

\$15 Billion Reasons Driving the Adoption of Digital Identity





Technology is changing the way we live and transact.

Citizens, businesses, and governments are relying on online platforms and services more than ever before and subsequently, there is an enormous amount of digital data that needs to be stored, managed, and secured.

Thanks in part to the ever-increasing threat of cyber attacks and data breaches¹, organizations are hyper-aware of their digital practices. For example, traditional cloud storage solutions, while convenient and scalable, can pose a risk because of their centralized storage systems. Many organizations are using this awareness as an opportunity to explore and implement other, more secure, data management approaches.

With 8/10 Canadians already in support of digital IDs², the time is right for both public and private sectors to adopt digital credentials and decentralize digital identity technology. This will allow organizations to mitigate risks, safeguard their customers' privacy, and foster trust in an increasingly interconnected world. From travel documentation, to financial account creation, to government service management: opportunities for evolution are unlimited.

8/10



Canadians support digital IDs.

A billion dollar opportunity

66%

of Canadians believe it is important to have a secure and trusted digital identity to transact safely online.

The **Digital ID and Authentication Council of Canada** (DIACC) estimates that “the potential value of trusted digital identity to the Canadian economy is at least one percent of GDP, or C\$15 billion.”³ Since 66% of Canadians already believe in the importance of a secure, digital identity⁴, there has never been a better time to unlock these societal and economic opportunities with robust and scalable digital identity solutions.

This whitepaper will explore the \$15 billion dollar opportunity currently facing citizens, businesses, and governments. We'll discuss how to fully embrace the implementation of digital credentials to transform our society and build a privacy-focused digital ecosystem.

What are digital credentials

Digital credentials⁵ are a collection of personal details that are as unique to each person as a fingerprint, including first and last name, date of birth, Social Insurance Number (SIN), and more. They are part of every transaction: from driver's licenses, to passports, to educational certificates, to employment records.

Once a citizen has established their digital credentials, they can use them to build and leverage their digital identity⁶ (digital ID) in every digital interaction they have, ultimately establishing trust and facilitating secure, online transactions. This means that everything from purchasing a home, to income verification, to opening a new bank account becomes simpler, transparent, and more streamlined.

Digital credentials are:

Convenient: They eliminate the need for outdated, paper-forms of identification.

Secure: They use strong, multi-factor authentication technology like biometrics.

Private: They can only be shared by their owner.

Accessible: They work with assistive technology and they open up access to services for those who might not have access to physical, traditional credentials.

Shaping our future

Each person's digital future means something different. For some, it means access to the personal data collected about them by private companies⁷. For others, it means better protection against the possibility of fraud⁸.

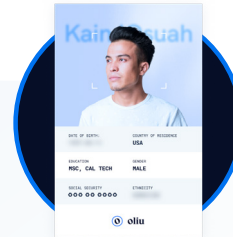
A future that relies on digital credentials needs to be interconnected between citizens, businesses, and governments, each with a key role:



Citizens need to trust that their personal information is protected and that their digital credentials are under their control.

