



Giesecke+Devrient
Creating Confidence

G+D Filia[®] Sandbox

How to start your individual journey towards
a retail Central Bank Digital Currency



G+D Filia® Sandbox

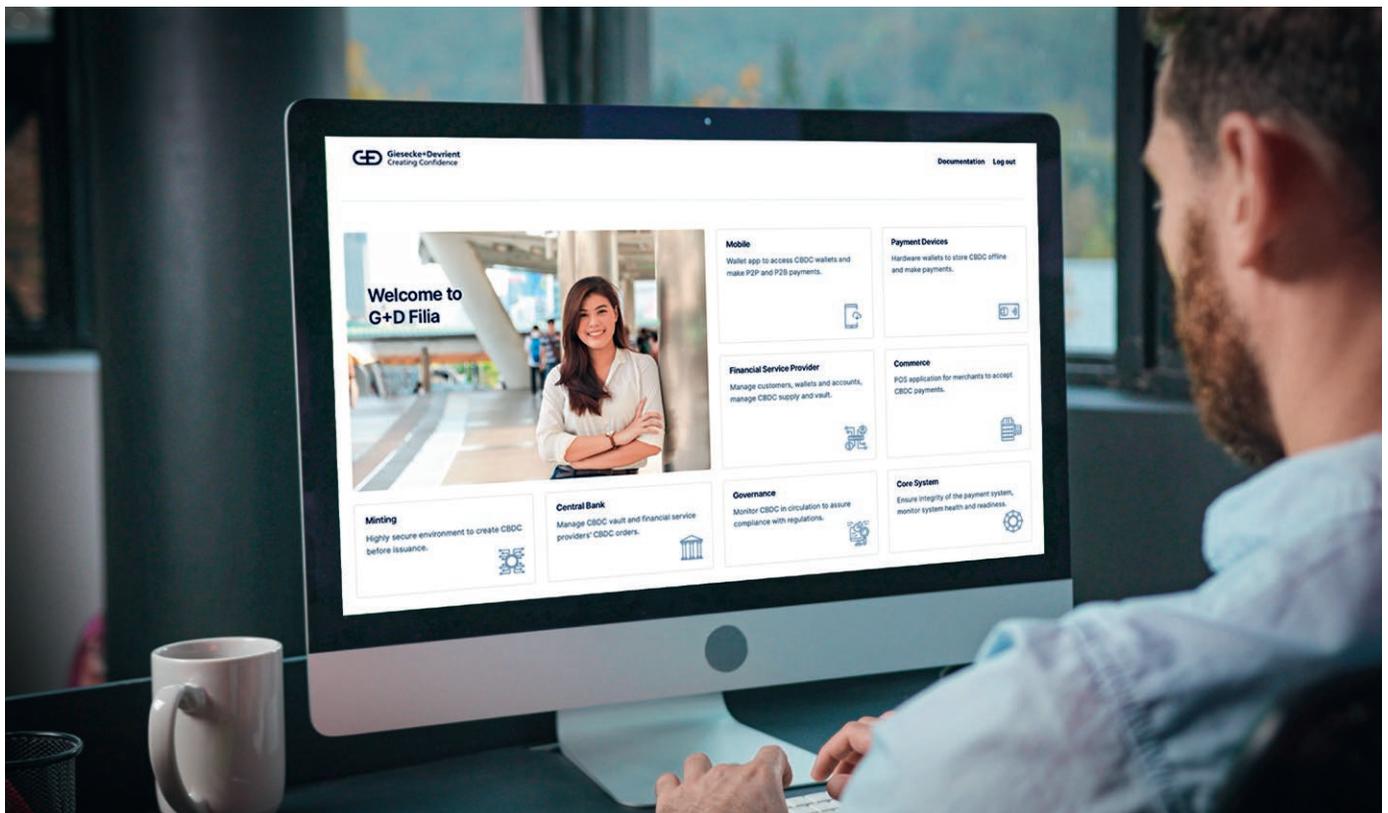
The Filia Sandbox allows central banks to test our solution in a secure, scalable, and resilient environment encompassing an entire CBDC ecosystem.

In order for public and private sector participants to effectively understand CBDC, G+D Filia has developed a platform to facilitate learnings around the issuance, distribution and management of CBDCs.

This space enables simulation of the issuance of CBDC, distribution through commercial banks, smartphone apps, and hardware devices for consumers, POS terminals for merchants, and lastly, monitoring of the Filia ecosystem.

