

January 15, 2024

Bank of Japan

Second General Meeting of the CBDC Forum

The CBDC Forum held its second general meeting on January 11, 2024. The Bank of Japan explained about the experimental system under the pilot program and provided an overview of efforts by different working groups (see attached slides).

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January 2024
Bank of Japan

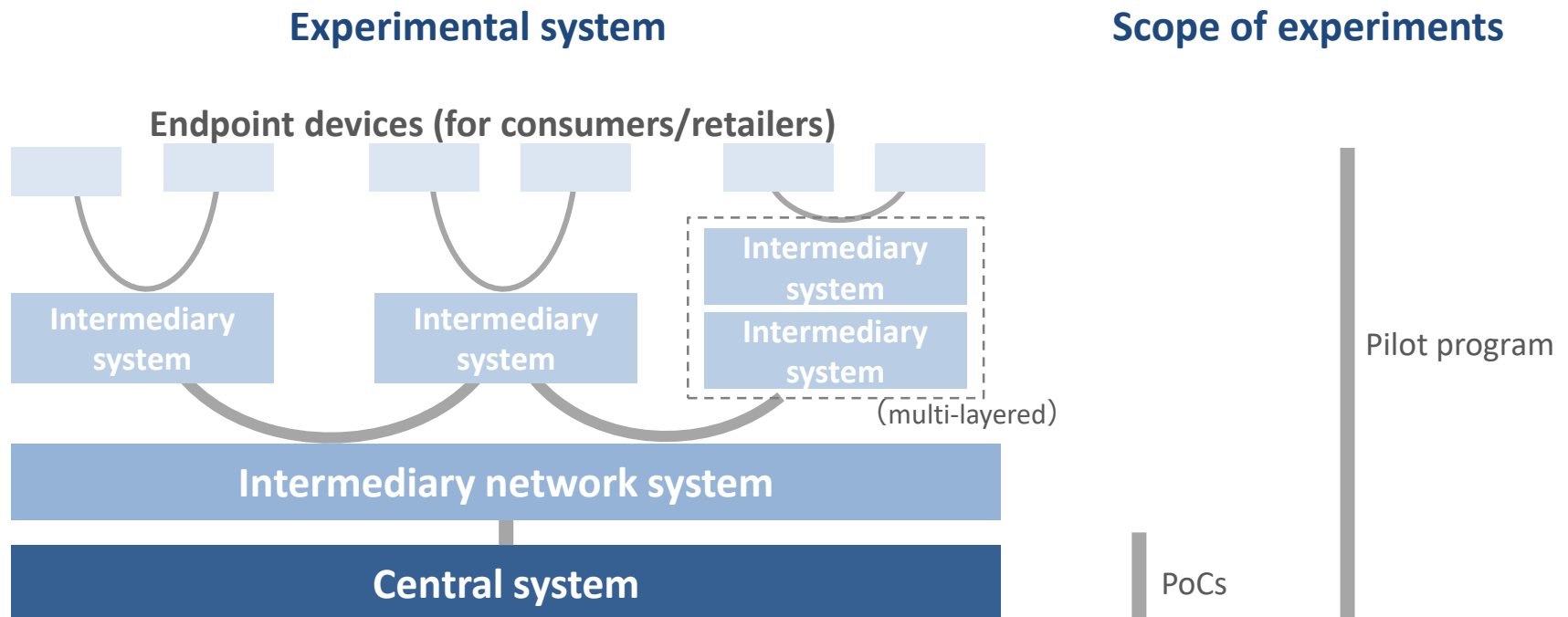


The Bank's Approach to CBDC

- Digitalization has advanced in various areas at home and abroad on the back of rapid development of information communication technology. **There is a possibility of a surge in public demand for central bank digital currency (CBDC) going forward**, considering the rapid development of technological innovation.
- While the Bank **currently has no plan to issue a CBDC**, from the viewpoint of ensuring the stability and efficiency of the overall payment and settlement systems, the Bank considers it important to **prepare thoroughly to respond to changes** in circumstances in an appropriate manner.
- The Bank will carry out **experiments** and deepen its exploration of **institutional arrangements**, coordinating with stakeholders at home and abroad.
- **The future payment and settlement systems suitable for a digital society** need to be discussed with various stakeholders. CBDC could have more of a function than merely as a payment instrument alongside cash. It could serve as the basis for innovation of private service providers to offer various new payment services.
- As long as there is public demand for **cash**, the Bank will stay committed to supplying it.

