

Advanced CCIE Routing & Switching v5.0

www.MicronicsTraining.com

Narbik Kocharians
CCSI, CCIE #12410
R&S, Security, SP

VOL-III

Table of content

Subject	Page
QoS	
Lab 1 MLS QoS	5
Lab 2 DSCP Mutation	6
Lab 3 DSCP-CoS	7
Lab 4 CoS-DSCP Mapping	8
Lab 5 IP-Precedence-DSCP Mapping	9
Lab 6 Match Access-group	10
Lab 7 Match Destination & Source Address MAC	11
Lab 8 Match Input-interface	12
Lab 9 Match Packet-Length	13
Lab 10 Match IP Precedence/DSCP vs. Precedence/DSCP	14
Lab 11 Match Protocol HTTP URL, MIME & Host	15
Lab 12 Match QoS-Group	16
Lab 13 WFQ	17
Lab 14 CBWFQ - I	18
Lab 15 CBWFQ - II	19
Lab 16 Class Based Traffic Shaping - I	20
Lab 17 Class Based Traffic Shaping - II	21
Lab 18 LLQ	22
Lab 19 Class Based Policing – I	23
Lab 20 Class Based Policing – II	24
Lab 21 WRED & CB-WRED	25
IPv6	
Lab 1 Aquiring an IPv6 Address	27
DMVPN & IPv6 in IPv4 Tunnel	
Lab 1 Configuring IPv6 in IPv4 Tunnel	29
Lab 2 DMVPN & IPv6	30
OSPFv3	
Lab 1 Configuring OSPFv3	32
Lab 2 Summarization of Internal and External Networks	33
Lab 3 OSPFv3 Broadcast Network Type	34
Lab 4 OSPFv3 Non-Broadcast Network Type	36

Lab 5 OSPFv3 Point-to-point Network Type	37
Lab 6 OSPFv3 Point-toMultipoint Network Type	38
Lab 7 OSPFv3 Cost & Auto-cost	39
Lab 8 LSAs in OSPFv3	40
Lab 9 OSPFv3 Area Types	41
Lab 10 OSPFv3 Authentication	42
EIGRPv6	
Lab 1 EIGRPv6	44
Transitional Solutions	
Lab 1 Static NAT-PT	46
Lab 2 AToM	47
Lab 3 6VPE	48

