

As of: April 4, 2025

Token Platform—Utilization and Variation Matrix

Attributes	Current Platforms				
Card Manufacturer	Giesecke & Devrient (Modernized Version of CAC PIV Endpoint)	Gemalto (Modernized Version of the CAC PIV Endpoint)	IDEMIA (Modernized Version of the CAC PIV Endpoint)	IDEMIA (DoD Alternate Token)	Giesecke & Devrient (DoD Alternate Token)
Type of Card	CAC	CAC	CAC	Alternate Token	Alternate Token
Product Name	G+D Sm@rtCafe Expert v7.0 144K DI	Gemalto TOP DL V2.1 144K FIPS	IDEMIA ID-one 125 V8.0D	IDEMIA Cosmo V8.0	G+D Sm@rtCafe Expert v7.0 144K DI
Laser Engraving on back of card	G+D FIPS 201 SCE 7.0	Gemalto TOP DL V2.1 144K	IDEMIA Cosmo V8.0	IDEMIA Cosmo V8.0	G+D FIPS 201 SCE 7.0
Communication	T=0/T=CL	T=0/T=CL	T=0/T=CL	T=1	T=1
Chip Size (ROM/EEPROM)	144k	144k	128k	128k	144k
Answer to Reset (ATR)	3B F9 18 00 00 00 53 43 45 37 20 03 00 20 46	3B 7D 96 00 00 80 31 80 65 B0 75 49 17 0F 83 00 90 00	3B D8 18 00 80 1F 07 80 31 C1 64 08 06 92 0F DF	3B D8 18 00 80 B1 FE 45 1F 07 80 31 C1 64 08 06 92 0F D5 (Corrected October 2019)	3B F9 96 00 00 80 31 FE 45 53 43 45 37 20 0F 00 20 46 4E
CAC Applet Package	V2.7.5 Applets (supports existing capabilities and reduce/realign certificate and add asymmetric card authentication certificate (aCAK) for physical security)	V2.7.4 Applets (supports existing capabilities and reduce/realign certificate and add asymmetric card authentication certificate (aCAK) for physical security)	V2.7.4 Applets (supports existing capabilities and reduce/realign certificate and add asymmetric card authentication certificate (aCAK) for physical security)	V2.7.4 Applets	V2.7.5 Applets
Other features*	Dual interface RSA EE 2048 with SHA256	Dual interface RSA EE 2048 with SHA256	Dual interface RSA EE 2048 with SHA256	Dual interface RSA EE 2048 with SHA256	Dual interface RSA EE 2048 with SHA256
Operational Intro Date	August 2020	November 2020	~March 2022	February 2018	~March 2022
Operational Sunset Date	TBD	TBD	TBD	TBD	TBD
Expiration of last card issued	TBD	TBD	TBD	TBD	TBD

