

ISO/IEC JTC 1 "Information technology"
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SC 17 Business Plan 2023

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Description

This document is circulated for review and consideration at the November 2023 JTC 1 Plenary.

BUSINESS PLAN FOR ISO/IEC JTC 1/SC 17

Cards and Security Devices for Personal Identification

PERIOD COVERED: November 2022 – September 2023

1.0 Executive Summary

SC 17 continues to deliver standards that are ubiquitous in their use by the sectors that require identification worldwide. To date this activity has focussed on the use of a standard 'bank card' or identification document form factors. As the market is extending the concept of what is an 'identity document', so SC 17 is moving to respond to such changes.

2.0 Chairman's Remarks

The work of SC17 continues to ensure that the current sets of identification documents (bank cards, passport, driving licence etc) continue to meet the needs of issuing agencies and customers alike. Significant new work items are being developed to keep these needs met through the adoption of different form factors (e.g. mobile driving licences). A critical interaction with ICAO for the passport specifications have been developed jointly through a MoU that has regulated the interactions between the WG3 of SC17 and ICAO. This MoU is in urgent need of revision and has been requested by SC17 for over 5 years. We would request that this item is given urgent attention by ISO to ensure that the work of SC17 WG3 is not compromised.

2.1 Market Requirements, Innovation

The work programme of SC17 is currently distributed across 8 working groups. These breakdown into technology WGs, i.e. WGs 1, 4, 8, 11 and 12, two application based WGs – WGs 3 and 10.

2.2 Accomplishments

WG3 working closely with ICAO (International Civil Aviation Organisation) has helped ICAO fully revise its Document No 9303 on Machine Readable Travel Documents and reformat this 7th Edition into 12-parts, issued in 2015. WG3 has been working on the 8th edition of Doc 9303, which is expected to be endorsed by ICAO's Technical Advisory Group on the Traveller Identification Program by the end of September 2020.

WG8 has started to see results from its liaison with the NFC Forum. The Forum has proposed an adaptation to one of WG8's test methods so the NFC Smartphone and 14443 card devices can both be tested. This is seen as a major first step for substantial harmonization between ISO/IEC 14443 and the NFC Forum specifications.

Further, WG8 had initiated a Liaison procedure for a Liaison between WG8 and the organization EMVCo, which had been supported by ISO TMB, so that SC17 is linked now with EMVCo via the Liaison Category A. WG8 sees a major step for improving the cooperation with EMVCo, as worldwide payment applications are intensively driven by EMVCo, so that compatibility issues between SC17 standards, in particular WG8 standards, can much efficiently performed due to the Liaison relationship.

WG10 continues to make good progress on a project to standardize the interfaces required to ensure interoperability of a mDL (Mobile Driving Licence) across jurisdictions. ISO/IEC 18013-5 has been published, and much progress is being made on ISO/IEC 18013-6 (mDL Test Methods) and ISO/IEC 18013-7 (mDL add-on functions, primarily covering "Over-the-Internet" use). Significant adoption of ISO/IEC 18013-5 has been observed.

AG-1 Registration Management Group (formerly SWG-RMG) was established in 2017 to manage the Issuer Identification Numbering scheme (IINs). Unlike a WG, the AG is made up of a single representative and alternate from each P Member who chooses to participate. The RMG provides votes to confirm or deny applications for blocks of IINs to the RA.

2.3 Resources

The work programme of SC17 continues to be well supported by experts although there is a noticeable shift away from representation from the payments cards industry, i.e. application users, towards manufacturers and infrastructure providers. This is only to be expected given that smart cards are a mature product and the early trail blazers and application developers have deskilled now they are able to rely on the manufacturers and card fabricators to provide them with commoditized products which in part, at least, is due to the success of standardization in which SC17 has played a major role.

2.4 Competition and Cooperation

SC17 does not see any major competitors producing standards within its scope in competition with SC17's standards. Rather the different card application producers, card systems infrastructure providers and card fabricators build upon SC17's stable base of standards.

