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Background of the Smart Citizen Centric DID Global Health Cluster

The aim is to offer citizens inside and outside of Switzerland a solution that is now available, and that will make any citizen's life easier.

The goal of the Smart Citizen de Centric DID Global Health Cluster is to protect citizens' rights with the key data needed for the government's AI-driven innovation to protect their citizens.

Unlike a government solution that is not flexible and takes too long to roll out, it is an industrial solution for system-relevant players worldwide, where the citizen himself is the focus.

1 Government-issued digital IDs based on the existing passports will enable citizens to travel again. Completely decentralized Blockchain solution

2 With DSGVO-compliant provision of certificate tokens, citizens themselves control who they share their personal data with based on country specifications.

3 Complete international documentation with the entry when the test was performed (Rapid Test, PCR, etc.) and the results.

4 Active follow-up after a test will be done through push messages about current health status, that is, whether everything is OK (AI-driven).

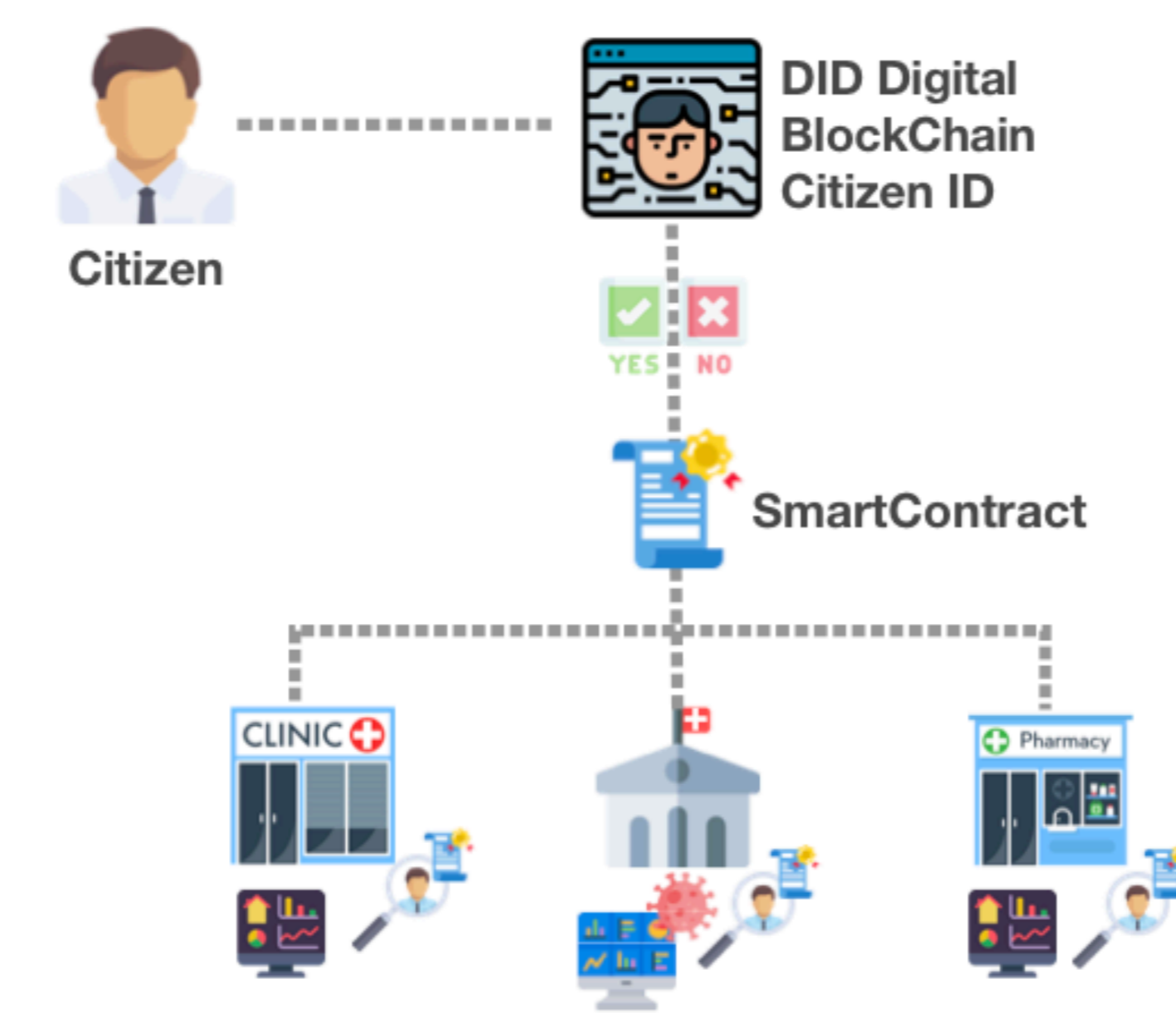
5 A digital blockchain-based DID WHO vaccination card like the WHO Yellow Card functions as an app and paper for offline identification if someone gets sick.

