

## CSfC Selections for File Encryption Applications

File Encryption software application products used in CSfC solutions shall be validated by NIAP/CCEVS or CCRA partnering schemes as complying with the current requirements of NIAP's Protection Profile for Application Software (ASPP) as well as the ASPP Extended Package: File Encryption. This validated compliance shall include the selectable requirements contained in this document.

### CSfC selections for ASPP evaluations:

FCS\_RBG\_EXT.2.2 The deterministic RBG shall be seeded by an entropy source that accumulates entropy from a platform-based DRBG and [selection: a software-based noise source, no other noise source] with a minimum of [256 bits] of entropy at least equal to the greatest security strength (according to NIST SP 800-57) of the keys and hashes that it will generate.

### FCS\_COP.1.1(1)

The application shall perform encryption/decryption in accordance with a specified cryptographic algorithm

- AES-CBC (as defined in NIST SP 800-38A) mode;

and [selection:

*AES-GCM (as defined in NIST SP 800-38D),  
no other modes*

] and cryptographic key sizes 128-bit key sizes and [256-bit key sizes] .

**CSfC selections for ASPP Extended Package: File Encryption evaluations:**

FCS\_CKM\_EXT.2.1 The TSF shall generate FEK cryptographic keys  
[selection:

using a Random Bit Generator as specified in FCS\_RBG\_EXT.1 (from the AS PP) and with entropy  
corresponding to the security strength of AES key sizes of [256 bit];

conditioned from a password/passphrase as defined in FCS\_CKM.1(A)  
]

FCS\_COP.1.1(1) **Refinement:** The application shall [selection: implement platform-provided AES  
encryption, implement AES encryption] shall perform **data encryption and decryption** in accordance  
with a specified cryptographic algorithm **AES used in**  
[selection:

CBC (as defined in NIST SP 800-38A);

XTS (as defined in NIST SP 800-38E)]

**mode** and cryptographic key sizes[256 bits].

FCS\_CKM.1.1(A) **Refinement:** A password/passphrase used to generate a password authorization factor  
shall enable up to [assignment: *positive integer of 64 or more*] characters in the set of {upper case  
characters, lower case characters, numbers, and the following special characters: "!", "@", "#", "\$", "%",  
"&", "\*", "(", and ")"}, and [assignment: *other supported special characters*] and shall perform  
[**Password-based Key Derivation Functions**] in accordance with a specified cryptographic algorithm  
[**HMAC-[selection: SHA-256, SHA-384, SHA-512]**], with [assignment: *positive integer of 4096 or more*]  
iterations, and output cryptographic key sizes [256] that meet the following: [**NIST SP 800-132**].

FCS\_CKM\_EXT.1.2 All KEKs shall be [256-bit] keys corresponding to at least the security strength of the  
keys encrypted by the KEK.