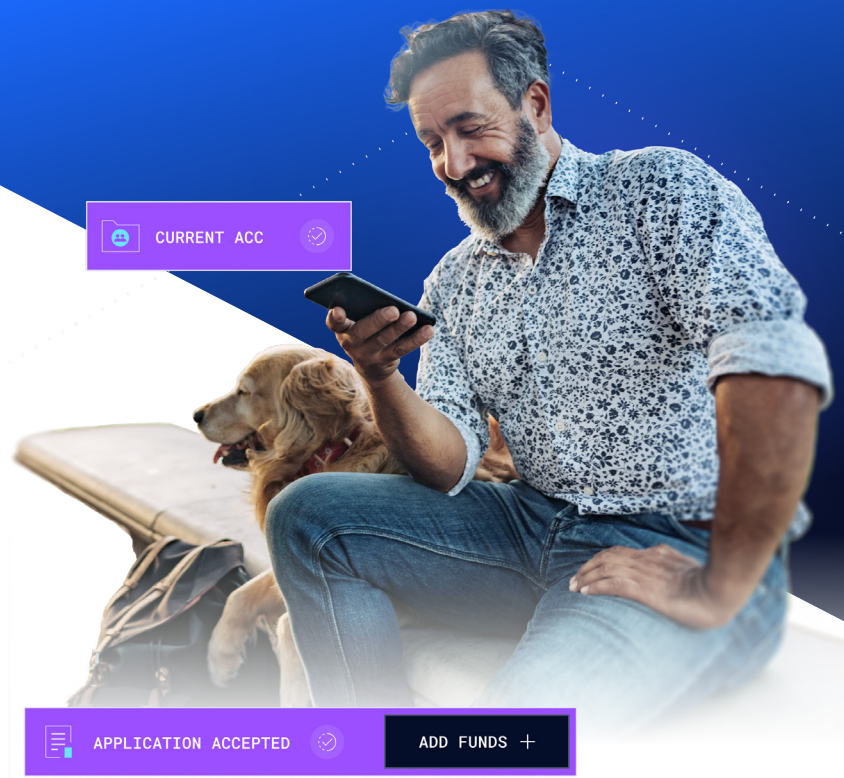


Businesses need to implement digital IDs to improve customer experience, reduce cost, and increase security and compliance.



Governments need to ensure that a digital identity ecosystem works cohesively to advance the Canadian economy in a way that benefits everyone.

The effective implementation of digital credentials offer untapped opportunities for everyone. It serves to simplify and streamline everything from customer experience, to convenience, to security and compliance. **Here are a few examples:**



Citizens

Digital-wallet technologies such as Proof⁹ use advanced encryption to manage and share digital credentials. Citizens can quickly and easily share their verified credentials with businesses and service providers, reducing the need for manual paperwork and lengthy, manual verification processes. By putting users in control of their own data, digital wallets promote convenience, privacy, and trust in online transactions, ultimately enhancing a citizen's digital experience. 4/10 Canadians already use digital wallets on their smartphone¹⁰ and enjoy the following conveniences and benefits:

Increased control

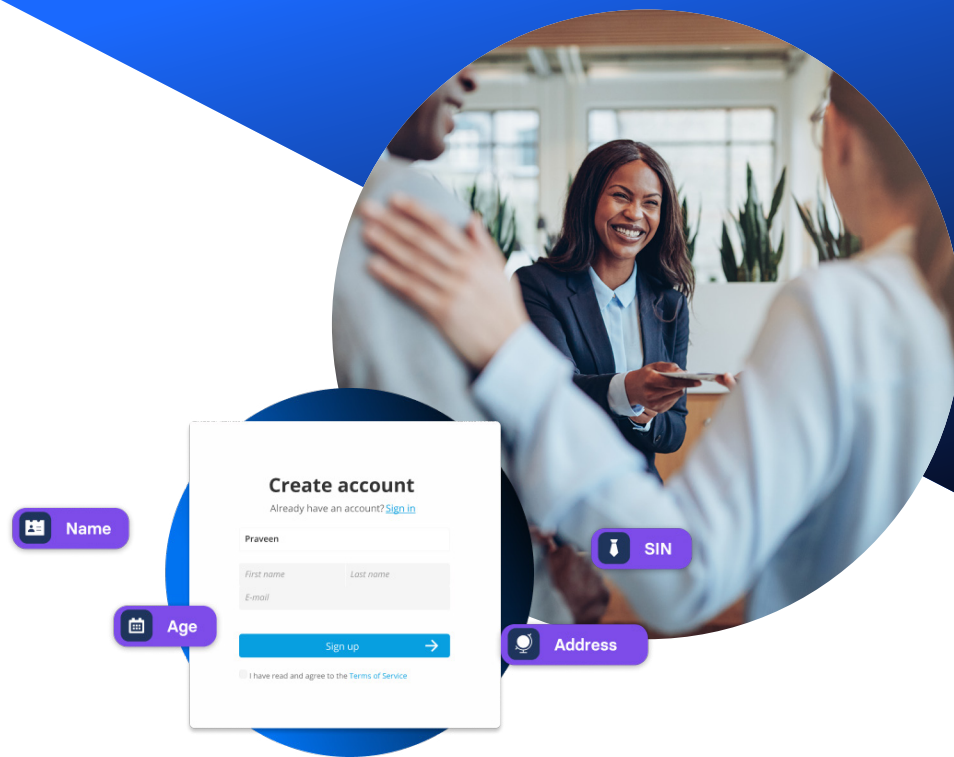
Self-sovereign identity (SSI)¹¹ gives citizens full control over their own data.

