

Crunchfish Releases New Whitepaper Comparing Immediate vs. Deferred Offline Payment Modes

Crunchfish today announces the publication of a new whitepaper, **Immediate vs. Deferred Offline Modes – A Comparative Analysis for CBDC and Digital Payment Ecosystems**, offering a detailed assessment of the two leading approaches to offline digital payments. It is a timely contribution as central banks worldwide explore how to bring resilience and inclusivity to digital money systems.

Immediate Offline Mode

- Hardware-secured digital tokens
- Complex, costly, and difficult to scale
- High systemic exposure if compromised

Deferred Offline Mode

- Secure digital IOUs validated on reconnection
- Easy to deploy, software-driven, and bank-friendly
- Aligns with modern digital payment networks

As the world moves toward digital money, offline capability has become essential for resilience, inclusion, and payment continuity. But how offline payment is implemented makes all the difference. This whitepaper analyses the two dominant offline payment modes.

The whitepaper highlights why Deferred Offline Mode, where digitally signed payment instructions (IOUs) are exchanged and settled upon reconnection, delivers superior security, scalability, and interoperability compared to hardware-dependent Immediate Offline Mode. Deferred Offline Mode offers a much better path for CBDC and commercial payments networks to offline payments.

“As societies digitalize rapidly, offline payment capability is no longer optional, it is fundamental to national resilience. This whitepaper shows that Deferred Offline Mode offers a secure, scalable path for central banks and commercial payment networks to deliver cash-like reliability without the systemic risks of transferring hardware-bound value tokens in offline mode. Crunchfish’s Digital Cash solution provides exactly this capability as a ready-to-implement Layer-2 solution for central banks and commercial payment networks” says Joachim Samuelsson, CEO, Crunchfish.

Download the whitepaper: www.crunchfish.com

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About Crunchfish – crunchfish.com

Crunchfish is a deep fintech company providing a Digital Cash solution enabling offline payments. The solution is designed for banks, payment services, and Central Bank Digital Currency (CBDC). Crunchfish Digital Cash augments payment systems by offering resilience in case of lost internet connections or server failures. The company, with headquarters in Malmö, Sweden and a subsidiary in India, is listed on Nasdaq First North Growth Market since 2016.