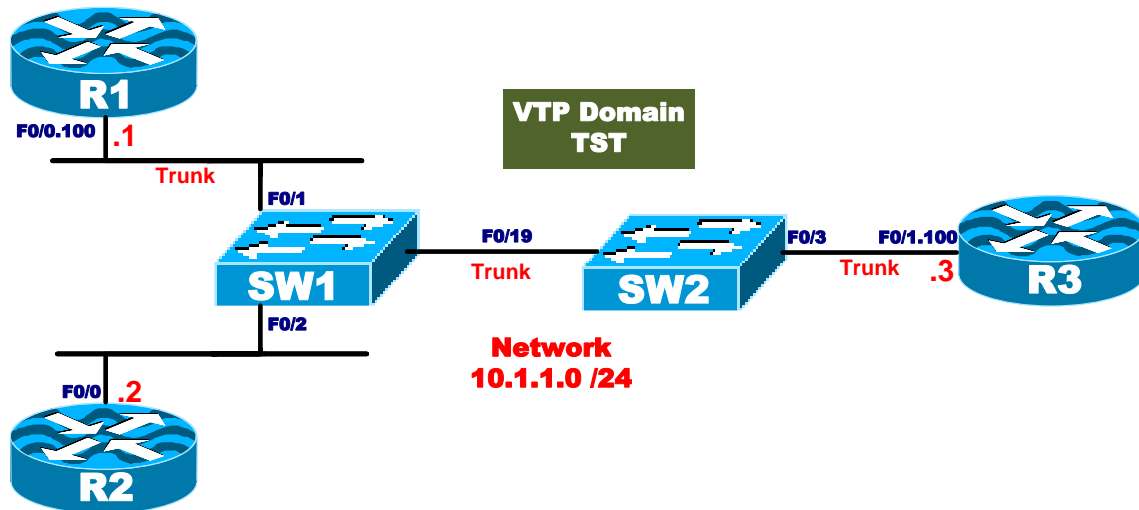
Advanced CCIE Routing & Switching 5.0

www.MicronicsTraining.com

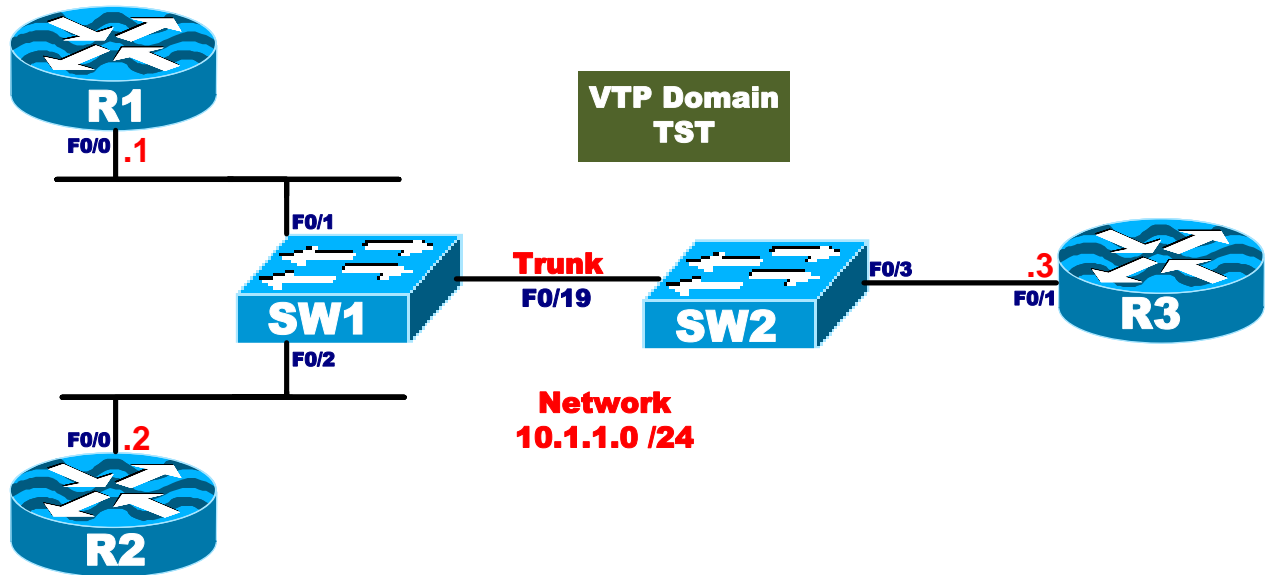
Narbik Kocharians
CCSI, CCIE #12410
R&S, Security, SP

