

Committee on Payments
and Market Infrastructures



The CPMI's work on the risk of wholesale payments fraud

Takeshi Shirakami, Deputy Head of CPMI secretariat

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* Views expressed are those of the author and not necessarily those of the BIS, CPMI or CPMI member central banks.

Outline

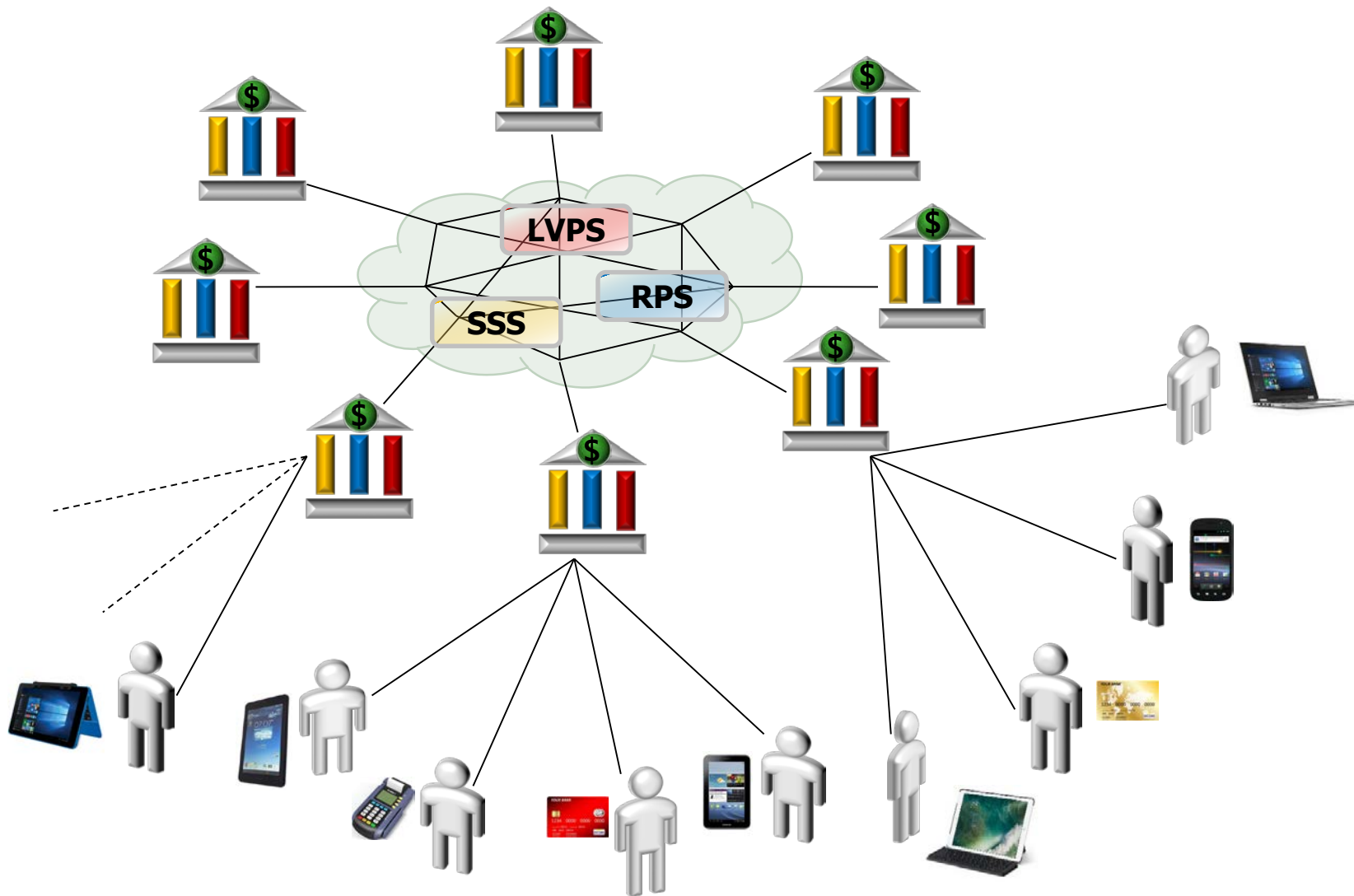
1. Wholesale payments fraud
2. CPMI strategy
3. Operationalising the strategy



