

# Senate Select Committee on COVID-19

Public Hearing – 6 May 2020  
ANSWERS TO QUESTIONS ON NOTICE

Digital Transformation Agency

**Topic:** COVIDSafe App Development – Performance test data

**Question reference number:** 1

**Senator:** Rex Patrick

**Type of question:** Spoken, Hansard page 13, 6 May 2020

**Date set by the committee for the return of answer:** 13 May 2020

**Question(s):**

**Senator PATRICK:** Thank you. Mr Brugeaud, for context, I'm an electronics technician and I ran a software development house. You will have done testing in relation to this application, both bench testing and, hopefully, operational testing. Have you sat in a room with a number of people with the app running and recorded test data?

**Mr Brugeaud:** That has happened.

**Senator PATRICK:** Okay. Can you provide the committee with the results of that test data? Basically, I presume, there are no privacy issues associated with this. This is a testing regime where we can see what the contact situation was and how much data was exchanged as a function of the number of people in the room to measure its success.

**Mr Brugeaud:** To the extent we can provide that—

**Senator PATRICK:** Would there be anything that would stop you providing that?

**Mr Brugeaud:** If, for example, it provided more detailed information on how connections were established—

**Senator PATRICK:** No, I'm after results.

**Mr Brugeaud:** Simply results. We'll take that on notice.

**Senator PATRICK:** In evidence you gave to Senator Gallagher, you talked about how the phone doesn't perform as well when it's locked. Can you quantify what that means? There will be a technical answer to that either in percentage terms or number of missed handshakes.

**Mr Brugeaud:** I can't provide an averaged number purely because the variability in the handsets and software being run means that it would be a meaningless number. We may have some of the more modern handsets, as we talked about with Senator Gallagher, that may have better performance while—

**Senator PATRICK:** Can you provide the test data that you have on that?

**Mr Brugeaud:** We will take that on notice.

**Senator PATRICK:** Thank you. In terms of locked phones, we know that there's a deterioration; that's your evidence. My phone has been locked this entire time whilst I've been sitting in the committee room next to the chair, and, I'd presume, would normally trigger an event that might be of interest to health officials. What percentage of time in your testing does it show up as apps being unlocked?

**Mr Brugeaud:** I don't know the answer.

**Senator PATRICK:** These are fundamental questions about performance. You are the head of the agency that is running this regime. Surely you know at least that level of data. We know there's a problem with the phones being locked. What percentage of time in your testing are these phones unlocked in a normal operational environment that you might find in a workplace?

**Mr Brugeaud:** We'll take on notice the testing results. But this augments the current manual process—

**Senator PATRICK:** I understand that. I was going to go to questions on that.

**Mr Brugeaud:** If you were sitting beside Senator Gallagher with a 1.5-metre distance for 15 minutes, then the manual contact tracing would continue with augmentation through the digital contact-tracing information that we capture. So this isn't something that means we no longer, from a health perspective, conduct manual contact tracing; that still occurs. This augments that. This is better than what we have now, and this has been our consistent message.

**Answer(s):**

Functional and performance testing was conducted for the Apple iOS and Google Android versions of the COVIDSafe App prior to release.

- 179 functional tests were conducted, including Bluetooth encounters between various device types, in various states, including phone locked and unlocked, and application open and not open. All tests satisfied the baseline design requirements.
- Performance tests were also conducted against the technical requirements specified in Question on Notice response 4. In these tests, the system met and sustained the requirements and remained stable through the testing process.

The successful testing results underpinned the Digital Transformation Agency's decision recommendation to release the COVIDSafe App into production.

Consistent with an agile development methodology, the DTA will continue to make iterative enhancements to the App.

# Senate Select Committee on COVID-19

Public Hearing – 6 May 2020  
ANSWERS TO QUESTIONS ON NOTICE

Digital Transformation Agency

**Topic:** COVIDSafe App Development – Amazon Web Services contract

**Question reference number:** 2

**Senator:** Kristina Keneally

**Type of question:** Spoken, Hansard page 13 – 6 May 2020

**Date set by the committee for the return of answer:** 13 May 2020

**Question(s):**

**Senator KENEALLY:** If I could go back to the decision to award the contract for storage to Amazon Web Services, how much is the Commonwealth paying Amazon to provide the service?

