

Dear Committee Member,

TC 68’s Communications Group (TG 1) would like to alert you to:

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**1. RECENT LEADERSHIP CHANGES**

- None.

**2. LEADERSHIP OPPORTUNITIES**

- ISO/TC 68/AG 2 (Standards Advisory Group, SAG) is seeking a public sector Co-Convenor to join the private sector Co-Convenor. The private sector Co-Convenor is Karla McKenna. The public sector Co-Convenor works with the private sector Co-Convenor and SAG Secretary to: (1) plan the agendas for the SAG’s monthly calls, (2) lead the SAG’s monthly calls, (3) manage the drafting of responses to consultations to which the SAG will respond, (4) represent TC 68 at calls or in-person meetings, as requested by the public sector and other significant stakeholder groups, and (5) engage TC 68 subject matter experts and advisory group and working group convenors to obtain their expertise in the drafting of responses and their attendance at the above-mentioned calls or in-person meetings. If you are interested in serving, please contact Janet Busch (Committee Manager, ISO/TC 68) at [janet.busch@x9.org](mailto:janet.busch@x9.org).

**3. CALL FOR PARTICIPANTS**

- None.

**4. RECENT STANDARDS ACTIVITY**

**[ISO/TC 68/SC 2 Financial Services, Security](#)**

*Open ballots:*

- ISO/CD TS 9546 *Guidelines for security framework of information systems of TPP services* - **deadline 24 June 2023.**

- ISO/IEC PWI 13133 NP (New Work Item Proposal; ISO and ISO/IEC JTC 1) *Security reference model for digital currency hardware wallet* - **deadline 28 June 2023**.

In the consumer's daily life, digital currency can be kept in a hardware digital wallet. A hardware wallet uses security chips and other technologies to enable the functions of digital currency. It is supported by IC cards, mobile phones, wearable objects and Internet of Things (IoT) devices, etc. With all those capabilities, the digital currency hardware wallet can support offline payment scenarios, such as when there is no network, weak network, power outages and other natural disasters. In the digital currency hardware wallet scenario, except the secure cryptographic processes, there are other security and privacy risks (such as insecure communications between different modules, unauthorized access to secure elements and insecure application runtime environment and so on) that need to be mitigated. IC cards and IoT devices also need to be considered. Currently, standards on how to securely design and develop digital currency hardware wallets are absent. The stakeholders of digital currency hardware wallets need standards as guidance to ensure the security of payments.

This proposal is intended to facilitate the security design and implementation of digital currency hardware wallets.

The audience for this document includes organizations developing, and operating digital currency hardware wallets, such as mobile device manufacturers, chip manufacturers, companies who provide the digital currency hardware wallet solutions. Third parties that provide services to the abovementioned stakeholders may also benefit from this standard.

This document contains a security reference model for digital currency hardware wallets and requirements and recommendations regarding the security of digital currency hardware wallets. It includes security requirements for (i) data management, (ii), communication, and (iii) access control requirements between different modules of the hardware wallets; security requirements for the running environment of the software operating in the hardware wallet; and security policies for service operation of the hardware wallet.

The security reference model will be formed by the related security domains and security controls. The non-security aspects of digital currency hardware wallets, such as business processes and financial transactions are out of scope.

- Systematic Review for ISO 21188:2018 (Ed 2) *Public key infrastructure for financial services — Practices and policy framework* - (WG 8) - **deadline 2 September 2023**. Every five years after a standard has been published (whether the original standard or the amended or revised standard) the committee that developed the standard will decide if it is still fit for purpose or not, in the market. The standard can be amended or revised (if changes need to be made), 'confirmed' (if no changes are required) or, if it is completely out-of-date, it can be withdrawn.

*Due to go out for ballot:*

- ISO 20038 Amd 1 *Banking and related financial services — Key wrap using AES* - (WG 11) - now waiting for the DIS ballot to be circulated (on 25 May 2023).

- ISO/DIS 13491-1 *Financial services — Secure cryptographic devices (retail) — Part 1: Concepts, requirements and evaluation methods* - (WG 13) - once the drawings from the Drawing Office of the British Standards Institution have been approved by the Convenor, a DIS ballot and CIB to change the Project Lead will be circulated.