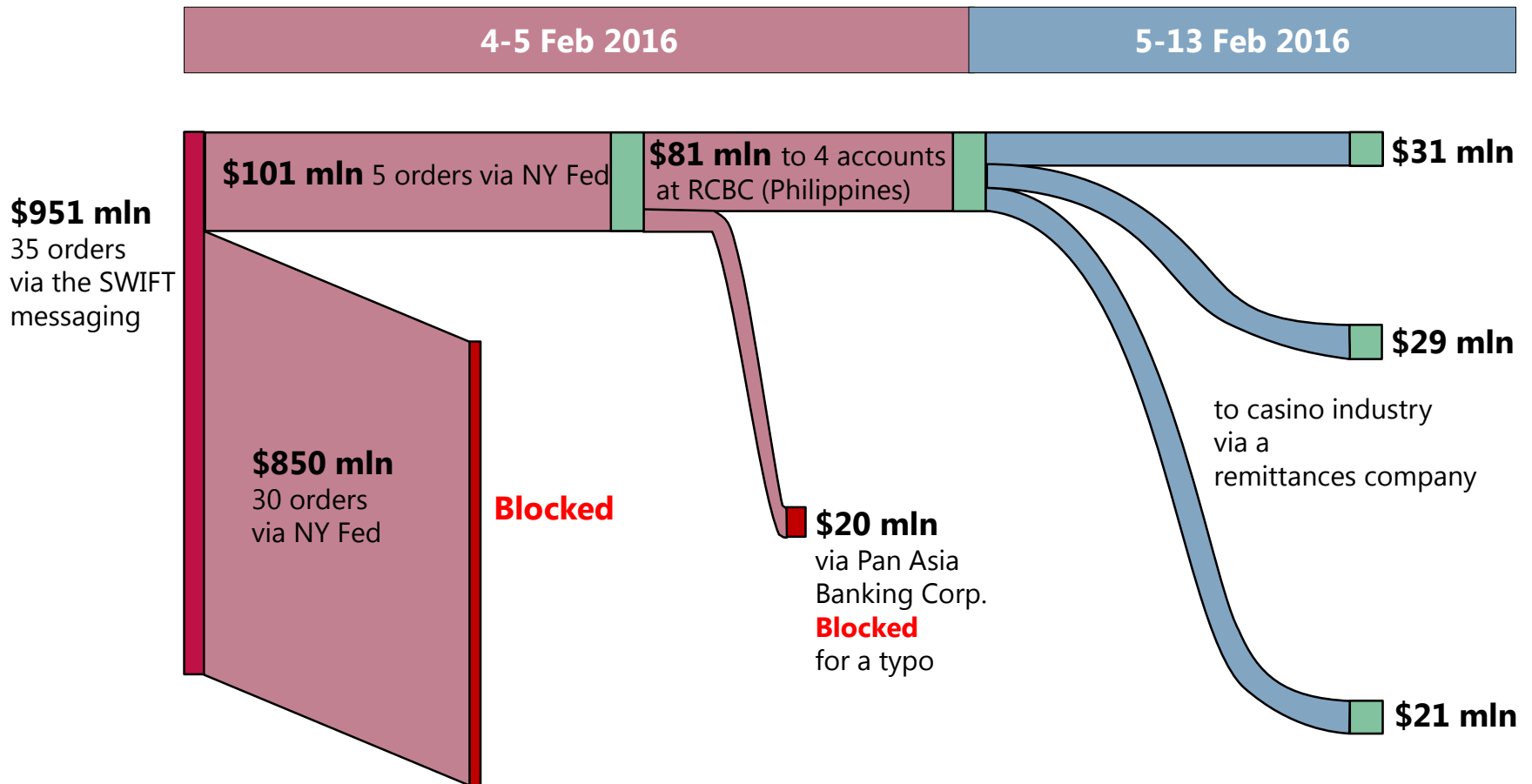
Wholesale payments fraud



Protecting the core and securing