

Regi-TRUST

A Global Digital Public Infrastructure for Transparency and Trust in Health Credentials

June 2025



Accelerated Digitization of Public Health Services

Existing digital infrastructure does not address the increasing complexity of verifying data from sources outside of its ecosystem

First Name		Patient Number VACCINATED		
Date of Birth		Patient Number	VACCINATE COVID-18	
Vaccine	Product Name	Date	Healthcare Prof	
1st Dose COVID-19	-			
2 nd Dose COVID-19				
Other				
Other		MM DD YY		

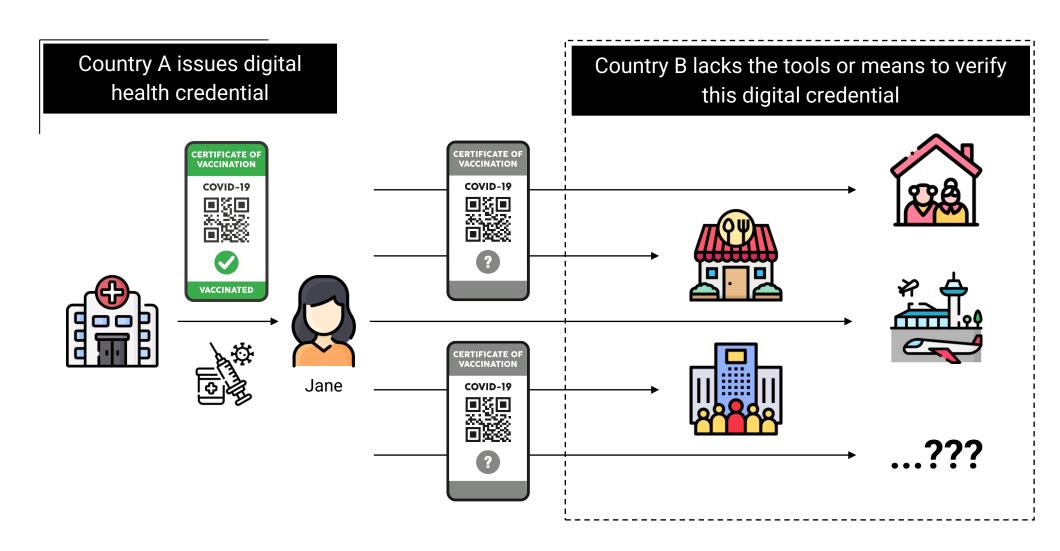


Paper-based health credentials are easy to fake or can get misplaced. Now certificates are being credentialed using digital technology and modern cryptography.



Ecosystem Thinking is Key to the Success of Digital Services

Digital credentialling can be a challenge if the individuals and organizational stakeholders across countries are not able to meaningfully engage



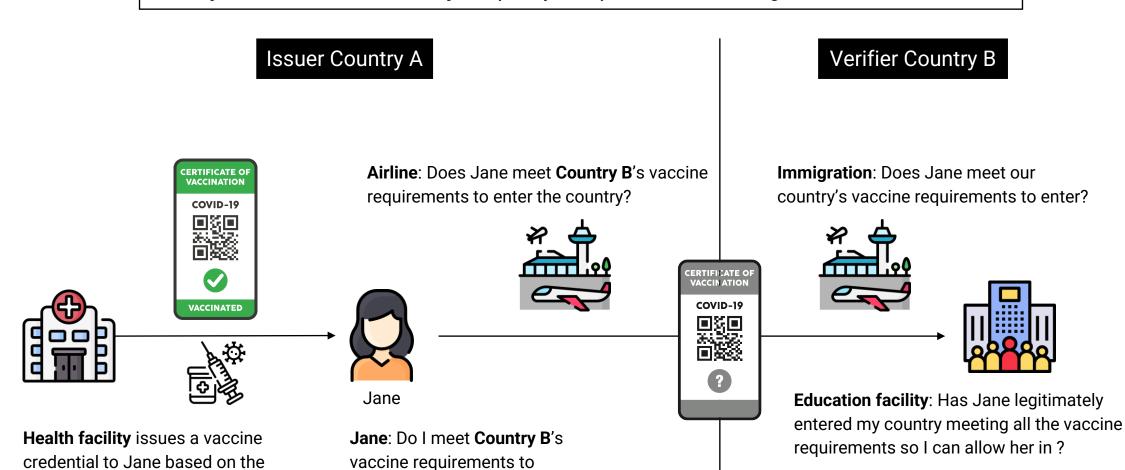


national vaccine policy

Sharing Credentials Based on Transparency and Trust

Verifying the provenance of digital health certificates as people move within and across borders

Country B needs to trust Country A's policy and process for issuing Jane's health credential



enter the country?