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Attributes	Obsolete Platforms						
Card Manufacturer	Oberthur Card Systems (OCS) -Original Pilot CAC	Schlumberger (Axalto) CAC	Oberthur Card System CAC	Axalto CAC	Gemplus CAC	Axalto CAC	Oberthur Card Systems (contactless CAC pilot)
Type of Card	CAC	CAC	CAC	CAC	CAC	CAC	CAC
Product Name	Galactic v1 32K	Cyberflex 32k v2 card with Softmask 7 Version 2	CosmopolIC v4 32K	Axalto Cyberflex Access 64k v1 soft mask 4 version 1	GemXpresso (GXP) PRO 64 K	Axalto Cyberflex Access 64k v1 soft mask 4 version 2	ID-One Cosmo v5.2D 64K
Laser Engraving on back of card	OCS Gal 2.1	Schlumberger Access 32K V2	Oberthur CosmopolIC v4	Axalto Access 64KV2	Gemplus GXP3 64V2N	Axalto Access 64KV2	Oberthur C.S. Cosmo64 V5.2D
Communication	T=0	T=0	T=0	T=0	T=0	T=0	T=0/T=CL
Chip Size (EEPROM)	32K	32K	32K	64K	64K	64K	64K
Answer to Reset (ATR)	3B 7D 11 0000 00 31 80 71 8E 64 86D60200 82 9000	3b6500009c02 020702	3B 7F 11 0000 00 31 C0 53 CAC401 64 52D90400 82 9000	3B7512000029 05010401	3B6B00008065B 0830104748300 9000	3B75120000290 5010401	3B DB 96 00 80 1F 03 00 31 C0 64 77E30300 82 9000 C1
CAC Applet Package	V1 Applets	V1 Applets	V1 Applets	V2.3	V2.3 and V2.3.0c Applets	V2.3.0c Applets	V2.6.1 Applets
Other features*	Contact only RSA EE 1024 with SHA1	Contact only RSA EE 1024 with SHA1	Contact only RSA EE 1024 with SHA1	Contact Only RSA EE 1024 with SHA1	Contact only RSA EE 1024 with SHA 1	Contact only RSA EE 1024 with SHA1	Dual interface RSA EE 1024 with SHA1
Operational Intro Date	Fall 2000	N/A	N/A	April 2005	N/A	N/A	May 2006
Operational Sunset Date	Spring 2004	End of Spring 2005	End of Spring 2005	Q1 CY 2007	Q1 CY 2007	Q1 CY 2007	Q2 CY 2007
Expiration of last card issued	End of Spring 2008	End of Spring 2008	End of Spring 2008	Q1 CY 2010	Q1 CY 2010	Q1 CY 2010	Q2 CY 2010

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Attributes	Obsolete Platforms (Continue)					
Card Manufacturer	Oberthur Card Systems CAC	Gemalto CAC	Oberthur Card Systems (CAC PIV Transitional)	Gemalto (CAC PIV Transitional)	Oberthur Card Systems (CAC PIV Endpoint) with PIV endpoint applet and PIV auth cert	Gemalto (CAC PIV Endpoint) with PIV endpoint applet and PIV auth cert
Type of Card	CAC	CAC	CAC	CAC	CAC	CAC
Product Name	ID-One Cosmo v5.2 72K	Cyberflex Access v2c 64K	ID-One Cosmo v5.2D 72K	Gemalto GemCombiXpresso R4 dual interface	ID-One Cosmo v5.2D 72K	Gemalto GemCombiXpresso R4 dual interface
Laser Engraving on back of card	Oberthur ID One V5.2	Gemalto Access 64KV2	Oberthur ID One V5.2 Dual	Gemalto GCX4 72K DI	Oberthur ID One V5.2 Dual	Gemalto GCX4 72K DI
Communication	T=0/T=CL	T=0/T=CL	T=0/T=CL	T=0/T=CL	T=0/T=CL	T=0/T=CL
Chip Size (ROM/EEPROM)	72K	64K	72K	72K	72K	72K
Answer to Reset (ATR)	3B DB 96 00 80 1F 03 00 31 C0 64 77E30300 82 9000 C1	3B959540FFAE01 030000	3B DB 96 00 80 1F 03 00 31 C0 64 77E30300 82 9000 C1	3B 7D 96 00 00 80 31 80 65 B0 83 11 13 AC 83 00 90 00	3B DB 96 00 80 1F 03 00 31 C0 64 77E30300 82 9000 C1	3B 7D 96 00 00 80 31 80 65 B0 83 11 13 AC 83 00 90 00
CAC Applet Package	V2.6.1 Applets	V2.6.1 Applets	V2.6.2 Applets	V2.6.2 Applets	V2.6.2 Applets	V2.6.2 Applets
Other features*	Contact only RSA EE 1024 with SHA 1	Contact only RSA EE 1024 with SHA1	Dual interface RSA EE 1024 with SHA1	Dual interface RSA EE 1024 with SHA1	Dual interface RSA EE 1024 with SHA1	Dual interface RSA EE 1024 with SHA1
Operational Intro Date	January 2007	February 2007	October 2006/ March 2007	June 2008	June 2008	June 2008
Operational Sunset Date	July 2010	September 2010	September 2008	September 2008	February 2011	February 2011
Expiration of last card issued	January 2013 ¹	January 2013 ¹	September 2011	September 2011	January 2013 ¹	January 2013 ¹

¹ Based on USCYBERCOM FRAGO 01-2012, all cards carrying RSA 1024 key size are not accepted within DOD as of 1 January 2013.

