

ICANN 76 CANCÚN

Using Digital Credentials to Validate Canadian Presence

(Proof of Concept)

CIRA & Northern Block

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OUR GOAL

For CIRA to understand the utility of digital credentials

- Have a sandbox that others at CIRA can use to understand Digital Identity & its applications
- What Digital Wallets are
- How they could be used at CIRA for a Business Process
- Are there other areas within CIRA that would benefit from this type of solution?
- Share these insights internally at CIRA & the community



OUR USE CASE

Canadian Presence Requirements (CPR)



- To register a .CA domain name and brand your website as proudly Canadian, you need to fulfill the Canadian Presence Requirements (CPR)
- This means you must demonstrate a connection to Canada by selecting a CPR category, such as being a Canadian citizen, permanent resident, or corporation registered in Canada.
- 18 Canadian [Presence](#) Requirements ([CPR](#))
- CIRA Policies, Rules & Procedures [Version 1.3](#)

CANADIAN PRESENCE REQUIREMENT

Keeping .CA Canadian

Individuals

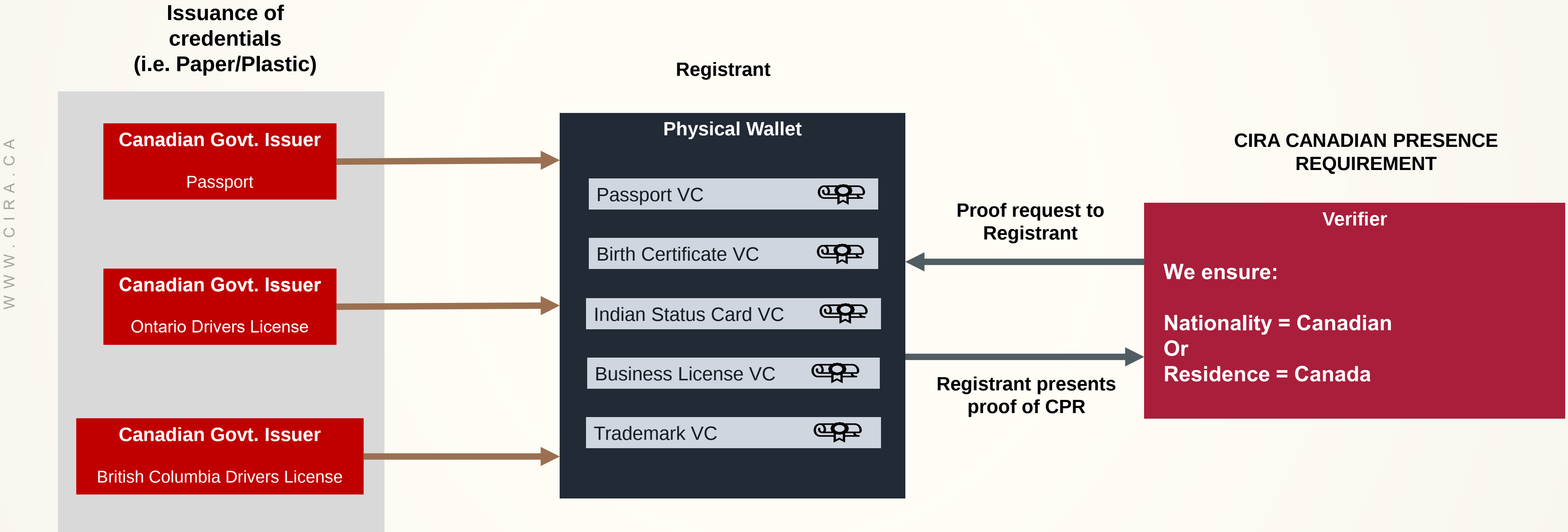
- Canadian citizen
- Permanent resident
- Indigenous peoples