The liaison with the NFC Forum, as a consortium with overlapping interests to SC17/WG8's Contactless technology, and as a provider of protocols for use in SC17/WG10's work on mobile driving licences, is also encouraging. SC17/WG10 is also leveraging the liaison with the Wi-Fi Alliance in its mobile driving licence work.

3.0 Working Groups

There are seven active Working Groups, plus Advisory Groups on Registration Management and Digital Wallets.

The full work programme of SC17 can be found at:

http://www.iso.org/iso/home/store/catalogue_tc/catalogue_tc_browse.htm?commid=45144&development=on

3.1 WG1 – Physical Characteristics and Test Methods

WG1 manages six groups of standards covering:

- Physical Characteristics and Test Methods;
- Embossing and TIM (Tactile Identifier Mark);
- Magnetic Stripe Cards;
- Thin Flexible Cards;
- Card Service Life; and,
- ICC Manged Devices.

3.1.1 WG1 Accomplishments

10373-1 AMD 1 published in 2023

3.1.2 WG1 Deliverables

7810 AMD 1 FDIS in 2023

24789-1 and -2 FDIS in 2023

3.1.3 WG1 Risks, Opportunities and Issues

Revision of 7811-9 slow due to limited contributions and lack of consensus on proposed changes. Project will likely require cancellation and restart at a later point in time.

3.2 WG3 – Machine Readable Travel Documents

WG3 works closely with ICAO (International Civil Aviation Organization) on its specifications for Machine Readable Travel Documents (MRTD), Doc 9303, transposed as ISO/IEC 7501.

WG3 Accomplishments

Working closely with the ICAO Working Groups, WG3 worked on the progression of

- Transformation of ISO 1831 into ISO/IEC 30116 and ICAO Doc 9303
- Analysis and guidance on non-conformities in (e)MRTDs
- Drafting test specifications for physical Doc 9303 compliancy
- Updating specifications for Portrait Quality
- Technical specifications for Digital Travel Credentials
- Drafting the next (8th) edition of Doc 9303
- Technical Report on Electronic Travel Authorizations

WG3 Deliverables

WG3 provided the following deliverables to ICAO's Technical Advisory Group on the Traveller Identification programme, expected to be endorsed by the end of September 2020:

- 8th edition of Doc 9303, including the incorporation of
 - ICAO-TR - Logical Data Structure 2
 - ICAO TR - Visible Digital Seals for non-electronic documents
 - ICAO TR - Portrait Quality
- ICAO TR – Digital Travel Credentials, Virtual Component

WG3 Risks, Opportunities and Issues

ICAO and ISO entered discussions on shaping a Memorandum of Understanding on the cooperation between the two organizations. Discussions are still pending.

This may have consequences for the short-form endorsement of Doc 9303 7th edition as ISO/IEC 7501. For this reason the endorsement has not started.

Following the development of ISO/IEC 39794 (of concern to SC17 which references these standards), SC17/WG3 continues to liaise closely with SC37 on the development of the 19794 – 39794 transition guide (ISO/IEC 49794).

3.3 WG4 – Generic interfaces and protocols for security devices

WG4 originally produced standards for Integrated Circuit Cards (ICCs) with contacts. This work was subsequently divided into work on commands for ICCs which both WG4 and WG8 (Contactless cards) use and WG4's continued work on the logical interface of ICCs independent of the physical interface, e.g. contactless or with contacts. Since 2004 WG4 has produced new standards to facilitate the interfacing of ICCs with both user (ISO/IEC 12905) and systems through a standard middleware (ISO/IEC 24727). And since 2010 has been working to standardize the logical interface of applications on an IC which supports the usage of electronic devices, e.g. keypad, electronic display (ISO/IEC 18328). Furthermore since 2013 has been working to standardize privacy-enhancing protocols and services involving an ICC (ISO/IEC 19286). In 2016 WG 4 started work on HCI/HCP

(ISO/IEC 22924), Mobile ID (ISO/IEC 22320) and a new Programming interface (ISO/IEC 23465).