6 Contact tracing with test history for citizens entering a country from abroad and international tracing for travelers in transit, transferring, or entering the country will be AI-driven.

7 Through the voluntary participation of citizens, medical devices such as Apple Watch or others, will be integrated to measure O2 history and for anonymized ECGs.

8 The long-term care of citizens who are ill and have consequential damages for Covid includes the documentation of the vaccines on their long-term behavior, information on which vaccination has expired and should be renewed.

Background of the digital de centric DID Global Health Cluster



The digital ecosystem with the DID called Starliner is already in place and provides the relevant government agencies via API/SDK access to the relevant information they request from citizens.

The DID is decentralized and is forgery-proof against criminal organizations, the same standard that banks use in payment transactions. At each checkpoint, a new token is generated once; the citizen automatically receives a new token electronically, which is signed and can only be used once together with his personal DID at the next offline or online checkpoint.

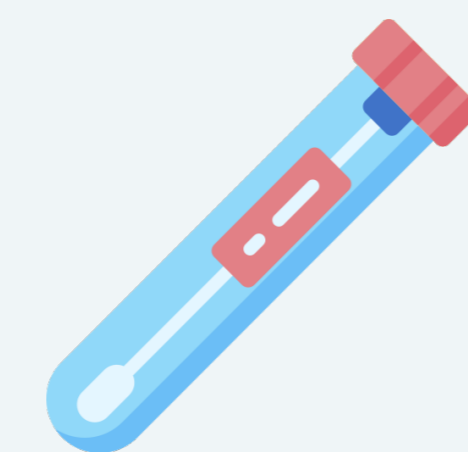
The same process is used in customs inspection/airlines to verify that a citizen meets travel or entry requirements. Through this method, citizens get the freedom of movement back to their normal life of eating in restaurants, attending events, or having close social contacts. The test results are automatically communicated to the citizen electronically (+/=-/-).

In case of a positive test, which requires medium AI support, the relevant health center in the country will be informed. At the same time, the organizer, restaurant, recreational facility, event, airline, and/or transport service which the citizen has used will be informed.

During the test, the person is registered by their citizen DID. The results are then communicated and stored in the DID citizen file with the date, time, place, and type of test. In case of a positive result, the competent health authority or medical service (cantonal doctor, medical service) and the persons who might have been too close to this person during that period will be automatically informed via artificial intelligence (AI).

Which citizen has received which vaccination, with the batch number and manufacturer, together with the date, time, place, will be documented. This can also be used for other vaccinations that expire after a certain time and need renewal. At the same time, there will be long-term tracking after the vaccination is started in the form of a voluntary model by the citizen to detect possible side effects or diseases at an early stage and to train an AI model that helps to make predictions.

Doing tests



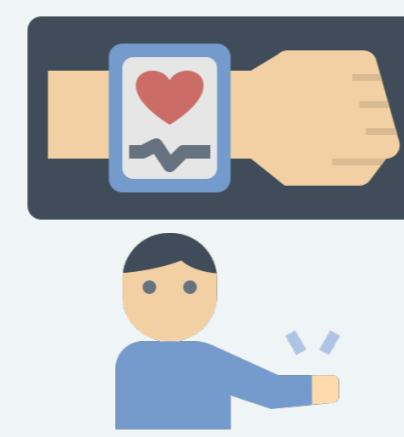
The key to understanding the situation is auditable tests that enable faster reactions to new variants.

Test publication



Test results must be made available in real-time to the necessary institutions in an auditable manner to adjust measures.

Voluntary Citizen



Citizens voluntarily share medical data on an anonymous basis in order to more quickly identify trends in symptoms and create preparations.