Non-individuals

- Corporation
- Trademark registered in Canada
- Association

IN REAL LIFE – PAPER / FAX / (NOT EMAIL ;) / SECURE CHANNEL

MANUAL PROCESS



Proof of Concept

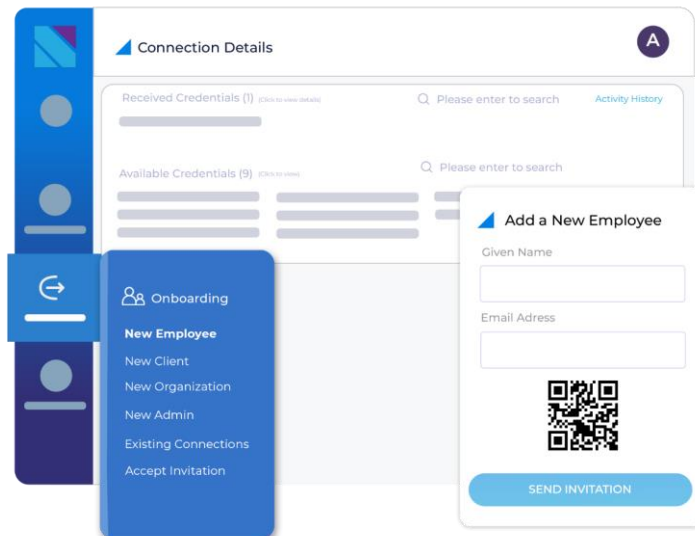
- Success -

A registrant can prove they are Canadian via digital credentials

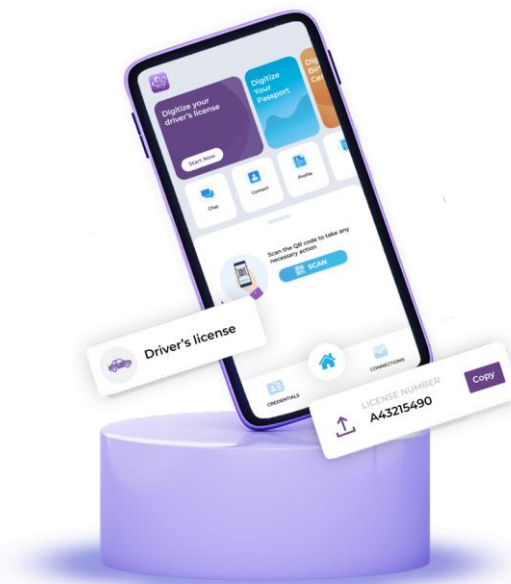
The issuer can be verified in a Trust Registry via the DNS