3.3.1 WG4 Achievements

ISO/IEC 7816-6 'Part 6: Interindustry data elements for interchange'	published 2023-04
ISO/IEC 23220-1 'Generic system architectures of mobile eID systems'	published 2023-02
ISO/IEC 23465-1 'Part 1: Introduction and architecture description'	published 2023-02
ISO/IEC 23465-2 'Part 2: API definition'	published 2023-02
ISO/IEC 23465-3 'Part 3: Proxy'	published 2023-05

3.3.2 WG4 Deliverables

ISO/IEC 7816-3, Amd-1: 'Additional voltage classes'	CD
ISO/IEC 7816-8, Amd-1: 'Interoperability for ... operations using quantum safe cryptography'	FDAM
ISO/IEC 23220-2 'Data objects and encoding rules for generic eID systems'	– CD TS
ISO/IEC 23220-3 'Protocols and services for issuing phase'	– CD TS
ISO/IEC 23220-4 'Protocols and services for operational phase'	– CD TS
ISO/IEC 23220-5 'Trust models and confidence level assessment'	– CD TS
ISO/IEC 23220-6 'Mechanism for use of certification on trustworthiness of secure area'	– CD TS

3.3.3 WG4 Risks, Opportunities and Issues

None

3.4 WG5 – Issuer Identification Numbers (IINs)/Application Provider Identifiers (RIDs) - disbanded

Work was completed on the revision of ISO/IEC 7812 and therefore the group was disbanded.

3.5 WG8 – Contactless Integrated Circuit(s) cards

WG8 produces standards for Contactless ICCs; the ISO/IEC 14443 Series for Proximity Cards and 15693 Series for Vicinity Cards. WG8 also supports WG3 whose Machine Readable Travel Documents (MRTDs) have adopted the 14443 contactless technology for machine readable travel documents like epassports (and evisas).

3.5.1 WG8 Accomplishments

ISO/IEC 14443-2:2020/Cor 1:2021 'Contactless proximity objects — Part 2: Radio frequency power and signal interface — Technical Corrigendum 1'
ISO/IEC TS 24192-1 'Public transport -- Communication between contactless readers and fare media -- Part 1: Implementation requirements for ISO/IEC 14443' – published
ISO/IEC TS 24192-2 'Public transport -- Communication between contactless readers and fare media -- Part 2: Test plan for ISO/IEC 14443' – published
ISO/IEC 18745-2 'Test methods for machine readable travel documents (MRTD) and associated devices — Part 2: Test methods for the contactless interface' - published

3.5.2 WG8 Deliverables

ISO/IEC 14443-2:2020/Cor 1:2021 'Contactless proximity objects — Part 2: Radio frequency power and signal interface — Technical Corrigendum 1'
ISO/IEC TS 24192-1 'Public transport -- Communication between contactless readers and fare media -- Part 1: Implementation requirements for ISO/IEC 14443' – published

ISO/IEC TS 24192-2 'Public transport -- Communication between contactless readers and fare media -- Part 2: Test plan for ISO/IEC 14443' – published

ISO/IEC 18745-2 'Test methods for machine readable travel documents (MRTD) and associated devices — Part 2: Test methods for the contactless interface' - published

3.5.2 WG8 Deliverables

ISO/IEC 10373-6 'Test methods — Part 6: Contactless proximity objects'

ISO/IEC 14443-3:2018/AWI Amd 3 'Contactless proximity objects — Part 3: Initialization and anticollision — Amendment 3: Time binding of PICC to PCD data interchange for enhanced detection of relay attacks'

ISO/IEC 14443-4:2018/AWI Amd 3 'Contactless proximity objects — Part 4: Transmission protocol — Amendment 3: Time binding of PICC to PCD data interchange for enhanced detection of relay attacks'

3.5.3 WG8 Risks, Opportunities and Issues

With the publication of 10373-6 Amd 2, WG 8 is optimistic this is a major first step for substantial harmonization between ISO/IEC 14443 and NFC Forum specifications.