*Recently closed ballots:*

- CIB to 'skip' the CD for ISO 9564-1 *Financial services — Personal Identification Number (PIN) management and security — Part 1: Basic principles and requirements for PINs in card-based systems* - Approved, with one negative vote from the UK. (See CIB, below.)
- CIB to request changes to the development of ISO 9564-1 *Financial services — Personal Identification Number (PIN) management and security – Part 1: Basic principles and requirements for PINs in card-based systems* - Approved 100%. This project was removed from the SC 2 work programme. Because ISO/TC 68/SC 2/WG 13 (Security in Retail Banking) now believes that significant further work is required on ISO 9564-1, it will not be possible to progress the draft standard to the DIS ballot before the ISO deadline.

*Recently sent for publication:*

- ISO/TS 23526 *Security aspects for digital currencies* - (WG 17) - approved (with negative votes from China, Japan, Switzerland) - now waiting for publication.

*Recently published:*

- None.

*Other noteworthy activity:*

- Lauren Jones (UK) was approved as Chair-Elect of ISO/TC 68/SC 2 (to begin the term as SC 2 Chair on 1 January 2024).
- ISO/TC 68/SC 2/CAG Chair's Advisory Group recently participated in the ISO/TC 68 review of TC 68 standards relevant for digital currency processes. ISO/TC 68/AG 5 Digital Currencies is now evaluating the findings of the reviews performed by the three subcommittees of TC 68.
- ISO/DIS 5201 *Financial services — Code-scanning payment security* - (WG 19) – in preparation for a second DIS ballot (extension for publication is now 3 May 2024).
- ISO/WD 9564-5 *Financial services — Personal Identification Number (PIN) management and security — Part 5: Methods for generation, change, and verification of PINs using 16-byte block ciphers* - Working Draft stage.

[ISO/TC 68/SC 8 Reference Data for Financial Services](#)

*Open ballots:*

- Systematic Review of ISO 9019 *Securities — Numbering of certificates* - **deadline 4 June 2023**.

- Systematic Review of ISO 10383 *Securities and related financial instruments — Codes for exchanges and market identification (MIC)* - **deadline June 4, 2023**.

*Due to go out for ballot:*

- None.

*Recently closed ballots:*

- SC 8/SG 5 Digital wallet identification - Study the results and disbandment of SG 5 - the CIB has been approved; the study group disbanded. Many thanks to the study group and the Convenor Alex Kech for their excellent work.
- New Advisory Group (AG) with the purpose to act as a coordination group that can examine and communicate the impacts that the CFI, FISN, UPI, ISIN and DTI standards have on each other - the CIB has been approved. Emma Kalliomaki (ANNA) and Robert Stowsky (US) have been nominated to jointly lead the new AG. In the plenary meeting on 25 May, SC 8 members confirmed the joint leadership. The AG has been opened and is ready for the registration of the nominated experts.
- ISO/CD 17442-3 *Financial services — Legal entity identifier (LEI) — Part 3: verifiable LEIs (vLEIs)* - input was received from the SC 8 members. The leadership of the working group (WG 11) is reviewing the comments and will discuss the disposition with the group shortly.

*Recently sent for publication:*

- None.

*Recently published:*

- None.

*Other noteworthy activity:*

- SC 8/WG 3 – ISO/AWI 24165 *Digital token identifier (DTI) — Registration, assignment and structure* revision. WG 3 is working towards a Committee Draft (CD).
- SC 8/WG 7 – ISO/AWI 24366-2 *Financial services — Natural person identifier (NPI) — Part 2: Natural person identifier lifecycle operation and management*. Four major reasons (complexity of the task, lack of identity management expertise in the WG, building the links to other relevant expert groups, lack of regulatory support) led to the conclusion that the project timeline is unachievable. SC 8 resolved in the plenary meeting of 25 May to follow the WG's recommendation to downgrade the AWI 24366-2 from an International Standard (IS) to a Technical Report (TR) to summarize and wrap up the work that has been performed to date.
- SC 8/WG 10 – ISO/AWI 18774 *Securities and related financial instruments — Financial Instrument Short Name (FISN)* revision. WG 10 is working towards finalizing the Committee Draft (CD).