Orbit Enterprise

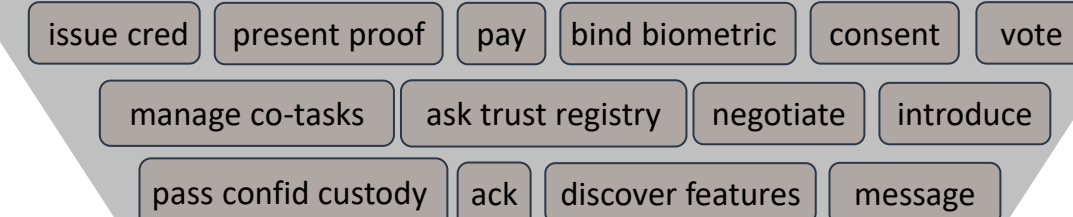


Orbit Edge



Layer 4: Trust Applications and Ecosystems

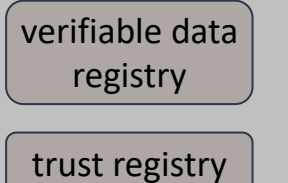
Layer 3: Trust Tasks



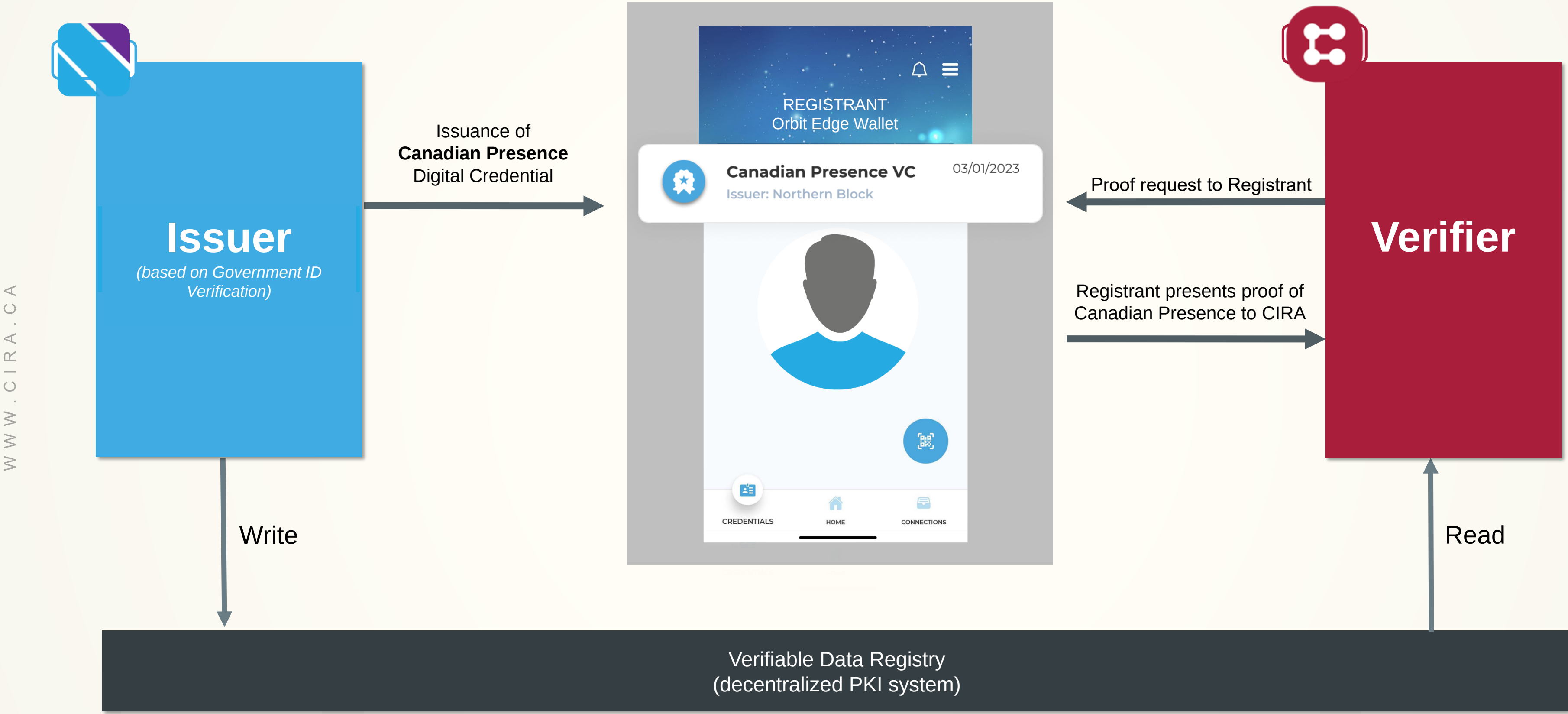
Layer 2: Trust Spanning Protocol

Layer 1: Trust Support

