

Stop pig butchering with the Alberta digital wallet

Executive Summary

Pig butchering is a symptom of an unregulated digital economy and the **solution is a simple digital wallet**, but timing, stakeholders, and execution matter.

No preventive measure or investigative tool can address the root of the problem, that people want to participate in the digital economy. When they are uninformed and without trusted options, pig butchering occurs.

The solution is straightforward and comes from Canadian history. After two failed attempts at stamping out wildcat banking, in 1866 the fledgling Canadian government entered a deal with the Bank of Montreal to begin a process of incremental regulation. Over the next 75 years, the Canadian government restricted private banks' ability to print bank notes and mint tokens. In exchange for losing the privilege of producing *currency*, private banks earned the right to produce money through lending, which is how some 95% of Canadian money is produced today.

Cryptocurrencies are digital wildcat banking. Today, digital money like Bitcoin is made by decentralized and autonomous collectives of people across the globe. Central Bank Digital Currencies (CBDCs) are one prong of a national approach to address economic sovereignty in the digital age, but a digital CAD would simply enter the Bank of Canada's cryptocurrency into a wild and still untrusted market. Instead, the people of Alberta need to set an example for Canada by launching the Alberta Digital Wallet.

The **Alberta Digital Wallet stores digital assets**. The wallet could be used for many more things (digital ID for example), but these additional features muddy the water and introduce perception risk. Rather, the ASC would establish an asset whitelist for a KYC, non-custodial wallet. The Alberta Digital Wallet would also offer users a **scam detection** feature to provide real-time **scam reporting** and create a shared dataset for rapid police response. It is only by putting a scam detection and reporting tool directly in the hands of Alberta investors that **pig butchering scams can be proactively identified and stopped**.

The Alberta Digital Wallet will stop pig butchering because it offers residents a trusted source for investment in the digital economy, addressing the root cause of crypto scams. By making available safe and secure digital investments with a regulator in the loop, Albertans will come to distrust unlisted cryptocurrencies. As a clearly identified and trusted source for digital investment, the ASC can short-circuit the scam cycle and curb wildcat digital banking by *limiting investment to safe digital assets*.

Success for this project would be defined as: top of results on Google's advertised search conducted by a resident of Alberta interested in crypto: "Alberta Digital Wallet."

Why the Alberta Digital Wallet?

Alberta needs a regulated digital wallet to establish trust in the digital economy.

In our wildcat digital banking era, Bitcoin is gold and Ethereum is silver, but there are many rogue blacksmith tokens too, Zcash, Stellar, and Monero, for example, and an explosion of memecoins like Dogecoin, Pepe and so on. As we know, cryptocurrencies circulate on Canadian soil and are exchanged from peer to peer and through centralized and decentralized exchanges.

Until 2009, the digital economy was largely restricted to payments facilitated by trusted technology companies. It took some legislation and enforcement to get online companies domiciled in Canada to conform but it was largely successful. Then Bitcoin changed everything.

Over the coming decade, the Canadian government is going to experience dramatic changes as it loses economic sovereignty. Banks are already threatened as they become increasingly regulated out of the digital economy (the smart banks are tracking their deposit outflows to crypto). The shadow digital economy is growing at an incredible, impossible-to-calculate rate. National governments will lose economic sovereignty if they do not put regulators in the loop to curb the wildcat digital banking sector.

Alberta is the right partner, now is the right time, and a simple digital wallet is the right way to begin a national movement.

The wallet is a
Trojan horse with
a honeypot.

Unknown Unknowns: Why Pig Butchering Investigations Fail

Investigation and detection tools are part of the solution to stopping pig butchering, but they are reactive and limited to *Known Unknowns*, such as discovering how a scam was perpetrated. However, most pig butchering scams involve *Unknown Unknowns* where both the victim and scammer are unknown and use unknown cryptocurrencies and scam exchanges. The *only* viable solution to stop pig butchering is to empower Albertans to make informed investment decisions with a securities regulator in the loop. By offering a trusted wallet with scam reporting the Alberta Digital Wallet turns *unknowns* into *knows*.