Start the journey now:
First steps towards a retail CBDC

-  **Training program**
-  **Interactive workshop sessions**
-  **Sandbox experimentation**
-  **Design paper**



Key benefits of a fully hosted and managed Filia sandbox environment

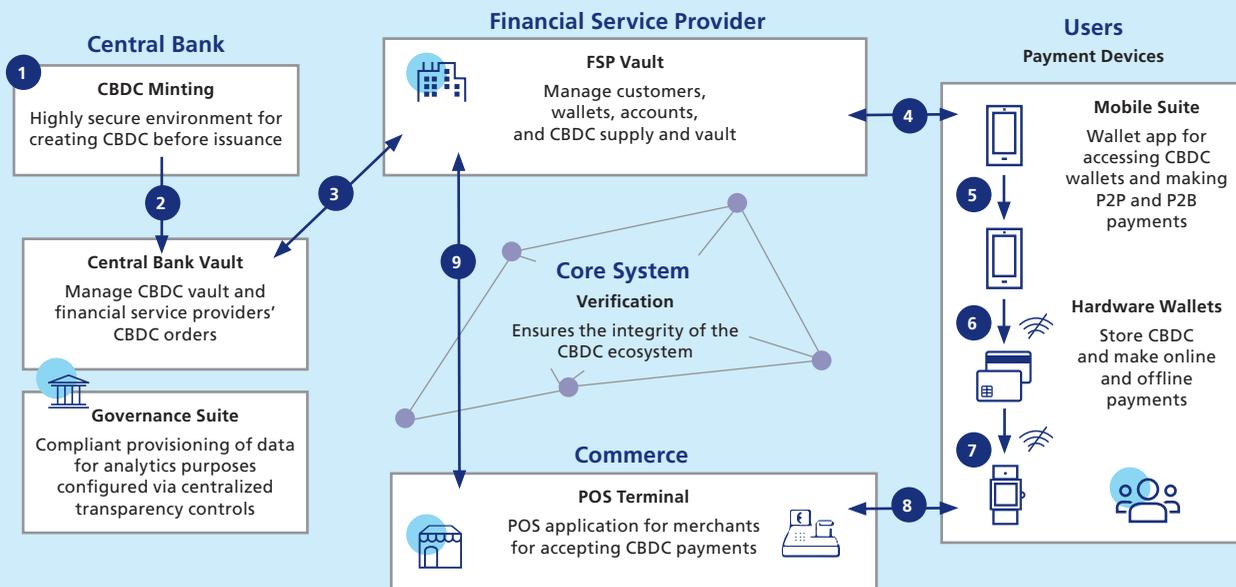
Experience CBDC

- **Distribution:** Trial the Filia financial service provider application for issuing online wallets to end users
- **End-user testing:** Trial the Filia smartphone wallet app and hardware wallets for online and offline transactions
- **Commerce:** Accept payments in CBDC using our intuitive Filia smartphone POS application
- **Monitoring:** Observe the verification of Filia tokens in the Core System dashboard and get a glimpse into various levels of privacy for transaction monitoring in the Governance Suite

Developer tools

- **Payment Processor:** Integrate Filia into banking environments, operate wallets, and execute Filia payments
- **Mobile SDK:** Software development kit to integrate Filia into smartphone applications
- **Verifier Client:** Tool to conduct performance tests
- **Documentation:** Detailed technical documentation including code examples

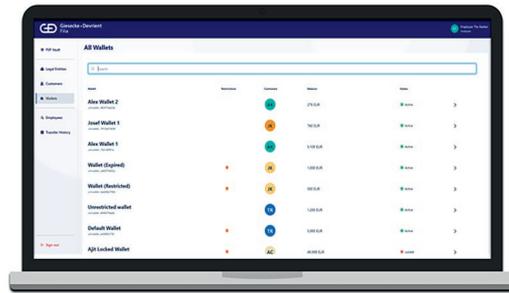
Our sandbox comprises components that correspond to today's cash cycle enriched with features for the digital world.



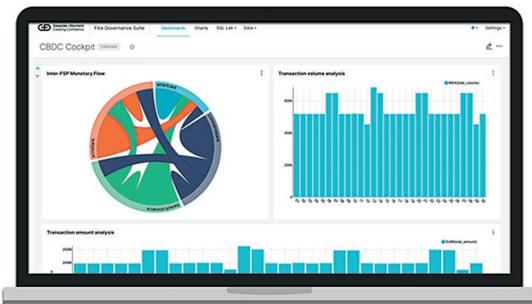
Take a glimpse into our sandbox applications



The **Core System** assures the integrity of money in circulation in the Filia solution. It keeps track of the so-called Note Anchors, the digital security feature of each value note in circulation.