**Mr Brugeaud:** The contract that we have with Amazon Web Services amounts to \$709,059.37.

**Senator KENEALLY:** Could you provide the AusTender contract notice number for the contract?

**Mr Brugeaud:** We purchased that from a standing offer, but we're able to provide further details on that contract—yes. It's through a work order.

**Senator KENEALLY:** Can you do that on notice, please?

**Mr Brugeaud:** We can.

**Answer(s):**

The contract was made as a Statement of Work under the Amazon Web Services (AWS) Whole of Government Arrangement – Standing Offer. This represented a limited tender procurement method: Due to genuine urgency and continuation of an existing agreement (*Commonwealth Procurement Rules 10.3.b and 10.3.e*).

The Standing Offer is recorded as AusTender contract notice number CN3601345. The specific Statement of Work ID number under that Standing Offer is E104752985.

The Statement of Work requires AWS to provide:

- Activity 1 – AWS Platform Design and Build
- Activity 2 – AWS Mobile Web App Build
- Activity 3 – AWS Admin App Build
- Activity 4 – AWS Project Control

# Senate Select Committee on COVID-19

Public Hearing – 6 May 2020  
ANSWERS TO QUESTIONS ON NOTICE

Digital Transformation Agency

**Topic:** COVIDSafe App Development – Operating software

**Question reference number:** 3

**Senator:** Rex Patrick

**Type of question:** Spoken, Hansard page 27 – 6 May 2020

**Date set by the committee for the return of answer:** 13 May 2020

**Question(s):**

**Senator WATT:** Sorry. Maybe you can come and have a look at my home internet when you finish up there today! I was just wondering how many Australians currently have smartphones with the minimum operating software that's required to download the app and run it.

**Mr Brugeaud:** To this point, the app will operate on iPhones, for example, back to 2013. But we can look to provide more specificity, if it's helpful, when it comes to the overall proportion of handsets that will be supported by the app.

**Senator WATT:** Could you take that on notice for me, please?

**Mr Brugeaud:** Yes.

**Senator WATT:** Conversely, do you know how many Australians currently do not meet the criteria for being able to use the app, in the sense of the minimum operating software that they have on their phones?

**Mr Brugeaud:** We'll be able to provide that on notice. It is a relatively small proportion.

**Answer(s):**

The COVIDSafe App is supported on:

- Android devices with Android OS version 6.0 Marshmallow or later (released 5 October 2015)
- Apple devices (iPhone 5s, released in 2013, and above) with Apple iOS version 10.0 or later (released 13 September 2016)

Earlier operating systems are not supported because they do not meet the minimum encryption and cybersecurity requirements.

Industry reports indicate that:

- 98.7 per cent of Australian Apple device users have the required iOS version; and
- 92.9 per cent of Android users have the required Android OS version.

Given their respective market shares, the estimated proportion of Apple and Android devices in Australia that meet the minimum operating systems requirements is 95 per cent.

# Senate Select Committee on COVID-19

Public Hearing – 6 May 2020  
ANSWERS TO QUESTIONS ON NOTICE

Digital Transformation Agency

**Topic:** COVIDSafe App Development – Functional requirements

**Question reference number:** 4

**Senator:** Rex Patrick

**Type of question:** Spoken, Hansard page 30 – 6 May 2020

**Date set by the committee for the return of answer:** 13 May 2020

**Question(s):**

**Senator PATRICK:** Okay. So there would have been a set of functional requirements that were given to the contractor?

**Mr Brugeaud:** This has been developed in an agile way, as you would expect. There are general requirements that are now refined through various iterations of prototypes to the point where it's released into production, as it was at the end of last month.

**Senator PATRICK:** But those functional requirements would translate down to technical requirements. Can you provide the committee—and I'm not after the security ones; I'm really after the requirements that relate to the tracing and how that works—with the functional requirements and the technical requirements?

**Mr Brugeaud:** We can provide the detail on what the requirements were.

**Senator PATRICK:** I'm interested in what you imposed upon the contractor. There will be a contract in place that demands a particular performance, normally expressed through functional requirements and technical requirements—and there will be some testing associated with that. That's the next thing I'm going to ask you for.

**Mr Brugeaud:** The engagement with suppliers in a very transactional arrangement would typically see contracts engaged with very specific design outcomes that are looking to be achieved. As we've developed this quickly, in an agile way—and you would know this as well as I—there is a level of refinement that occurs in the requirement with the contractors.