the periphery



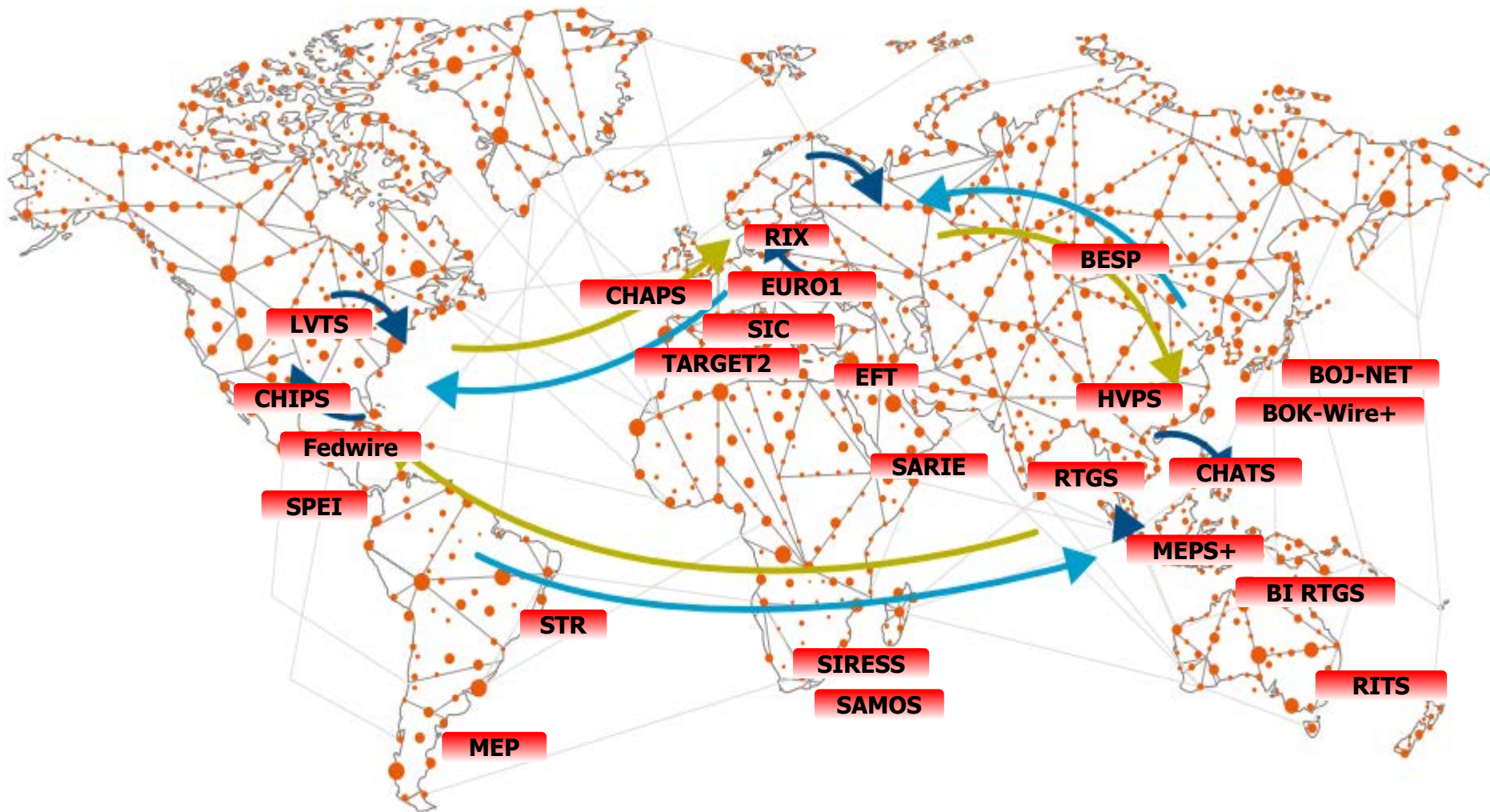
The 'Bangladesh' heist (Feb 2016)



