

Key Management Requirements Annex v3.0.0 Requirements Mapping to NIST SP 800-53 Security Controls

Most of the requirements in the Key Management Requirements Annex support the implementation of the security controls specified in the National Institute of Standards and Technology (NIST) Special Publication 800-53 Revision 5 (NIST SP 800-53). This appendix is provided for customers who must demonstrate implementation of a set of NIST SP 800-53 security controls as part of their Risk Management Framework (RMF) (formerly known as Certification and Accreditation (C&A)) process for a system incorporating a CSfC solution that complies with this Annex.

Note that the presence of a mapping between a CP or Annex requirement and a NIST SP 800-53 security control does not necessarily indicate that the CP or Annex requirement by itself is sufficient to satisfy the security control. Instead, a mapping indicates that the CP or Annex requirement provides some degree of support to the application of the security control. Additional work outside the scope of this Annex may be required to effectively implement the security control on the target system. The security controls mapping for NIST SP 800-53 does not represent a High-Water Mark (HWM) since that concept does not apply to National Security Systems (NSS).

Table 1 – Key Management Requirements Annex v2.1 Requirements Mapping to NIST SP 800-53 Security Controls

Annex v3.0.0 Requirement	NIST SP 800-53 Revision 5 Security Controls
PRODUCT SELECTION REQUIREMENTS	
KM-PS-1	SA-4 (6) (7), SR-3, SR-4, SR-5, SR-6, SR-7, SR-8, SR-10, SR-11
KM-PS-2	SC-29
KM-PS-3	SC-12, SC-17
KM-PS-4	SC-12, SC-13, SC17, IA-5(2)
KM-PS-5	SC-17, IA-5
KM-PS-6	SC-17, IA-5
KM-PS-7	SC-17, IA-5
KM-PS-8	SC-17, IA-5
PKI GENERAL REQUIREMENTS	
KM-1	CA-6, IA-5 (6)
KM-2	SC-7, SC-32, CM-6
KM-3	SC-7, SC-32, CM-6
KM-4	SC-7 (21), SC-32, CM-7
KM-5	AC-17, IA-3, IA-5, SC-13
KM-6	AC-17, IA-3, IA-5, CM-7, IA-5(2)
KM-7	AC-3, SC-12
KM-8	AC-17, IA-3, IA-5(2), SC-8, SC-17
KM-9	CA-6, IA-5 (6)
KM-10	SC-12, SC-13, SC-17

Annex v3.0.0		NIST SP 800-53 Revision 5 Security Controls	
Requirement			
KM-11		SC-12	
KM-12		SC-12, SC-13, SC-28	
KM-13		IA-5(2), SC-17	
KM-14		SI-3	
KM-15		SC-12, SC-13, AC-3(2)	
KM-16		AC-4, RA-2, SC-7, CA-6	
KM-17		CM-6, SC-7, SC-32	
KM-18		CM-6, SC-7, SC-32	
KM-19		Withdrawn	
KM-20		AC-4	
KM-21		AC-4	
KM-22		IA-5, SC-12, SC-17	
KM-23		IA-5, AC-4, RA-2, SC-7, CA-6, SC-32	
KM-24		IA-5, AC-4, SC-12, SC-17	
KM-25		RA-2, AC-4, CA-6	
KM-26		IA-5, SC-12, SC-17	
CERTIFICATE ISSUANCE REQUIREMENTS			
KM-CI-1		IA-5, PE-4, SC-12, SC-17	
KM-CI-2		IA-5, SC-12	
KM-CI-3		IA-5, SC-12, SC-17	
KM-CI-4		IA-5, SC-12, SC-13, SC-17, SC-28, AC-4	
KM-CI-5		IA-5, SC-12, SC-13	
KM-CI-6		IA-5, SC-12, SC-17	
KM-CI-7		Withdrawn	
KM-CI-8		AC-3, AC-6, IA-5, SC-12, SC-17	
KM-CI-9		IA-5, SC-12, SC-17	
KM-CI-10		IA-5, SC-12, SC-17	
KM-CI-11		IA-5, SC-12, SC-17	
KM-CI-12		IA-5, SC-12, SC-17	
KM-CI-13		IA-5, SC-12, SC-17	
KM-CI-14		IA-5, SC-12, SC-17	
KM-CI-15		IA-5, SC-12, SC-17	
KM-CI-16		Withdrawn	
KM-CI-17		IA-3 (1)	
KM-CI-18		IA-5, SC-12, SC-17	
KM-CI-19		IA-5, SC-12, SC-17	
KM-CI-20		Withdrawn	
KM-CI-21		AC-3, AC-6, AT-3, IA-2, IA-3, IA-4, IA-5, SC-12, SC-17	
KM-CI-22		AC-3, AC-6, IA-2, IA-3, IA-4, IA-5, SC-12, SC-17	

