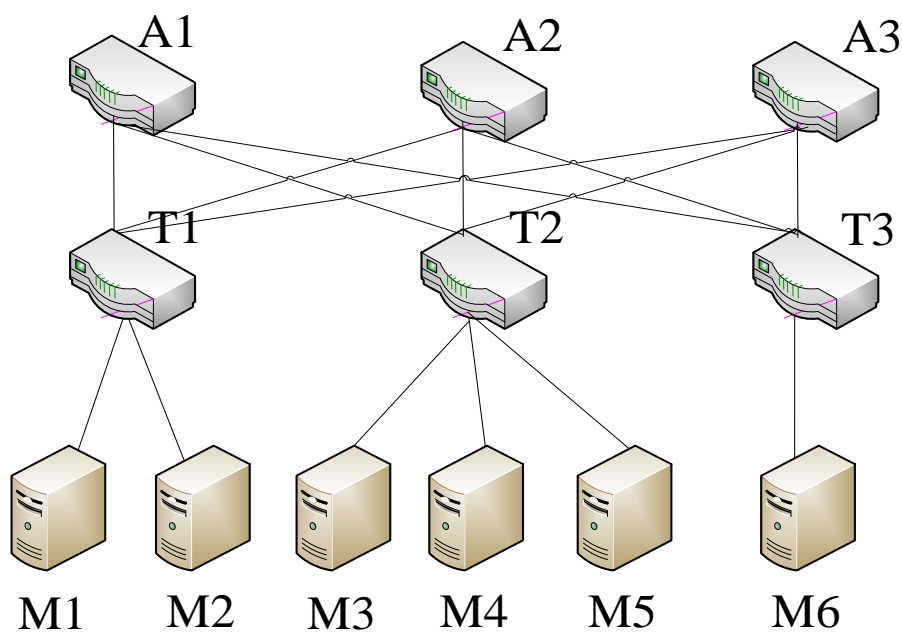


RoX Evaluation (2): SecondNet

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1. Experiment Setup

1.1 Topology



1.2 End Host Network configurations

Machine (VM)	IP address	Subnet	Iface
M1	192.168.11.1	192.168.11.0/24	eth1
M2	192.168.12.1	192.168.12.0/24	eth1
M3	192.168.13.1	192.168.13.0/24	eth1
M4	192.168.14.1	192.168.14.0/24	eth1
M5	192.168.15.1	192.168.15.0/24	eth1
M6	192.168.16.1	192.168.16.0/24	eth1

Apart from IP and subnet configurations, we also need to add some extra route entries. For example, for M1, we need to add:

Destination	Gateway	Genmask	Iface
192.168.12.0	192.168.11.254	255.255.255.0	eth1
192.168.13.0	192.168.11.254	255.255.255.0	eth1
192.168.14.0	192.168.11.254	255.255.255.0	eth1
192.168.15.0	192.168.11.254	255.255.255.0	eth1
192.168.16.0	192.168.11.254	255.255.255.0	eth1

1.3 Paths

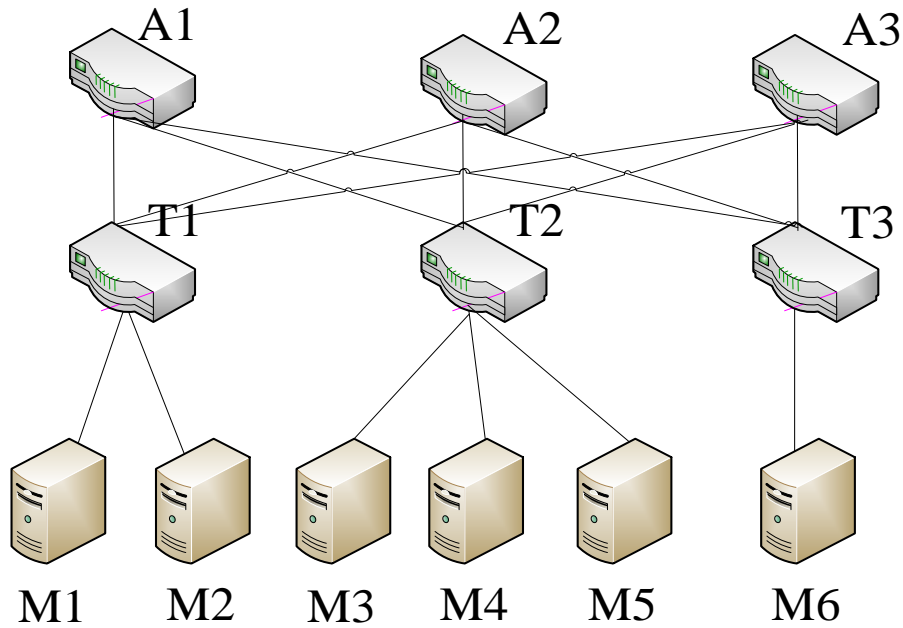
ID	Src	Dst	Path	IP
1	M1	M2	M1,T1,M2	192.168.12.2
2	M2	M1	M2,T1,M1	192.168.11.2
3	M2	M3	M2,T1,A2,T2,M3	192.168.13.2
4	M3	M2	M3,T2,A2,T1,M2	192.168.12.3
5	M3	M4	M3,T2,M4	192.168.14.2
6	M4	M3	M4,T2,M3	192.168.13.3
7	M4	M5	M4,T2,M5	192.168.15.2
8	M5	M4	M5,T2,M4	192.168.14.3
9	M5	M6	M5,T2,A3,T3,M6	192.168.16.2
10	M6	M5	M6,T3,A3,T2,M5	192.168.15.3
11	M6	M1	M6,T3,A1,T1,M1	192.168.11.3