Improved convenience

Sharing a credential is as easy as sending a text message.

Advanced portability

Every credential needed for anything from secure sign ons, to easy onboarding, to instant applications for products and services, is at a citizen's fingertips.



Businesses

Digital identity management platforms like Oliu¹² use decentralized blockchain technology to create a tamper-proof record of identity verification, which can be used across multiple platforms and services. Traditional cloud storage solutions, while convenient and scalable, can pose a risk of data breaches due to the centralized nature of their storage systems. In contrast, decentralized data storage solutions offer enhanced security by distributing information across multiple storage networks, making it more difficult for cybercriminals to access and compromise sensitive data.

For many businesses, especially those where account creation remains the highest entry point of consumer risk¹³, digital identity platforms can deliver the following solutions:

Improved customer experience

Eliminate cumbersome and time-consuming identification methods, such as physical IDs or paper forms, to speed up online transactions.

Reduced costs

Streamline or eliminate manual data entry and verification processes, resulting in significant cost savings.

Enhanced compliance

Meet or exceed regulatory requirements while avoiding costly penalties, including compliance with anti-money laundering (AML) and know-your-customer (KYC) regulations.



DRIVERS LICENSE

Morgan Sarah

Date of Birth	Issuing
Expiry	
Driver Number	Place of Birth
Signature	

SUBMIT

Governments

¾ of Canadians believe it's important for governments to move quickly and implement digital IDs.¹⁴ Digital identity verification capabilities will help governments modernize their digital infrastructure, proactively combating fraud and safeguarding sensitive data. This technology will instill citizens with a sense of confidence and trust in government-run digital offerings, propelling us into a new era of efficiency, convenience, and transparency by delivering the following benefits:

Protected Canadians

Provide safer spaces with a single, proven identity that can be used to access public services across multiple areas of government.

Reduced costs

Eliminate the need for manual data entry and verification with tamper-proof, privacy-first solutions for digital government documents, such as driver's licenses, passports, or business licenses.

Increased security

Safeguard a citizen's online presence with strong authentication methods such as biometric or multi-factor authentication.

