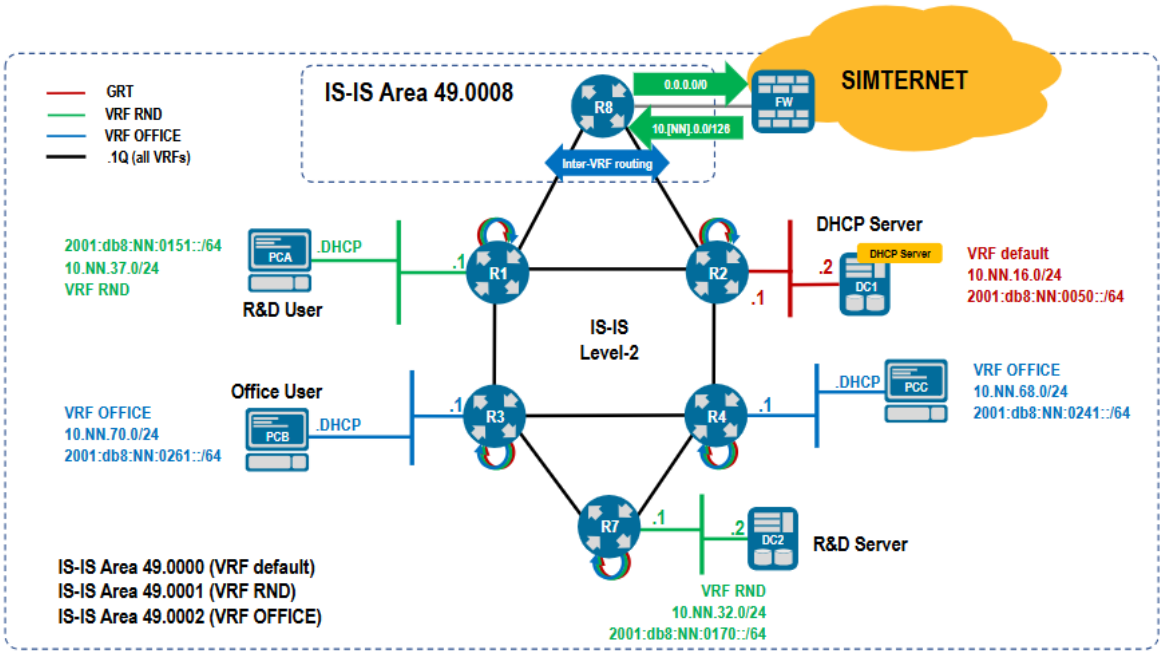

Figure 1: Case study topology. Replace NN with your network number.

Group	VRF	.1Q	Loopback	Lo IP Range	IS-IS NET
Network Management	default (GRT)	native	Loopback0	10.[NN].0.0/24	49.0000.0000.0000.000x.00
Research & Development	RND	10	Loopback1	10.[NN].1.0/24	49.0001.0000.0001.000x.00
Office	OFFICE	20	Loopback2	10.[NN].2.0/24	49.0002.0000.0002.000x.00

```
vrf instance OFFICE
!
vrf instance RND
ip routing vrf OFFICE
ip routing vrf RND

interface Loopback1
   vrf RND
   ip address 10.46.1.1/32
Isis enable RND
!
interface Loopback2
   vrf OFFICE
```

```
   ip address 10.46.2.1/32
Isis enable OFFICE
!
router isis default
no   net 49.0000.0046.0001.0001.00
   net 49.0000.0046.0000.0001.00

   is-type level-2
   log-adjacency-changes
   !
   address-family ipv4 unicast
      metric 10000
!
router isis RND vrf RND
  net 49.0000.0046.0001.0001.00

   is-type level-2
   log-adjacency-changes
!
   address-family ipv4 unicast
      metric 10000

router isis OFFICE vrf OFFICE
  net 49.0000.0046.0002.0001.00

   is-type level-2
   log-adjacency-change
   address-family ipv4 unicast
      metric 10000
```

Interface ethernet 1.10

Encapsulation dot1q vlan 10

Vrf RND

Ip address unnumbered loopback1

Isis enable RND

!

Interface ethernet 1.20

Encapsulation dot1q vlan 20

Vrf OFFICE

Ip address unnumbered loopback1

Isis enable OFFICE

!

Interface ethernet 1.30

Encapsulation dot1q vlan 30

Vrf RND

Ip address unnumbered loopback1

Isis enable RND

R2

vrf instance OFFICE

!