Supporting Systems



VALIDATING CANADIAN PRESENCE REQUIREMENT

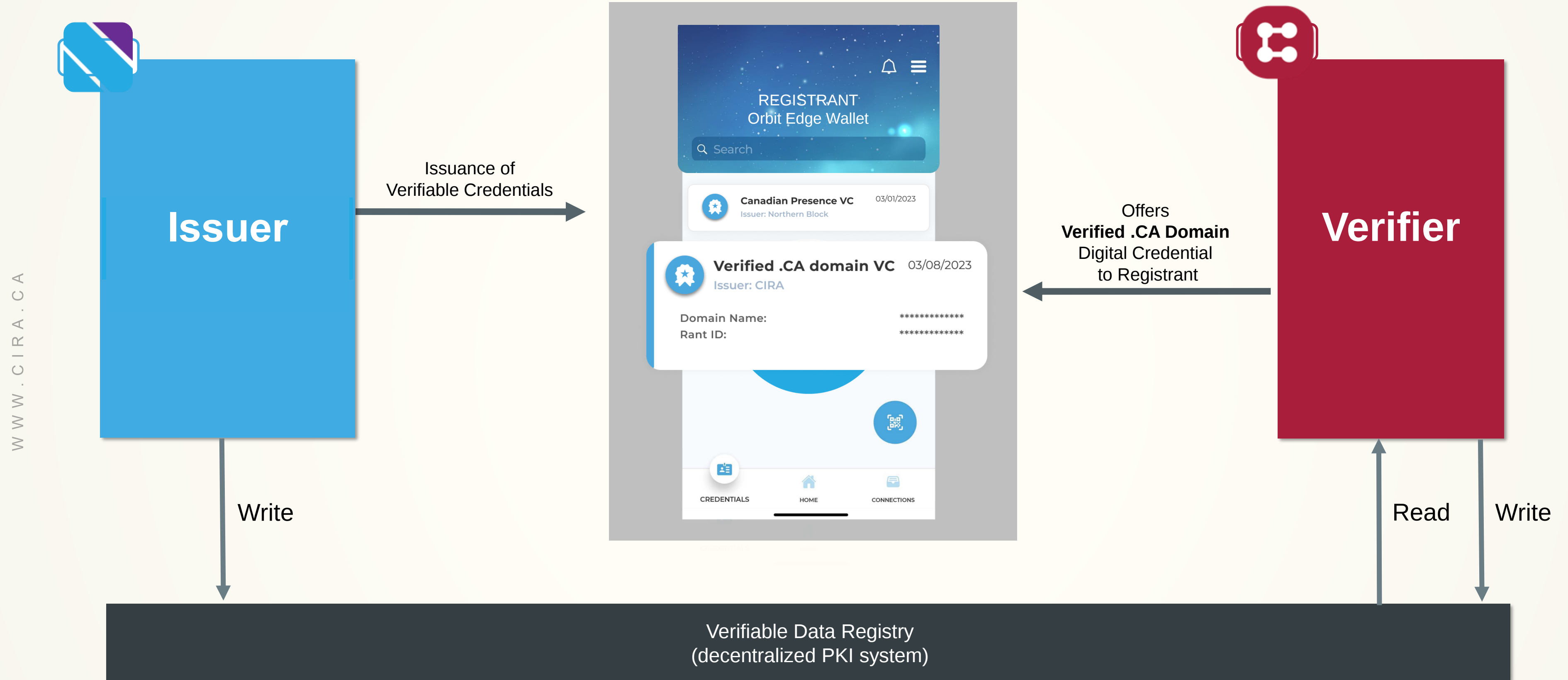


Using Digital Credentials to Validate Canadian Presence

DEMO

[Video Link](#)

ISSUING A *VERIFIED* .CA DOMAIN DIGITAL CREDENTIAL