Source: Reuters (28 September 2016, 3 May 2018)

\$15 mln recovered at a later stage

Wholesale payment systems and messaging network

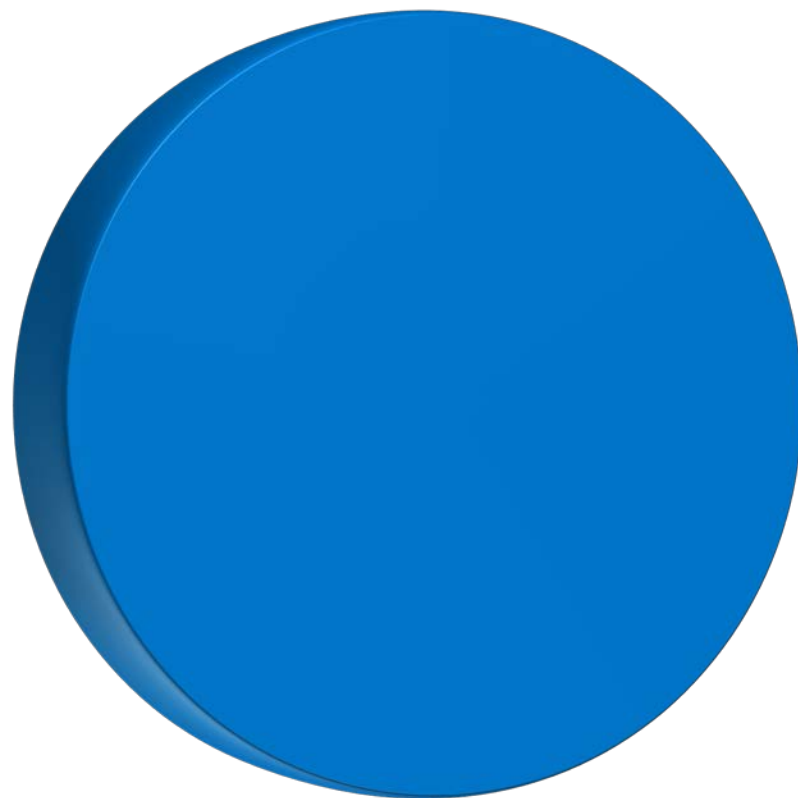


For illustration purposes; only some LVPS of CPMI jurisdictions are shown.

High stakes

- Wholesale payments are large-value, immediate and final

Average daily values processed in 2016



Wholesale: ~13 USD trn



Retail: ~660 USD mln

The 'Bangladesh' heist (Feb 2016)

Attempted: ~1 USD bln

Successful: 81 USD mln

Source: Red Book Statistics, author's calculations

Wholesale payments fraud: key challenges

- Wholesale payments fraud is **sophisticated** and **evolving**
- Each participant in a payment system or payment messaging network has a strong **incentive to prevent fraud**
- But **interconnectedness** also creates **potential systemic risk**
- Operators **cannot solve this alone**; nor can individual participants
- The **extent and real cost of wholesale fraud** due to endpoint security is not defined and/or quantified

➔ Requires a **holistic strategy and coordinated action by all stakeholders**

Why does wholesale payments security matter for central banks?

- **Operator** of a central bank payment system
- **Overseer** of payment systems and messaging networks
- **User** of payment systems and messaging networks for monetary policy implementation and provision of liquidity to maintain financial stability
- **Supervisor** of private sector users (eg banks) of payment systems and messaging networks
- **Provider of payment and custody services** for other central banks
- **User of payment and custody services** of other central banks



CPMI Strategy



Key findings of CPMI initial stocktaking survey

- **Coverage:** Payment system/messaging network operators in CPMI jurisdictions
- **Areas of interest:** Prevention, detection, immediate response, alerting the community
- **Objective:** identify any major knowledge gaps and variation in practices
- The survey was conducted in August-September 2016.

