Keeping it Valid: Maintenance of FIPS 140-2 Validated Modules

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Secure Product, Secure Brand, Secure Bottom Line

FIPS 140-2 Validation Cycle

Modules In-validation

- Implementation Under Test (IUT) List
- Modules In Process (MIP) List

Modules Validated

- Active Validation List (Sunset period - 5 years)
- Historical Validation List

Modules Validation Maintenance

- 1SUB, 1A, 1B, 2SUB, 3SUB, 4SUB, and 5SUB

FIPS 140-2 IUT and MIP Lists

CMVP FIPS 140-2 Implementation Under Test (IUT) List

- Vendor establishes a contract with an accredited laboratory
- CMVP does not have detailed information about the crypto module

CMVP FIPS 140-2 Modules In Process (MIP) List

- **Review Pending:** Lab submits test report to NIST and CSE
- **In Review:** NIST and CSE assign reviewers
- **Coordination:** Coordination between NIST and CSE, and laboratory
- **Finalization:** Finalization and certificate issuance

FIPS 140-2 Validation Lists

Validated FIPS 140-1 and FIPS 140-2 Cryptographic Modules List

- Validation complete and certificate issued
- Five year validation sunsetting policy, **effective February 1, 2017**

CMVP Historical Validation List

- Modules that have been validated five years ago but not have been updated to reflect latest guidance and/or transitions
- Modules that includes retired RNG implementations, effective **January 1, 2016**

Corsec FIPS 140-2 Validation Maintenance Options

1SUB (Change Letter)	• Non-FIPS-relevant module changes • Re-branding of an unchanged OEM module
2SUB	• Extending the certificates sunset date
3SUB (Revalidation)	• Changes affecting less than 30% of the module’s FIPS-relevant features
4SUB	• Changes were made to the module's physical enclosure only
5SUB (Full Validation)	• Changes affecting 30% or more of the module’s FIPS-relevant features

1SUB

1SUB – Scenario 1

- Administrative updates
- **Modifications to HW/SW/FW without affecting FIPS-relevant features**
- Post validation, approved security functions for which testing was not available at the time of validation, or approved security functions that were not tested but submitted for inclusion

Active/Historical Lists	Active/Historical (only administrative updates)
Retesting	Yes (if adding previously untested approved security functions)
Regression Testing	No
New Certificate	No
Sunset Date	Unchanged
Security Policy	Updated (only if modifications occur)

1SUB – Alternative Scenario 1A

- Re-branding of an unchanged OEM Module

Active/Historical Lists	Active only
Retesting	No
Regression Testing	No
New Certificate	Yes (*This validation entry is rebranding from Cert. #nnnn*)
Sunset Date	Unchanged
Security Policy	Updated

1B

1SUB – Alternative Scenario 1B

- Scenario 1 revalidation for which the laboratory (different from laboratory contracted for original validation) did not perform the testing on the module

Active/Historical Lists	Active only
Retesting	May be (at lab's discretion)
Regression Testing	No
New Certificate	Yes with new laboratory's NVLAP code (*This validation entry is a non-security-relevant-modification to Cert. #nnnn*)
Sunset Date	Unchanged
Security Policy	Updated (only if modifications occur)

2SUB – For extending certificate's sunset date

- Module has not changed
- Module meets ALL the standards, IG and CAVP requirements at the time the module revalidation package is submitted to CMVP

Active/Historical Lists	Active only
Retesting	No
Regression Testing	No
New Certificate	Yes
Sunset Date	Changed (Extended)
Security Policy	No updates

3SUB – When changes affect <30% of FIPS-relevant features

- Modifications to HW/SW/FW that affect less than 30% of FIPS-relevant features
- Must meet ALL the standards, IG and CAVP requirements at the time module revalidation package is submitted to CMVP

Active/Historical Lists	Active/Historical (for up to 2 years after the sunset date)
Retesting	Yes
Regression Testing	Yes
New Certificate	Yes
Sunset Date	Changed (sunset date 5 years from the validation date)
Security Policy	Updated

4SUB – When changes affect module’s physical enclosure only

- Typically applies to modules meeting FIPS level 2 or higher physical security requirements
- **Involves no operational changes**

Active/Historical Lists	Active only
Retesting	Yes (fully test the physical security features)
Regression Testing	No
New Certificate	No
Sunset Date	Unchanged
Security Policy	Updated

5SUB – When changes affect >30% of FIPS-relevant features

- Modifications to HW/SW/FW that affect more than 30% of FIPS-relevant features
- Must meet ALL the standards, IG and CAVP requirements at the time module revalidation package is submitted to CMVP

