



Appendix C – Cisco IE Switches configuration

OSPF Configuration on Industrial Ethernet Switch

```
vrf definition employee
 rd 11:11
 !
 address-family ipv4
  route-target export 11:11
  route-target import 11:11
 exit-address-family
 !
vrf definition video
 rd 10:10
 !
 address-family ipv4
  route-target export 10:10
  route-target import 10:10
 exit-address-family
 !
 !
 !
spanning-tree mode rapid-pvst
spanning-tree extend system-id
no spanning-tree vlan 1,16-17,116,130-250,253-255,1006

interface GigabitEthernet1/1
 switchport mode trunk
 load-interval 30
 !
 !
interface Vlan15
 ip address 10.12.15.1 255.255.255.252
 ip ospf network point-to-point
 !
interface Vlan16
 ip address 10.12.16.1 255.255.255.252
 ip ospf network point-to-point
 !
interface Vlan17
 ip address 10.12.17.1 255.255.255.0
 !
interface Vlan115
 vrf forwarding video
 ip address 10.12.115.1 255.255.255.252
 ip ospf network point-to-point
 !
interface Vlan116
 vrf forwarding video
 ip address 10.12.116.1 255.255.255.252
```

Configuration on Industrial Ethernet Switch Connected to Routers Running VRRP

```
ip ospf network point-to-point
!
interface Vlan117
vrf forwarding video
ip address 10.12.117.1 255.255.255.0
!
interface Vlan215
vrf forwarding employee
ip address 10.12.215.1 255.255.255.252
ip ospf network point-to-point
!
interface Vlan216
vrf forwarding employee
ip address 10.12.216.1 255.255.255.252
ip ospf network point-to-point
!
interface Vlan217
vrf forwarding employee
ip address 10.12.217.1 255.255.255.0
!
router ospf 1
router-id 10.12.16.1
auto-cost reference-bandwidth 100000
network 10.0.0.0 0.255.255.255 area 1
!
router ospf 10 vrf video
router-id 10.12.115.1
auto-cost reference-bandwidth 100000
capability vrf-lite
network 10.12.115.0 0.0.0.255 area 10
network 10.12.116.0 0.0.0.255 area 10
network 10.12.117.0 0.0.0.255 area 10
!
router ospf 11 vrf employee
router-id 10.12.217.1
auto-cost reference-bandwidth 100000
capability vrf-lite
network 10.12.215.0 0.0.0.255 area 11
network 10.12.216.0 0.0.0.255 area 11
network 10.12.217.0 0.0.0.255 area 11
```

Configuration on Industrial Ethernet Switch Connected to Routers Running VRRP

```
no spanning-tree vlan 1,16,116,130-250,1006

interface GigabitEthernet1/1
switchport trunk allowed vlan 2-300
switchport mode trunk
!
interface GigabitEthernet1/3
switchport trunk allowed vlan 2-300
switchport mode trunk
!
```