Areas of concern

Expectations/requirements to prevent or detect

Confirmation/assessment of adherence to expectations/requirements for prevention or detection

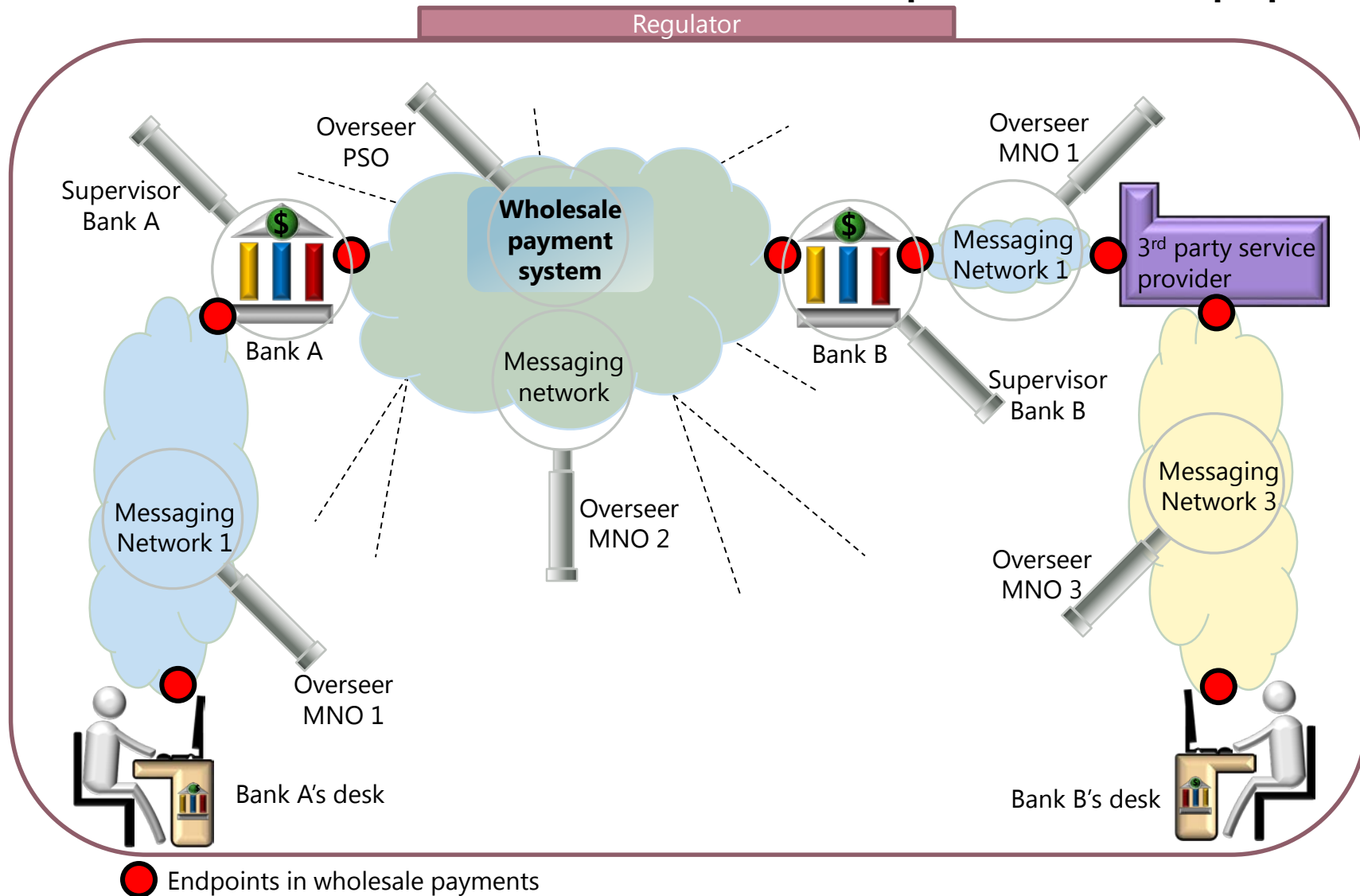
Education, training or tools for fraud prevention and detection

Expectations/requirements to inform senders and receivers, and law enforcement of attempted or actual fraud