## ISO/TC 68/SC 9 Information Exchange for Financial Services

### *Open ballots:*

- Systematic Review of ISO/TS 23029:2020 *Web-service-based application programming interface (WAPI) in financial services* - **deadline 4 June 2023**.
- Systematic Review of ISO 8532:1995 (Ed 2, vers 5) *Securities — Format for transmission of certificate numbers* - **deadline 4 June 2023**.
- DIS ballot - ISO/DIS 20937 *Financial services — Specification of QR-codes for mobile (instant) credit transfers* - (EPC Fast-track) - **deadline 19 June 2023**.
- CIB ballot - Nomination of Pierre Epailard (France) as convenor of ISO/TC 68/SC 9/AG 1 ISO 20022 RA Oversight Group - **deadline 12 June**.
- NP - ISO 20022-9 *Financial services — Universal financial industry message scheme — Part 9: Syntax Generation Requirements and Rules* - **deadline 18 August 2023**.

### *Due to go out for ballot:*

- DTR ballot - ISO 20022 semantic models — Part 2: OWL Representation of the ISO 20022 Metamodel and e-Repository - (WG 1).

### *Recently closed ballots:*

- None.

### *Recently published:*

- None.

### *Recently sent for publication:*

- ISO 8583 (Ed 3) *Financial transaction card originated messages — Interchange message specifications* - (WG 3).

### *Other noteworthy activity:*

- Thank you to those who attended the SC 9 plenary meeting, either in person in Sydney, Australia or virtually. The resolutions taken by SC 9 during that meeting can be found [here](#).

## ISO 20022 Registration Management Group (RMG)

- The ISO 20022 RMG plenary meeting took place on 23 May 2023 in Sydney, Australia (with Zoom participation). The RMG acknowledges that advocacy about the ISO 20022 registration process and the registration bodies are a key priority as adoption progresses. The RMG recognized that the RMG Leadership response to the CPMI consultation on requirements for

harmonized adoption of ISO 20022 to enhance cross border payments is one such effort for advocacy. To view the RMG Leadership response to the CPMI consultation, please click [here](#).

- As adoption grows, the RMG is looking to issue a fresh call for experts on a periodical basis for all its Sub-Groups and Standards Evaluation Groups (SEG) in an attempt to adapt to evolving market requirements.
- Information on the status of business justifications and maintenance change request submissions can be found on the ISO 20022 website [here](#).

## 5. INFORMATIVE WEBINARS

### *Upcoming webinar:*

- **Date:** 6 June 2023

**Time:** 7:00am to 8:00am ET (1:00pm to 2:00pm CEST; 2:00pm to 3:00pm EEST)

**Title:** “Introduction to ISO/TC 68/SC 8 Reference Data for Financial Services”

**Speakers:** Dominique Tanner (Chair, ISO/TC 68/SC 8 Reference Data for Financial Services Head) and Sandra Roth (Committee Manager, ISO/TC 68/SC 8 Reference Data for Financial Services). Moderator: Yuri Vlasenko (Executive Director, UkrSWIFT).

**Registration:** To register for this webinar, click on the following weblink and click RSVP: <https://www.ukrswift.org/event-details/introduction-to-iso-tc-68-sc-8-reference-data-for-financial-services?lang=en>

**Description:** The Chair and Committee Manager of ISO/TC 68/SC 8 will provide an introduction into the ecosystem and current workbook of SC 8. This webinar is the second of a four webinars that aim to introduce ISO/TC 68 – including its subcommittees, processes and direction – to the Ukrainian financial community.

### *Recent webinars:*

- **Date:** 8 May 2023

**Title:** “Introduction to ISO/TC 68 Financial Services”

**Speakers:** Jim Northey (Chair, ISO/TC 68 Financial Services), Karla McKenna (Convener, ISO/TC 68/AG 2 Standards Advisory Group) and Gerard Hartsink (Convener, ISO/TC 68/AG 5 Digital Currencies). Moderator: Yuri Vlasenko (Executive Director, UkrSWIFT).

**Recording:** <https://www.ukrswift.org/video?lang=en>

**Description:** The Chair of ISO/TC 68 and other TC 68 leaders provide an overview of TC 68, including its subcommittees, processes, and direction. This webinar is the first of a four-part series of webinars that aims to introduce TC 68 to the Ukrainian financial community.