Development and Examination of Experimental System (1)

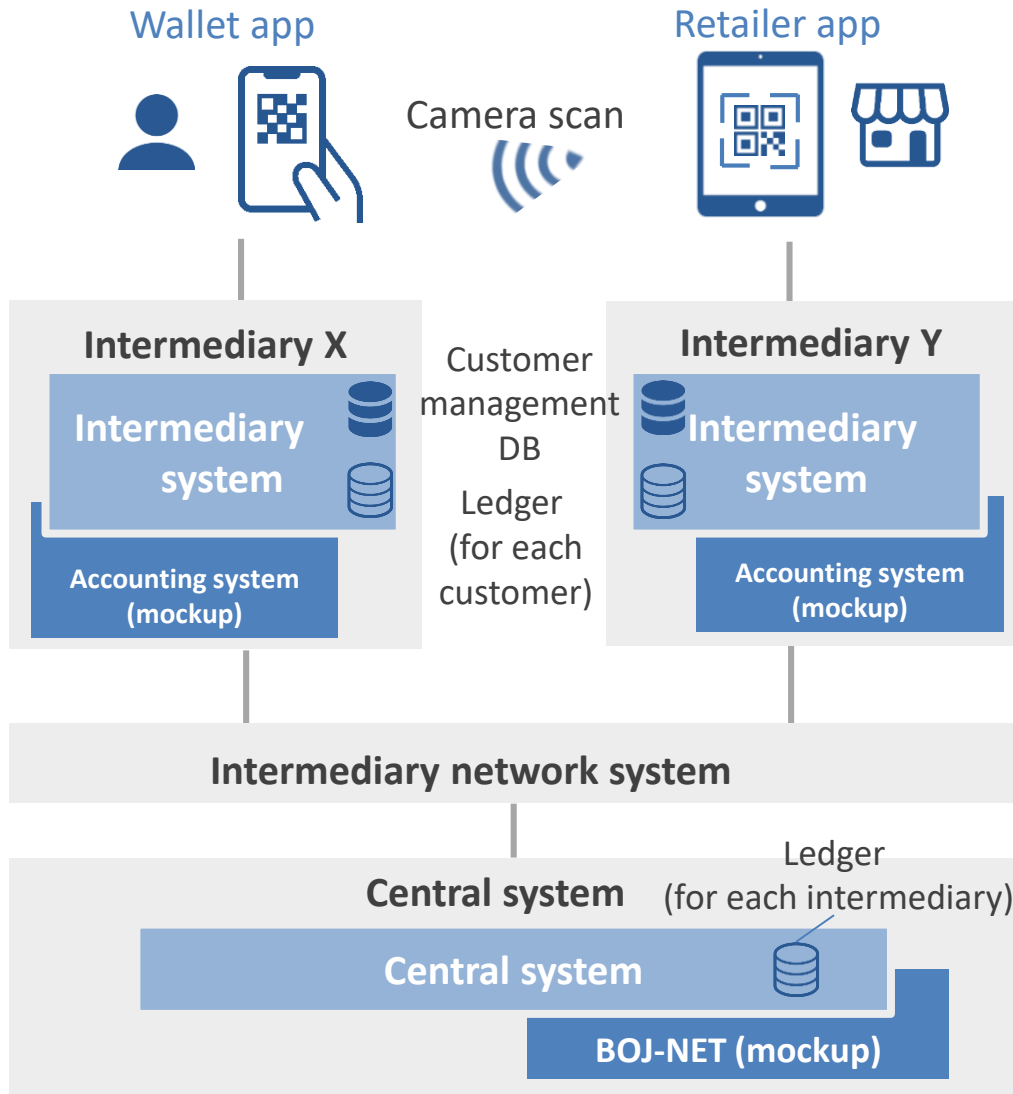
- In the **pilot program**, the Bank will **develop a system for experiments**, in which a central system, intermediary network systems, intermediary systems, and endpoint devices are configured in an integrated manner. It is through this program that the Bank will test the end-to-end process flow while exploring the measures and potential challenges for connecting the experimental system with external ones.