Design Features of the Alberta Digital Wallet

To intervene in the pig butchering scam cycle, the Alberta Digital Wallet should support strong know your customer and anti-money laundering protections, should permit limited investment in safe cryptocurrencies, should build trust with customers by offering non-custodial storage of permitted cryptocurrencies, and

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should include a scam detection honeypot by way of a user-friendly cryptocurrency risk scoring feature.

The Alberta Digital Wallet should be developed by a vetted third party. Working with a vendor who has an existing commercial product with a strong security record is the quickest and least risky way for the Alberta Digital Wallet to enter the competitive sector. As the primary stakeholder, the ASC or Provincial Government should “endorse” the wallet for investment in the digital economy.

With Canadian banking history as a guide, after a successful pilot project the ASC could expand the program to include additional “restricted dealers.” Then, with a regulator directly in the loop, the competitive market for *regulated* wallet products could be enhanced by further protections, such as limited deposit insurance (requiring an expansion of the *Financial Administration Act* of 1967 to permit the Canada Deposit Insurance Corporation to insure cryptocurrency deposits held in member banks’ wallets). By directly facilitating investment in the digital economy, the ASC would expand its regulatory scope to further assert authority over how and which cryptocurrencies are bought, sold, traded, and staked.

Incremental regulation and increasing consumer protections will allow the ASC to begin establishing trust in the digital economy. Over time, seeing the early success of Alberta, other provinces will want to offer their own regulated digital wallets. With provinces leading the way and working closely with national legislators and regulators, the Canadian government has a pathway to economic sovereignty by reshaping Canadians’ access to the digital economy.

KYC & AML

The digital wallet will use strong Know Your Customer (KYC) and Anti-Money Laundering (AML) protections. KYC and AML are already requirements for “restricted dealers” who operate as digital banks and crypto companies that purchase, hold, stake and sell digital assets. There are many commercial solutions for KYC and AML, which include automated and semi-automated identification verification and risk assessment. The KYC process will ensure that the Alberta Digital Wallet is only be available to residents of Alberta.

Investment in Safe Cryptocurrencies

The Alberta Digital Wallet will enable Provincial residents to invest in and trade a limited set of cryptocurrencies. While the wallet is non-custodial (as the private key holder, the user *de facto* and *de jure* owns the digital asset), the ASC will be responsible for its governance and capabilities. Network fees will be calculated for transactions but otherwise the product is free.

For the pilot project, the Alberta Digital Wallet will facilitate small investments in a limited number of cryptocurrencies (e.g., Bitcoin and Ethereum). The wallet will offer the user digital addresses for accepting cryptocurrencies from non-tainted sources (a white list or appropriate risk management technologies will be used to detect illegal transfers to the wallet). The wallet will also offer the user limited payment

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options to transfer digital assets to and from the Alberta Digital Wallet to other approved wallets (“restricted dealers”).

By offering limited investment in cryptocurrencies, the ASC has a powerful Trojan horse to enter the digital economy. Over time, the Alberta Digital Wallet could expand its remit and capabilities to include additional investment opportunities while supporting emerging provincial and federal efforts at regulating digital currencies.