**Senator PATRICK:** If you could get the functional and then the technical requirements at this point in time and how you've tested against those sufficient to release the application.

**Mr Brugeaud:** Yes.

**Answer(s):**

The overall system requirements for COVIDSafe were to:

- Develop an Apple version and an Android version of a contact tracing app, including developing a new user-interface for the Australian version and the supporting microsite [covid-safe.gov.au](https://covid-safe.gov.au).
- Develop a National Data Store for the storage of registration information, and contact information uploaded by positive users with consent.
- Develop a Health Administration Portal to allow public health officials to view close contact information for positive users for contact tracing purposes, and to develop and provide end-user training to public health officials.
- Address and implement security and privacy features to meet the Australian Government requirements.

- The National COVIDSafe data storage system must use PROTECTED certified cloud services.
- Data held in the National COVIDSafe data storage system must be located in Australia.
- Re-use, where relevant, the source code provided by the Singapore Government from its TraceTogether contact tracing app.

The Functional requirements included:

- The ability to download the app from the Australian Google Play store and Australian Apple App Stores.
- The ability for users to register to use the app by providing minimal personal information, specifically a name, age-range, postcode and phone number.
- The ability for users to verify an Australian mobile phone number by receiving a one-time code via short message service (SMS).
- The ability for users to access:
  - the Privacy policy via a link from the app to [health.gov.au](https://www.health.gov.au);
  - Help topics via a link from the app to [covidsafe.gov.au](https://www.covidsafe.gov.au);
  - more information about Coronavirus via link from the app to [australia.gov.au](https://www.australia.gov.au);
  - a link to the Coronavirus Australia app download page.
- The ability for users to share the application in the app to their contacts or a link the app on other platforms.
- The ability for users to report an issue and provide feedback on the app.
- The ability to note encounters with other users of the app, using Bluetooth® wireless technology, taking note of the app user reference code, date, time and proximity of the contact.
- The ability to note Bluetooth® encounters within and across platforms, for example iOS to iOS, Android to Android, and Android to iOS devices.
- The ability for public health officials to send one-time codes from the health administration portal to app users if they test positive to COVID-19, to enable them to upload their information to the national data store.
- The ability for users who are contacted by a public health official because they have tested positive, to consent to upload their close contact information, receive and enter a one-time code, and upload their close contact information from the app.
- The ability of public health officials to securely access the health administration portal using a username and password, and after accepting the terms and conditions of use.
- The ability of public health officials to view information in the health administration portal about close contacts for individuals who test positive with COVID-19.
- The ability of app users to request for their registration information and contact information to be deleted from the national data store.
- The ability to meet design, usability and accessibility requirements in line with the Australian Government's Digital Service Standard, the Service Design and Delivery process, and Digital Guides and Content guides.

The Technical requirements included:

- The app should be able to achieve targeted registration volumes of 3 million per hour and 5,000 per second, and achieve 9 million registration API requests per hour and 2,500 per second as a minimum.
- The app should be able to achieve encounter upload volumes of 5,700 per hour and 1.58 per second, and achieve 34,200 API requests per hour and 9.5 per second.
- The app should be able to achieve temporary ID both volume and API requests of 18 million per hour, and 5,000 per second.
- The app response times should be less than 0.5 milliseconds at 95<sup>th</sup> percentile.

Privacy and non-confidential Security requirements included:

- Usage of the app requires a consent to register, and a separate consent to upload.
- Access to the health administration portal is restricted to authorised state and territory officials, who have undertaken the required training and agreed to the terms and conditions.
- Only the minimum amount of personal information needed for contact tracing purposes is to be collected, being an Australian phone number, a name, age-range and postcode.
- All information collected by the app is to be encrypted and stored within the app on the phone.
- The app must not to record or store any location information.
- Contacts noted are to be retained on the phone for a rolling 21-day period, and will be automatically deleted thereafter from the app user's phone.
- Close contact information can only be viewed by public health officials undertaking contact tracing processes in the positive app users state/territory of residence.

The requirements listed above were tested with a 100 per cent successful pass rate prior to release.

