A SMART NATION FOR A FUTURE-READY SINGAPORE

Factsheet – Use of HealthCerts for Cross-Border Travel

HealthCerts

1. HealthCerts is a set of open-source digital standards and schema used for issuing digital COVID-19 test result certificates. HealthCerts is in line with international standards[1] and the Singapore Government's requirements.

2. Developed by the Government Technology Agency (GovTech) in collaboration with the Ministry of Health (MOH), the use of HealthCerts for digital Pre-Departure Test (PDT) certificates enables an interoperable, verifiable, and tamper-proof solution which will smoothen and expedite check-in processing and customs clearance at foreign and local immigration checkpoints.

Digital PDT Certificate for Travellers

3. From 10 March, all individuals who undergo a PDT at an authorised clinic in Singapore will receive their results in the form of a digital PDT certificate following the HealthCerts schema. This could take the form of a digital document or URL linking to the document.

4. To notarise the digital PDT certificate for recognition at the airport and overseas, travellers will need to visit Notarise (http://www.notarise.gov.sg) and upload their digital document that they received from the clinic. Upon successful notarisation, travellers will receive a notarised digital PDT certificate containing a QR code through email, and/ or via SingPass Mobile (SPM) app (see Annex A for a sample of a notarised PDT certificate in the SPM app). Travellers can choose to use the digital format, or print a hard copy as long as the QR code is clearly seen. Notarised digital PDT certificates using the HealthCerts schema are issued by Singapore's MOH, which will be recognised overseas.

5. At the airport or immigration checkpoints, travellers can present the QR code of the notarised PDT certificate for verification to the airline staff or immigration authorities. By scanning the QR code, airlines staff/ immigration authorities will be able to check through GovTech's Verify platform on the authenticity of the PDT certificate. Verify will check whether the digital certificate was tampered with and whether the certificate has been notarised by MOH (see Annex B).

6. An overview of the process of obtaining, notarising and presenting the digital PDT certificate for travel can be found in Annex C.

[1] HealthCerts is based on the Fast Healthcare Interoperability Resources (FHIR) specification. The US Centers for Medicare & Medicaid Services (CMS), along with Brazilian Ministry of Health, have adopted this standard for healthcare-related information exchanges. A number of high-profile companies in the healthcare informatics sector, such as IBM Watson Health, also support this standard.

Advantages of using HealthCerts

7. HealthCerts relies on OpenAttestation (OA), an open-source framework which uses blockchain to issue cryptographically trustworthy documents which can be verified independently without the need for proprietary software or equipment.

8. Digital documents issued using the OA framework are tamper-proof, which make them a secure solution for issuing, authenticating and verifying certificates. GovTech has also open-sourced the HealthCerts schema, and the code for the issuance, verification, certificate storage and display modules, which facilitates wider adoption by private sector companies or other governments.

9. Additionally, the individual's data remains private, as only a hash, or digital fingerprint, of the digital PDT certificate is published to the blockchain upon issuance. Only this hash is needed to check the authenticity and validity of the digital PDT certificate.

Private Sector Partnership

10. As of 24 February, there are 9 companies authorised to work with clinics to issue certificates following the HealthCerts standard. A full list of HealthCerts providers can be found in Annex D.

11. The private sector can also integrate HealthCerts into their verification solutions. For example, Affinidi's Unifier app can verify certificates issued according to the HealthCerts standard.

Use of HealthCerts for Vaccination Certificates

12. The use of HealthCerts can be extended to digital vaccination certificates. The World Health Organisation's current recommendation is that COVID-19 vaccinations should not be imposed as a condition of entry. The Singapore Government is closely monitoring international developments on the use of digital vaccination certifications for travel and is in discussions with the International Civil Aviation Organisation and various countries on the mutual recognition of such certifications. The discussions will take some time, as most countries have only just started vaccinations.