QoS

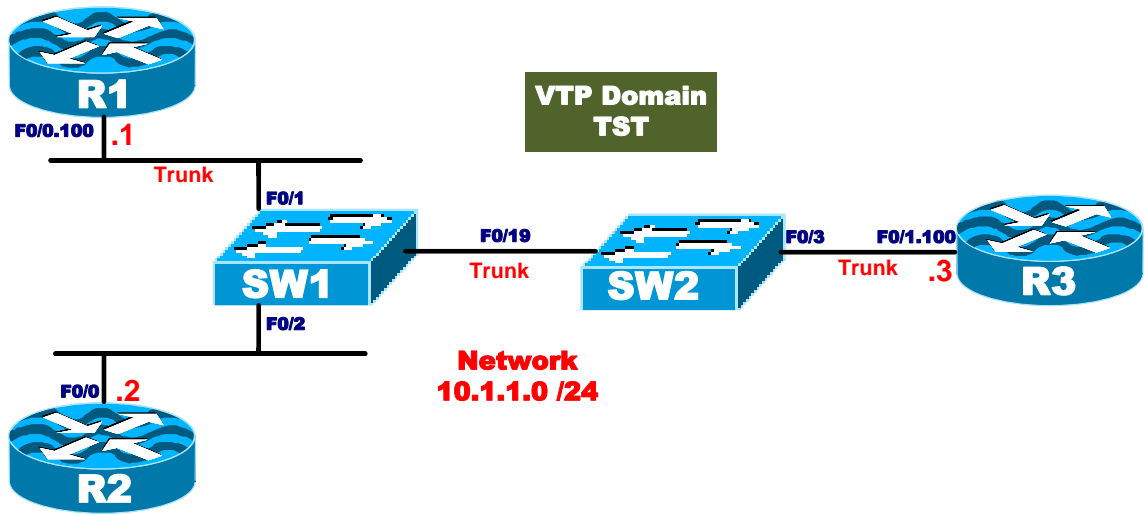
Lab 1 – MLS QOS



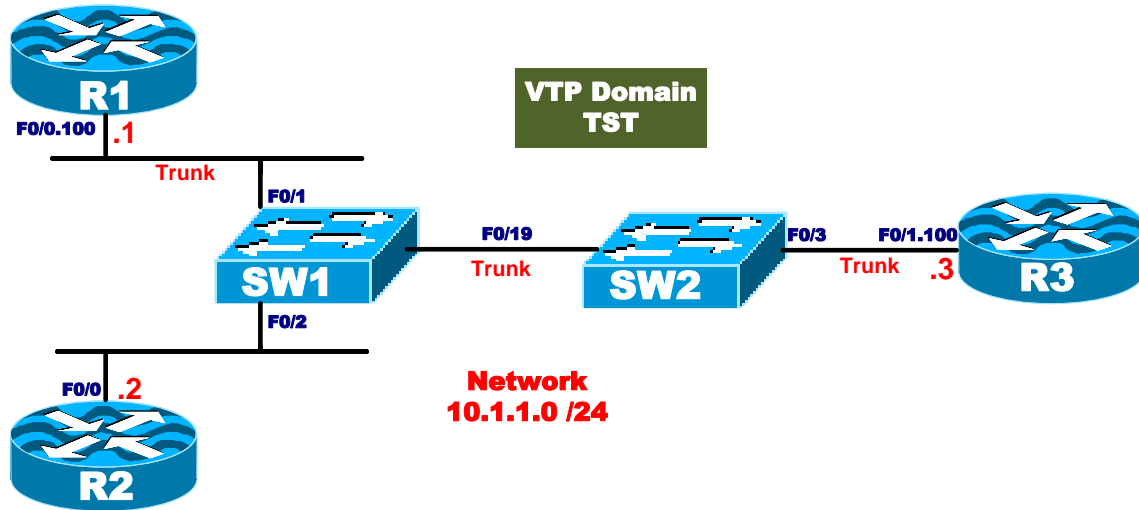
Lab 2 – DSCP Mutation



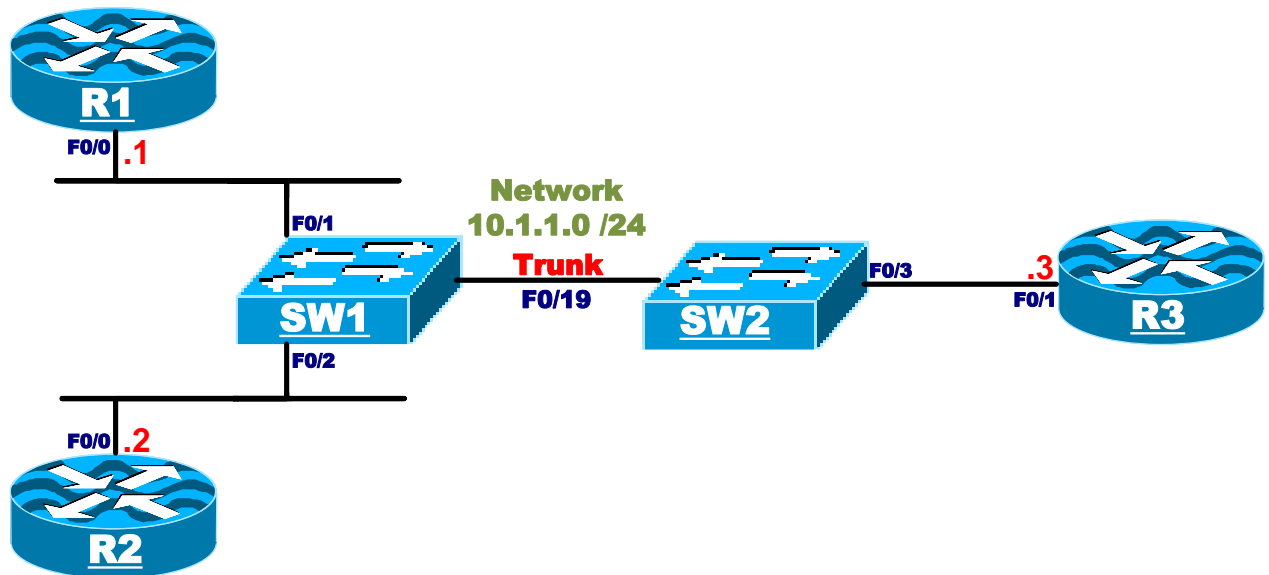
