are you?
Well, it didn't work out, SnapAid that is.

I'm up for an interview for a job at Samsung Ramat Gan today.
Do you think Samsung will be interested in the patents & technology?
We have 3 granted patents, 5 more after examiner approval, but waiting for do process.

Regards,
Ishay



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On 4 Feb 2016, at 14:35, igor.gankin <igor.gankin@samsung.com>
wrote:

Yes.
Thanks!

From: Ishay (SnapAid) [<mailto:ishay@snapaid.com>]
Sent: Thursday, February 04, 2016 14:34
To: igor.gankin
Subject: Re: Statistics for SnapAid SDK performance

Sunday morning is good?

Thanks,
Ishay

ב-4 בפבר' 2016, בשעה 02:11,
igor.gankin <igor.gankin@samsung.com> כתב/ה:

Hi Ishai,
Please return the S6 device ASAP. I need it for another
project.

Thanks,
Igor

From: Ishay Sivan [<mailto:ishay@snapaid.com>]
Sent: Tuesday, January 19, 2016 15:47
To: igor.gankin
Subject: Re: Statistics for SnapAid SDK performance

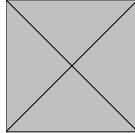
Hi

In each Google Analytics event you sent their servers you have:

1. "category" parameter. String. Here I use it for takePicture. I have others.
2. "action" parameter. String. I use it as the type for

- "takePicture"- reg, optimised, timeout, etc.
3. Optional "label". String. I use it to know quality of picture in timeout events
 4. Optional "value". Integer. Commutative and has an average calculated by Google. I use in optimized to know average optimised picture taking time.

Regards,
Ishay



Ishay Sivan
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From: "igor.gankin" <igor.gankin@samsung.com>
Date: Tuesday, 19 January 2016 at 11:26 AM
To: Ishay <ishay@snapaid.com>
Subject: RE: Statistics for SnapAid SDK performance

Hi,
Can you please explain the meaning of "Event Lables" and "Event Action"

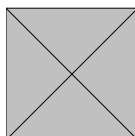
Thanks,
Igor

From: Ishay Sivan [<mailto:ishay@snapaid.com>]
Sent: Tuesday, January 19, 2016 05:25
To: igor.gankin
Subject: FW: Statistics for SnapAid SDK performance

Hi Igor,

I've just sent this to SK Kim from CidT.
He asked for "hard evidence" shall I call it :) to my claims of 64%-78% improvement.

You have here the attached Google Analytics files, and explanations plus example how I got to these numbers.
There is a lot of data there, but it easy to interpret it.
Confidential.



Ishay Sivan
CEO, SnapAid
p: +972-546549030
s: www.snapaid.com e: ishay@snapaid.com

From: Ishay <ishay@snapaid.com>
Date: Monday, 18 January 2016 at 11:27 AM
To: skkim <skkim@cidt.co.kr>
Cc: 'CidT' <cidt@cidt.co.kr>, 'IP KIM' <ipkim@cidt.co.kr>, 'JT KIM' <jtkim@cidt.co.kr>, 'SM Hong' <smhong@cidt.co.kr>, <elad@snapaid.com>
Subject: Statistics for SnapAid SDK performance

Dear Mr. Kim,

Attached are the relevant events exported just as they are in Google Analytics for the last 30 days.
You can show to Samsung as confidential, please consider as confidential to other outside CidT and Samsung.

The event category "takePicture" has 4 Google analytics "actions":
RegAndOptimized – when the picture was good at time of pressing the shutter button, and no wait was needed. Means you would have got a 5/5 without SnapAid.
Reg – short for "regular". Event sent when shutter pressed. Means at shutter press the picture was not 5/5.
Optimized – event sent when 5/5 picture is achieved by the SDK before the timeout. You can also see the average timeout there, in ms.
Timeout – event sent when we didn't achieve a 5/5 in the allotted 800ms.
So for every "reg" event you should get either an "optimised" event or "timeout".
BTW, "WithAndWithout" is the old name of RegAndOptimized in an old version. There is a small number of such event anyway as you can see.

For the timeout event "action" category there is also an event label. The label is made of 2 numbers: the value reached at timeout, and how was it different from the starting quality at "reg" event.
For example, a label of "3_2" means we reached quality of 3, and it was better by how it started, meaning at "reg" event, or time of shutter press it was a quality of 1.
There are also negative numbers, meaning we ended with a worse picture, but for the user we only show the best one anyway.
I count "SnapAid made better picture" for positive second number.

You have here the total event for all smartphone types, and filtered for Samsung Galaxy S5 and S6.

As you can see, most devices are of other types.
Still, the statistics holds, with better improvement on S5 and S6
(over many Motorola devices)

For example for Samsung S5: (around 10% of all devices)

Reg – 2003

Optimised - 1416

Timeout – 578

RegAndOptimized – 261

Total pictures – 261+2003 (or 261+1416+578) = 2264

Optimised – 62%

Timeout – 25%.

RegAndOptimized – 11%.

For the S5, timeout, we have improved pictures:

$115+74+59+41+25+14+1=329$

Total pictures with timeout 578.

Meaning improvement of 57%, that's on the 25%

So improvement via timeout is 14%.

Total improvement in S5 is 14%+62% = 78%.

You can see the math is different for all devices.

If we sum **on all devices**,

Only 6% had 5/5 quality at the time of shutter press.

1/3 of pictures achieved 5/5 via waiting the allowed 800ms,

with an **average wait of 300ms.** (35% to be exact)

For the remaining 2/3, half (48%) gained a higher

quality picture than the one the shutter was pressed via waiting
for a better picture until a timeout arrived.

Since it is 2/3 of 96%, we can say **total improvement of 64% of pictures**

You can do the math for specific device as you like, for S6,
sub version of S5, etc.

Regards,

Ishay