Expectations/requirements to inform the broader payment community

Payments ecosystem and endpoints

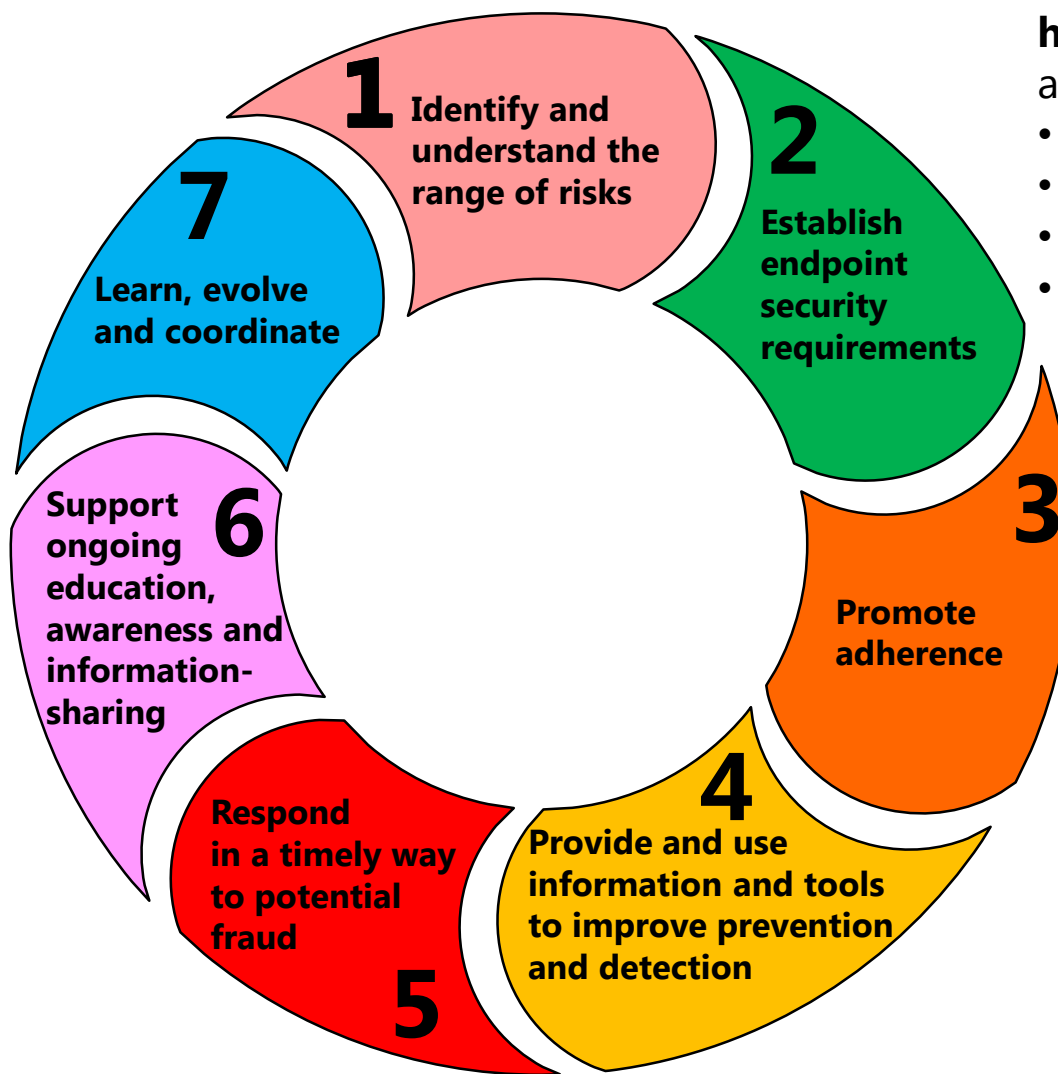
Example: for illustration purposes



What is an “endpoint”?