Lab 3 – DSCP-CoS Mapping



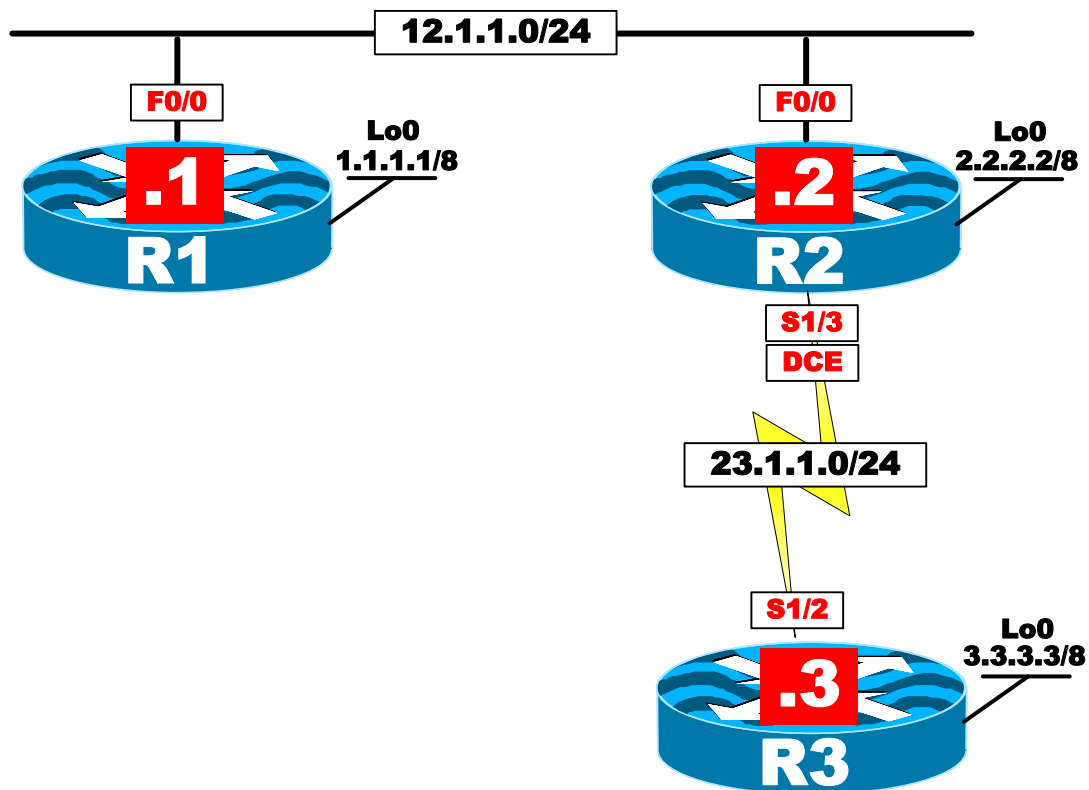
Lab 4 – CoS-DSCP Mapping



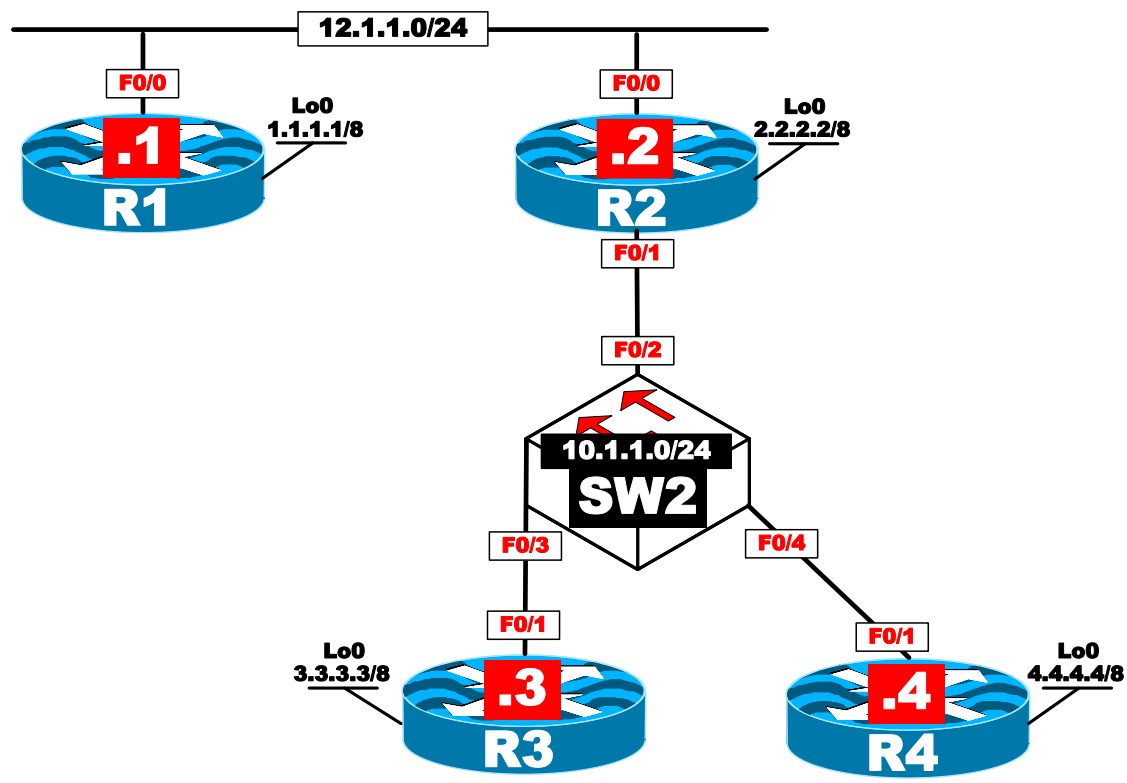
Lab 5 – IP-Precedence-DSCP Mapping



