```
N9K-A
                         vlan100
                      172.16.100.1
                                   Eth1/5
ESXi VMs
                   SERVER1
                                            SERVER3
                                                                     SERVER4
                    vlan100
                                             vlan100
                                                                      vlan100
                172.16.100.201
                                         172.16.100.203
                                                                  172.16.100.204
             IP Interface Status for VRF "default"(1)
                                     IP Address Interface Status 172.16.100.1 protocol-up/link-
             Interface
             Vlan100
                                                       protocol-up/link-up/admin-up
              X
             tl=255 time=1.10 ms
             64 bytes from 172.16.100.1: icmp seq=1330 t
             tl=255 time=0.456 ms
             64 bytes from 172.16.100.1: icmp seq=1331 t
             tl=255 time=0.505 ms
             64 bytes from 172.16.100.1: icmp seq=1332 t
             t1=255 time=0.432 ms
             64 bytes from 172.16.100.1: icmp_seq=1333 t
             tl=255 time=0.466 ms
             64 bytes from 172.16.100.1: icmp seq=1334 t
             tl=255 time=0.425 ms
             64 bytes from 172.16.100.1: icmp seq=1335 t
             t1=255 time=0.412 ms
             64 bytes from 172.16.100.1: icmp seq=1336 t
             tl=255 time=0.468 ms
             64 bytes from 172.16.100.1: icmp seq=1337 t
             tl=255 time=0.494 ms
             64 bytes from 172.16.100.1: icmp seq=1338 t
             t1=255 time=0.461 ms
             64 bytes from 172.16.100.1: icmp seq=1339 t
             t1=255 time=0.481 ms
             64 bytes from 172.16.100.1: icmp_seq=1340 t
             t1=255 time=0.520 ms
              root@server3:~
                                                                            ×
             255 time=0.604 ms
             64 bytes from 172.16.100.1: icmp_seq=1621 ttl=
             255 time=0.423 ms
             64 bytes from 172.16.100.1: icmp seq=1622 ttl=
             255 time=0.418 ms
             64 bytes from 172.16.100.1: icmp_seq=1623 ttl=
             255 time=0.453 ms
             64 bytes from 172.16.100.1: icmp seq=1624 ttl=
             255 time=0.579 ms
             64 bytes from 172.16.100.1: icmp seq=1625 ttl=
             255 time=0.454 ms
             64 bytes from 172.16.100.1: icmp seq=1626 ttl=
             255 time=0.497 ms
             64 bytes from 172.16.100.1: icmp seq=1627 ttl=
             255 time=0.420 ms
             64 bytes from 172.16.100.1: icmp seq=1628 ttl=
             255 time=0.431 ms
             64 bytes from 172.16.100.1: icmp_seq=1629 ttl=
             255 time=0.384 ms
             64 bytes from 172.16.100.1: icmp_seq=1630 ttl=
             255 time=0.484 ms
             64 bytes from 172.16.100.1: icmp seq=1631 ttl=
             255 time=0.530 ms
              👺 root@server4:∼
                                                                           ×
             tt1=255 time=0.281 ms
             64 bytes from 172.16.100.1: icmp seq=1640
             tt1=255 time=0.427 ms
             64 bytes from 172.16.100.1: icmp seq=1641
             ttl=255 time=0.369 ms
             64 bytes from 172.16.100.1: icmp seq=1642
             ttl=255 time=0.361 ms
             64 bytes from 172.16.100.1: icmp seq=1643
             ttl=255 time=0.369 ms
             64 bytes from 172.16.100.1: icmp seq=1644
             ttl=255 time=0.538 ms
             64 bytes from 172.16.100.1: icmp seq=1645
             tt1=255 time=0.533 ms
             64 bytes from 172.16.100.1: icmp seq=1646
             tt1=255 time=0.385 ms
             64 bytes from 172.16.100.1: icmp seq=1647
             ttl=255 time=0.392 ms
             64 bytes from 172.16.100.1: icmp seq=1648
             ttl=255 time=0.394 ms
             64 bytes from 172.16.100.1: icmp seq=1649
             ttl=255 time=0.389 ms
             64 bytes from 172.16.100.1: icmp seq=1650
             ttl=255 time=0.338 ms
             Legend:
                     * - primary entry, G - Gateway MAC, (R) - Routed MAC, O - Overlay MAC
                     age - seconds since last seen,+ - primary entry using vPC Peer-Link, (T) - True, (F) - False, C - ControlPlane MAC, \sim - vsan
                VLAN
                        MAC Address
                                         Type
                                                          Secure NTFY Ports
                                                  age
                        0050.56bf.0bdb dynamic 0
                100
                                                                      Eth1/5