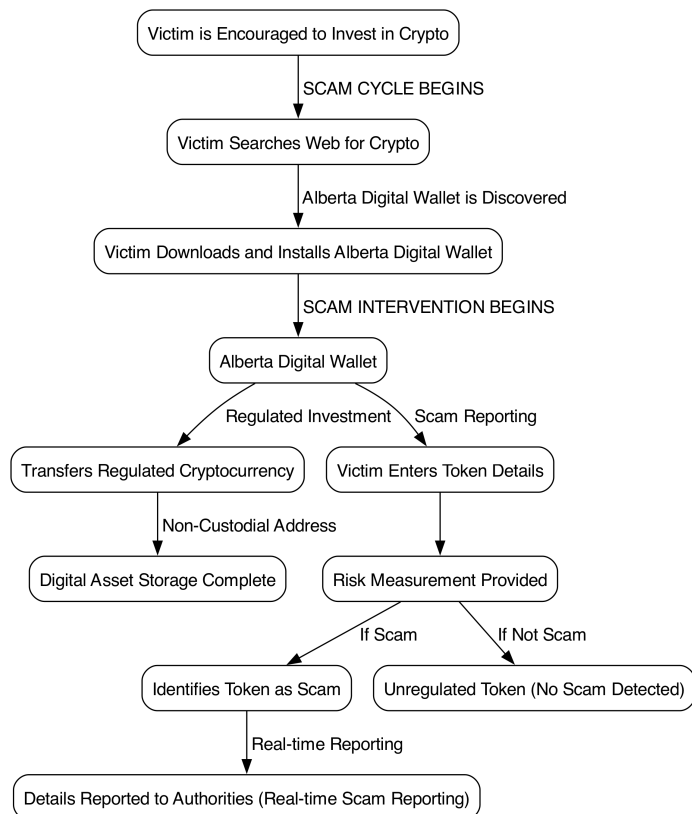
Non-Custodial Storage of Digital Assets

A regulated, trusted digital wallet can be either custodial or non-custodial. Custodial wallets are like traditional banks, they provide simple, relatively safe places to store digital assets. However, custodial wallets come with some risks. The custodial wallet’s issuer must accept the risks and responsibilities of safeguarding users’ digital assets. In crypto today, many Centralized Exchanges (CEXs) are custodial wallet providers. However, users have come to distrust CEXs in the digital wildcat banking era due to lack of visibility into their operations and poor fiduciary responsibilities (e.g., FTX bankruptcy).

For the pilot project, a non-custodial wallet is simpler and requires less regulatory change (the ASC would *not* be responsible for the operational security of digital assets). A non-custodial wallet also has less perception risk and demonstrates to customers that the ASC is not adversarial but rather promotes safe and responsible participation in the digital economy.

Digital Asset Risk Scoring (w/ real-time reporting)

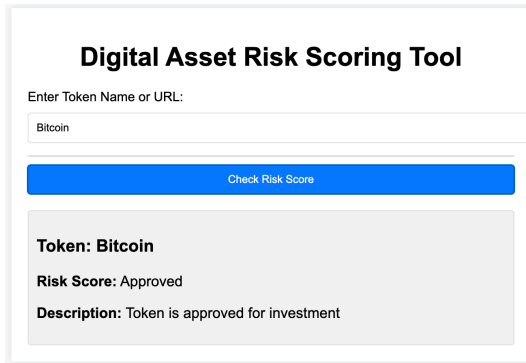
The Alberta Digital Wallet will allow users to submit suspicious crypto links for automated risk scoring. As a key scam prevention feature, the Alberta Digital Wallet will function as a retail investor honeypot for collecting suspicious cryptocurrency activities. This is a unique and valuable dataset that enables police and regulatory stakeholders to make timely prevention and enforcement interventions.



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This real-time dataset will be indispensable to police and regulators who can coordinate multiple datasets to enhance scam detection. Engineering requirements for risk scoring and dataset federation are out of scope for this document, but some risk analysis is already a requirement for banks and “restricted dealers,” which could be extended to include reporting.

Example of simple proof of concept for digital asset risk scoring tool



The screenshot shows a web interface titled "Digital Asset Risk Scoring Tool". It features a text input field labeled "Enter Token Name or URL:" with the word "Bitcoin" entered. Below the input is a blue button labeled "Check Risk Score". Underneath the button, the results are displayed in a light gray box: "Token: Bitcoin", "Risk Score: Approved", and "Description: Token is approved for investment".

A Risk Model for Automated Crypto Scoring

Token approved by ASC for investment

Token listed by restricted dealer = caution

Token unlisted but known = caution

Token unlisted and unknown = scam

Token known as scam = scam

Restricted dealer approved by ASC = caution

Website not approved by ASC = scam

The RFP Process, Cost, Timeline, Requirements, and Feasibility

The Alberta Digital Wallet is a customized version of an existing wallet product made by a vetted third party. A Request for Proposals (RFP) process will select the pilot project’s software vendor.