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Attributes	Obsolete Platforms (Continue)					
Card Manufacturer	Gemalto (CAC PIV Endpoint)	Oberthur Card System (CAC PIV Endpoint)	Giesecke & Devrient (CAC PIV Endpoint)	Gemalto (CAC PIV Endpoint)	Oberthur Card System (CAC PIV Endpoint)	Giesecke & Devrient (CAC PIV Endpoint)
Type of Card	CAC	CAC	CAC	CAC	CAC	CAC
Product Name	Gemalto TOP DL GX4 144K	Oberthur ID-One Cosmo 128 v5.5 for DoD CAC	G&D Sm@rtCafe Expert v3.2	Gemalto TOP DL GX4 144K	Oberthur ID-One Cosmo 128 v5.5 for DoD CAC	G&D Sm@rtCafe Expert v3.2
Laser Engraving on back of card	Gemalto TOP DL GX4 144K	Oberthur ID One 128 v5.5 Dual	G&D FIPS 201 SCE 3.2	Gemalto TOP DL GX4 144K	Oberthur ID One 128 v5.5 Dual	G&D FIPS 201 SCE 3.2
Communication	T=0/T=CL	T=0/T=CL	T=0/T=CL	T=0/T=CL	T=0/T=CL	T=0/T=CL
Chip Size (ROM/EEPROM)	144K	128K	144K	144K	128K	144K
Answer to Reset (ATR)	3B 7D 96 00 00 80 31 80 65 B0 83 11 17 D6 83 00 90 00 (Updated March 2009)	3B DB 96 00 80 1F 03 00 31 C0 64 B0 F3 10 00 07 9000 80	3B 7A 18 00 00 73 66 74 65 20 63 64 31 34 34	3B 7D 96 00 00 80 31 80 65 B0 83 11 17 D6 83 00 90 00	3B DB 96 00 80 1F 03 00 31 C0 64 B0 F3 10 00 07 9000 80	3B 7A 18 00 00 73 66 74 65 20 63 64 31 34 34
CAC Applet Package	V2.6.2b Applets	V2.6.2b Applets	V2.6.2b Applets	V2.6.2b Applets	V2.6.2b Applets	V2.6.2b Applets
Other features*	Dual interface RSA EE 2048 with SHA1	Dual interface RSA EE 2048 with SHA1	Dual interface RSA EE 2048 with SHA1	Dual interface RSA EE 2048 with SHA256	Dual interface RSA EE 2048 with SHA256	Dual interface RSA EE 2048 with SHA256
Operational Intro Date	July/August 2009	September/October 2010	August 2013	June 2016	June 2016	June 2016
Operational Sunset Date	June 2016	June 2016	June 2016	January 2020	January 2020	January 2020
Expiration of last card issued	June 2019	June 2019	June 2019	January 2023	January 2021	January 2023

Attributes	Obsolete Platforms (Continue)
Card Manufacturer	Giesecke & Devrient (CAC PIV Endpoint— Stop GAP)
Type of Card	CAC
Product Name	G+D Sm@rtCafe Expert v7.0
Laser Engraving on back of card	G+D FIPS 201 SCE 7.0
Communication	T=0/T=CL
Chip Size (ROM/EEPROM)	144k
Answer to Reset (ATR)	3B F9 18 00 00 00 53 43 45 37 20 03 00 20 46
CAC Applet Package	V2.7.5 Applets (with 2.6.2.b applet capabilities only)
Other features*	Dual interface RSA EE 2048 with SHA256
Operational Intro Date	November 2019
Operational Sunset Date	February 2021
Expiration of last card issued	February 2024