Development and Examination of Experimental System (2)





System Architecture

(to be constructed on a public cloud)

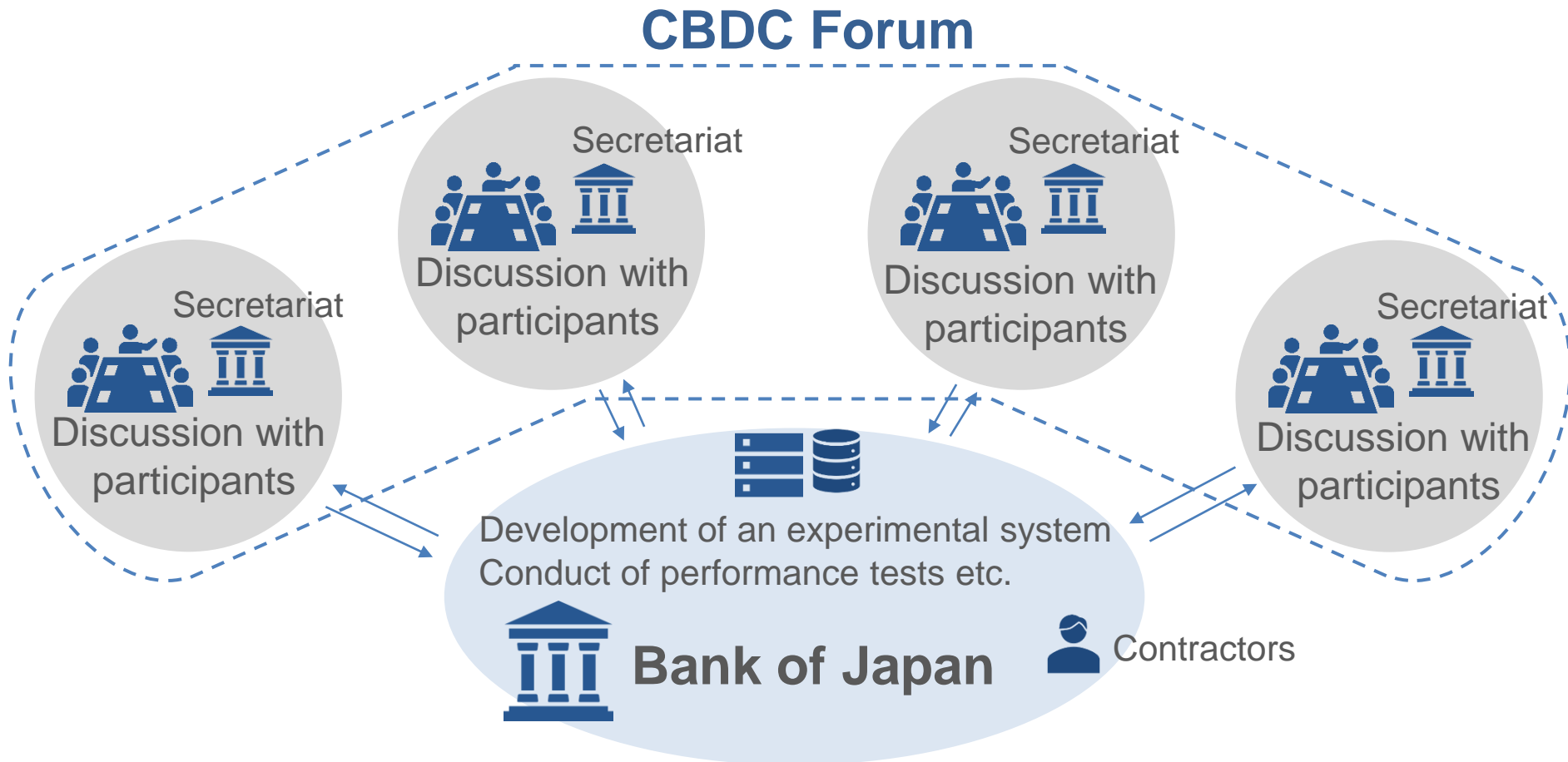


Main Considerations

(in light of possible social implementation)