Requirement	
KM-CI-23	withdrawn
KM-CI-24	withdrawn
KM-CI-25	IA-5, SC-12, SC-17
CERTIFICATE REKEY REQUIREMENTS	
KM-RK-1	IA-5, SC-12, SC-17
KM-RK-2	IA-5, SC-12, SC-17
KM-RK-3	IA-5, SC-12, SC-17
KM-RK-4	IA-5, SC-12, SC-13, SC-17
KM-RK-5	IA-5, SC-12, SC-13, SC-17

CERTIFICATE REVOCATION AND CDP REQUIREMENTS	
KM-CR-1	IA-5, SC-12, SC-17
KM-CR-2	IA-5, SC-12, SC-17
KM-CR-3	IA-5, SC-12, SC-17
KM-CR-4	IA-5, SC-12, SC-17
KM-CR-5	IA-5, SC-12, SC-17
KM-CR-6	IA-5, SC-12, SC-17
KM-CR-7	IA-5, SC-12, SC-17
KM-CR-8	IA-5, SC-12, SC-17
KM-CR-9	IA-5, SC-12, SC-17
KM-CR-10	IA-5, SC-12, SC-17
KM-CR-11	IA-5, SC-12, SC-17
KM-CR-12	IA-5, SC-12, SC-17
KM-CR-13	IA-5, SC-12, SC-17
KM-CR-14	IA-5, SC-12, SC-17
KM-CR-15	Withdrawn
KM-CR-16	IA-5, SC-12, SC-17
KM-CR-17	IA-5, SC-12, SC-17
KM-CR-18	IA-5, SC-12, SC-17
KM-CR-19	IA-5, SC-12, SC-17
KM-CR-20	IA-5, SC-12, SC-17
KM-CR-21	CM-6, CM-7, IA-5, SC-12, SC-17
KM-CR-22	IA-5, SC-12, SC-17
KM-CR-23	IA-5, SC-12, SC-17
KM-CR-24	IA-5, SC-12, SC-17
KM-CR-25	IA-5, SC-12, SC-17
KM-CR-26	Withdrawn
KM-CR-27	CM-6, CM-7, IA-5, SC-12, SC-17
KM-CR-28	AC-4, AC-6, CM-6, CM-7, IA-5, SC-12, SC-17
KM-CR-29	IA-5, SC-12, SC-17
Annex v3.0.0	NIST SP 800-53 Revision 5 Security Controls

Requirement	
KM-CR-30	IA-5, SC-12, SC-17
KM-CR-31	CM-6, CM-7, IA-5, SC-12, SC-17
WIRELESS PASSWORD REQUIREMENTS	
MA-KM-1	IA-5, SC-12, SC-13
MA-KM-2	IA-5, SC-12, SC-13
MA-KM-3	IA-5, SC-12, SC-13
MA-KM-4	IA-5, SC-12, SC-13
MA-KM-5	IA-5, SC-12, SC-13
MA-KM-6	IA-5, SC-12, SC-13
CAMPUS WLAN CP KEY MANAGEMENT REQUIREMENTS	
WLAN-KM-1	SC-12, SC-17
WLAN-KM-2	SC-12, SC-17
MACSEC KEY MANAGEMENT REQUIREMENT	
MSC-KM-1	IA-5, SC-12, SC-13
ENTERPRISE GRAY KEY MANAGEMENT REQUIREMENTS	
EG-KM-1	AC-4, IA-5, SC-12, SC-17
EG-KM-2	AC-4, IA-5, SC-12, SC-17
EG-KM-3	AC-4, IA-5, SC-12, SC-17
EG-KM-4	AC-4, IA-5, SC-12, SC-17
ROLE-BASED PERSONNEL REQUIREMENTS	
KM-RB-1	AC-1, PS-1
KM-RB-2	AC-5
KM-RB-3	AT-3
KM-RB-4	AC-5
KM-RB-5	IA-5, SC-12, SC-17
KM-RB-6	AC-5
KM-RB-7	AC-3(3), AC-5, IA-5, SC-12
KM-RB-8	AC-3, AC-4, AC-5
SOLUTION TESTING	
KM-TR-1	SI-11, CP4, CP9, IR3, CM3(02), AU6, CA7