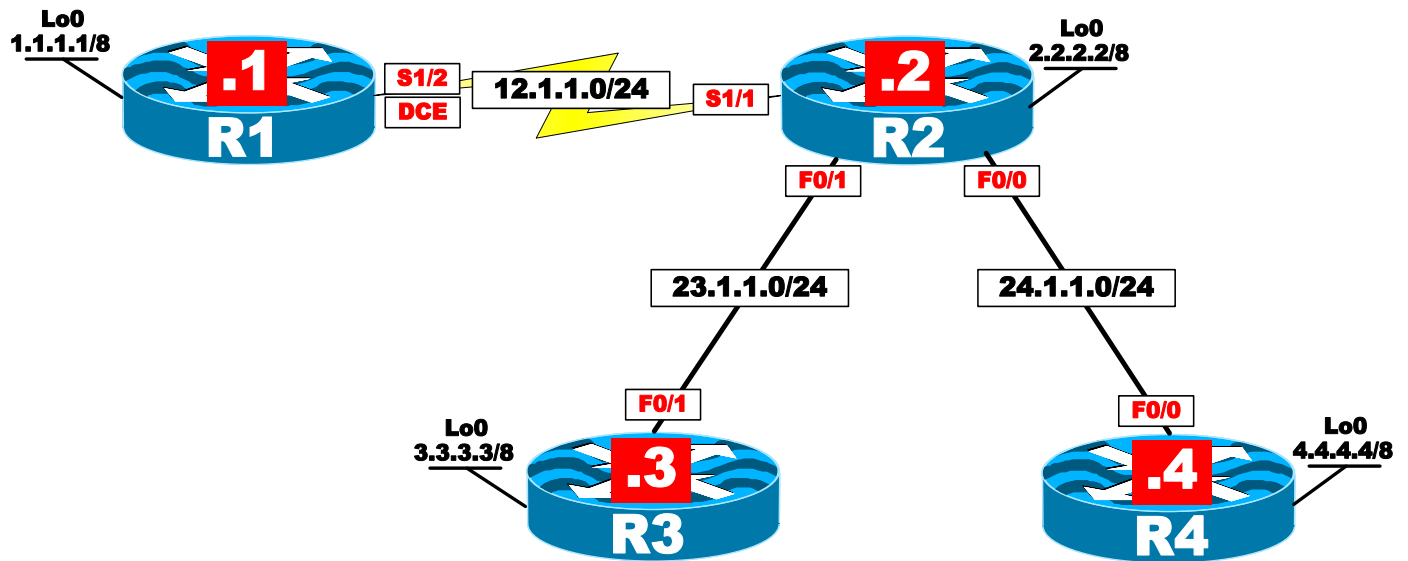
Lab 6 – Match Access-Group



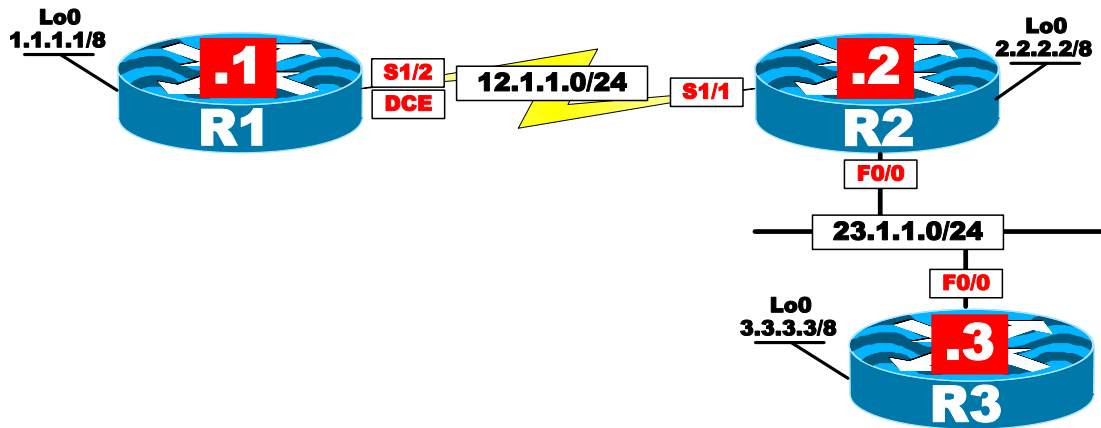
Lab 7 – Match Destination & Source Address MAC