- **Date:** 21 March 2023

**Title:** “An Overview of Aadhaar”

**Speakers:** Unique Identity Authority of India (UIDAI) and Bureau of Indian Standards (BIS)

**Recording:** [https://drive.google.com/file/d/1mFYB7ArE1mWHn7NFy\\_aCNRh7gw95sktm/view?usp=sharing](https://drive.google.com/file/d/1mFYB7ArE1mWHn7NFy_aCNRh7gw95sktm/view?usp=sharing)

**Description:** Aadhaar is the largest citizen ID system in the world containing the identities of over 1.35 billion Indian citizens and residents. Aadhaar users can interact with an increasing range of Indian government and industry digital services, which is gradually increasing societal, digital and financial inclusion. This presentation addressed the following questions:

- What is Aadhaar and what is it for? What are some of its parameters?
- How is Aadhaar used for government and business purposes, particularly for legal entities involved in contracts, payments, supply chains, and logistics?
- How is Aadhaar used by citizens and residents interacting with government and accessing government services?
- How is Aadhaar used by consumers, typically for retail and online activities?
- What are some of the challenges Aadhaar faces, particularly due to its size and the need to reach every part of Indian society for societal inclusion?
- What is the relevance of Aadhaar to standards of ISO/TC 68 for reasons of mutual interest?

## 6. UPCOMING MEETINGS

None.

## 7. FEATURED TOPIC – “The Standards Landscape in Australian Payments”

(By Australian Payments Network)

This article explores the standards landscape in Australian payments and includes a general discussion of the role of domestic standards, reviews recent work on ISO 20022, previews future work on the Advanced Encryption Standard (AES), before concluding with a look at how Australian payments might change in the future.

### About the Author

Australian Payments Network (AusPayNet) is the industry association and self-regulatory body for the Australian payments industry. We manage and develop procedures, policies and standards governing payments in Australia. Our purpose is to enable competition and innovation, promote efficiency, and control and manage risk in the Australian payments’ ecosystem. AusPayNet currently has over 150 members, including financial institutions, operators of Australia’s payment systems, merchants and financial technology companies.

### The Role of Domestic Standards

Australia has a rich suite of payments related standards which have been developed by Standards Australia’s IT-005 Financial Transaction Systems Committee. This is Standards Australia’s mirror committee to ISO’s Technical Committee 68 (TC 68) on Financial Services.

These standards fall under the umbrella of Australian Standard (AS) 2805 “*Electronic Funds Transfer – Requirements for Interfaces.*” AS 2805 has almost 30 sections, covering:



- communications, message format and authentication;
- PIN security;
- approved encipherment algorithms and hash functions;
- key management including principles, transaction and session keys, and terminal initialisation; and
- secure cryptographic devices.

Several of the sections have been either direct text or amended adoptions of ISO standards. However, the standards governing key management of session keys from terminal to acquirer, interchange, and terminal initialisation, and those on message structure, format and content are Australian-specific and do not have direct ISO equivalents.

In addition, AusPayNet – in its role as the and self-regulatory body for the Australian payments industry – maintains frameworks for each type of Australian payment (or “Clearing System”). In doing so it sets mandatory requirements to use both Australian and ISO standards (as well as relevant PCI and EMVCo standards). Most notably, the use of the following ISO standards from TC 68/SC 2 dealing with the security of financial systems are mandatory:

- 11568 Key Management – all parts;
- 9564 PIN Security – all parts; and
- 13491 Secure Cryptographic Devices – all parts.

Given the above, it is worth noting that:

- the 2022 version of 11568 is scheduled for Direct Text Adoption (DTA) this year;
- AusPayNet is participating in the redrafting of 9564.1, including the use of open networks for PIN management (which is based on Australian artefacts); and
- AusPayNet is also participating in the redrafting of 9564.5, dealing with the use of stronger algorithms for PIN generation and verification. This is urgently needed as the Triple Data Encryption Standard (TDES) is retired and we migrate globally to stronger, quantum safe symmetric algorithms such as AES (see below).

## ISO 20022

For the last three years AusPayNet has led the ISO 20022 Industry Migration Program to migrate the Australian High Value Clearing System (HVCS) from Swift’s MT format to ISO 20022. This has also involved Australia’s central bank, the Reserve Bank of Australia (RBA) migrating its Real-time Gross Settlement (RTGS) system to the same format, as well as 50 financial institution members of AusPayNet migrating numerous payment systems, interfaces, and back-office systems to ISO 20022.

The Australian HVCS ISO 20022 message specifications were developed to harmonise with High Value Payments Plus (HVPS+, the global Market Infrastructure – MI – template) and Cross-Border Payments and Reporting Plus (CBPR+, the ISO 20022 standard used by Swift for cross-border payments).



