	Australian Government	**Meeting Brief**
	Digital Transformation Agency	**MB20-000020**

To: **Minister for Government Services**

Subject: **Meeting with Apple and Google regarding the Exposure Notification Framework**

Date of Meeting: Tuesday, 24 November 2020

Time and Location of Meeting: 11:00-11:30 (AEST), Microsoft Teams meeting

Recommendation/s for Minister Robert: That you:

1.	Note the information contained in this brief.	Noted / Please discuss
2.	Agree to inform Apple and Google about Australia's intention to adopt the Herald Protocol.	Agreed / Not agreed
3.	Agree to inform Apple and Google that Australia will not adopt the ENF at this stage without significant change to the model.	Agreed / Not agreed

Minister's Comments
Minister's signature: ....   **Date:** ...... / ...... / **2020**

Purpose of Meeting:

1. To engage with Apple and Google in relation to the Exposure Notification Framework (ENF) letter sent to Apple and Google's CEOs on behalf of Australia, ~~Section 33~~ (see **Attachment B**).

2. To inform Apple and Google about Australia's intention to:

   a. adopt the Herald Protocol to improve COVIDSafe's Bluetooth performance and maintain Australia's sovereign contact tracing capability. Ministerial Submission MS20-000077 (see **Attachment C**) provides further detail.

   b. not adopt the ENF or the Exposure Notification Express (ENx) in its current form because they do not meet Australia's contact tracing needs.

Recent Dealings:

3. On 15 June, you chaired the Global ICT Ministers meeting to discuss digital contact tracing approaches including ENF. This meeting included represetnatives from the [Section 33]

4. The Digital Transformation Agency (DTA) has had regular and ongoing engagement with Apple and Google on the ENF and its applicability to COVIDSafe since May 2020.

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6. Two major issues remain: the ENF does not allow health officials to identify the index case of clusters, and users can remain anonymous.

7. The ENF also has less backward compatibility compared to COVIDSafe which will likely reduce its effectiveness for the elderly and those in lower socio-economic cohorts, both of which are at greater risk of contracting COVID-19.

8. On 20 November 2020, the [Section 47F] to disuss the intention of the global contact tracing letter and advised that we are still seeking more flexibility within the ENF model.

ENF Express

9. We understand that Apple and Google are likely to suggest that Australia utilise a variant of the ENF, known as the ENx, alongside (not instead of) the Herald-integrated COVIDSafe app. The ENx allows people to be notified of an exposure without having an app on iOS. Android users would need to download a specific app to access the ENx.

   a. The ENx eases adoption of the ENF protocol by removing the need for countries to build and maintain their own specific contact tracing app. It essentially provides a turnkey solution.

   b. Under the ENx, a health authority provides parameters specific to their implementation (such as close contact thresholds, branding, notification messaging, and key servers), which is then managed to generate the required notification functionality.

   c. We would need to implement servers that support the collection of close contact unique identifiers (keys) and a testing server (that validates positive test results before a notification is sent to close contacts).

   d. Health officials would have access to less data using the ENx than under the ENF model. The ENx is mainly used as a way of directly notifying potential close contacts without health official intervention, allowing rapid delivery of a notification service without the need to develop a sovereign app.

10. Apple and Google are likely to propose that the ENx would be complementary to COVIDSafe, improve contact tracing in Australia through more rapid notification of potential close contacts, and will provide people with an alternative option should they choose not to install COVIDSafe.

11. Similar to the ENF, ENx does not support Australia's current contact tracing methods or approach. Adopting ENx would place an additional burden on public health officials (PHOs) and would require consultation with State and Territories.

    a. ENx would further fragment the information available to PHOs as it can be used without installing COVIDSafe.

    b.   COVIDSafe users and users who choose ENx will not be able to record digital handshakes with each other as they use different methods to capture close contacts.

Issues or Sensitivites:

12. COVIDSafe works very well on Google's Android devices. Apple have placed limitations on how apps can use Bluetooth in background mode. These limitations reduce COVIDSafe's effectiveness and performance when running in background mode.

13. The DTA has been informed that the recently released iOS version 14.2 incorporates changes that further affect COVIDSafe's Bluetooth performance. These changes stop COVIDSafe (and third party protocols other than ENF) from recording handshakes when in background mode. Users will be asked to provide their location services permissions when using Herald in order to address this issue. (As outlined in the previous briefing at **Attachment C**)

14. Apple and Google approve the release of COVIDSafe updates to the Apple App Store and the Google Play Store. There may be a risk that this approval process will become more difficult than it currently is with the introduction of Herald. It is important to convey to Apple and Google the importance of sovereign countries having the choice in how they choose to manage their responses to the pandemic and that updates are approved promptly for release to users.