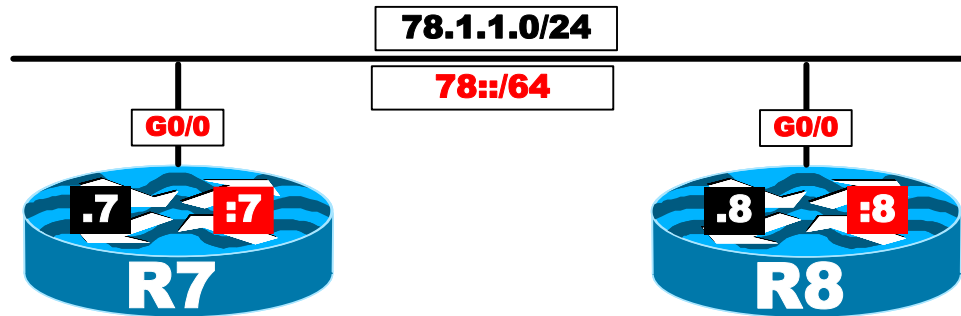
Lab 8 – Match Input-Interface



Lab 9 – Matching Packet Length



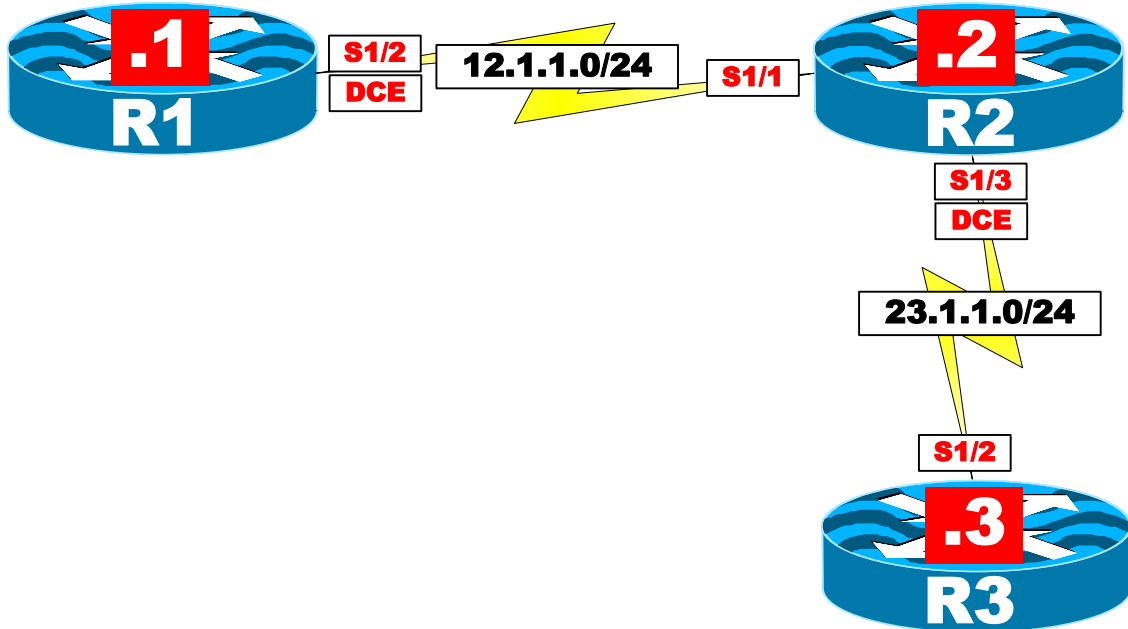
Lab 10 – Match IP Precedence/DSCP vs. Match Precedence/DSCP



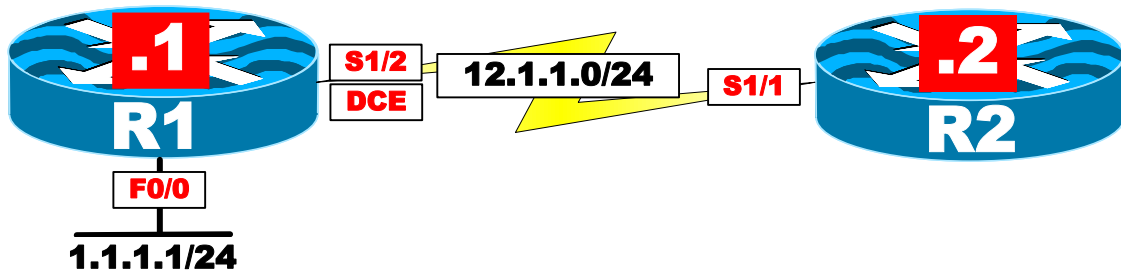
Lab 11 – Match Protocol HTTP URL, MIME & Host