- **End-to-end set-up** 
 - From wallet app to central system
- **Privacy** 
 - Separation of systems handling personal data from systems processing settlement
- **Performance** 
 - Identify technical issues and solutions for higher system performance building on PoC experiences by pursuing a pilot system that can handle high load processes
- **Scalability** 
 - Identify technical issues and solutions for scalability by incorporating features that ease functional and performance scalability in the pilot system design phase

- The Bank established the **CBDC Forum with private businesses related to retail payments**. The findings of system development for experiments and discussions at the CBDC Forum are to be **shared** as necessary.

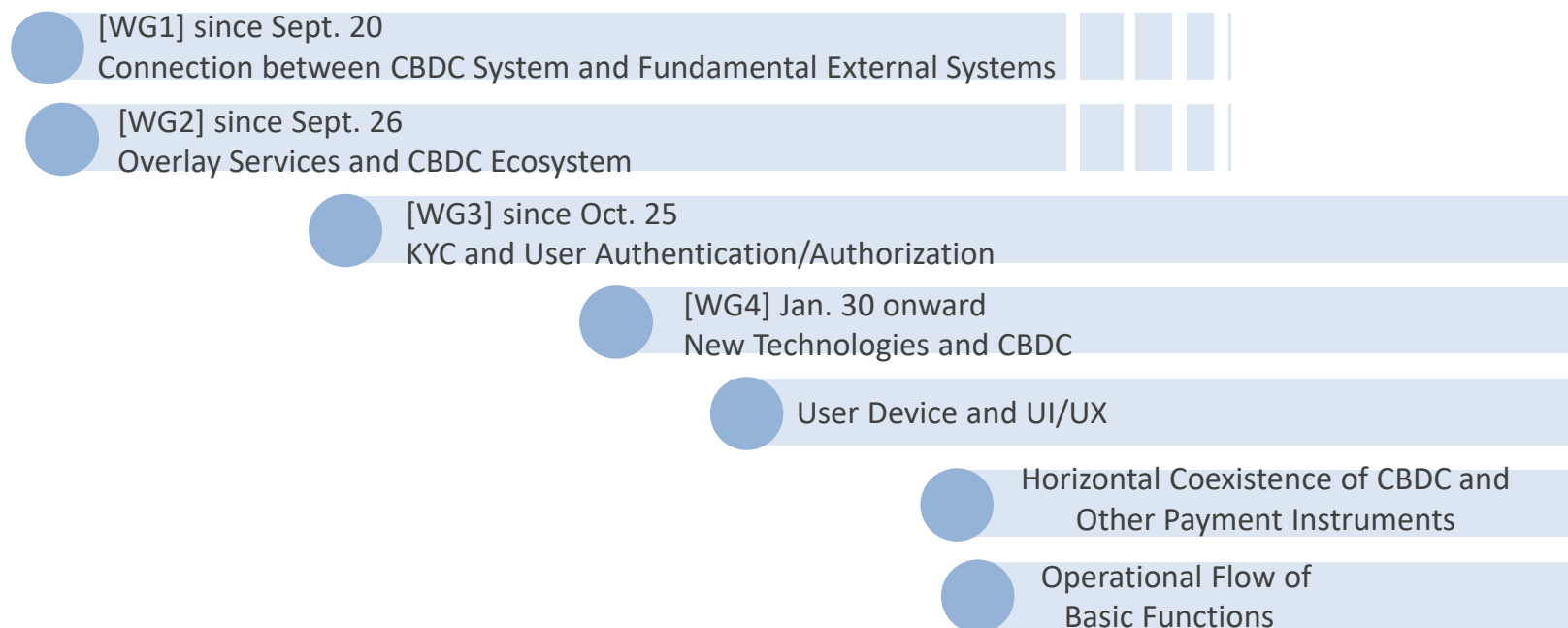
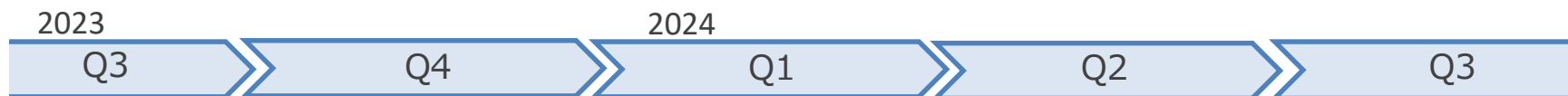