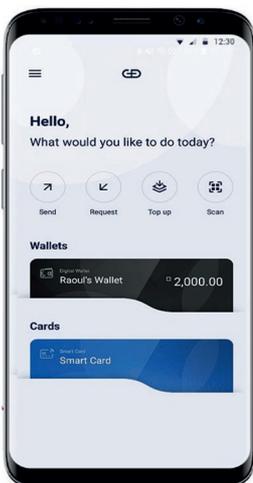
The **Financial Service Provider (FSP) Suite** is a component used by the financial service provider to offer functionality around user management, secure storage of CBDC wallets on behalf of customers, the provision of payment interfaces, and the exchange between CBDC and deposit money.



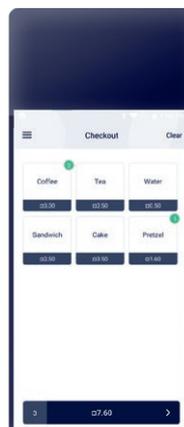
The **Governance Suite's** primary purpose is to add centrally configurable, fine-grained data access control for analytical data.



The **hardware wallet** devices provided by Filia are designed to specifically support offline as well as online payments.



G+D's Mobile Suite provides a mobile SDK for financial service providers. The SDK can be utilized to integrate the Filia functionalities into existing applications or to create it as a standalone wallet application. The wallet app allows users to interact with their wallets to withdraw, pay, send and receive money.



The **Commerce Suite** is designed to be integrated into existing point-of-sale solutions and e-commerce platforms.

Starting your CBDC journey with G+D Filia

To gain comprehensive knowledge in the field of CBDC and its technology, G+D offers an individual experimentation package consisting of a thorough training program, interactive workshop sessions, and access to our CBDC sandbox as well as a CBDC design paper. The duration of this experimentation phase is three to five months as part of a four-step process.

1. Training program

Understand the fundamentals of CBDC including but not limited to CBDC types, benefits, and current market developments

In addition, the training program will dive deeper into:

- The G+D Filia solution
- The functionality of offline payments
- Privacy
- Security
- Programmability
- CBDC simulation

2. Interactive workshop sessions

Consisting of a joint project team working interactively to discuss relevant topics around the local currency and payments ecosystem, as well as shape the design requirements specifically tailored to the jurisdiction's needs. Stakeholders from the payment ecosystem can be included in these workshops.

- Understand the local payments landscape
- Define the local CBDC requirements
- Design a pilot project

3. Sandbox experimentation

Test the Filia applications in a secure environment to simulate CBDC in real world payment scenarios. Gain access to our unique components that enable central banks to trial a vast variety of CBDC use cases.

Access to Filia sandbox components:

- Core System
- Financial Service Provider Suite
- Mobile Suite App
- Commerce Suite
- Optional hardware

4. Design paper

The design paper will be drafted by G+D based on the jointly defined requirements and unique characteristics of the national CBDC. It will overview the motivations and benefits of CBDC issuance and describe the roles of the participants in the ecosystem.

- Description of the motivations and benefits of CBDC
- Analysis of ecosystem: roles and participants
- Definition of local CBDC design



Get in touch

Want to learn more about the Filia sandbox or simply gain more insight into our end-to-end CBDC solution? We'd be happy to hear from you!

Contact us directly or visit www.gi-de.com/cbdc

Tanja Heßdörfer
Director Business Development CBDC

tanja.hessdoerfer@gi-de.com
M +49 173 4718240

Polly Bäumlér
Business Development CBDC

polly.baeumler@gi-de.com
M +49 1522 259 2238

About Giesecke+Devrient

Giesecke+Devrient (G+D) is a global security technology group headquartered in Munich. As partner to organizations with highest demands, G+D engineers trust and secures essential values with its solutions. The company's innovative technology protects physical and digital payments, the connectivity of people and machines, and the identity of people and objects as well as digital infrastructures and confidential data.

G+D was founded in 1852. In the fiscal year 2020, the company generated a turnover of 2.31 billion euros with around 11,500 employees. G+D is represented by 74 subsidiaries and joint ventures in 32 countries. Further information: www.gi-de.com.



Find more information on our website www.gi-de.com/cbdc



Giesecke+Devrient advance52 GmbH
Prinzregentenstrasse 159
81677 Munich
Germany

www.gi-de.com
www.gi-de.com/en/contact

© Giesecke+Devrient advance52 GmbH, 2022

Follow us on:

