TEST SPECIFICATION

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General guidelines followed:

1. Test name: <Component>_<Feature>_< Test case Objective Testcase>
2. Use this template to describe new test cases.

Test case description template:

Test case		Test case Objective	
Component	Rnpkeys	Test Case Name	
Feature	Generate-key		
Short Description:			

Precondition
1. Initialize RNP 2. Set the default value for sshkeydir, res, format, hash via rnp_setvar().

Testing Step	Expected behavior
1. Set the userId via rnp_setvar() 2. Call the API to generate key (rnp_generate_key)	It is expected that the key is generated using the options set via rnp_setvar()

Verification Step	Verification logic
1. Load the newly generated RNP keys	1.

Comments (if any)

Test case	1	Test case Objective	VerifySupportedHashAlg
Component	Rnpkeys	Test Case Name	rnpkeys_generatekey_verifySupportedHashAlg
Feature	Generate-key		
Short Description:	The test aims to test key generation with all possible hash algorithm. Following hash algorithm are tested for the key generation. "MD5", "SHA-1", "RIPEMD160", "SHA256", "SHA384", "SHA512", "SHA224"		

Precondition
3. Initialize RNP 4. Set the default value for sshkeydir, res format via rnp_setvar().

Testing Step	Expected behavior
3. Set the hash algorithm via rnp_setvar() 4. Call the API to generate key (rnp_generate_key)	It is expected that the key is generated using the options set via rnp_setvar()

Verification Step	Verification logic
2. Load the newly generated RNP keys 3. Find the existence of the key via finding the key with the userId. Note: If userid variable is not set, default is always.	2. This ensures the keys are loaded in the rnp control structure for verification. 3. Ensures the key exist by finding it.

Comments (if any)
1. It is required to delete the old keys if the test case iterates over the hashing algorithm.

Test case	2	Test case Objective	VerifyUserIdOption
Component	Rnpkeys	Test Case Name	rnpkeys_generatekey_verifyUserIdOption
Feature	Generate-key		
Short Description:	The test aims to test key generation with commandline options UserId. Following different userid are tested. • Rnpkeys_Generatekey_VerifyUserIdOption _MD5", • " Rnpkeys_Generatekey_VerifyUserIdOption _SHA-1", • " Rnpkeys_Generatekey_VerifyUserIdOption _RIPEMD160", • " Rnpkeys_Generatekey_VerifyUserIdOption _SHA256", • " Rnpkeys_Generatekey_VerifyUserIdOption _SHA384", • " Rnpkeys_Generatekey_VerifyUserIdOption _SHA512", • " Rnpkeys_Generatekey_VerifyUserIdOption _SHA224"		

Precondition
1. Initialize RNP 2. Set the default value for sshkeydir, res, format, hash via rnp_setvar().

Testing Step	Expected behavior
1. Set the userId via rnp_setvar() 2. Call the API to generate key (rnp_generate_key)	It is expected that the key is generated using the options set via rnp_setvar()

Verification Step	Verification logic
1. Load the newly generated RNP keys 2. Find the existence of the key via finding the key with the userId.	1. This ensures the keys are loaded in the rnp control structure for verification. 2. Ensures the key exist by finding it.

Comments (if any)

Test case	3	Test case Objective	VerifykeyRingOptions
Component	Rnpkeys	Test Case Name	rnpkeys_generatekey_verifykeyRingOptions
Feature	Generate-key		
Short Description:	The test aims to test key generation with the user specified keyring.		

Precondition
1. Initialize RNP 2. Set the default value for sshkeydir, res, format, hash via rnp_setvar().

Testing Step	Expected behavior
1. Set the keyring via rnp_setvar() 2. Call the API to generate key (rnp_generate_key) 3.	It is expected that the key is generated using the options set via rnp_setvar()

Verification Step	Verification logic
1. Delete the default keyring i.e. pubring.gpg and secring.gpg found in the homedir 2. Load the newly generated RNP keys 3. Find the existence of the key.	1. To ensure that default keyring is NOT available. 2. Ensure RNP loads the new keyring as specified by the options. 3. Ensure the keys were successfully written in the keyring.

Comments (if any)

Test case	4	Test case Objective	VerifykeyHomeDirOption
Component	Rnpkeys	Test Case Name	rnpkeys_generatekey_verifykeyHomeDirOption
Feature	Generate-key		
Short Description:			

Precondition
1. Create new home dir with read/write permissions. 2. Delete the keys (if any) in the previous default directory. 3. Set the default value for sshkeydir, res, format, hash via rnp_setvar(). 4. Initialize RNP

Testing Step	Expected behavior
1. Call the API to generate key (rnp_generate_key)	It is expected that the key is generated using the options set via rnp_setvar()

Verification Step	Verification logic
1. Load the newly generated RNP keys 2. Find the newly generated key using default userid.	1. This loads the new keys in the RNP 2. Successful execution of the find ensures the key was generated and added to the default keyring.

Comments (if any)