15. A cohort in the Australian tech community are steadfast supporters of Apple and Google's ENF. The tech community has been very vocal on their view that Australia should replace COVIDSafe with an ENF-enabled app. They may criticise Herald even with its improved performance. They may be even more vocal if Apple and Google are publicly unsupportive of the change.

Suggested outcomes of the meeting:

16. That Apple and Google agree to support the Australian Governmnent following the release of the Herald-enabled COVIDSafe app and any future development.

17. That Apple and Google agree to consider allowing more flexibility on the adoption of the ENF.

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Questions and Talking points

The global digital leaders meeting and letter on the ENF

19. Thank you for the opportunity to discuss the letter that I sent to you on behalf of Australia,

Section 33

20. This letter reflects the concerns raised at a meeting I chaired on 17 June this year with my counterparts from first-mover countries who had implemented a digital contact tracing solution, such as Australia's COVIDSafe.

21. We agreed that the ENF provided a great technical contact tracing solution, but it did not meet the needs of our world-leading contact tracing models.

22. Our letter asked that you consider allowing more flexibility on the adoption of the Exposure Notification Framework. This will allow governments to respond in a manner tailored to the conditions within their own sovereign jurisdictions and in line with their own domestic laws. This response may involve the Bluetooth technology that the ENF offers in a hybrid model.

Why the ENF does not suit our contact tracing model

23. We acknowledge that Apple and Google have made changes to the ENF since its launch to make it more flexible. However a few major issues remain:

    a. it does not allow the ability to map back to the possible index case, reducing available information that may help to identify clusters

    b. the ENF does not provide PHOs with information in a way that would support our specific manual contact tracing processes. For instance, users can stay anonymous.

    c. the ENF has less backwards compatibility than COVIDSafe, although we acknowledge that this gap is closing as users upgrade their iOS version.

Will Australia consider running the Exposure Notification Express (ENx) alongside the COVIDSafe app?

24. We are committed to one contact tracing app that protects all Australians and meets our contact tracing needs.

25. Running two apps in parallel would decrease the effectiveness of both, since users would be split between them. So it would diminish the number of people with the same app coming into contact with each other to record digital handshakes.

The Herald Protocol

26. We have continued to work with you in exploring the ENF and its potential use in our contact tracing processes. But we have also explored new technologies that would improve COVIDSafe's performance.

27. One of these technologies is the Herald Protocol. The Herald Protocol improves the way the app uses Bluetooth to capture close contacts, especially in background mode on iOS devices.

28. We have decided to integrate this technology into COVIDSafe.

    a. Our testing of Herald shows that it works well and captures up to 100 per cent of contacts in background mode on iOS and Android.

    b. It also allows us to maintain our current world-leading contact tracing processes and best support our health officials as we reopen internal borders ahead of Christmas.

    c. The privacy protections offered to COVIDSafe users under the *Privacy Amendment (Public Health Contact Information) Act* 2020 will be extended to the Herald-enabled COVIDSafe app.

29. Australia is likely to be the first country in the world to adopt Herald and we expect to launch it soon.

Apple and Google support for Herald-integrated COVIDSafe

30. The Herald Protocol will help COVIDSafe better capture close contacts.

31. We need this as we prepare to go back to work in COVID-safe environments, travel to see families and friends at Christmas, and get the economy moving again.

32. I'd like to thank you for your support to date, particularly in expediting our COVIDSafe releases through your approval processes.

33. We'd like to continue to work with you in the same spirit going forward with Herald.

If asked: How the Herald Protocol works

34. Herald will not change the strong privacy protections offered to COVIDSafe users under the *Privacy Amendment (Public Health Contact Information) Act* 2020. These protections will be extended to the Herald-enabled COVIDSafe app.

35. Herald uses three techniques to improve Bluetooth performance.

36. The first is data sharing. When an iOS device with COVIDSafe in the background, Herald can use a nearby Android device to act as a messenger and help find other iOS devices with COVIDSafe in the background.

37. Another way that Herald improves the app's ability to capture digital handshakes and improve the identification of close contacts is by continuously exchanging Received Signal Strength Indicator (RSSI) information between devices while users are near each other.

    a. This provides a more accurate picture of the significance of the close contact and keeps COVIDSafe active on iOS devices for longer.

38. Thirdly, Herald requests to be notified when location services become active on a user's device. This wakes COVIDSafe up so that it can capture close contacts. It does not access or record a user's location.

39. We believe that Herald provides us with the best increase in performance possible without shifting to a solution at the operating level, such as the ENF.

Consultation:

Department of Health.

Attachments:

Attachment A:	Biographical Details
Attachment B:	Global letter sent to Apple and Google CEOs
Attachment C:	MS20-000077 - Techniques used by the Herald Protocol to improve Bluetooth performance of the COVIDSafe App

Cleared: 23 / 11 / 2020
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ATTACHMENT A

BIOGRAPHICAL DETAILS

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