Vaccine Documentation



Documentation of vaccines A dose B dose with batches time - location. With an audited record regarding vaccinated, persons, side effects, and herd immunity based on antibody tests

Long-term Issue



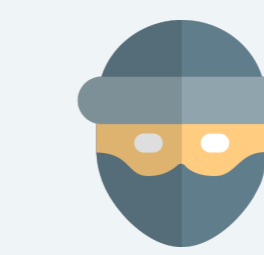
Long-term health problems are monitored based on the Donation model by citizens sharing data with the AI, and trends are visualized as forecasts so that protection mechanisms can be explored.

WHO DID VAC Card

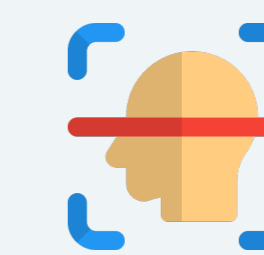


The DID Vaccination Certificate Supplement allows all countries to obtain a tamper-proof certificate to enable citizens to travel again.

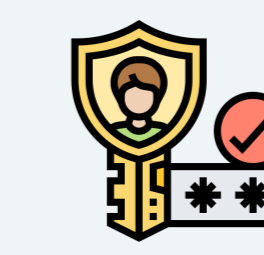
Result of this unique method



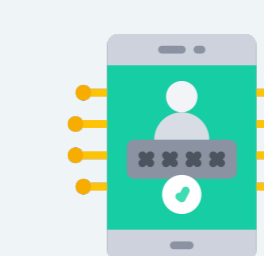
End users typically have little control over their privacy, and data breaches affecting millions of users have already happened several times.



Our solution gives users the freedom to choose from a very large pool of identity providers instead of just a select few corporations, thus democratizing the highly centralized digital identity landscape.

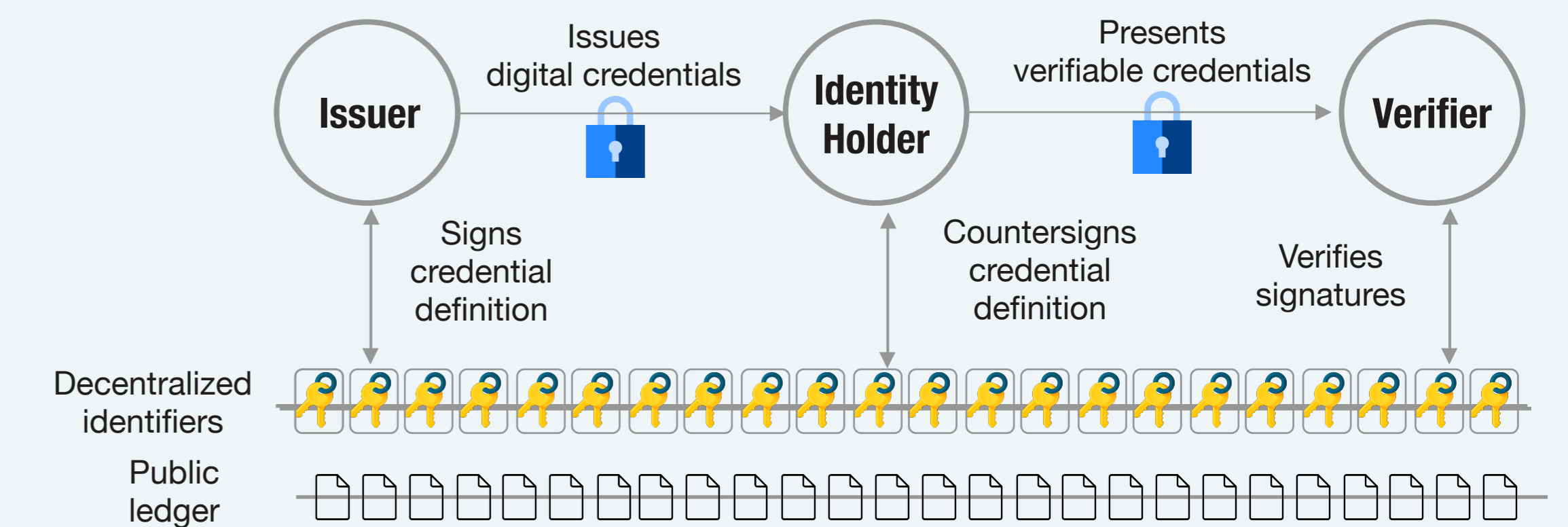


We propose a verifiable credential-powered decentralized public key infrastructure using distributed ledger technology, which creates a straightforward and verifiable way to retrieve digital certificates.