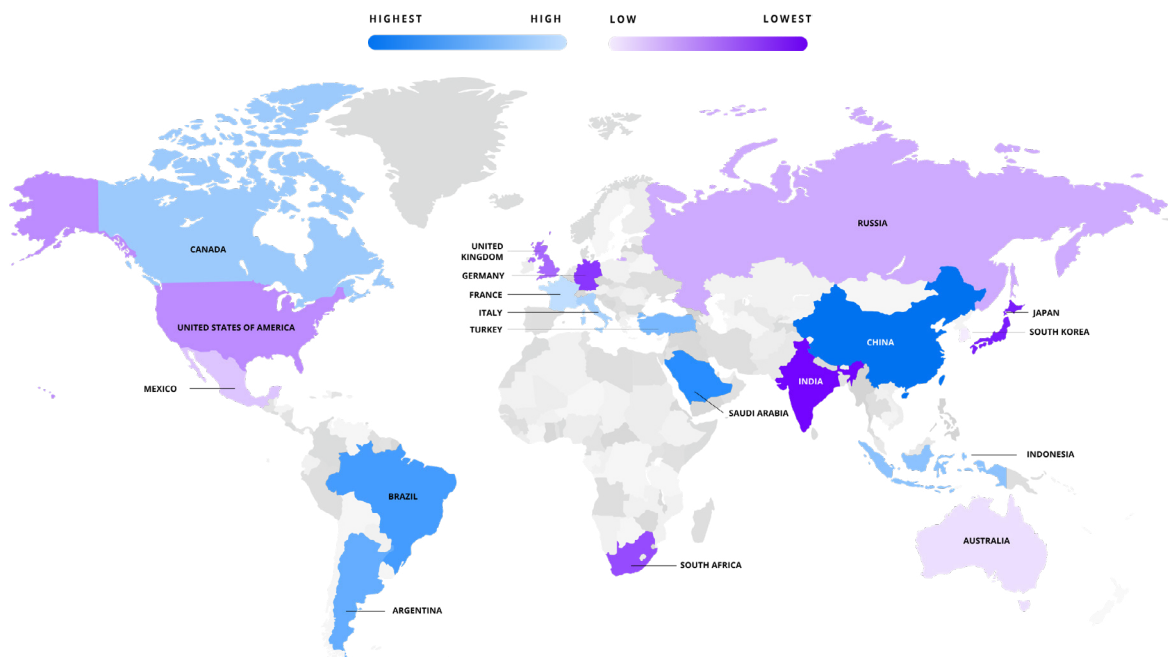


Canada's digital competitiveness

In today's digital world, countries are ranked by the World Economic Forum (WEF)¹⁵ based on their digital competitiveness, including access to digital infrastructure, the level of digital skills, and the quality of digital services. Canada ranked 7th¹⁶ in the latest WEF report¹⁷, which indicates that we have the potential to become a leader in the digital world.

But we aren't there yet. Canada's privacy laws are weaker¹⁸ compared to other G20 countries, and 72% of Canadian companies currently allow third parties to access the data they collect¹⁹ from citizens.

And as if those issues weren't enough, according to Statistics Canada, there are still approximately 32.1 million registered paper-based IDs in Canada.²⁰ This paper-based ID system is outdated for our evolving digital landscape. Its inadequacy has highlighted an urgent need for safer, more reliable identity verification solutions that can increase security and convenience and enable seamless online transactions.



Canada's programs & initiatives

Government initiatives

Facing increasing pressure from three quarters of Canadians²¹, and after an increase of 40% in fraud in 2022,²² Canadian governments know that it's time for change.

Federal programs

The 2023 federal budget²³ outlines several significant investments aimed at bolstering Canada's digital infrastructure. These investments will have a profound impact on online security, privacy, and convenience for Canadians while promoting economic growth, innovation, and trust in digital services.



Digital ID and Authentication Council of Canada (DIACC).

One such investment is in the Digital Identification and Authentication Council of Canada (DIACC).²⁴ DIACC is a non-profit organization that is developing standards and guidelines for digital identity, for both Canadian citizens and businesses. DIACC estimates that "an effective, safe and secure digital ID ecosystem will save manual operation costs and reduce fraud, saving an estimated \$482 million for provincial and federal governments, and \$4.5 billion for private sector organizations".²⁵

The DIACC's flagship initiatives are Voilà Verified²⁶ and the Pan-Canadian Trust Framework™ (PCTF)²⁷.

Voilà Verified

Voilà Verified is the first and only certification program that assesses whether or not digital identity services are in compliance with the Pan-Canadian Trust Framework™ (PCTF). A service that earns the Voilà Verified Trustmark has demonstrated that it is secure, accessible, and interoperable, and meets international standards and regulations.

Pan-Canadian Trust Framework™ (PCTF)

The Pan-Canadian Trust Framework™ (PCTF) fosters digital identity innovation. Its guidelines, principles, and standards are used to verify the trust of digital identity services and networks, and help ensure public and private sector interoperability. The framework also helps ensure that user-centered design, privacy, security, and convenience are at the forefront of all digital identity tools and services.