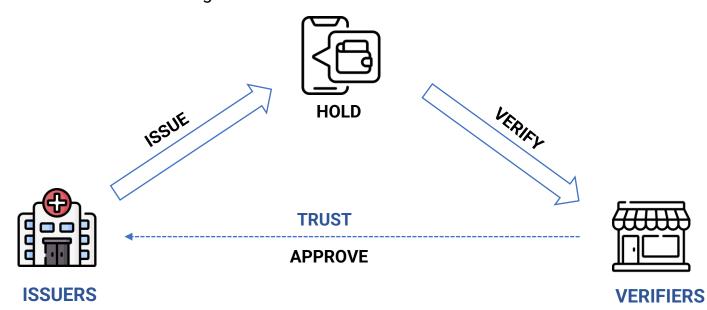
Stakeholder Needs in Digital Health Credential Ecosystems

Connecting the requirements of credential Issuers, Holders and Verifiers



HOLDERS (Individuals or Organizations)

Need more security and convenience than paperbased credentials with a wider network of verifiers and designed for ease of business.



Governments and organizations want to issue digital health credentials based on WHO standards without compromising on their own governance and policies

Countries want to easily discover and validate various digital health credentials and access relevant information about them in a secure and trusted manner.



Regi-TRUST Addresses an Emerging Problem Area

Existing digital systems are ill-equipped to verify external health data in a rapidly evolving digital landscape, with transparency and trust increasingly dependent on new infrastructure.

Pre Pandemic Centralized Approach

- Slow-paced digitization and lack of incentives and networks for trusted, reusable digital credentials
- Modern cryptography not as widely understood or used
- Manual, cumbersome, and costly processes of building network of digital services using highly centralized approaches that are hard to scale

New Decentralized World of Trust Ecosystems

- Fast-paced digitization initially driven by local needs
- Modern cryptography has become better understood and cheaper to implement
- Decentralized tech that can work with existing centralized approaches to support new digital growth patterns

The emerging problem space

TRANSPARENCY

Enable countries to **discover each others digital health credentialling services** - including their technical specifications and governance mechanisms, and meaningfully engage with them

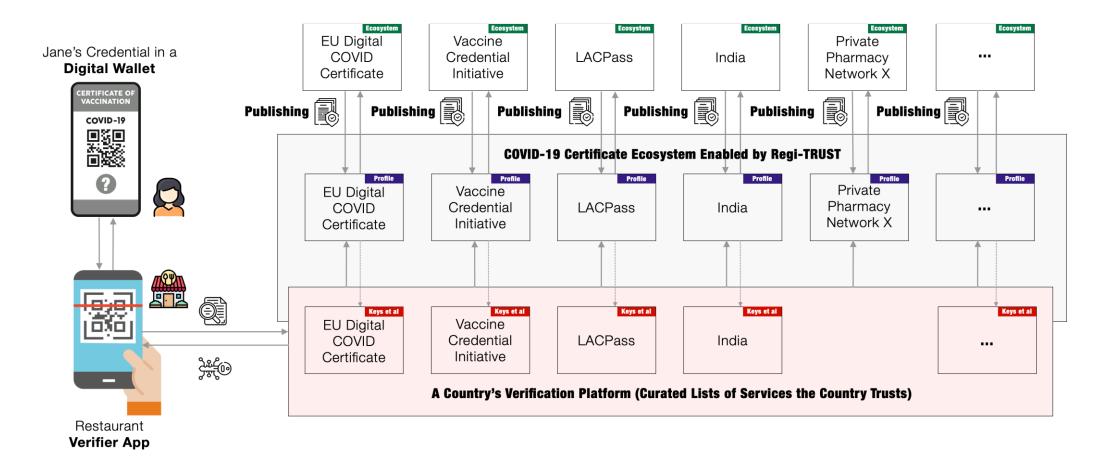
TRUST

Enable countries to evaluate the **trustworthiness of each others digital health credentialling services** and curate trusted services in a standardized way to approve them in their jurisdictions



Regi-TRUST- Digital Trust Infrastructure for Countries

Developed by UNDP as a scalable trust model that enables countries to issue and verify digital health credentials under different technical and policy frameworks in a transparent and trusted manner worldwide



RegiTrust is an open, interoperable platform that enables decentralized service delivery, reduce costs through shared infrastructure, and support global data access without complex governance.



Stakeholder Needs in Digital Health Credential Ecosystems

Regi-TRUST provides foundational infrastructure that empowers ecosystem participants to engage effectively and seamlessly—regardless of the platforms they use



FOR HOLDERS

Technical capabilities and tools—designed to enable digital wallets to present health credentials to Regi-TRUST-enabled verification services.