                        0050.56bf.68ab
                                        dynamic 0
                        0050.56bf.ccbc
                                        dynamic 0
                100
                                                                      Eth1/5
                                                                      sup-eth1(R)
                100
                        c014.fef9.8de7
             Please apply the same port-security config on the peer device also, if VPC is co
             nfigured
             Total Secured Mac Addresses in System (excluding one mac per port)
             Max Addresses limit in System (excluding one mac per port) : 8192
             Secure Port
                           MaxSecureAddr CurrentAddr SecurityViolation Security Action
                              (Count) (Count)
             Ethernet1/5
                                                                             Shutdown
             N9K-A(config-if)# show int stat
                          Connects to ESX-vm secViolEr trunk auto
                                                                             SFP-H10GB-C
                                                                     auto
             🧬 root@server
             From 172.16.100.201 icmp_seq=2488 Destinati
                                                  From 172.16.100.203 icmp_seq=2468 Destination
                                                  Host Unreachable
From 172.16.100.203 icmp_seq=2469 Destination
             From 172.16.100.201 icmp_seq=2489 Destinati
on Host Unreachable
From 172.16.100.201 icmp_seq=2490 Destinati
                                                  From 172.16.100.203 icmp_seq=2470 Destination
Host Unreachable
From 172.16.100.203 icmp_seq=2471 Destination
             on Host Unreachable
From 172.16.100.201 icmp_seq=2491 Destination Host Unreachable
From 172.16.100.201 icmp_seq=2492 Destinati
                                                  Host Unreachable
                                                  From 172.16.100.203 icmp_seq=2472 Destination
                                                  Host Unreachable
From 172.16.100.203 icmp_seq=2473 Destination
             From 172.16.100.201 icmp_seq=2493 Destinati
on Host Unreachable
From 172.16.100.201 icmp_seq=2494 Destinati
                                                  Host Unreachable
From 172.16.100.203 icmp_seq=2474 Destination
             on Host Unreachable
From 172.16.100.201 icmp_seq=2495 Destinati
                                                  Host Unreachable
                                                  From 172.16.100.203 icmp_seq=2475 Destination
                                                  Host Unreachable
From 172.16.100.203 icmp_seq=2476 Destination
             From 172.16.100.201 icmp_seq=2496 Destinati
on Host Unreachable
From 172.16.100.201 icmp_seq=2497 Destinati
                                                  From 172.16.100.203 icmp_seq=2477 Destination
             on Host Unreachable
From 172.16.100.201 icmp_seq=2498 Destination Host Unreachable
                                                  Host Unreachable
                                                  From 172.16.100.203 icmp_seq=2478 Destination
              proot@server4:-
                                                                                 From 172.16.100.204 icmp_seq=2463 Destination Host Unreachable
              From 172.16.100.204 icmp_seq=2464 Destination Host Unreachable From 172.16.100.204 icmp_seq=2464 Destination Host Unreachable From 172.16.100.204 icmp_seq=2465 Destination Host Unreachable From 172.16.100.204 icmp_seq=2466 Destination Host Unreachable From 172.16.100.204 icmp_seq=2467 Destination Host Unreachable From 172.16.100.204 icmp_seq=2468 Destination Host Unreachable From 172.16.100.204 icmp_seq=2469 Destination Host Unreachable From 172.16.100.204 icmp_seq=2469 Destination Host Unreachable
              From 172.16.100.204 icmp_seq=2470 Destination Host Unreachable From 172.16.100.204 icmp_seq=2471 Destination Host Unreachable From 172.16.100.204 icmp_seq=2472 Destination Host Unreachable
                             icmp_seq=2473 Destination Host
              From 172.16.100.204 icmp_seq=2474 Destination Host Unreachable
              !Command: show running-config interface Ethernet1/5
              Running configuration last done at: Wed Dec 21 22:36:35 2022!
              !Time: Wed Dec 21 22:36:53 2022
               nterface Ethernet1/5
               description Connects to ESX-vmnic2
               switchport
               switchport mode trunk
               switchport port-security switchport port-security mac-address 0050.56BF.68AB vlan 100
               no shutdown
             N9K-A(config-if)# 2022 Dec 21 22:37:38 N9K-A %ETHPORT-5-IF_ADMIN_UP: Interface Ethern
```