ISSUING A VERIFIED .CA DOMAIN DIGITAL CREDENTIAL

Defining the value proposition of Verified .CA Domain Digital Credentials...

What is the value of a Verified .CA Domain Credentials...

For an enterprise?

Useful to fight fraud?

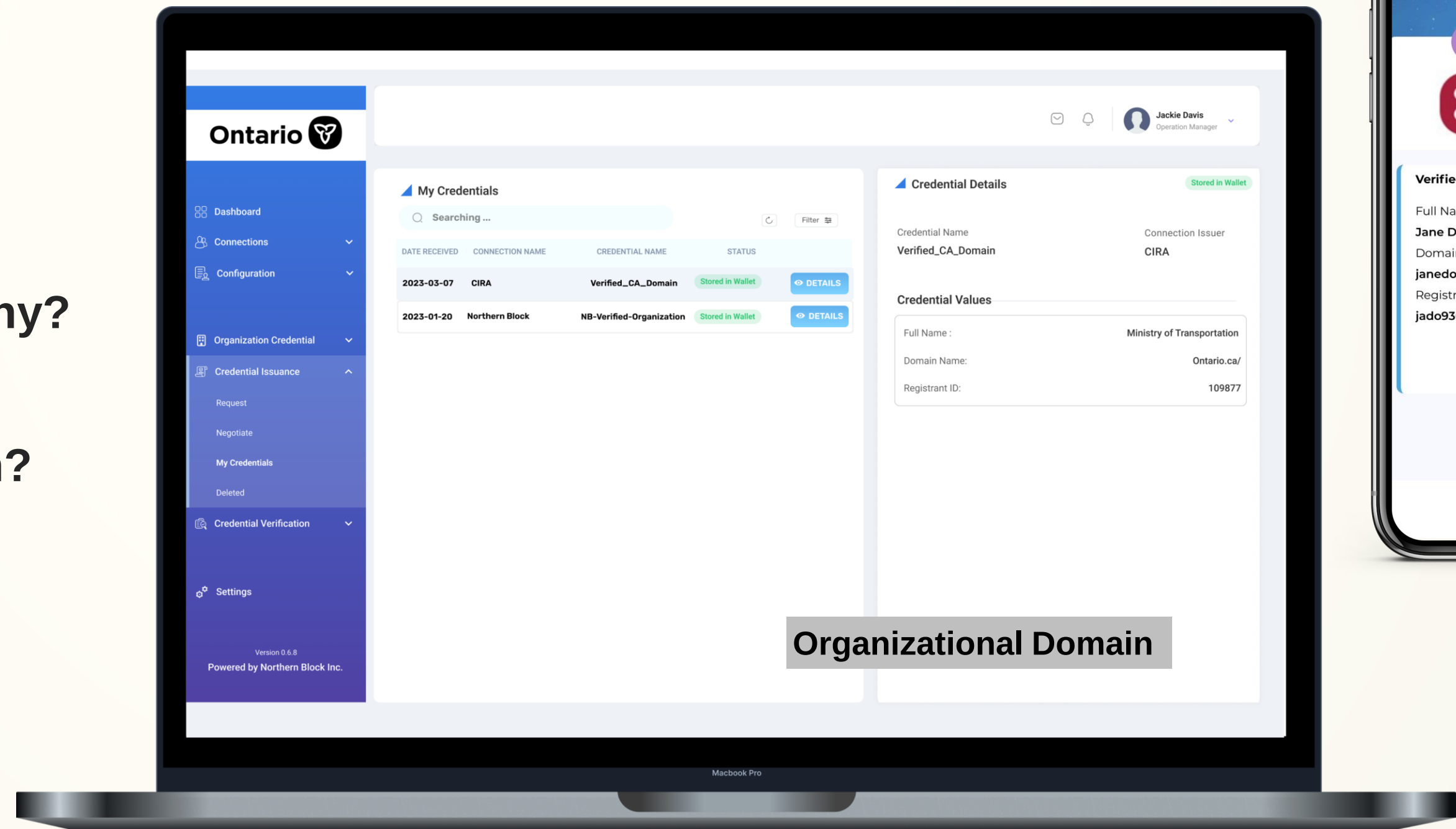
To the registrar?