12	M1	M6	M1,T1,A1,T3,M6	192.168.16.3
13	M3	M6	M3,T2,A2,T3,M6	192.168.16.4
14	M6	M3	M6,T3,A2,T2,M3	192.168.13.4

1.4 End Host RoX Configurations

Machine (VM)	IP address	Path
M1	192.168.11.1	192.168.11.2
		192.168.11.3
M2	192.168.12.1	192.168.12.2
		192.168.12.3
M3	192.168.13.1	192.168.13.2
		192.168.13.3
		192.168.13.4
M4	192.168.14.1	192.168.14.2
		192.168.14.3
M5	192.168.15.1	192.168.15.2
		192.168.15.3
M6	192.168.16.1	192.168.16.2
		192.168.16.3
		192.168.16.4

1.5 Switch Configurations



a) ToR 1

Basic Configurations

Interface	Connection	Network Address
ge-1/1/1	M1's eth1	192.168.11.254/24
ge-1/1/2	M2's eth1	192.168.12.254/24
ge-1/1/3	A1's ge-1/1/1	192.168.17.1/24
ge-1/1/4	A2's ge-1/1/1	192.168.18.1/24
ge-1/1/5	A3's ge-1/1/1	192.168.19.1/24

Path Configurations (Add extra static routing)

Path ID	Destination	Interface	Next Hop
3	192.168.13.2/32	ge-1/1/4	192.168.18.2
12	192.168.16.3/32	ge-1/1/3	192.168.17.2

b) ToR 2

Basic Configurations

Interface	Connection	Network Address
ge-1/1/1	M3's eth1	192.168.13.254/24
ge-1/1/2	M4's eth1	192.168.14.254/24
ge-1/1/3	M5's eth1	192.168.15.254/24
ge-1/1/4	A1's ge-1/1/2	192.168.20.1/24
ge-1/1/5	A2's ge-1/1/2	192.168.21.1/24
ge-1/1/6	A3's ge-1/1/2	192.168.22.1/24

Path Configurations (Add extra static routing)

Path ID	Destination	Interface	Next Hop
4	192.168.12.3/32	ge-1/1/5	192.168.21.2
9	192.168.16.2/32	ge-1/1/6	192.168.22.2
13	192.168.16.4/32	ge-1/1/5	192.168.21.2

c) ToR 3

Basic Configurations

Interface	Connection	Network Address
ge-1/1/1	M6's eth1	192.168.16.254/24
ge-1/1/2	A1's ge-1/1/3	192.168.23.1/24
ge-1/1/3	A2's ge-1/1/3	192.168.24.1/24

ge-1/1/4	A3's ge-1/1/3	192.168.25.1/24
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Path Configurations (Add extra static routing)

Path ID	Destination	Interface	Next Hop
10	192.168.15.3	ge-1/1/4	192.168.25.2
11	192.168.11.3	ge-1/1/2	192.168.23.2
14	192.168.13.4	ge-1/1/3	192.168.24.2

d) Aggr 1

Basic Configurations

Interface	Connection	Network Address
ge-1/1/1	T1's ge-1/1/3	192.168.17.2/24
ge-1/1/2	T2's ge-1/1/4	192.168.20.2/24
ge-1/1/3	T3's ge-1/1/2	192.168.23.2/24

Path Configurations (Add extra static routing)

Path ID	Destination	Interface	Next Hop
11	192.168.11.3	ge-1/1/1	192.168.17.1
12	192.168.16.3	ge-1/1/3	192.168.23.1

e) Aggr 2

Basic Configurations

Interface	Connection	Network Address
ge-1/1/1	T1's ge-1/1/4	192.168.18.2/24
ge-1/1/2	T2's ge-1/1/5	192.168.21.2/24
ge-1/1/3	T3's ge-1/1/3	192.168.24.2/24

Path Configurations (Add extra static routing)

Path ID	Destination	Interface	Next Hop
3	192.168.13.2	ge-1/1/2	192.168.21.1
4	192.168.12.3	ge-1/1/1	192.168.18.1
13	192.168.16.4	ge-1/1/3	192.168.24.1
14	192.168.13.4	ge-1/1/2	192.168.21.1

f) Aggr 3

Basic Configurations

Interface	Connection	Network Address
ge-1/1/1	T1's ge-1/1/5	192.168.19.2/24
ge-1/1/2	T2's ge-1/1/6	192.168.22.2/24
ge-1/1/3	T3's ge-1/1/4	192.168.25.2/24

Path Configurations (Add extra static routing)

Path ID	Destination	Interface	Next Hop
9	192.168.16.2	ge-1/1/3	192.168.25.1

10	192.168.15.3	ge-1/1/2	192.168.22.1
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2. Job

3. Measurement