nanoRail

for Central Banks, Financial Institutions and Market Infrastructures

nanoRail is a real-time platform that digitizes fiat money and facilitates the secure and risk-free transfer of value. It enables central banks to issue digital currency and provides a next-generation ledger technology for real-time clearing and settlement systems. nanoRail will modernize financial market infrastructures and create new payment networks that promote financial inclusion.

The role of central banks is changing—digitalization and new payment technologies are reshaping the financial industry and reducing the role of cash. Faced with aging infrastructure and a shift to digital financial services, regulators, central authorities and financial institutions are considering how best to adapt. New initiatives including digital banking, real-time gross settlement modernization and the introduction of central bank digital currency (CBDC) will transform economic activity and financial services as a whole.

"I believe we should consider the possibility to issue digital currency. There is a role for the state [central bank] to actually supply money to the digital economy."

Christine Lagarde, MD of the IMF

Why **nanoRail**?

nanoRail is built on nanopay's proprietary platform, a next-generation ledger technology that delivers extremely high levels of performance, security and resilience. The technology can be easily and quickly deployed on-premise or in the cloud, reducing time to market. nanoRail is distinctly different from traditional financial market infrastructure technology solutions.

Real-time

nanoRail settles transactions in real-time, compared to existing banking infrastructure that uses batch-based processes that require reconciliation

Built-in security

nanoRail permissions are built at the ledger level. Transactions are signed and authenticated ensuring the system is resilient to attacks from inside and out

Auditing

Financial transaction auditing is an inherent part of nanoRail which uses a centralized ledger technology, compared to other older platforms that rely on manual processes post- transaction

Interoperability and traceability

Every transaction has a unique identifier with rich metadata and can only be processed once. This makes it easy to build resilient interfaces to other systems

Benefits

The **nanoRail** solution is secure, scalable and features open APIs that reduce integration time and project risk. nanoRail offers unique benefits to three distinct target customers.

nanoRail *for central banks*	• Improve financial inclusion by providing accessibility for the underbanked and unbanked • Enable central banks to fully achieve their public policy goals and overcome market failures • Reduce settlement & credit risk while enabling real-time payments • Reduce threat to seigniorage by creating a digital alternative
nanoRail *for financial institutions*	• Provide a default frictionless®, rent-free payments platform • Reduce reconciliation costs, while improving transparency and efficiency • Drive innovation by creating new digital financial services and agent banking networks • Promote interoperability between banks, financial institutions, mobile operators and billing systems
nanoRail *for market infrastructures*	• Provide an open, real-time clearing and settlement platform for innovation • Reduce credit and settlement risk by enabling real-time payments • Reduce reconciliation costs, while improving transparency and efficiency

Features

Core features:

- Digital cash accounts that securely store value
- Multi-currency digital fiat money
- Data-rich payments with native ISO 20022 messaging
- Open APIs with easy integration capabilities (push, pull, real-time, file-based)
- Money transfer with real-time settlement
- Transaction planners for rule-based orchestration of payment flows
- Interactive dashboards and configurable reports

Configurable settings:

- Account and transaction level permissions (view, update, delegate)
- Implement automated liquidity settings to control money supply in the system
- Multi-factor authentication for high value transactions
- White-labelled solution