**Router1**

**3des-md5**

access-list 100 permit ip 192.168.1.1 0.0.0.255 192.168.2.2 0.0.0.255

crypto isakmp enable

crypto isakmp policy 10

authentication pre-share

encryption 3des

hash md5

group 5

lifetime 3600

exit

crypto isakmp key 0 2244 address 25.0.0.2

crypto ipsec transform-set NASIR\_SET esp-md5-hmac esp-3des

exit

crypto ipsec security-association lifetime seconds 3590

crypto map CRMAP 10 ipsec-isakmp

match address 100

set peer 25.0.0.2

set transform-set NASIR\_SET

exit

int s1/0

crypto map CRMAP

exit

exit

wr

wr

**3des-sha**

access-list 100 permit ip 192.168.1.1 0.0.0.255 192.168.2.2 0.0.0.255

crypto isakmp enable

crypto isakmp policy 10

authentication pre-share

encryption 3des

hash sha

group 5

lifetime 3600

exit

crypto isakmp key 0 2244 address 25.0.0.2

crypto ipsec transform-set NASIR\_SET esp-sha-hmac esp-3des

exit

crypto ipsec security-association lifetime seconds 3590

crypto map CRMAP 10 ipsec-isakmp

match address 100

set peer 25.0.0.2

set transform-set NASIR\_SET

exit

int s1/0

crypto map CRMAP

exit

exit

wr

wr

**des-md5**

access-list 100 permit ip 192.168.1.1 0.0.0.255 192.168.2.2 0.0.0.255

crypto isakmp enable

crypto isakmp policy 10

authentication pre-share

encryption des

hash md5

group 5

lifetime 3600

exit

crypto isakmp key 0 2244 address 25.0.0.2

crypto ipsec transform-set NASIR\_SET esp-md5-hmac esp-des

exit

crypto ipsec security-association lifetime seconds 3590

crypto map CRMAP 10 ipsec-isakmp

match address 100

set peer 25.0.0.2

set transform-set NASIR\_SET

exit

int s1/0

crypto map CRMAP

exit

exit

wr

wr

**AES -MD5**

access-list 101 permit ip 192.168.1.1 0.0.0.255 192.168.2.2 0.0.0.255

crypto isakmp enable

crypto isakmp policy 11

authentication pre-share

encryption aes 256

hash md5

group 5

lifetime 3600

exit

crypto isakmp key asdfg address 25.0.0.2

crypto ipsec transform-set NASIR\_SET esp-aes 256 ah-md5-hmac

exit

crypto ipsec security-association lifetime seconds 3590

crypto map CRMAP 11 ipsec-isakmp

match address 101

set peer 25.0.0.2

set transform-set NASIR\_SET

exit

int s1/0

crypto map CRMAP

exit

exit

wr

wr

**aes-sha**

access-list 100 permit ip 192.168.1.1 0.0.0.255 192.168.2.2 0.0.0.255

crypto isakmp enable

crypto isakmp policy 10

authentication pre-share

encryption aes 256

hash sha

group 5

lifetime 3600

exit

crypto isakmp key 0 2244 address 25.0.0.2

crypto ipsec transform-set NASIR\_SET esp-aes 256 ah-sha-hmac

exit

crypto ipsec security-association lifetime seconds 3590

crypto map CRMAP 10 ipsec-isakmp

match address 100

set peer 25.0.0.2

set transform-set NASIR\_SET

exit

int s1/0

crypto map CRMAP

exit

exit

wr

wr

**des-sha**

access-list 100 permit ip 192.168.1.1 0.0.0.255 192.168.2.2 0.0.0.255

crypto isakmp enable

crypto isakmp policy 10

authentication pre-share

encryption des

hash sha

group 5

lifetime 3600

exit

crypto isakmp key 0 2244 address 25.0.0.2

crypto ipsec transform-set NASIR\_SET esp-sha-hmac esp-des

exit

crypto ipsec security-association lifetime seconds 3590

crypto map CRMAP 10 ipsec-isakmp

match address 100

set peer 25.0.0.2

set transform-set NASIR\_SET

exit

int s1/0

crypto map CRMAP

exit

exit

wr

wr

Router2

**3des-md5**

access-list 100 permit ip 192.168.2.2 0.0.0.255 192.168.1.1 0.0.0.255

crypto isakmp enable

crypto isakmp policy 10

authentication pre-share

encryption 3des

hash md5

group 5

lifetime 3600

exit

crypto isakmp key 0 2244 address 15.0.0.1

crypto ipsec transform-set NASIR\_SET esp-md5-hmac esp-3des

exit

crypto ipsec security-association lifetime seconds 3590

crypto map CRMAP 10 ipsec-isakmp

match address 100

set peer 15.0.0.1

set transform-set NASIR\_SET

