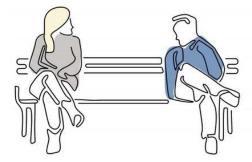
What is Exposure Notification?

Greg Knaddison, Colorado Digital Service greg.knaddison@state.co.us

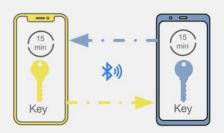




Alice and Bob meet each other for the first time and have a 10-minute conversation.



Their phones exchange anonymous identifier beacons (which change frequently).



Bob is positively diagnosed for COVID-19 and enters the test result in an app from a public health authority.





A few days later...

With Bob's consent, his phone uploads the last 14 days of keys for his broadcast beacons to the cloud.

Apps can only get more information via user consent

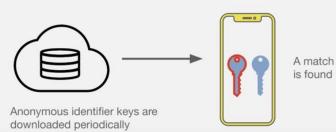




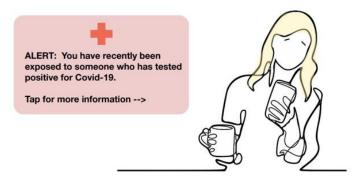
Alice continues her day unaware she had been near a potentially contagious person.



Alice's phone periodically downloads the broadcast beacon keys of everyone who has tested positive for COVID-19 in her region. A match is found with the Bob's anonymous identifier beacons.



Alice sees a notification on her phone.



Sometime later...

Alice's phone receives a notification with information about what to do next.



Additional information is provided by the health authority app or website



COVID19 app timeline

- Early 2020: Other countries launch privacy-invasive apps
- March 2020: Prototypes with location-based and bluetooth-based protocols and apps.
- April 10, 2020: Apple and Google announce EN APIs
- June 2020: Open source EN apps
- July 8, 2020: Ireland launches app, hits 30% adoption in a week
- July/August: more states/countries launch EN apps
- August 19, 2020: Exposure Notification Express launched
- September 8, 2020: Polis announces CO plan

How did we get here?

1

Watching, waiting.

2

Learning from other countries and states.

3

ROI increases when investment is minimized.

What does Exposure Notification Express do?

Custom:

- iOS app
- Android app
- 2 servers
- Hosting
- Branding
- Verification codes
- Marketing
- Communications
- Outreach

EN Express:

- iOS app
- Android app
- 2 servers
- Hosting
- Branding
- Verification codes
- Marketing
- Communications
- Outreach

Hospitals and medical societies top the list as trusted sources of reliable information on effective/safe treatments

Survey question: If you wanted information about the most effective and safe treatment(s) for a certain health condition, how much trust would you have in the following sources to provide reliable information?*



44%

Academic medical centers

Medical associations/societies

Other sources:

41%	Community hospitals	27%	Patient forums, blogs, or websites that address specific health issues
39%	Pharmacies	26%	Employers
35%	Independent health-related websites	25%	Pharmaceutical, biotech, or medical device/product manufacturers
35%	US Department of Health and Human Services	18%	Social networking sites
31%	Health insurance companies/health plans		

Source: Deloitte 2018 Survey of US Health Care Consumers.



^{*}Chart shows percentage of respondents who answered 8, 9, or 10 on a 10-point scale, where 1 is "no trust" and 10 is "complete trust."

To what extent do you trust the following forms of advertising?

Global Average	Trust Completely/ Somewhat	Don't Trust Much/ At All
Recommendations from people I know	92%	8%
Consumer opinions posted online	70%	30%
Editorial content such as newspaper articles	58%	42%
Branded Websites	58%	42%
Emails I signed up for	50%	50%
Ads on TV	47%	53%
Brand sponsorships	47%	53%
Ads in magazines	47%	53%
Billboards and other outdoor advertising	47%	53%
Ads in newspapers	46%	54%
Ads on radio	42%	58%
Ads before movies	41%	59%
TV program product placements	40%	60%
Ads served in search engine results	40%	60%
Online video ads	36%	64%
Ads on social networks	36%	64%
Online banner ads	33%	67%
Display ads on mobile devices	33%	67%
Text ads on mobile phones	29%	71%

Source: Nielsen Global Trust in Advertising Survey, Q3 2011



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Your help:

- People I know
- Opinions posted online
- Editorial content in news

State of CO:

Everything else

I'm asking for your help

Educate yourself
https://covid19.colorado.gov/
Exposure-notifications

Share to clients/patients

Share to colleagues

Share to community organizations

Discussion

Feedback/followup: greg.knaddison@state.co.us