3.6 WG9 – Optical Memory Cards (Disbanded)

WG9 managed standardization for Optical Memory Cards. This is now a mature technology and WG9's standards are stabilized.

3.7 WG10 – Motor Vehicle Drivers Licence and Related Documents

WG10 develops standards for Motor Vehicle Driver Licences.

3.7.1 WG10 Deliverables

ISO/IEC 18013-2 Amd1, Information Technology — Personal identification — ISO-compliant driving licence — Part 2: Machine-readable technologies, was published in April 2023. Amd2 on the same standard was initiated in June 2023.

ISO/IEC 18013-3 Amd2, Information technology — Personal identification — ISO-compliant driving licence — Part 3: Access control, authentication and integrity validation, was published in April 2023. A project for a new revision of the standard was registered in June 2023.

A DIS ballot for an amendment to ISO/IEC 18013-4, Personal identification — ISO-compliant driving licence — Part 4: Test methods, concluded successfully in May 2023.

Work is continuing on ISO/IEC 18013-6, Personal identification — ISO-compliant driving licence — Part 6: mDL test methods. At the time of this report, this project was at WD stage.

Work is continuing on ISO/IEC 18013-7, Personal identification — ISO-compliant driving licence — Part 7: Mobile driving licence (mDL) add-on functions. This will be a technical specification.

Work is continuing on ISO/IEC 7367, ISO-compliant vehicle mobile registration certificate. This will be a technical specification.

3.7.2 WG10 Risks, Opportunities and Issues

The area addressed by ISO/IEC 18013-5 and ISO/IEC 18013-7, Mobile Driving Licence, is a fast moving and dynamic topic. It is also a new area with multiple stakeholders. WG10 is maintaining successful liaisons with the NFC Forum, The OpenID Foundation, FIDO, the Wi-Fi Alliance, and SC17 WG4.

3.8 WG11 – Application of Biometrics to Cards and Personal Identification

WG11 develops standards for the application of biometrics to Cards and Personal Identification.

3.8.1 WG11 Accomplishments

ISO/IEC 7816-11:2022 (Ed.3) "Personal verification through biometric methods" was published in April 2022 and remains stable.

The ISO/IEC 17839 "Biometric System-on-Card" series is progressing well.

There is consensus and approval to start a revision of ISO/IEC 17839-1:2014 (Ed.1). Furthermore, there is already a base WD text. The ISO portal is being updated to reflect this status.

ISO/IEC 17839-2 Ed.2 is currently in DIS ballot, closing on 2023-10-11.

Revision of ISO/IEC 17839-3 (Ed.2) just started on 2023-08-02, and there is a base WD text.

Related to ISO/IEC 17839-2, Singapore national body organised and completed a BSoC PlugFest event in 2023. The event is a data capture and accuracy analysis exercise where 142 human subjects were provided, and 4 companies participated. A wide range of different finger sensing technologies and sensor dimensions were used. Some companies captured as much as 35,216 data samples per sensor, over 4 working days. Accuracy statistics were tabulated and the results will be published as an informative Annex B in 17839-2.

ISO/IEC 24787 "On-Card biometric comparison" has been split into 2 parts where part 1 focuses on "General principles and specifications" and part 2 covers "Work-sharing mechanism".

ISO/IEC 24787-1 has successfully completed DIS ballot, and is progressing towards FDIS ballot before end 2023. Likewise ISO/IEC 24787-2 has completed DIS ballot and is progressing towards FDIS ballot.