Additional federal initiatives

Canada has also engaged with additional programs to respond to public demands for digital readiness:

Canada's Digital Ambition Program

GCKey

SecureKey

Canada's Digital Ambition Program (2022)

This program is trying to establish strict standards for a trusted digital identity platform. It includes Canada's Digital Charter²⁸ and the National Digital Trust Service Proof of Concept.²⁹

GCKey

GCKey³⁰ is run by the Canadian government, offering a username and password option to access multiple Government of Canada enabled services³¹.

SecureKey

SecureKey³² is a private sector company that simplifies citizen access to online services and applications, through the Interact Verified³³ offering. This tool allows citizens to securely share personal information with participating organizations, making identity verification faster and more convenient.

Provincial programs

Not only is Canada taking meaningful strides federally towards a digital future, but provincial governments are also demonstrating strategy and policy toward digital identity adoption.

The provincial speed and adoption of digital credentials is varied. For some governments, digital credentials mean a simple, user-generated login. For others, a digital future means investing time and money into real, verified digital IDs.

Provincial governments across Canada are following three typical paths to digital identity adoption:

Program digitization

Single-portal services

Digital identity programs

	Program digitization	Single-portal services	Digital identity programs
ALBERTA			
BRITISH COLUMBIA			
SASKATCHEWAN			
MANITOBA			
ONTARIO			
QUEBEC			
NEWFOUNDLAND AND LABRADOR			
NEW BRUNSWICK			
NOVA SCOTIA			
PRINCE EDWARD ISLAND			
NORTHWEST TERRITORIES			
NUNAVUT			
YUKON			

Let's look at each initiative in greater detail.

Program digitization

Provincial digitization programs are strategy or funding models that support near-to-mid term digitization, typically as a means-to-an-end to move toward government-service digitization. Although these plans sometimes represent progress towards adopting digital identities, that isn't necessarily their explicit priority. More commonly, these programs are meant to modernize internal data-sharing processes between government divisions. British Columbia³⁴, Alberta³⁵, Ontario³⁶, Quebec³⁷, New Brunswick³⁸, Newfoundland and Labrador³⁹, and Prince Edward Island⁴⁰ all have provincial digitization programs in place.

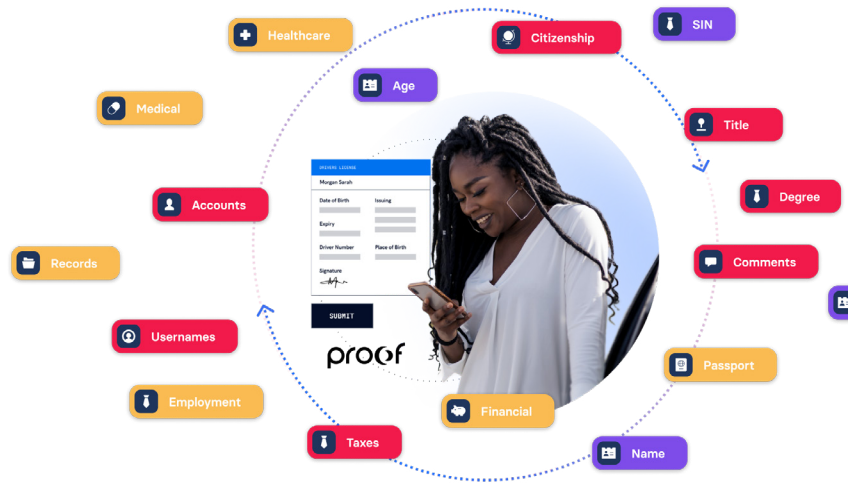
Single-portal services

These programs provide citizens the ability to login and manage their government documents and services, such as drivers licenses or vehicle registrations. Some of these portals require user-created login credentials (not tied to legal identities) and some might rely on a citizen's actual digital credentials. Either way, this approach is taking a giant step in the direction of making online interactions and verifications the norm. British Columbia⁴¹, Alberta⁴², the Yukon⁴³, the Northwest Territories⁴⁴, Saskatchewan⁴⁵, and Newfoundland and Labrador⁴⁶ all have single-portal services in place.