- **A point in place and time at which payment instruction information is exchanged between two parties**, either for themselves or others
- It includes the **participants** (eg banks, central banks, nonbanks), the **payment system** (eg Fedwire, CHIPS, TARGET2, CHAPS, BOJ-NET) or a **payment messaging network** (eg SWIFT)
- **Endpoint security** depends upon each endpoint's
 - **system/network-related**: Hardware, Software, Physical access, Logical access
 - **organisation and processes for**: (i) Preventing fraud; (ii) Detecting actual, attempted, or suspected fraud; (iii) Responding to actual, attempted, or suspected fraud; (iv) Communicating about actual, attempted, or suspected fraud
- How many endpoints are there?
 - Depending on the particular payment system or payment messaging network, there could be dozens, hundreds, or even thousands of endpoints

Seven elements of the strategy



These elements are designed to work **holistically** to address all areas relevant to

- **preventing,**
- **detecting,**
- **responding to,** and
- **communicating about fraud.**

Seven elements of the strategy

1. Identify and understand the range of risks

- To ensure operators and participants understand their individual risks and their collective risk of loss in confidence in the integrity of the wholesale payment system

2. Establish endpoint security requirements

- To identify and address any gaps for prevention, detection, and response

3. Promote adherence

- To provide incentives and confidence that endpoint requirements are being met

4. Provide and use info and tools to improve prevention and detection

- To enhance current capabilities of operators and participants

5. Respond in a timely way to potential fraud

- To ensure participants and operators know who to contact and how each should respond

6. Support ongoing education, awareness, and information sharing

- To promote operator and participant collaboration on procedures, processes, and resources

7. Learn, evolve, and coordinate

- To monitor and to keep up with ever-changing risks



Operationalising the strategy



Implementation flexibility

- Payment systems and messaging networks differ (eg because of regulatory, operational and technological structures and constraints)
- Accordingly, the strategy is ***intentionally flexible***
 - It describes ***what*** should be achieved...
 - ...while providing flexibility for determining ***how best to do so*** in light of the uniqueness of each system, network and jurisdiction
- The report provides **practical, non-prescriptive examples** of points to consider when operationalising the strategy
- ***But flexibility is not an excuse for inaction or slow progress!***

Next steps of the CPMI

- All relevant private-sector and public-sector stakeholders in each system/jurisdiction
 - Need to take ownership for developing and carrying out an appropriate action plan for its system/jurisdiction
- Each individual CPMI member has committed to support the strategy by
 - Promoting and monitoring progress in its respective jurisdiction
 - Leveraging its roles as catalyst, operator, overseer, and/or supervisor
- CPMI, as a committee, has committed to support the strategy by
 - Promoting and monitoring timely progress among its members
 - Supporting cross-system and cross-country coordination
 - Promoting awareness and supporting adoption by all central banks
 - The Governors of the BIS Global Economy Meeting have committed to putting the strategy into practice within their institutions and jurisdiction
 - CPMI is now reaching out directly to other central banks and central bank associations around the world

Examples of local action to operationalise the strategy

- Obtain the commitment of all relevant stakeholders to engage and coordinate in identifying and taking appropriate action
- Support flexibility in determining how best to operationalize the strategy given the uniqueness of each system/jurisdiction, while avoiding inaction or slow progress
- Provide the opportunity for different operators and participants – both within and across jurisdictions – to coordinate the actions they may take:
 - To maximise potential efficiencies
 - To avoid potential inconsistencies of requirements, processes, and practices
- Establish a clear allocation of tasks, responsibilities, and timetable for action
- Monitor progress to determine the need for further action



Questions/comments?



References

- CPMI, *Reducing the risk of wholesale payments fraud related to endpoint security* (May 2018) <https://www.bis.org/cpmi/publ/d178.htm>
- CPSS-IOSCO, *Principles for Financial Market Infrastructures* (April 2012) <https://www.bis.org/cpmi/publ/d101a.htm>
- CPMI-IOSCO, *Guidance on cyber resilience for financial market infrastructures* (June 2016) <https://www.bis.org/cpmi/publ/d146.htm>
- NBB, *Financial Market Infrastructures and Payment Services Report - Endpoint security : a comparative overview of approaches to reduce payment fraud* (June 2018) <https://www.nbb.be/doc/ts/publications/fmi-and-paymentservices/2018/2018-chapter5-specific-theme.pdf>

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Thank you!