vrf instance RND

ip routing vrf OFFICE

ip routing vrf RND

interface Loopback1

```
   vrf RND
   ip address 10.46.1.2/32
Isis enable RND
!
interface Loopback2
   vrf OFFICE
   ip address 10.46.2.2/32
Isis enable OFFICE
!
router isis default
no   net 49.0000.0046.0001.0002.00
   net 49.0000.0046.0000.0002.00

   is-type level-2
   log-adjacency-changes
   !
   address-family ipv4 unicast
      metric 10000
!
router isis RND vrf RND
  net 49.0000.0046.0001.0002.00

   is-type level-2
   log-adjacency-changes
!
   address-family ipv4 unicast
      metric 10000

router isis OFFICE vrf OFFICE
```

```
  net 49.0000.0046.0002.0002.00

   is-type level-2
   log-adjacency-change
   address-family ipv4 unicast
      metric 10000

Interface ethernet 1.10
Encapsulation dot1q vlan 10
Vrf RND
Ip address unnumbered loopback1
Isis enable RND
!
Interface ethernet 1.20
Encapsulation dot1q vlan 20
Vrf OFFICE
Ip address unnumbered loopback1
Isis enable OFFICE
!
Interface ethernet 1.30
Encapsulation dot1q vlan 30
Vrf RND
Ip address unnumbered loopback1
Isis enable RND
!
!
```

R3

```
vrf instance OFFICE
!
```

```
vrf instance RND
ip routing vrf OFFICE
ip routing vrf RND

interface Loopback1
   vrf RND
   ip address 10.46.1.3/32
Isis enable RND
!
interface Loopback2
   vrf OFFICE
   ip address 10.46.2.3/32
Isis enable OFFICE
!
router isis default
no   net 49.0000.0046.0001.0003.00
   net 49.0000.0046.0000.0003.00

   is-type level-2
   log-adjacency-changes
   !
   address-family ipv4 unicast
      metric 10000
!
router isis RND vrf RND
  net 49.0000.0046.0001.0003.00

   is-type level-2
   log-adjacency-changes
```

```
!
   address-family ipv4 unicast
      metric 10000

router isis OFFICE vrf OFFICE
  net 49.0000.0046.0002.0003.00

   is-type level-2
   log-adjacency-change
   address-family ipv4 unicast
      metric 10000

Interface ethernet 1.10
Encapsulation dot1q vlan 10
Vrf RND
Ip address unnumbered loopback1
Isis enable RND
!
Interface ethernet 1.20
Encapsulation dot1q vlan 20
Vrf OFFICE
Ip address unnumbered loopback1
Isis enable OFFICE
!
Interface ethernet 1.30
Encapsulation dot1q vlan 30
Vrf RND
Ip address unnumbered loopback1
Isis enable RND
```

!

R4

```
vrf instance OFFICE
!
vrf instance RND
ip routing vrf OFFICE
ip routing vrf RND

interface Loopback1
   vrf RND
   ip address 10.46.1.4/32
Isis enable RND
!
interface Loopback2
   vrf OFFICE
   ip address 10.46.2.4/32
Isis enable OFFICE
!
router isis default
no   net 49.0000.0046.0001.0003.00
   net 49.0000.0046.0000.0003.00

   is-type level-2
   log-adjacency-changes
   !
   address-family ipv4 unicast
      metric 10000
!
router isis RND vrf RND
```

```
  net 49.0000.0046.0001.0004.00

   is-type level-2
   log-adjacency-changes
!
   address-family ipv4 unicast
      metric 10000

router isis OFFICE vrf OFFICE
  net 49.0000.0046.0002.0004.00

   is-type level-2
   log-adjacency-change
   address-family ipv4 unicast
      metric 10000

Interface ethernet 1.10
Encapsulation dot1q vlan 10
Vrf RND
Ip address unnumbered loopback1
Isis enable RND
!
Interface ethernet 1.20
Encapsulation dot1q vlan 20
Vrf OFFICE
Ip address unnumbered loopback1
Isis enable OFFICE
!
Interface ethernet 1.30
```

Encapsulation dot1q vlan 30

Vrf RND

Ip address unnumbered loopback1

Isis enable RND

!

R8

Interface ethernet 1.10

Encapsulation dot1q vlan 10

Vrf RND

Ip address unnumbered loopback0

Isis enable RND

!

Interface ethernet 1.10

Encapsulation dot1q vlan 20

Vrf OFFICE

Ip address unnumbered loopback0

Isis enable OFFICE

!

Interface ethernet 2.20

Encapsulation dot1q vlan 10

Vrf RND

Ip address unnumbered loopback0

Isis enable RND

!

Interface ethernet 2.20

Encapsulation dot1q vlan 20

Vrf OFFICE

Ip address unnumbered loopback0

Isis enable OFFICE

Interface ethernet 2.10

Encapsulation dot1q vlan 10

Vrf RND

Ip address unnumbered loopback0

Isis enable RND

!

Interface ethernet 2.10

Encapsulation dot1q vlan 20

Vrf OFFICE

Ip address unnumbered loopback0

Isis enable OFFICE

!

Interface ethernet 2.20

Encapsulation dot1q vlan 10

Vrf RND

Ip address unnumbered loopback0

Isis enable RND

!

Interface ethernet 2.20

Encapsulation dot1q vlan 20

Vrf OFFICE

Ip address unnumbered loopback0

Isis enable OFFICE

Step 2

r1

Sh run int eth4

Eth4

Vrf RND

Isis enable RND

Lisää ip address

R3

Int eth4

Vrf OFFICE

Isis enable OFFICE

R4

Sh run eth4

Ip dhcp delay information option

Eth4

Vrf OFFICE

Ip address sh run

Isis enable OFFICE