Digital identity programs

These programs include goals, timelines, and pilots directly aimed at advancing digital identities for citizens. The provinces engaged in these programs are the ones taking the more direct and targeted approach to building a future of digital credentials. British Columbia⁴⁷, the Yukon⁴⁸, Ontario⁴⁹, Quebec⁵⁰, and Newfoundland and Labrador⁵¹ are all actively working towards digital identity advancement.

Where technology fits in



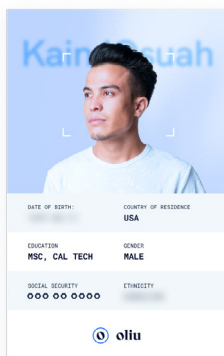
In a world where digital identities and credentials are becoming increasingly important, Canadian businesses need to stay ahead of the game. ATB Ventures⁵² believes that digital credentials are the key to a secure, private, and convenient digital world. Our goal is to create a secure, private, and digital ecosystem that unlocks unlimited opportunities for Canadians, while ensuring that citizens can trust those they interact with online.

Our products Oliu⁵³ and Proof⁵⁴ offer privacy-preserving solutions that can help companies protect their customers and their bottom line, while creating economic opportunity and establishing Canada as a digital leader.



For citizens

Proof is a mobile application that offers a digital wallet for citizens, using advanced encryption to manage and share digital credentials. Digital credentials are secure, tamper-proof electronic versions of the personal information that confirm a person's identity.



For business and governments

Oliu is a digital identity management platform that provides a secure and convenient way for organizations to issue, verify, and revoke the digital credentials enabling their customer and constituent experiences. It uses blockchain technology to create a tamper-proof record of identity verification, which can be used across multiple platforms and services.

Let's work together

If you or your organization is ready to be part of a digitally focused future, reach out to an Oliu™ Digital Identity Advisor today and start changing the future of digital credentials and identities for your customers. Together, we can build a safer, more secure, and more prosperous future for every Canadian.

Meet with a digital identity consultant today.