DIGITAL WALLET





FOR ISSUERS

Standardized methods to publish digital services so they are easily understood by all countries and seamlessly processed by digital systems.

TRUST

APPROVE

FOR VERIFIERS

Technical and governance resources—including capabilities and tooling—designed to verify services published by issuers using standardized methods.

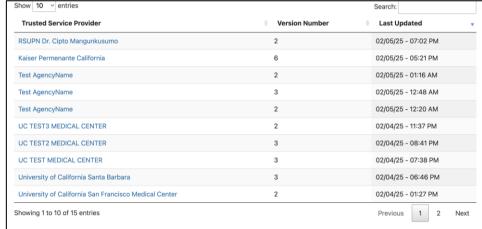


RegiTrust Modules Are Tested and Production-Ready

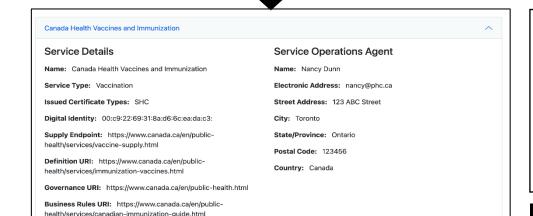
A country can implement Regi-TRUST issuer modules to make their digital health credentials discoverable globally

Credential Service Publishing Module

- Templates and tooling to structure technical and governance information of digital health credential services in a standardized way
- Countries can publish their digital health credentials in a secure manner on a national domain
- Integrate existing systems and data aggregation tools to streamline publishing process







- Standardized templates and tooling to create a single- or multi-layer directory of digital health credentials issued
- Content and access management tools for countries to update technical and governance information of published digital health credentials
- Countries can easily discover and validate health credentials and access relevant service information.

Trusted Credentials Ecosystem Module



First Use Case: Global Digital Health Certification Network

WHO is building on the COVID infrastructures and experience to support the emergence of digital health credential services across the world, leveraging Regi-TRUST





What's Next: A Complete Suite of Open-Source Modules

UNDP is extending Regi-TRUST to provide verification and digital wallet capabilities as well as governance support to make transparency and trust easier to achieve

Verification Module

- Verifier APIs that are integrated with major trust list implementations and support verification of Regi-TRUSTenabled digital services
- Tooling to configure verification services and build customized verification APIs/platform
- A sample and customizable verifier application

Digital Wallet Module

- A sample and customizable digital health wallet
- Develop functionalities that support selective disclosure of health data and other privacy needs
- Develop functionalities that give user abilities to self-verify a health credential based on published rules before travel

Governance Module

- A Regi-TRUST governance and operational framework (template) for network-of-networks implementers
- Case studies of trust networks that are implementing or may implement Regi-TRUST
- UN practices that can be leveraged by trust networks implementing Regi-TRUST

2021 Incubation

2022 - 2023 Phase 1 Infrastructure Basic

2023 - 2024 Phase 2 Infrastructure Core

2025-2030 Extension for various health credentials

COVID-19 Certificate

WHO GDHCN

Digital Health and Beyond



Regi-TRUST Future-Proofed Digital Health Infrastructure

Aims at establishing new digital health standard for transparency and trust



Open, Agile and Affordable

Leverages open standards and widelyaccessible Internet infrastructure, and providing 'plug-and-play' functionality



Policy Independence

Allows countries, jurisdictions, and private networks to keep, shape, and protect policies and processes of their own



Inherently Scalable

Using scalable design for future pandemics and crises, and other health use-cases requiring transparency and trust



Advances Best-Practices

Built on open source TRust mAnagement Infrastructure (TRAIN) project which is funded by EU



Holistic Approach: Tech + Policy

Includes policy and governance guidance and structures drawn from UNDP and partners' expertise



Proven global trust architecture

Enabling interoperability between different digital health credentials, regardless of location or definition



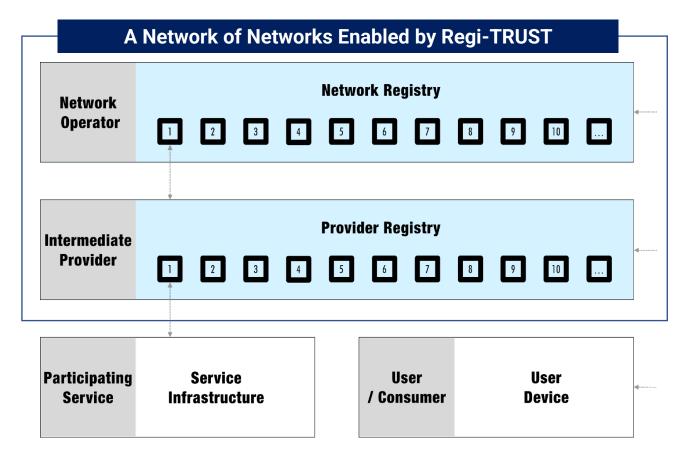
Appendix 1: Regi-TRUST Operational Framework

Network Registry is the highest level network of trusted digital service providers who participate in the publishing and verification mechanism run by a **Network Operator** implementing Regi-TRUST.