To the web hosting company?

To respond to abuse?

To prove control of domain?

Personal Domain →

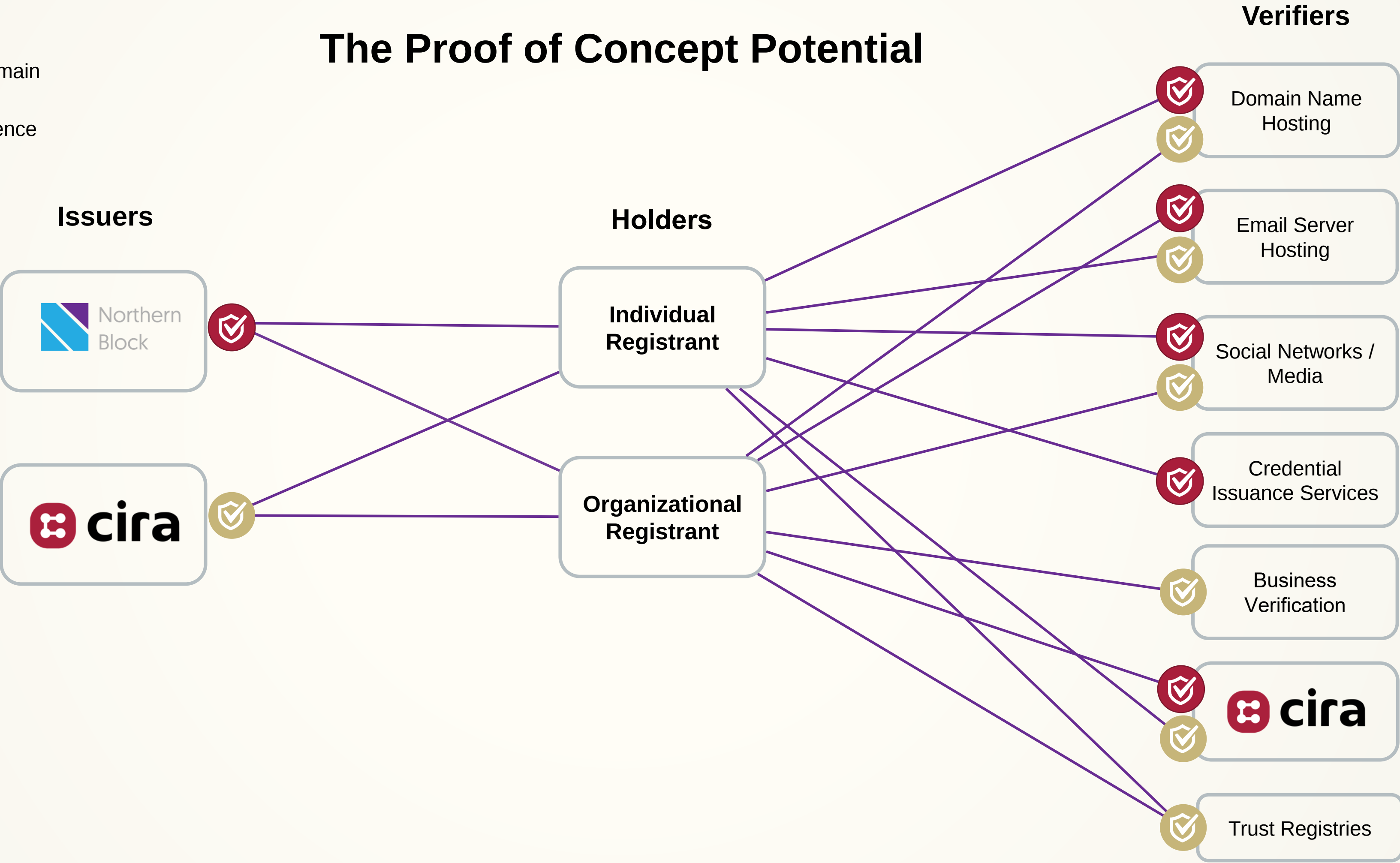


Organizational Domain

LEGEND
Digital Credentials

-  Verified .CA Domain
-  Canadian Presence Requirement

The Proof of Concept Potential



WWW.CIRA.CA



What is the value of these digital credentials?

That is the question!!

LEGEND

Digital Credentials

-  Canadian Presence Requirement
-  Verified .CA Domain
-  Registrar Credential
-  New credentials

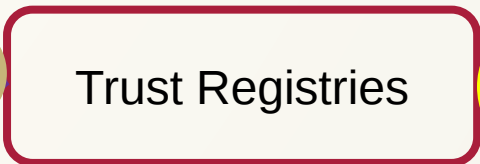
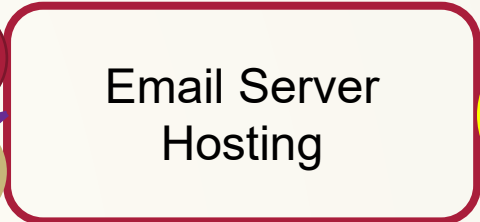
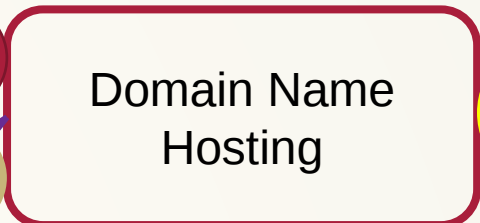
Issuers



Holders



Verifiers



Maybe we need a registrar credential before registration?

What other use case comes to mind?



ENHANCING THE DIGITAL TRUST INFRASTRUCTURE USING DNS & DNSSEC

When an entity is presented with a verifiable claim, there are three things they will want to ensure:



1

That a claim hasn't been altered/falsified at any point in time
(Cryptographic verifiability, Verifiable Data Registries - VDRs)



2

That a claim has accurate representation
(Authentication, DID Discovery/mapping within DNS)



3

That a claim has authority
(Authorization, Trust Registries/trust lists)

Northern Block

Dashboard

Connections

Configuration

Organization Credential

Credential Issuance

Request

Negotiate

My Credentials

Deleted

Credential Verification

Settings

Version 0.6.8

Powered by Northern Block Inc.

STEP 3/3

Verify If Issuer Is In A Trust Registry



You have received a credential offer from :
Spring North Science
Public DID: did:sov:2wJPYULfLLnYTEFYzByfUR

This organization wants to issue this credential:
BC_GHG_Emissions_Report_Verification

The following information was retrieved from the Issuer's public DNS Records

Issuer:	Spring North Science
Registered in Trust Registry	TrustRegistry.ca
Public DID:	did:sov:2wJPYULfLLnYTEFYzByfUR
DNS:	TR-demo.springnorthscience.ca

If the DID returned above matches what was provided by the Issuer, please click "Next" and confirm their authority to issue the credential offered.

Skip this step to accept without verification

NEXT

Offer Received

Connection Issuer
PwC

Copper Moutain Mines (BC) Ltd.
49.333298042647876
-120.5230912084238

al emission reporting.

DECLINE

↑ Ongoing work between CIRA and NB ↑

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CLASSIFICATION:PUBLIC

“ Thank You

<https://www.cira.ca/labs>

<https://northernblock.ca>