exit

int s1/1

crypto map CRMAP

exit

exit

wr

wr

**3des-sha**

access-list 100 permit ip 192.168.2.2 0.0.0.255 192.168.1.1 0.0.0.255

crypto isakmp enable

crypto isakmp policy 10

authentication pre-share

encryption 3des

hash sha

group 5

lifetime 3600

exit

crypto isakmp key 0 2244 address 15.0.0.1

crypto ipsec transform-set NASIR\_SET esp-sha-hmac esp-3des

exit

crypto ipsec security-association lifetime seconds 3590

crypto map CRMAP 10 ipsec-isakmp

match address 100

set peer 15.0.0.1

set transform-set NASIR\_SET

exit

int s1/1

crypto map CRMAP

exit

exit

wr

wr

**Des-md5**

access-list 100 permit ip 192.168.2.2 0.0.0.255 192.168.1.1 0.0.0.255

crypto isakmp enable

crypto isakmp policy 10

authentication pre-share

encryption des

hash md5

group 5

lifetime 3600

exit

crypto isakmp key 0 2244 address 15.0.0.1

crypto ipsec transform-set NASIR\_SET esp-md5-hmac esp-des

exit

crypto ipsec security-association lifetime seconds 3590

crypto map CRMAP 10 ipsec-isakmp

match address 100

set peer 15.0.0.1

set transform-set NASIR\_SET

exit

int s1/1

crypto map CRMAP

exit

exit

wr

wr

**Aes-md5**

access-list 101 permit ip 192.168.2.2 0.0.0.255 192.168.1.1 0.0.0.255

crypto isakmp enable

crypto isakmp policy 11

authentication pre-share

encryption aes 256

hash md5

group 5

lifetime 3600

exit

crypto isakmp key asdfg address 15.0.0.1

crypto ipsec transform-set NASIR\_SET esp-aes 256 ah-md5-hmac

exit

crypto ipsec security-association lifetime seconds 3590

crypto map CRMAP 11 ipsec-isakmp

match address 101

set peer 15.0.0.1

set transform-set NASIR\_SET

exit

int s1/1

crypto map CRMAP

exit

exit

wr

wr

**Aes-sha**

access-list 100 permit ip 192.168.2.2 0.0.0.255 192.168.1.1 0.0.0.255

crypto isakmp enable

crypto isakmp policy 10

authentication pre-share

encryption aes 256

hash sha

group 5

lifetime 3600

exit

crypto isakmp key 0 2244 address 15.0.0.1

crypto ipsec transform-set NASIR\_SET esp-aes 256 esp-sha-hmac

exit

crypto ipsec security-association lifetime seconds 3590

crypto map CRMAP 10 ipsec-isakmp

match address 100

set peer 15.0.0.1

set transform-set NASIR\_SET

exit

int s1/1

crypto map CRMAP

exit

exit

wr

wr

**Des-sha**

access-list 100 permit ip 192.168.2.2 0.0.0.255 192.168.1.1 0.0.0.255

crypto isakmp enable

crypto isakmp policy 10

authentication pre-share

encryption des

hash sha

group 5

lifetime 3600

exit

crypto isakmp key 0 2244 address 15.0.0.1

crypto ipsec transform-set NASIR\_SET esp-sha-hmac esp-des

exit

crypto ipsec security-association lifetime seconds 3590

crypto map CRMAP 10 ipsec-isakmp

match address 100

set peer 15.0.0.1

set transform-set NASIR\_SET

exit

int s1/1

crypto map CRMAP

exit

exit

wr

wr

########################################  
####################################  
3################################

**GRE routing protocol**

**Router1**

int tunnel 12

tunnel source 15.0.0.1

tunnel destination 25.0.0.2

ip address 10.0.12.1 255.255.255.0

exit

router eigrp 100

no auto-summary

network 192.168.1.0

network 10.0.0.0

exit

end

**ROUTER2**

int tunnel 12

tunnel source 25.0.0.2

tunnel destination 15.0.0.1

ip address 10.0.12.2 255.255.255.0

exit

router eigrp 100

no auto-summary

network 192.168.2.0

network 10.0.0.0

exit

end

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **3DES-MD5**  **IPSEC**  **78.628 KBPS**  **IPSEC/GRE**  **59.789**  **KBPS** | | **3DES-SHA**  **IPSEC**  **70.564**  **KBPS**  **IPSEC/GRE**  **68.848**  **KBPS** | **AES-MD5**  **IPSEC**  **46.0**  **KBPS**  **IPSEC/GRE**  **32.0**  **KBPS** | **AES-SHA**  **IPSEC**  **39.619 KBPS**  **IPSEC/GRE**  **35.51**  **KBPS** |
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