Intermediate Providers are the trusted digital service providers directly participating in the Network Registry. They may have their own list of trusted digital services, and as such can create their own Provider Registry by implementing Regi-TRUST as the Intermediate Level.

Participating Service is the trusted digital service provider on the Provider Registry that leverages its own **Service Infrastructure**.

User / Consumer refers to any entity using the Network Registry for discovery and validation of trusted digital services. They would need to have some kind of **User Device** (e.g. mobile phone, laptop).

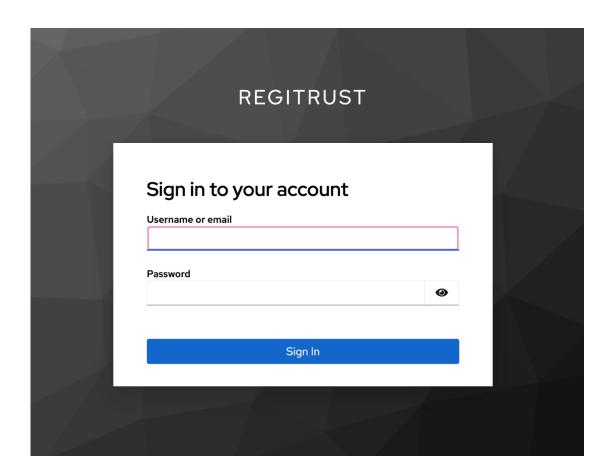




Appendix 2: Regi-TRUST User Roles in GDHCN Context

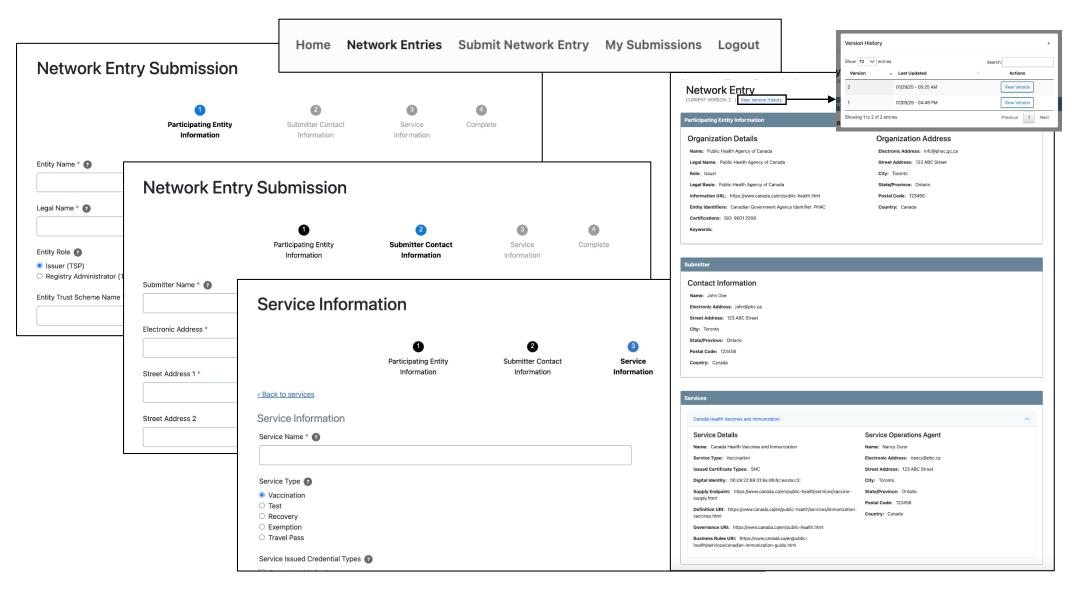
Different User Roles have been built:

- GDHCN Network Administrator (WHO): Configure the entire GDHCN Trust Network
- 2. GDHCN Applicant Clerk (Member State): Submit an enrolment request (no account needed)
- 3. GDHCN Application Reviewer (WHO): Review and approve a Member State's or others' enrolment request so they can start publishing services onto the Trust Network
- GDHCN Participant Clerk (Member State): Prepare submission of digital health certificate service(s) to GDHCN Trust Network
- GDHCN Participant Supervisor (Member State) :
 Review Clerk submissions before publishing to the
 GDHCN Trust Network