Member List of CBDC Forum (as of Jan. 11)

Aeon Bank, Limited	Dai Nippon Printing Co., Ltd.	Hitachi Solutions, Ltd.	Lawson, Inc.
Infcurion, Inc.	Daiwa Securities Co. Ltd.	Hitachi Channel Solutions, Corp.	Lawson Bank, Inc.
Canal Payment Service, Ltd.	Daiwa Institute of Research Ltd.	FeliCa Networks, Inc.	au Payment Corporation
Coincheck, Inc.	Chiba Bank	Fukuoka Financial Group, Inc.	BIPROGY Inc.
Cotra Ltd.	Tokio Marine & Nichido Fire Insurance Co., Ltd.	Money Forward, Inc.	BOOSTRY Co., Ltd.
JCB Co., Ltd.	Toyota Financial Services Corporation	Mizuho Bank Ltd.	Datachain, Inc.
THE SHIZUOKA BANK, LTD.	TradeWaltz Inc.	Mitsui Sumitomo Insurance Co.,Ltd.	JPX Market Innovation & Research, Inc.
Joyo Bank, Ltd.	Nudge Inc.	Sumitomo Mitsui Banking Corporation	NRI SecureTechnologies, Ltd.
The Shinkin Banks Cooperative Center	IBM Japan, Ltd.	Sumitomo Mitsui Trust Bank, Limited	NTT DATA Japan Corporation
The Shinkin Banks Information System Center Co.,Ltd.	Japan Securities Clearing Corporation	MUFG Bank, Ltd.	NTT DATA Financial Technology Corporation
SECOM Co., Ltd.	NEC Corporation	Merpay, Inc.	NTT DOCOMO, INC.
Seven Bank, Ltd.	Microsoft Japan Co., Ltd.	JAPAN POST BANK Co., Ltd.	PayPay Corporation
Japanese Banks' Payment Clearing Network	Nomura Securities Co., Ltd.	The Bank of Yokohama, Ltd.	Ridgelinez Limited
Sony Corporation	Nomura Research Institute, Ltd.	Rakuten Payment, Inc.	SBI R3 Japan Co., Ltd
SoftBank Corp.	Panasonic Connect Co., Ltd.	Resona Holdings, Inc.	Startale Labs Japan KK
Soramitsu Co., Ltd.	EAST JAPAN RAILWAY COMPANY		TIS Inc.
			TOPPAN Edge Inc.

Working Groups (WG)

- Taking into account linkages among discussion topics in consideration, thematic **working groups** are/will be formed within the Forum with a view to stimulating and facilitating discussions.
- The configuration and topics of working groups are subject to change in accordance with discussions in the Forum.



WG Members (1)

WG1	WG2
Aeon Bank, Limited	Aeon Bank, Limited
Cotra Ltd.	Infcurion, Inc.
THE SHIZUOKA BANK, LTD.	JCB Co., Ltd.
The Shinkin Banks Cooperative Center	SECOM Co., Ltd.
The Shinkin Banks Information System Center Co.,Ltd.	Sony Corporation
Seven Bank, Ltd.	SoftBank Corp.
Japanese Banks' Payment Clearing Network	Daiwa Securities Co. Ltd.
Chiba Bank	Tokio Marine & Nichido Fire Insurance Co., Ltd.
NEC Corporation	Toyota Financial Services Corporation
Fukuoka Financial Group, Inc.	TradeWaltz Inc.
Mizuho Bank Ltd.	Nudge Inc.
Sumitomo Mitsui Banking Corporation	NEC Corporation
MUFG Bank, Ltd.	Nomura Securities Co., Ltd.
JAPAN POST BANK Co., Ltd.	Nomura Research Institute, Ltd.
Resona Holdings, Inc.	Fukuoka Financial Group, Inc.
BIPROGY Inc.	Money Forward, Inc.
NTT DATA Financial Technology Corporation	Mizuho Bank Ltd.
	Mitsui Sumitomo Insurance Co.,Ltd.
	Sumitomo Mitsui Banking Corporation
	MUFG Bank, Ltd.
	Merpay, Inc.
	The Bank of Yokohama,Ltd.
	BIPROGY Inc.
	BOOSTRY Co., Ltd.
	NTT DATA Japan Corporation
	NTT DOCOMO, INC.
	PayPay Corporation
	Startale Labs Japan KK
	TIS Inc.

