

OSDP 2.3 Proposed PIV Enhancements

Security Industry Association

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Changelog

2025-10-01 Initial draft of Enhanced PIV proposal (rev 9.0).

2025-09-17 Major PIV Mode and SPE revisions.

2025-06-25 Added multi-AID usage and VCI support notes.

2025-05-27 New function code definitions for 2.3 biometric handling.

1 Introduction

This template keeps LaTeX styling in one place so that writers can focus on content. Edit this file with normal text. Use commands such as **bold** or italics if needed, but avoid layout tweaks.

- OSDP (Open Supervised Device Protocol) describes communication between control panels and peripheral devices. - This document demonstrates how to collect prose sections, CSV-driven tables, and reusable styling.

Each section lives in its own file under 'sections/'. Add more by copying this file and updating the heading.

2 Packet Format

The packet layout uses a structured table generated from a reusable snippet. Update the rows in ‘tables/packet-format.tex’; no LaTeX styling changes are required.

Table 1: Table 1 – Packet Format

Size (bytes)	Name	Meaning	Value
1	SOM	Start of Message. ¹	0x53
1	ADDR	Physical address of the PD. ² Broadcast accepted by all PDs. ³	0x00–0x7E 0x7F (broadcast)
1	LEN_LSB	Packet length least significant byte (includes header). ⁴	Any
1	LEN_MSB	Packet length most significant byte (includes header). ³	Any
1	CTRL	Message control information.	Refer to Table 2
1	SEC_BLK_LEN	Optional security control block length.	Any
1	SEC_BLK_TYPE	Optional security block type. ⁵	Refer to Table 3
1	SEC_BLK_DATA	Optional security block data.	Based on type
1	CMND/REPLY	Command or reply code. ⁶	Refer to Annex A
0–n	DATA	Optional data block.	Based on CMND/REPLY

The accompanying notes appear in Appendix A.

3 Changes to OSDP 2.2

This section captures modifications required to bring OSDP 2.2 peripherals and control panels into conformance with the Enhanced PIV proposal. Draft content is pending review of the 2025-10-28 proposal.

3.1 Updated Command Definitions

Table 2: Modified Commands

Size (bytes)	Name	Meaning	Value
–	osdp_COMMAND	Describe the change	Reference TBD

3.2 Updated Function Codes

Table 3: Modified Function Codes

Size (bytes)	Name	Meaning	Value
–	Function Code	Describe the change	Reference TBD

4 New Enhanced PIV Commands

This section introduces commands defined exclusively for the OSDP 2.3 Enhanced PIV profile. Draft rows will be populated from the proposal after review.

Table 4: New Commands

Size (bytes)	Name	Meaning	Value
–	osdp_NEWCOMMAND	Describe new behavior	Reference TBD

4.1 New Function Codes

Table 5: New Function Codes

Size (bytes)	Name	Meaning	Value
–	Function Code	Describe capability	Reference TBD

5 Sample Message Flows

This section will include worked examples illustrating multi-part messages, TLV configuration sequences, and biometric transactions. Populate the subsections based on the proposal's narrative and diagrams.

5.1 Example: CRAUTH Challenge

5.2 Example: PIV Mode Configuration

5.3 Example: SPE with Biometrics

A References

This section will list standards and documents referenced by the Enhanced PIV proposal, such as NIST SP 800-73, FIPS 201, and FICAM guidance. Populate after finalizing the proposal content.

- NIST SP 800-73 (PIV)
- FIPS 201 (Personal Identity Verification)
- OSDP Specification v2.2
- Additional references TBD

Appendix: Notes

1. Constant value 0x53.
2. Lower seven bits hold the PD address.
3. 0x7F is the broadcast address.
4. Total characters from SOM through checksum.
5. See Annex D for supported methods.
6. Refer to Annex A for command values.