Active/Historical Lists	Active only
Retesting	Yes (Full Testing)
Regression Testing	No
New Certificate	Yes
Sunset Date	Changed (sunset date 5 years from the validation date)
Security Policy	Updated

Summary

Must meet ALL the standards, IG and CAVP requirements

- At the time of original submission – 1, 1A, 1B, and 4
- At the time module is submitted to CMVP – 2, 3 and 5

Active List	• 1, 1A, 1B, 2, 3, 4 and 5
Historical List	• 1 (administrative updates) • 3 (for up to 2 years after the sunset date)
Retesting	• 1 (if adding previously untested approved security functions) • 1B (at lab's discretion) • 3, 4 and 5
Regression Testing	• 3
New Certificate	• 1A, 1B, 2, 3 and 5
Sunset Date Inherited	• 1, 1A, 1B and 4
Sunset Date Changed	• 2, 3 and 5 (5 years from the validation date)

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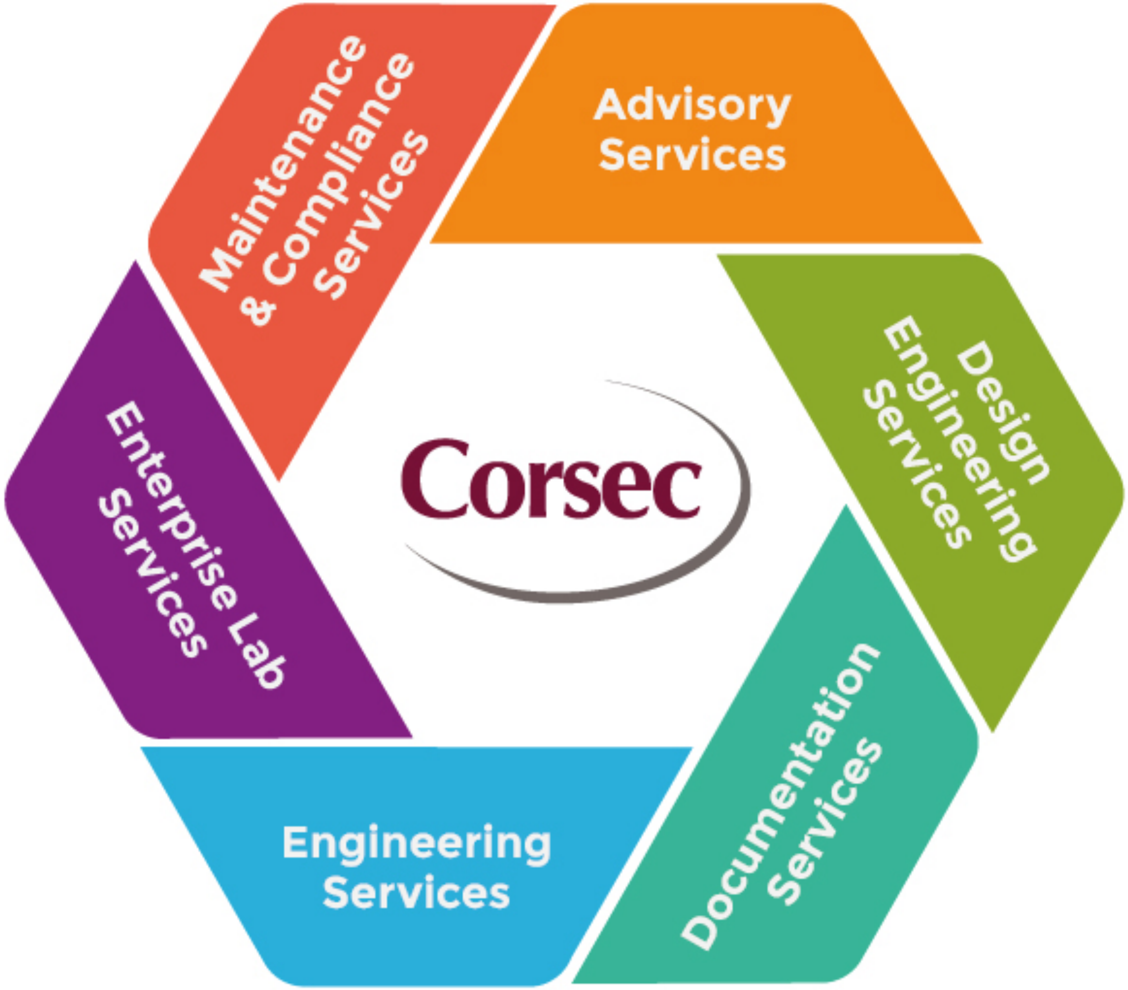

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