—> hello@oliu.id

Sources

1. <https://www.antifraudcentre-centreantifraude.ca/index-eng.htm>
2. <https://www.biometricupdate.com/202204/majority-of-canadians-support-digital-ids-want-control-over-data-diacc-survey>
3. <https://thefutureeconomy.ca/op-eds/iliana-oris-valiente-accenture-joni-brennan-diacc-canada-needs-digital-id/#:~:text=and%20government%20services,-A%20careful%20estimate%20of%20the%20potential%20value%20of%20trusted%20digital,governments%20and%20private%20sector%20leaders>
4. <https://diacc.ca/wp-content/uploads/2022/11/Universal-Digital-ID-Policy-Principles-to-Maximize-Benefits-for-People.pdf>
5. <https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/digital-credentials.html>
6. <https://myproof.me/>
7. <https://diacc.ca/2022/04/04/privacy-security-and-choice-drive-canadians-desire-for-digital-id/>
8. <https://www.rcmp-grc.gc.ca/en/news/2022/fraud-prevention-month-raises-awareness-a-historic-year-reported-losses>
9. <https://myproof.me/>
10. <https://diacc.ca/wp-content/uploads/2022/04/DIACC-2021-Research-Report-ENG.pdf>
11. <https://www.forbes.com/sites/forbestechcouncil/2022/09/26/self-sovereign-identity-taking-control-over-your-digital-identity/?sh=48bedb8764e0>
12. <https://oliu.id/>
13. <https://www.wealthprofessional.ca/news/industry-news/cost-of-fraud-has-risen-sharply-for-canadian-financial-firms/371580>
14. <https://diacc.ca/wp-content/uploads/2022/11/Universal-Digital-ID-Policy-Principles-to-Maximize-Benefits-for-People.pdf>
15. <https://www.weforum.org/agenda/2021/09/countries-rank-highest-digital-competitiveness/>
16. <https://www.weforum.org/agenda/2021/09/countries-rank-highest-digital-competitiveness>
17. <https://www.weforum.org/reports/the-global-competitiveness-report-2020>
18. <https://www.weforum.org/agenda/2021/09/countries-rank-highest-digital-competitiveness>
19. https://webobjects2.cdw.com/is/content/CDW/cdw/on-domain-ca/pdfs/2022-q2-406800-security-2022-security-study-en.pdf?utm_campaign=FY22%20-%20Q2%20-%20CDW%20-%20Security%20Study%202022%20-%20406800&utm_medium=email&hsmsi=217834023&hsenc=p2ANqtz-8mSf0rDkg1z85QhEbPJYOUnlXtA_4JMb2BBtjKV5nBE2zpZDPRw13REQXr0X3CuAitf2kdHPIf3BwLoIBCtd_P8z5VA&utm_content=217834023&utm_source=hs_automation
20. <https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-X/2021008/98-200-X2021008-eng.cfm>
21. <https://protect2.fireeye.com/v1/url?k=31323334-501cfaeb-31321c08-454455535732-c9647b61db30616b&q=1&e=b1fe5d92-d5c9-4695-8d5b-e850d170f402&u=https%3A%2F%2Fdiacc.ca%2F2022%2F04%2F04%2Fprivacy-security-and-choice-drive-canadians-desire-for-digital-id%2F>
22. <https://www.rcmp-grc.gc.ca/en/news/2023/fraud-prevention-month-2023-fraud-losses-canada-reach-historic-level>
23. <https://www.budget.canada.ca/2023/report-rapport/toc-tdm-en.html>
24. <https://diacc.ca/>
25. <https://diacc.ca/2023/03/29/canadas-trusted-digital-id-leader-the-diacc-welcomes-budget-2023/>
26. <https://diacc.ca/voila-verified/>
27. <https://diacc.ca/trust-framework/pctf-overview/>
28. <https://ised-isde.canada.ca/site/innovation-better-canada/en/canadas-digital-charter-trust-digital-world>
29. <https://www.prnewswire.com/news-releases/atb-ventures-is-working-with-the-government-of-canada-to-power-its-national-digital-trust-proof-of-concept-301482547.html>
30. <https://clegc-gckey.gc.ca/j/eng/AB-01?ReqID=s21f0a5df299d1e3eff6a15e14644f69baf5040cb0>
31. <https://clegc-gckey.gc.ca/j/eng/ES-01?ReqID=s21f0a5df299d1e3eff6a15e14644f69baf5040cb0>
32. <https://securekey.com/>
33. <https://www.interac.ca/en/business/our-solutions/interac-verified/>
34. <https://digital.gov.bc.ca/>
35. <https://www.alberta.ca/digital-strategy-engagement.aspx>
36. <https://www.ontario.ca/laws/statute/19s07>
37. <https://www.legisquebec.gouv.qc.ca/en/document/cs/G-1.03>
38. <https://www2.gnb.ca/content/gnb/en/corporate/promo/dnb.html>
39. <https://www.gov.nl.ca/thewayforward/action/going-digital-by-design/>
40. <https://www.princeedwardisland.ca/en/service/moving-towards-digital-services>
41. <https://www.bceid.ca/>
42. <https://www.alberta.ca/alberta-ca-account.aspx>
43. <https://myyukon.service.yukon.ca/en/login>
44. <https://www.gov.nt.ca/en/participating-online-eservices>
45. <https://services.saskatchewan.ca/#/login>
46. <https://www.my.gov.nl.ca/en/login>
47. <https://digital.gov.bc.ca/digital-trust/>
48. <https://www.cbc.ca/news/canada/north/yukon-to-launch-digital-government-service-system-1.6684840>
49. <https://www.ontario.ca/page/digital-id-ontario>
50. <https://nationalpost.com/news/politics/dont-waste-a-good-crisis-experts-push-governments-to-create-digital-id-programs-as-covid-19-pushes-digital-transformation>
51. <https://www.cbc.ca/news/canada/newfoundland-labrador/nl-digital-id-pilot-project-1.6690935>
52. <https://atbventures.com/>
53. <https://oliu.id/>
54. <https://myproof.me/>