N9K-A(config-if)# show int stat Connects to ESX-vm connected trunk Eth1/5 10G SFP-H10GB-CU1M P root@ 64 bytes from 172.16.100.1: icmp seg=997 ttl=255 time=0.580 p ms 64 bytes from 172.16.100.1: icmp_seq=1001 ttl=255 time=0.479 64 bytes from 172.16.100.1: icmp_seq=1005 ttl=255 time=0.453 64 bytes from 172.16.100.1: icmp seg=1006 ttl=255 time=0.495 # root@server4:-Total Secured Mac Addresses in System (excluding one mac per port) Max Addresses limit in System (excluding one mac per port) : 8192 Secure Port MaxSecureAddr CurrentAddr SecurityViolation Security Action (Count) Ethernet1/5 Restrict

-A(config-if)# show port-security address int eth1/5

Туре

N9K-A(config-if) # show run int eth1/5

!Time: Wed Dec 21 22:45:48 2022

version 9.3(5) Bios: version 05.42

description Connects to ESX-vmnic2

switchport port-security violation restrict

BLOCKED

BLOCKED

STATIC

BLOCKED

!Command: show running-config interface Ethernet1/5

Vlan

100

100

Mac Address

2C4F.528E.E684

0050.56BF.0BDB

0050.56BF.68AB

0050.56BF.CCBC

interface Ethernet1/5

switchport mode trunk

switchport port-security

[root@server1 ~]# ping 1/2.16.100.1 PING 172.16.100.1 (172.16.100.1) 56(84) bytes of data.

switchport

no shutdown

100

100

100

0050.56BF.0BDB

0050.56BF.68AB

0050.56BF.CCBC

[root@server1 ~]# ping 1/2.16.100.1 PING 172.16.100.1 (172.16.100.1) 56(84) bytes of data.

Secure Mac Address Table

age

!Running configuration last done at: Wed Dec 21 22:40:47 2022

switchport port-security mac-address 0050.56BF.68AB vlan 100

(mins)

