



# R3 Digital Currency Accelerator •

Explore the issuance, management, and distribution of digital currencies at every stage of your journey—from experimentation to production

As market participants gain greater clarity around the benefits of asset tokenization, there is rising interest in the issuance of digital currencies—both CBDCs (central bank digital currencies) and fiat-backed stablecoins—across traditional financial services. 80% of central banks are now exploring CBDCs to improve the creation and transfer of value, while some of the largest commercial banks and exchanges have already issued institutional or private digital tokens, such as JPM Coin, Wells Fargo Digital Cash, and SDX Coin.

As the digital economy evolves, it is becoming clear that CBDCs can coexist with digital currencies issued by the private sector much in the same way they do today—only better.

## Benefits of digital currencies



**Delivery-versus-payment (DvP) transactions**  
Real-time settlement at lower costs increases liquidity, transaction speeds, and transparency and reduces counterparty risk, trading costs, and other barriers to market participation.



**Cut settlement time in half**  
Allow for T+1 instead of the market's current T+2 framework.

# 20%

of large enterprises will use digital currencies by 2024

**Gartner Predicts 2022: Prepare for Blockchain-Based Digital Disruption—December 2021**



### Digitize traditional assets

Securities can be converted into digital tokens, then traded and serviced with stablecoins and CBDCs. This supports fractional ownership and more transparent price discovery of asset classes.



### Liquidity management

Use smart contracts to automate liquidity pools to improve FX liquidity and act as the intermediary for currency exchange.



### Intra-bank treasury

Real-time settlement between banks increases liquidity, transaction speeds, and transparency while reducing counterparty risk, trading costs, and other barriers to market participation.

# Digital Currency Accelerator

To help regulated market participants stay ahead of the curve, R3 developed the **Digital Currency Accelerator** to fast-track the issuance, management, and distribution of two primary types of digital currencies—CBDCs and stablecoins, a currency token backed by a fiat currency.

The Digital Currency Accelerator is underpinned by **Corda**—the leading open core DLT platform for regulated entities offering peer-to-peer privacy, scalability, and security. All CBDC blockchain transaction history between entities can also be kept private by leveraging **Conclave**, R3's leading confidential computing platform. Additionally, users can plug into a simulated ecosystem of 'last mile' payment networks and infrastructures in a sandbox environment then transition to the real-world once in production.

## CBDC Accelerator

The CBDC Accelerator provides a suite of capabilities that map to wherever a central bank is on their CBDC journey. Market participants can start with simulation in an R3 managed sandbox, move to pilots and projects in their own environment, and eventually issue, distribute, and exchange a CBDC in production.

### Features for every stage of the CBDC journey—from exploration to advanced building

- Enterprise Edition of Corda code, open sourced and ready for CBDC experimentation in a local environment by central banks
- Wholesale and retail CBDC sample applications
- Interoperability between Corda business networks to public DLT networks as well as traditional RTGS systems that follow ISO 20022 standards
- Tutorials to help assess how, where, and why CBDCs are relevant to a given jurisdiction

## A scalable and secure infrastructure for CBDC issuance and distribution

**CBDC Issuance**—Programming, minting and smart monitoring will soon be made possible

The CBDC Accelerator will also offer a digital mint solution for creating highly secure CBDC tokens and issuance workflows that integrate with core systems and integration frameworks, including:

- A way to easily onboard and manage distributors and their pledged collateral
- The ability to configure and control programmability such as building business rules and regulations into the CBDC that can be enforced in real-time
- Smart monitoring of money supply in real-time along with network data to make predictive decisions

**CBDC Distribution**—Once issued, they can be distributed in a variety of ways, which include

- **Wholesale CBDC:** Serves as a risk-free settlement cash asset in high-value payments systems and on digital financial market infrastructures
- **Retail payments:** A general purpose CBDC for retail applications enabling person-to-person transfers with instantaneous settlement. Offline payments are available for use in areas with limited internet access
- **Cross-border transactions:** Transact and move value directly and seamlessly between entities and across borders, while reducing risk

More functionality will be added in the coming months making the CBDC Accelerator an even more robust end-to-end solution from instrument issuance to last-mile payments integration.

## Fiat-backed Stablecoin Accelerator

There is rising interest in fiat-backed stablecoins from banks and financial market infrastructure providers as they can co-exist alongside CBDCs, while offering many of the same benefits. Use cases include internal cross-entity book transfers, domestic and cross-border payments among a client network, and atomic settlement with digital assets.

To meet rising market demand, R3 has developed the Fiat-backed Stablecoin Accelerator that can facilitate the issuance of a regulatory compliant fiat-backed digital token that is pegged 1:1 with central bank reserves or commercial bank deposits.

### Features include:

- An intuitive web application that provides the issuer with a consolidated view of all tokens issued as well as management of their lifecycle—all the way from deposits to transfers and redemptions
- Fiat-backed stablecoin object code and Corda SDK for cash tokenization
- APIs that enable easy integration with other web-based systems, CorDapps or JVM-based applications to facilitate stablecoin issuance across other networks

### What the Fiat-backed Stablecoin Accelerator CorDapp enables

- **Digital token lifecycle management:** Tokens can be easily minted, transferred, and redeemed. For example, a bank can deposit assets in exchange for a token that is defined and created on the network. That 'minted token' can be transferred to an owner to pay for an asset on the network and redeemed by a custodian for fiat currency

Minting	Transfer	Redemption
Issuer	Owner	Custodian
Stablecoin is defined and created	Stablecoin is used to pay for an asset on network	Stablecoin is redeemed for fiat currency and burned

- **Supports multiple token types**—Expand business offerings by adding multiple types of tokens pegged to a variety of fiat currencies
- **Multi-custodian capabilities**—Eliminate concentrated risk with a single custodian
- **Attestation of membership**—Business Network Operators (BNOs) provide governance and management of participation in the network and can attest and reject members

This 'Quickstart' CorDapp will ultimately be able to be deployed in the user's own environment with easy integration into existing systems.

Bespoke project builds are also available upon request.

## The Digital Currencies Hub

Discover the full potential of CBDCs and fiat-backed stablecoins with expert insights, best practices, and resources from R3 at [www.r3.com/digital-currencies-hub](http://www.r3.com/digital-currencies-hub)

# Public and private sector collaboration in action

Projects Dunbar, Tenge, Helvetia, Jura, and Riksbanks' e-krona are all built on Corda and prove that wholesale CBDCs can change the way liquidity is managed, enable faster cross-border payments and facilitate instant international settlement. [Discover more.](#)

## Connect with R3

R3 is here to support you at every stage of your digital currency journey—from experimentation to production. Our **Professional Services** team offers a variety of standard and custom SaaS offerings to kick start issuance and development.

Interested in a demo of R3 Digital Currency Accelerator? [Contact us today.](#)

## About R3

R3 is a leading provider of enterprise technology and services that enable direct, digital collaboration in regulated industries where trust is critical. Multi-party solutions developed on our platforms harness the “Power of 3”—R3’s trust technology, connected networks and regulated markets expertise—to drive market innovation and improve processes in banking, capital markets, global trade and insurance.

As one of the first companies to deliver both a private, distributed ledger technology (DLT) application platform and confidential computing technology, R3 empowers institutions to realize the full potential of direct digital collaboration.

We maintain one of the largest DLT production ecosystems in the world connecting over 400 institutions, including global systems integrators, cloud providers, technology firms, software vendors, corporates, regulators, and financial institutions from the public and private sectors.

For more information, visit [r3.com](https://r3.com) or connect with us on [Twitter](#) and [LinkedIn](#).



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