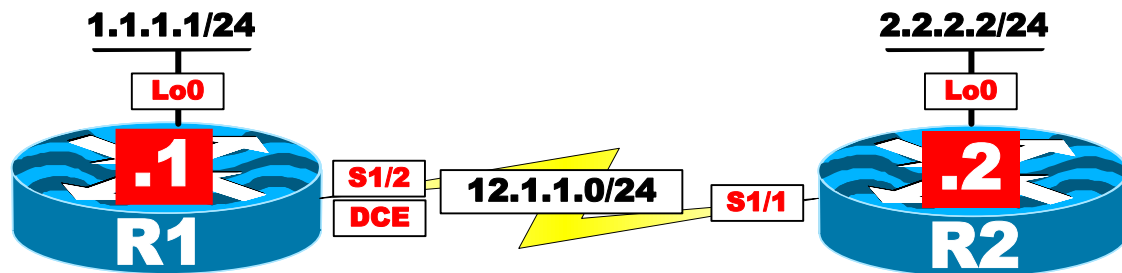
Lab 12 – QoS-Groups



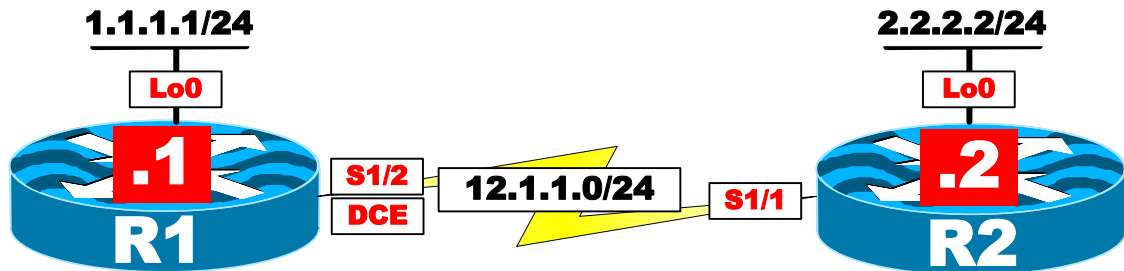
Lab 13 – WFQ



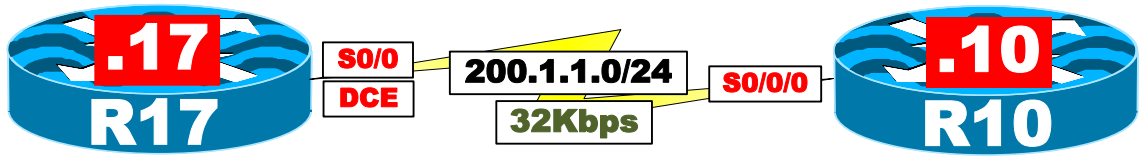
Lab 14 – CBWFQ - I



Lab 15 – CBWFQ - II



Lab 16 – Class-Based Traffic Shaping - I



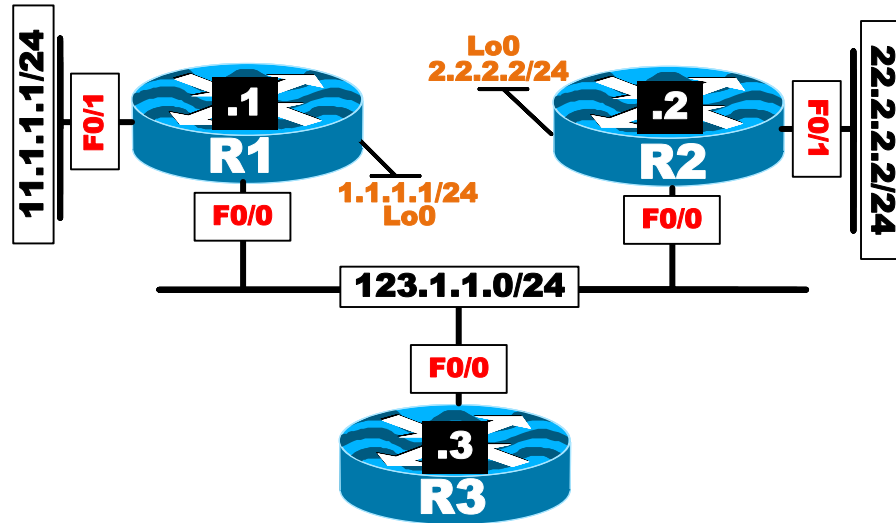
Lab 17 – Class-Based Traffic Shaping - II