Remaining Remotely Remotely Ports

aged

No

Nο

Νо

Ethernet1/5

Ethernet1/5

Ethernet1/5

Ethernet1/5

Ethernet1/5

Ethernet1/5

Ethernet1/5

learnt

Nο

Nο

 $N \circ$

Vlan	Mac Addre	ss Type	Remaini age (mins)	ng Remote learn		tely Ports	
		Secure M	ac Address T	able			
N9K-A (config-if)#	show port-	security add	ress int (eth1/5		
64 bytes f 64 bytes f	rom 172.16.100.1: irom 172.16.10	cmp_seq=1347 tt1=255 cmp_seq=1348 tt1=255 cmp_seq=1349 tt1=255 cmp_seq=1350 tt1=255 cmp_seq=1351 tt1=255 cmp_seq=1353 tt1=255 cmp_seq=1355 tt1=255 cmp_seq=1355 tt1=255 cmp_seq=1355 tt1=255 cmp_seq=1357 tt1=255 cmp_seq=1358 tt1=255 cmp_seq=1358 tt1=255 cmp_seq=1358 tt1=255 cmp_seq=1358 tt1=255	time=0.620 ms time=0.576 ms time=0.573 ms time=0.669 ms time=0.669 ms time=0.682 ms time=0.682 ms time=0.542 ms time=0.557 ms time=0.732 ms time=0.732 ms time=0.734 ms time=0.674 ms	.16.100.203 icmp	_seq=1293 Dest	cination Host Unreach	
						tination Host Unreach	
					-	tination Host Unreach	
					_	cination Host Unreach cination Host Unreach	
						cination Host Unreach	abı

Νо

Nο

Nο

Nο

Nο

Nο

bytes from 172.16.100.1: icmp seq=1537 ttl=255 time=0.659

DYNAMIC

BLOCKED

BLOCKED

2

N9K-A(config-if)# 2022 Dec 21 22:52:34 N9K-A %DAEMON-2-SYSTEM_MSG: <<%ETH-PORT-SEC-2 -ETH_PORT_SEC_SECURITY_VIOLATION>> Triggered violation RESTRICT on Port Ethernet1/5 -

```
Total Secured Mac Addresses in System (excluding one mac per port)
Max Addresses limit in System (excluding one mac per port) : 8191
             MaxSecureAddr CurrentAddr SecurityViolation Security Action
Secure Port
                           (Count)
                (Count)
Ethernet1/5
                                                           Restrict
                   Secure Mac Address Table
Vlan
      Mac Address Type
                                Remaining Remotely Remotely Ports
                                          learnt aged
                                age
                                (mins)
                                                   out
      2C4F.528E.E684 BLOCKED 4
                                          No
                                                   No
                                                          Ethernet1/5
      0050.56BF.0BDB
 100
                     DYNAMIC 0
                                                   Νо
                                                          Ethernet1/5
 100
      0050.56BF.68AB
                       BLOCKED
                                          No
                                                   Nο
                                                          Ethernet1/5
 100
      0050.56BF.CCBC
                       DYNAMIC
                                                          Ethernet1/5
                                          Nο
                                                   Nο
!Command: show running-config interface Ethernet1/5
!Running configuration last done at: Wed Dec 21 22:52:33 2022
!Time: Wed Dec 21 22:55:25 2022
version 9.3(5) Bios:version 05.42
interface Ethernet1/5
```

```
64 bytes from 172.16.100.1: icmp_seq=379 ttl=255 time=0.491 m 4 bytes from 172.16.100.1: icmp_seq=1763 ttl=255 time 64 bytes from 172.16.100.1: icmp_seq=1764 ttl=255 time 64 bytes from 172.16.100.1: icmp_seq=380 ttl=255 time=0.408 m 4 bytes from 172.16.100.1: icmp_seq=1765 ttl=255 time 64 bytes from 172.16.100.1: icmp_seq=382 ttl=255 time=0.546 m 4 bytes from 172.16.100.1: icmp_seq=1765 ttl=255 time 64 bytes from 172.16.100.1: icmp_seq=382 ttl=255 time=0.546 m 5 bytes from 172.16.100.1: icmp_seq=1767 ttl=255 time 64 bytes from 172.16.100.1: icmp_seq=1767
```

N9K-A(config-if)# no switchport port-security

bytes from 172.16.100.1: icmp_seq=1760 ttl=255 time=0.470

description Connects to ESX-vmnic2

switchport port-security maximum 2

switchport port-security violation restrict

switchport

no shutdown

switchport mode trunk

switchport port-security

. 54 bytes from 172.16.100.1: icmp_seq=376 ttl=255 time=0.467 m

©Created by Matthew Rich, TCE, Cisco Systems, Inc.