Note: As of Jan. 11.

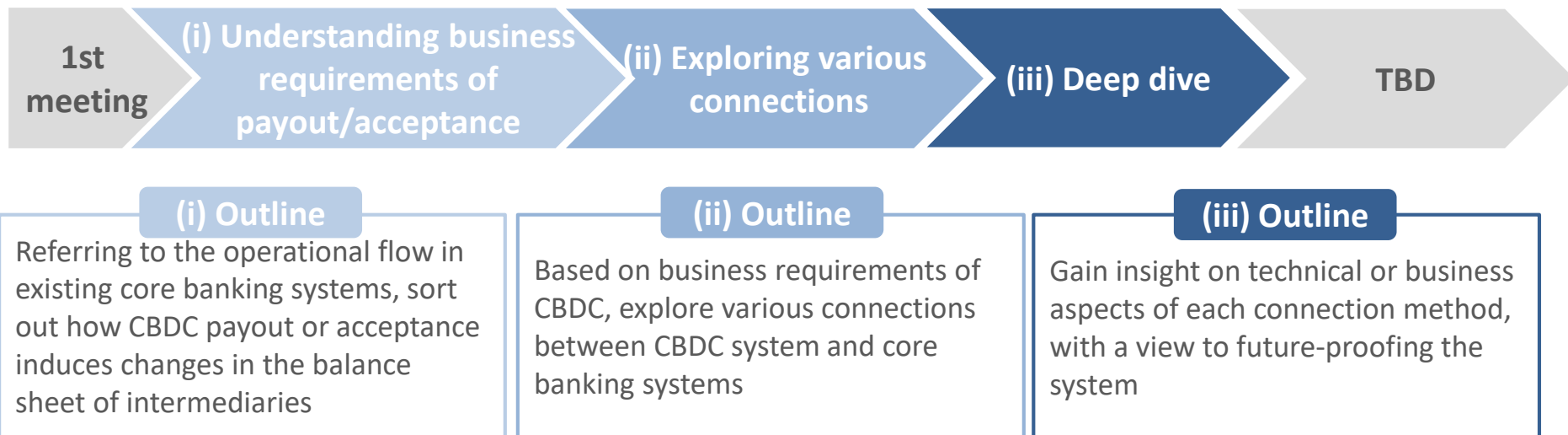
WG Members (2)

WG3	WG4
Aeon Bank, Limited	Coincheck, Inc.
SECOM Co., Ltd.	SECOM Co., Ltd.
Sony Corporation	Soramitsu Co., Ltd.
Dai Nippon Printing Co., Ltd.	Daiwa Securities Co. Ltd.
Chiba Bank	Japan Securities Clearing Corporation
NEC Corporation	Nomura Securities Co., Ltd.
Microsoft Japan Co., Ltd.	Sumitomo Mitsui Banking Corporation
Hitachi Channel Solutions, Corp.	Sumitomo Mitsui Trust Bank, Limited
FeliCa Networks, Inc.	Merpay, Inc.
Fukuoka Financial Group, Inc.	BOOSTRY Co., Ltd.
Money Forward, Inc.	Datachain, Inc.
Mizuho Bank Ltd.	JPX Market Innovation & Research, Inc.
Sumitomo Mitsui Banking Corporation	NTT DATA Japan Corporation
MUFG Bank, Ltd.	SBI R3 Japan Co., Ltd
JAPAN POST BANK Co., Ltd.	Startale Labs Japan KK
Resona Holdings, Inc.	
NRI SecureTechnologies, Ltd.	
NTT DOCOMO, INC.	
PayPay Corporation	

Note: As of Jan. 11.