# Senate Select Committee on COVID-19

Public Hearing – 6 May 2020  
ANSWERS TO QUESTIONS ON NOTICE

Digital Transformation Agency

**Topic:** COVIDSafe App Development – AWS procurement

**Question reference number:** 5

**Senator:** Rex Patrick

**Type of question:** Spoken, Hansard page 32 - 6 May 2020

**Date set by the committee for the return of answer:** 13 May 2020

**Question(s):**

**Senator PATRICK:** In all procurements there would normally be paperwork at decision points. Can you provide to the committee the decision paperwork and the sign-offs on the contractor AWS so we can understand exactly what the reasoning behind that is? And, if it doesn't go to that, any emails or any discussions as to why AWS were selected. I'm particularly interested in how they were selected or how some Australian entities were excluded from the selection process.

**Mr Brugeaud:** We agreed to take on notice the question for Senator Keneally.

**Senator PATRICK:** Sure.

**Mr Brugeaud:** But the point is worth reiterating, though: the services that we procured with AWS were much more extensive than the range of services provided by pure hosting providers. We'll provide the clear justification as to how we came to that decision—

**Senator PATRICK:** So that would have involved a set of requirements to enable you to make a selection. So if you can make public that set of requirements, I'm sure the Australian entities will be most interested in seeing that, because it might be the case that they haven't informed you well enough of their capabilities so that, when you're in a closed room and you're making a decision without going to tender, you were simply unaware of the Australian capabilities.

**Mr Brugeaud:** It's convention, Senator, as you would know, that we were completely compliant in our procurement approach if we were to draw from whole-of-government arrangements, which is exactly what we did with the AWS arrangement. It is worth reiterating the point, because I'm not necessarily explaining it in a way that is really clear, that the proportion of the business that may have been able to be supported by the Australian hosting providers is a very, very small proportion of what we'd engaged AWS to do.

**Senator PATRICK:** In that table, it would be nice if you could show how you excluded those Australian companies as not meeting a particular requirement in order to make your decision. It might simply be that the Commonwealth had already invested \$166,000, because that was the magnitude, I think, of the Home Affairs contract; I would understand some of that logic. I really would like to go to the detail of that.

**Mr Brugeaud:** We'll provide more detail, Senator.

**Senator PATRICK:** Thank you. "

**Answer(s):**

To meet expectations for the development and release timeframes for the COVIDSafe application, the Digital Transformation Agency (DTA) conducted procurement activities to replicate the initial conceptual development of the application and ecosystem by the Commonwealth.



Changes in supplier arrangements would have introduced an unacceptable risk to the on-time delivery of the application and likely resulted in higher cost to the Australian Government, as the work already done may not have been transferrable to another supplier.

The procurement of AWS provided the DTA with a combination of hosting, development, and operational support services for the COVIDSafe application and the National Data Store.

Splitting work packages (hosting, development, operational support, etc.) would have introduced additional risk and complexity to the COVIDSafe system.

Details of the procurement are available on the AusTender website.

# Senate Select Committee on COVID-19

Public Hearing – 6 May 2020  
ANSWERS TO QUESTIONS ON NOTICE

Digital Transformation Agency

**Topic:** COVIDSafe App Development – AWS contract details

**Question reference number:** 6

**Senator:** Katy Gallagher

**Type of question:** Spoken, Hansard page 33 - 6 May 2020

**Date set by the committee for the return of answer:** 13 May 2020

**Question(s):**

**CHAIR:** Thank you, Senator Patrick. Drawing to a conclusion, we've got the final 10 minutes. Perhaps I could ask a couple of questions to wrap up. Are all the contracts that Senator Patrick referred to and you referred to listed on AusTender?

**Mr Brugeaud:** In some cases, they are shown under a whole-of-government agreement. Senator Keneally asked about the whole-of-government arrangement, the Amazon whole-of-government arrangement, CN3601345. We'll provide the details. We have a work order under that agreement that had been executed to engage AWS— so, not separately—

**CHAIR:** If you could provide that information on notice, that would be useful, and also the total cost. I think in the answer to the question on notice, it was over \$700,000. Do you have an update on that figure, all in?

**Mr Brugeaud:** It's \$705,937, which was the number for AWS.

**CHAIR:** That's right. What's the total figure that was spent?

**Senator PATRICK:** Ionize was on there. I apologise.

**Mr Brugeaud:** Thank you. The figure is \$1.5 million.

**CHAIR:** That's expenditure through the DTA?

**Mr Brugeaud:** Correct.

**Answer(s):**

Please refer to the Digital Transformation Agency's Question on Notice reference no. 2.