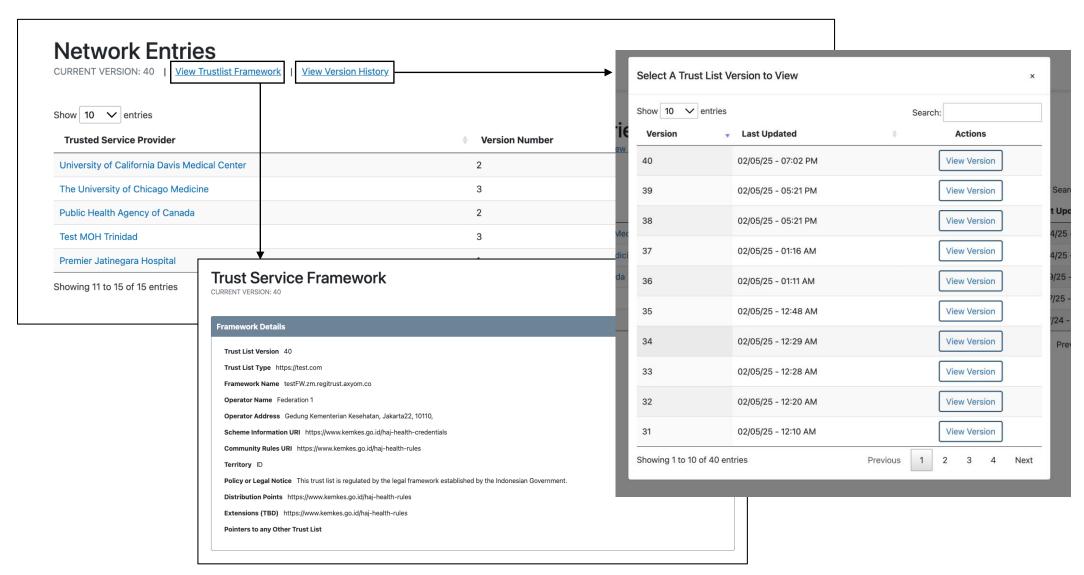


Appendix 3: Regi-TRUST Service Publishing Module



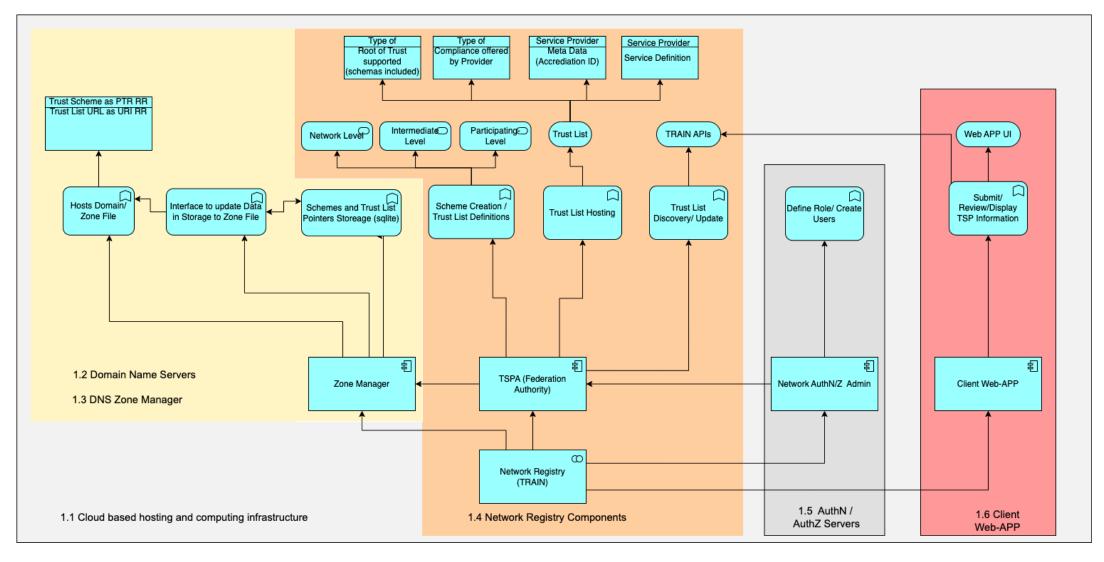


Appendix 4: Regi-TRUST Trusted Ecosystem Module





Appendix 5: Regi-TRUST Architectural Diagram





Appendix 6: Regi-TRUST Use of DNS/DNSSEC