[WG1] Overview

- **WG1 (Connection between CBDC System and Fundamental External Systems)** covers (i) business requirements of payout and acceptance of CBDC, and delves into (ii) various connections between CBDC system and core banking systems.
- Through discussions, members aim to gain insight into technical or business aspects of various existing connection methods.



[WG1] Meeting Calendar

Meeting	Date	Agenda
1st	Sept. 20, 2023	- Overview of the WG provided by the Bank
2nd	Oct. 13	- Presentation on business requirements of payout/acceptance - Discussion on holding/transaction limits, system architecture of ledger management, and end user perspective
3rd	Nov. 2	- Presentation on various connections between CBDC system and core banking systems (1) - Discussion on premise of the system, requirements for connecting to existing external services, examples of existing methods, and strategic direction and next steps
4th	Nov. 22	- Presentation by the Bank on WG targets and expectations - Presentation on various connections between CBDC system and core banking systems (2) - Discussion on examples of existing connection methods, issues regarding connection to CBDC system, and strategic direction and next steps
5th	Dec. 12	- Presentation on various connections between CBDC system and core banking systems (3)
6th	Jan. 17, 2024	- Presentation on various connections between CBDC system and core banking systems (4)
7th	Feb. 7	- Deep dive on connection methods (1)
8th	TBD	- Deep dive on connection methods (2)
9th onward	TBD	TBD

[WG2] Overview

- **WG2 (Overlay Services and CBDC Ecosystem)** discusses the concept of a CBDC ecosystem and surveys precedents in the payment landscape.
- Through the WG, members aim to understand the technological aspects of overlay services and gain insight into a CBDC ecosystem.

1st meeting

(i) Overall concept and case studies

(ii) Discussion on technologies

(iii) Gaining insight into CBDC

(i) Tentative agenda

- Concept of CBDC ecosystem
- Survey on precedents in the payment landscape
 - ✓ Overseas CBDC ecosystem
 - ✓ Overseas FPS ecosystem design
 - ✓ Embedded Finance, Banking API
 - ✓ Other payment services

(ii) Tentative agenda

- Link to external system regarding CBDC overlay services
 - ✓ Open API, SDK
 - ✓ Sandbox
 - ✓ Update and maintenance of supporting function
 - ✓ Developer community

(iii) Tentative agenda

- Potential of CBDC overlay services
 - ✓ Classification of use cases
 - ✓ Utilization of data
 - ✓ So-called programmability
- CBDC as a base for services
 - ✓ Anticipated features

[WG2] Meeting Calendar

Meeting	Date	Agenda
1st	Sept. 26, 2023	- Overview of the WG provided by the Bank
2nd	Oct. 17	- Presentation on overall concept and case studies (1) - “Overseas discussion on CBDC ecosystem (mainly in Europe)” - “Concept of CBDC ecosystem” - Group discussion
3rd	Nov. 7	- Presentation on overall concept and case studies (2) - “Overseas FPS ecosystem” - “Embedded finance and potential of CBDC” - Presentation on technologies (1) - “Toward a CBDC ecosystem” - Discussion on trade-off between throughput and real-time settlement, trade-off between usability and security regarding authentication, cooperation between API provider and API user, classification of embedded finance, utilizing data in overlay services
4th	Dec. 8	- Presentation on technologies (2) - “API policy”
5th	Jan. 18, 2024	- Presentation on technologies (3)
6th	Feb. 27	TBD
7th onward	TBD	TBD

[WG3] Overview

- **WG3 (KYC and User Authentication/Authorization)** held its first meeting on October 25, 2023. The Bank introduced the WG's objectives, premises, and work plan.
- Through discussions, members aim to gain technical and procedural insight into KYC and authentication/authorization processes for a potential CBDC system.