13. More information on HealthCerts can be found at http://www.healthcerts.gov.sg

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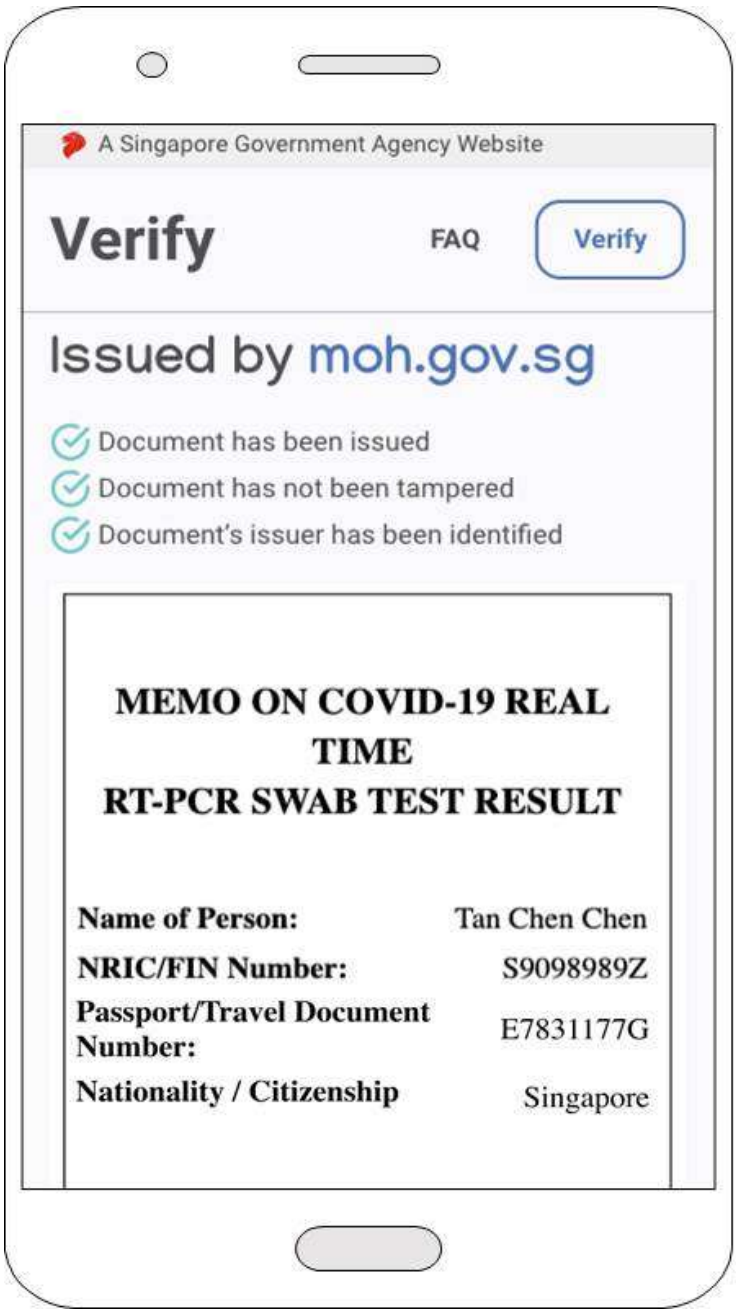
Annexes

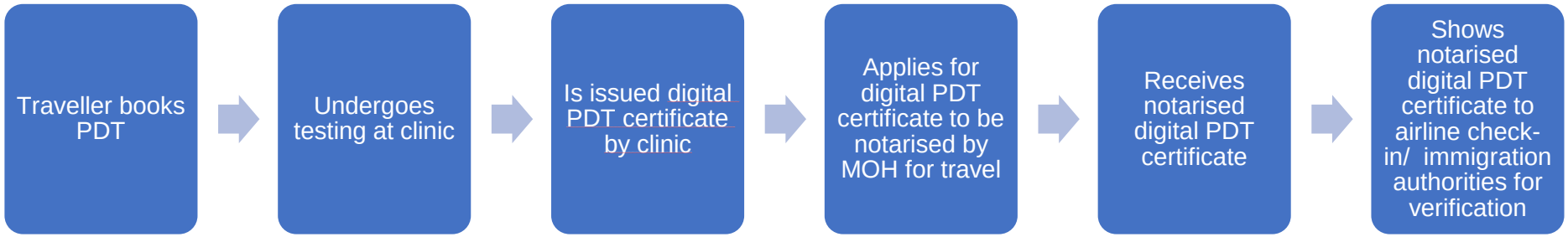
Annex A - Sample of notarised PDT certificate in SPM
Annex B - Sample display using Verify (using QR code scanner)
Annex C - Process of obtaining, notarising and presenting digital PDT certificate for travel
Annex D - List of companies that can issue HealthCerts (as of 24 Feb)

Annex A: Sample of notarised PDT certificate in SPM

Annex B: Sample display using Verify (using QR code scanner)



Annex C: Process of obtaining, notarising and presenting digital PDT certificate for travel



Digital PDT certificate can be issued in the form of:

a) A URL referring to a digital document OR
b) An attached digital document

Login to the Notarise website is via SingPass

The notarised digital PDT certificate (with a QR code) will be sent to traveller's:

a) Email, and/or
b) SingPass Mobile app inbox, under 'HealthCerts'

Airline check-in/ immigration authorities will verify authenticity of notarised digital PDT certificate (using Verify or equivalent)

Annex D: List of companies that can issue HealthCerts (as of 24 Feb)

1. 3DCerts
2. Accredify
3. AOKpass
4. Collinson
5. Jebhealth
6. Knowledge Catalyst
7. NextID
8. Riverr
9. Trybe.ID

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