Verifiable credentials (VC) support selective disclosure, so end users can prove claims about their identity without revealing more information than they intend and need to perform a specific action. So-called Zero-Knowledge approach

Verifiable credentials can contain any information (vaccinations, tests, etc.) that a physical credential contains. The use of digital signatures from both the issuer and holder makes them tamper-evident and more trustworthy to the verifier.



Key messages of this unique method

There is always a way to get out of a seemingly hopeless situation; the basic question is whether one is ready to adopt new innovative ways to govern faster and be more adaptable to current and future situations regarding the health of the citizens and future generations. By learning from the past, it is up to us to set the right course for a safe, sustainable, and forward-looking future.

We owe this to our children. We need to distinguish ourselves as human beings that can also take new innovative paths in difficult situations.



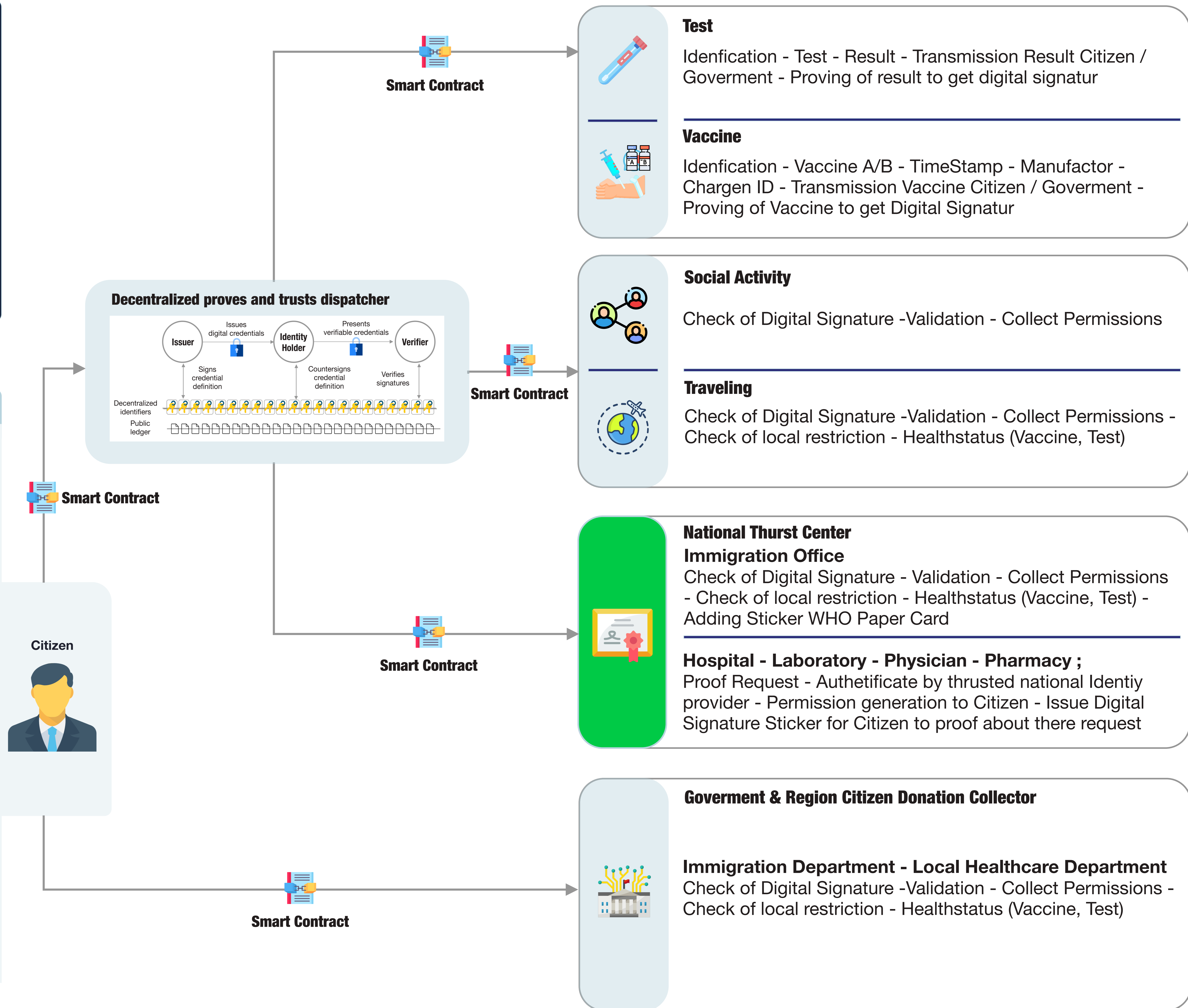
Citizen Data Privacy are all the time save