ISO/IEC TR 30117 (Ed.2) "Guide to on-card biometric comparison standards and applications" has been successfully published in August 2021 and there is no plan to initiate any early revision before the typical period.

ISO/IEC 18584 "Test methods for on-card biometric comparison applications" was split into 2 parts where part 1 focuses on "General principles and specifications" and part 2 covers "Work-sharing mechanism". This project split was done to align with the split of ISO/IEC 24787 into 2 parts.

Both parts of ISO/IEC 18584 have successfully completed CD stage, and they are on track to reach DIS ballot in early 2024.

3.8.2 WG11 Deliverables

Ensure the following targets:

- ISO/IEC 17839-2 Ed.2 progresses beyond DIS ballot after October 2023 and is published in 2024.
- ISO/IEC 24787 (Ed.3) both parts reach FDIS stage in October 2023.
- ISO/IEC 18584 (Ed.2) both parts reach DIS stage in early 2024.
- ISO/IEC 17839-1 and -3 continues to be discussed and developed beyond CD stage.

3.8.3 WG11 Risks, Opportunities and Issues

As with SC17/WG3 above, the development of a 3rd generation of 19794 by SC37 is of interest to SC17/WG11. The CBEFF work in SC37 WG2 is also relevant to work in SC17 WG11, notably alignment with 7816-11, 24787.

WG11 is in close liaison with SC17/WG4. SC17/WG1 as well as SC37 for work alignment and work collaboration.

3.9. WG12 - UAS license and drone/UAS security module

WG12 develops standards for ~~Drone~~ UAS(Unmanned Aircraft System) Licenses and Drone/UAS Security Module.

3.9.1 WG12 Accomplishments

CD22460 recovered and reset, which had been suspended by JTC1 Resolution in 2022. In July 2023, 22460-1,2,3 completed CD consultation and DIS balloting is underway.

3.9.2 WG12 Deliverables

- ISO/IEC 22460-1 is at ISO for ~~ready for~~ DIS registration ~~Submission~~ (see 3.9.3)
- ISO/IEC 22460-2 is at ISO for ~~under development~~. DIS registration
- ISO/IEC 22460-3 is awaiting ~~under development~~. DIS registration

3.9.3 WG12 Risks, Opportunities and Issues

The commercial and personal drone/UAS market is growing fast, and continuous growth requires standards for operator and drone/UAS identification.

As the personal and commercial drone markets grow rapidly, there is an increasing need to use remote pilot licenses compatibly in third countries. In particular, due to many flight safety and security challenges, continuous growth requires operator and drone/UAS identification and standards.

In addition, as UAM and AAM with passengers are being developed, it is necessary to use the remote pilot license as well as the crew license internationally compatible as the UAS market changes rapidly.

ISO/IEC 22460, which was suspended by JTC1 resolution in 2022, has resumed, completing the CD consultation phase, and DIS balloting registration is underway.

3.10 AG 1 on Registration Management

The activities of the Registration Management Group (RMG) were originally undertaken in WG 5. However, following the revision of ISO/IEC 7812, the RMG work was moved to a separate group in accordance with the w new guidelines on RAs which were introduced by ISO.

Over the past year, all IIN applications have been handled through balloting without objection, concern, or request for appeal. Formal in person meetings have not been required to facilitate the work. AG1 stands ready to schedule meetings as needed to support the IIN application process by giving applicants the ability to appeal for an exception to the acceptance criteria of a block holder request. AG1 welcomes any national body that wants to join and participate.

3.11 Study Group on Digital Wallets

The Digital Wallets AG, established in 2022, will be reconstituted for another 12 months to undertake the following tasks:

- Establishment of liaisons with SDOs working in the field, to avoid overlapping and conflicting specifications
- Dissemination of information on Digital Wallets
- Further analysis of the standardization gaps at international level – and consideration of National and International legislation

Dependent on the outcomes of this work, an IS/TR may be proposed clarifying the conflicting terms and symbols