Looking at the immediate future through a standards lens, there are two aspects of harmonisation currently being considered by the global payments community, and in Australia:

1. Harmonisation between HVPS+ and CBPR+.
2. Harmonisation of ISO 20022 versions across jurisdictions and with CBPR+, including harmonisation of future version changes.

Since several MIs around the globe went live with ISO 20022 for domestic RTGS, along with CBPR+, in March 2023, some have identified a range of friction points due to variance between HVPS+ and CBPR+. However, because Australia is more closely aligned with CBPR+ than some other countries, many of the issues identified do not exist here. Australia will next upgrade its HVCS ISO 20022 message collection in 2025, and AusPayNet will take the opportunity to align even further with CBPR+ where possible then.

There are various ISO 20022 implementations in use (or planned) within Australia, these include HVCS (based on HVPS+ and CBPR+), CBPR+ for cross-border, AUSTRAC (the Australian Transaction Reports and Analysis Centre), Australian Payments Plus (its New Payments Platform, NPP) and the Australian Securities Exchange (ASX, its Austraclear system).

Many AusPayNet Members operate in several MIs, and/or in HVCS and NPP, ASX etc. Fragmentation or variation in version between these implementations creates an operational overhead and challenge for those Participants, as well as interoperability challenges. This is an area already under scrutiny by the CPMI cross-border payments initiative, which sees greater harmonisation as an objective to reducing friction and cost and increasing speed, transparency and access.

Currently HVCS is running the 2020 version of ISO 20022, CBPR+ the 2019 version, and NPP the 2015 version. These differences in version can increase the difficulty of achieving close harmonisation and add complexity to maintenance of Participant systems.

Some level of harmonisation of versions is desirable, but needs to be balanced against the overheads of frequent version changes. AusPayNet is actively promoting and participating in these conversations.

## **AES**

Advances in technology, such as quantum, computing present an increasing risk of payment system compromise, requiring continued uplift in system-wide security standards and practices. The long asset life and data retention period necessary for many payment systems exacerbates this risk, meaning that payment systems need to be safe not just for today but for 10 to 15 years from now.

In response to these threats, governments and payments system operators globally are taking action to enhance security standards, and in particular encryption methods. The most widely used encryption standard, TDES, is considered vulnerable in the medium term to increasing classical computing power and advances in crypto analysis. This is prompting many jurisdictions

to implement programs in favour of encryption standards such as AES which is considered quantum and classical computing safe.

In Australia, AusPayNet has recently completed a consultation with the card payments industry. This consultation concluded that migrating Australian card payments to AES will be a significant industry effort requiring an estimated 6 to 7 years to complete. It will impact all payment system participants, requiring the estimated upgrade of 970,000 point-of-sale (POS) terminals, 25,200 ATMs across 55 issuers and 25 acquirers, along with service providers, gateways, and technology partners. It is worth noting that cards will not need to be reissued, nor will the cardholder experience be impacted.

The next phase of work will include preparatory activities to finalise outstanding issues including the technical blueprint, testing strategy, migration approach, legal, risk and compliance assessment to provide time for Participants to formalise their business cases, secure funding and mobilise teams.

### **The Future: How Might Australian Payments Standards Change?**

In June 2021, the Australian Government completed a review of the Australian payments system. That review concluded that a single, tiered payments licensing framework – based on a defined list of payment functions – should be introduced. As part of that licensing framework, the review also concluded that, “compliance with technical standards set by authorised industry bodies should be mandatory for payments licence holders.”

Given this proposed change to payments system regulation, AusPayNet is currently undertaking a program of work to become an authorised standards-setting body. This will see an evolution of its role from self-regulation to its standards in future applying to all payments licensees.

### **8. REQUEST FOR NEWS ITEMS & ARTICLES**

If you have content you think would be useful to present in future newsletters or post to TC 68’s [website](#) or [LinkedIn](#) page, please kindly send that content to the Communications Group at [tc68com@fintechstandards.net](mailto:tc68com@fintechstandards.net) or the Group’s Convenor, Paul D’Amico, at [paul.d’amico@ofr.treasury.gov](mailto:paul.d’amico@ofr.treasury.gov). Also, if you are interested in joining the Communications Group, please contact us. **We need your help and participation!**

Thank you.

The ISO/TC 68 Communications Group (ISO/TC 68/TG 1)