(i) Outline

Gain an understanding of KYC, AML/CFT, and authentication/authorization processes in existing payment services, explore latest technological developments in the respective fields, and deepen knowledge of necessary processes in a CBDC system

(ii) Outline

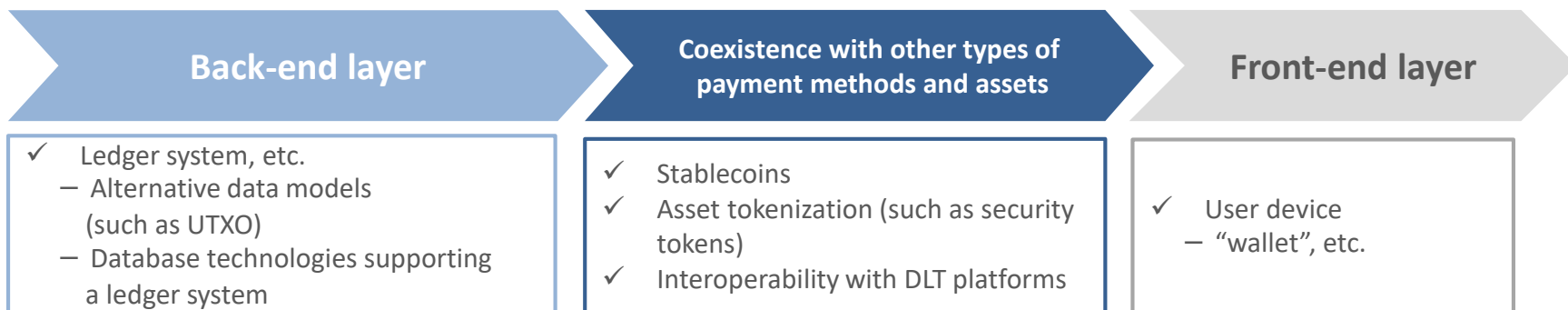
Obtain insight into the characteristics of KYC and authentication/authorization in a CBDC system, considering risks and usability in the existing processes

[WG3] Meeting Calendar

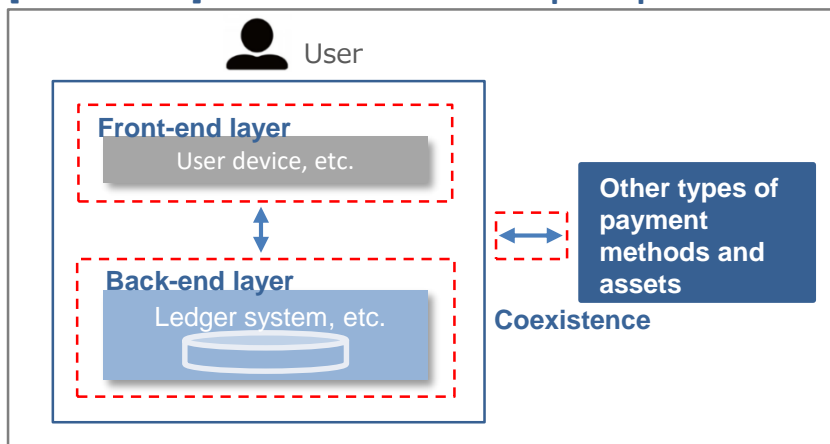
Meeting	Date	Agenda
1st	Oct. 25, 2023	- Overview of the WG provided by the Bank
2nd	Nov. 21	- Presentation on user action and operational process regarding KYC and authentication in existing payment services
3rd	Dec. 11	- Discussion on trade-off between security and usability of KYC check, issues in authentication and AML check to transaction monitoring
4th	Jan. 24, 2024	- Presentation on existing AML/CFT process and its latest development
5th	Feb. 15	- Presentation on existing KYC process and its latest development
6th	TBD	- Presentation on existing authentication process and its latest development
7th		- Presentation on existing use cases and technological aspects of authentication/authorization and their latest development
8th		- Presentation on insight into the characteristics of KYC and authentication/authorization in a CBDC system
9th		
10th onward		TBD

[WG4] Overview

- **WG4 (New Technologies and CBDC)** studies new technologies relating to a CBDC system and discusses their potential usage.
- The first meeting will be held on January 30. Through presentations given by members, members aim to gain insight into a CBDC ecosystem from new technologies.



[Other WGs] Outlook from current perception



[WG4] Outlook inspired by new technologies