RFP Process

- ASC begins RFP process
- ASC selects vendor
- Vendor customizes product according to ASC requirements
- ASC delivers branded wallet to Alberta residents
- ASC, Edmonton Police Foundation, and Provincial Government promote digital wallet

Cost and Partner

The ASC should seek an enthusiastic partner for the pilot project. The selected vendor must be willing to work with Provincial regulators in exchange for their endorsement. The selected vendor will be responsible for development and ongoing maintenance of the wallet. Additional funds should be allocated for promotion and advertising.

As the project champions, the ASC or Alberta Government will use internal personnel and resources for managing the RFP process and engaging with the partner.

Timeline

Working with an existing software vendor reduces the timeline significantly. The main critical paths of this project are regulatory, not technical.

It is anticipated that the ASC will develop the RFP process and select a vendor within 4 months. The vendor then provides a customized, security-audited digital wallet to the ASC within 4 months of contract start date. During this period, the ASC and Edmonton Police implement a honeypot server for scam reporting. After a total of 8 months, the wallet is launched and promoted. Evaluation of the pilot project continues for 1 year after launch.

Recommended RFP requirements

To reduce technology risk, it is recommended that the ASC works with a commercial partner to develop the digital wallet software. Writing a multi-OS cryptocurrency wallet with limited features is not difficult, however, the security requirements are stringent.

- Company must be domiciled in Canada
- Existing wallet product must already be in use
- Existing wallet product must have a history of at least 2 years of regular security audits
- Existing wallet product must be customized to the requirements of the ASC, who will be responsible for governance
- Option for Province-branded white label product or to use existing “restricted dealers” brands

Feasibility

The Alberta Digital Wallet addresses all four areas of consideration:

- **Managing Information and Enhancing Human Behaviour:** The Alberta Digital Wallet empowers investors to make more informed decisions with proactive scam detection. If a potential victim downloads the Alberta Digital Wallet *before or during* a pig butchering scam, the wallet offers direct and immediate information to short circuit the scam cycle.
- **Developing Advanced Reporting Systems:** The Digital Asset Risk Scoring feature provides real-time reporting of scams to regulators and investigators. The scam honeypot piggybacks on the wallet’s main use case, enticing investors in Alberta to *check for scams before investing*. The honeypot must be released with an investment opportunity to be effective (a standalone reporting tool will not be competitive in the market).
- **Facilitating Information Sharing and Analysis:** The reporting honeypot is an essential tool for developing a shared scam dataset. This real-time dataset can be shared with regulators, investigators, and enforcement agencies who can combine it with other datasets for fast reacting interventions.

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- **Enhancing Coordination and Connectivity:** The Alberta Digital Wallet offers a concrete pathway for the ASC and Edmonton Police to coordinate scam prevention activities. As a trusted source for digital assets in the digital economy, the Alberta Digital Wallet puts regulators and enforcement agencies directly in the investment loop. Over time, private banks and “restricted dealers” could be encouraged or required to include their own scam detection and reporting technologies.

The Regulatory Change Process

The proposed solution to pig butchering requires motivated stakeholders who are willing to initiate incremental regulatory changes. While the Alberta Digital Wallet is an essential tool to fight pig butchers, it requires coordination with legislative and regulatory bodies to be truly effective.

The ASC Innovation in Finance (INNOFIN) team already has guidelines for crypto investors. INNOFIN is a likely candidate for leading this regulatory change. To regulate the digital wildcat banking sector, the ASC will need to strengthen their relationship to the CSA Financial Innovation Hub Committee, CDIC, and provincial securities regulators, such as the Ontario Securities Commission.

As the Provincial pilot project launches and proves successful, further incremental regulatory changes could enhance the offering. For instance, once a successful Provincial pilot is completed, a national effort towards Canadian economic sovereignty might involve the CDIC and its existing banking partners who could provide deposit insurance for regulated cryptocurrencies held in approved wallets. Once Canadians have trusted and safe deposit options for cryptocurrencies, ideally across a competitive digital banking sector, they will begin to distrust unregulated entities, just as we do today with counterfeit money and traditional financial scams.

About Tailored Operations

Tailored Operations is a boutique Canadian risk management firm. For over a decade we have helped clients navigate the digital economy. We help banks, police, and intelligence understand market risks, solve crime, and mitigate threats to sovereignty in the digital economy. Visit tailoredops.com to send a secure message.