Data citizen privacy and the local government law are the key points. This challenge is tricky to fix but possible in a unique way. Any country has something like medical Thurst centers (Hospital, Doctors, Laboratory, etc.); with this identity stock, it is possible to get validation if your Test, Vaccine, or other requested medical information are accurate.

The keyword is ZK "Zero-Knowledge proof" authentication; with this method, the Citizen's privacy is at any time proof, and the government gets the data that they are requested to enter the country.

Smart Citizen Centric DID Global Health Cluster

- Vaccine Documentation**
 The citizen can document their actual vaccine and the past vaccine in this digital wallet; the cross-check to validate the data will be by official thrust center from countries (Laboratory, Physician, Pharmacy, Hospital)
- Test Documentation**
 Any test what the citizen does is saved in his digital wallet. This information contains (+ / = / -) Results as well the time stamp when it was issued and were did analyze the test
- Long-term Issue Documentation & Support**
 There is the option to do some long-term support for new vaccines or document long-term health issues. The citizen make the decision to whom he shares and what he would like to share, and how long
- Voluntary Citizen**
 Citizens voluntarily share medical data on an anonymous basis in order to more quickly identify trends in symptoms and create preparations.
- WHO Yellow Vaccine Paper Card, Mobile App**
 The citizen can travel with their yellow WHO paper card with the identification token, or they have all the information stored in their personal wallet citizen app



A

Government responsibility

PKI Government issued PKI Certificate
 Any Government can create and issue its own PKI Certificate. This unique way allows the other Countries to translate to validate that this document is valid (Test, Vaccination, Prophylaxis)

Government Healthorganization
 As federal Office of Public Health FOPH from the local country, they define the guidelines and restriction for the local citizens and tourists to visit or join some event

B

Healthcare service provider

Vaccine Center
 The citizen can document their actual vaccine and the past vaccine in this digital wallet; the cross-check to validate the data will be by official thrust center from countries (Laboratory, Physician, Pharmacy, Hospital)

Test Center
 Any test what the citizen does is saved in his digital wallet. This information contains (+ / = / -) Results as well the time stamp when it was issued and were did analyze the test

Hospital, Pharmacy, Home Doctor
 There is the option to do some long-term support for new vaccines or document long-term health issues. The citizen make the decision to whom he shares and what he would like to share, and how long

Laboratory
 Citizens voluntarily share medical data on an anonymous basis in order to more quickly identify trends in symptoms and create preparations.

C

World Health Organization - Guidelines - Advice

WHO Yellow Vaccine Paper Card, Mobile App
 The citizen can travel with their yellow WHO paper card with the identification token, or they have all the information stored in their personal wallet citizen app

3 steps for save normalisation

Citizen will do the relevant steps #1

Citizen

- Hospital, Pharmacy
- Laboratory
- Test Center
- Vaccine Center

PKI signed results #2

- Apple / Google Wallet
- Paper Document
- WHO Yellow Vaccination Card
- Flight Ticket

Validation Citizen Document #3

Validation Citizen Document

Citizen will provide his document for PCR, Vaccination or else to continue

Social

Traveling

Citizen **Guard**

valid

invalid

Citizen Data Privacy are all the time save

Data citizen privacy and the local government law are the key points. This challenge is tricky to fix but possible in a unique way. Any country has something like medical Thurst centers (Hospital, Doctors, Laboratory, etc.); with this identity stock, it is possible to get validation if your Test, Vaccine, or other requested medical information are accurate to be additional signed with a PKI Certificate from Government.

The keyword is ZK "Zero-Knowledge proof" authentication; with this method, the Citizen's privacy is at any time proof, and the government gets the data that they are requested to enter the country.



Smart Decentralized Citizen Privacy Centric Global Health Cluster

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Under the guidelines



Early involvement and inspiration without compensation



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