Lab 18 – LLQ



Lab 19 – Class Based Policing - I



Lab 20 – Class Based Policing - II

The topology and IP the addressing is based on the previous lab

Lab 21 – WRED & CB-WRED



Advanced CCIE Routing & Switching 5.0

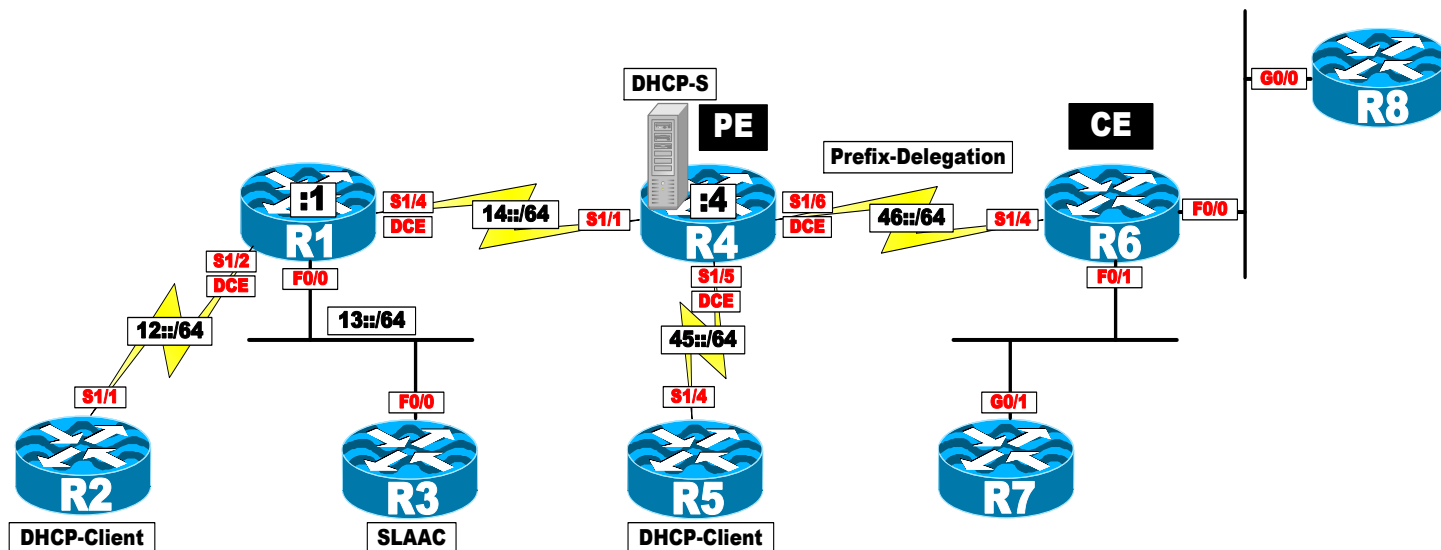
www.MicronicsTraining.com

Narbik Kocharians
CCSI, CCIE #12410
R&S, Security, SP

IPv6

Lab 1

Acquiring an IPv6 Address



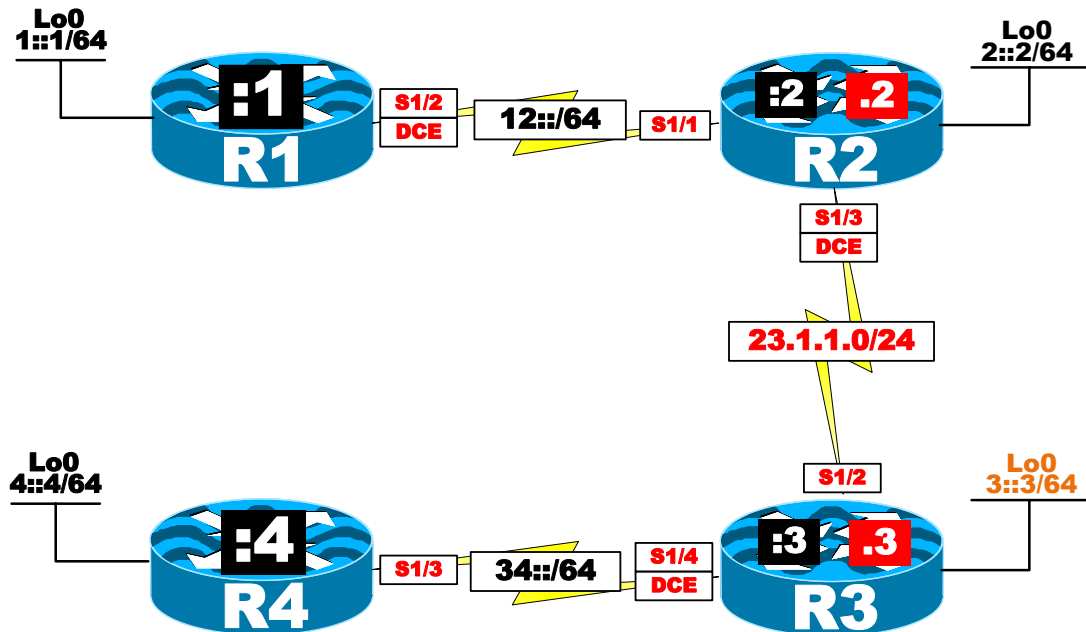
Advanced CCIE Routing & Switching v5.0

www.MicronicsTraining.com

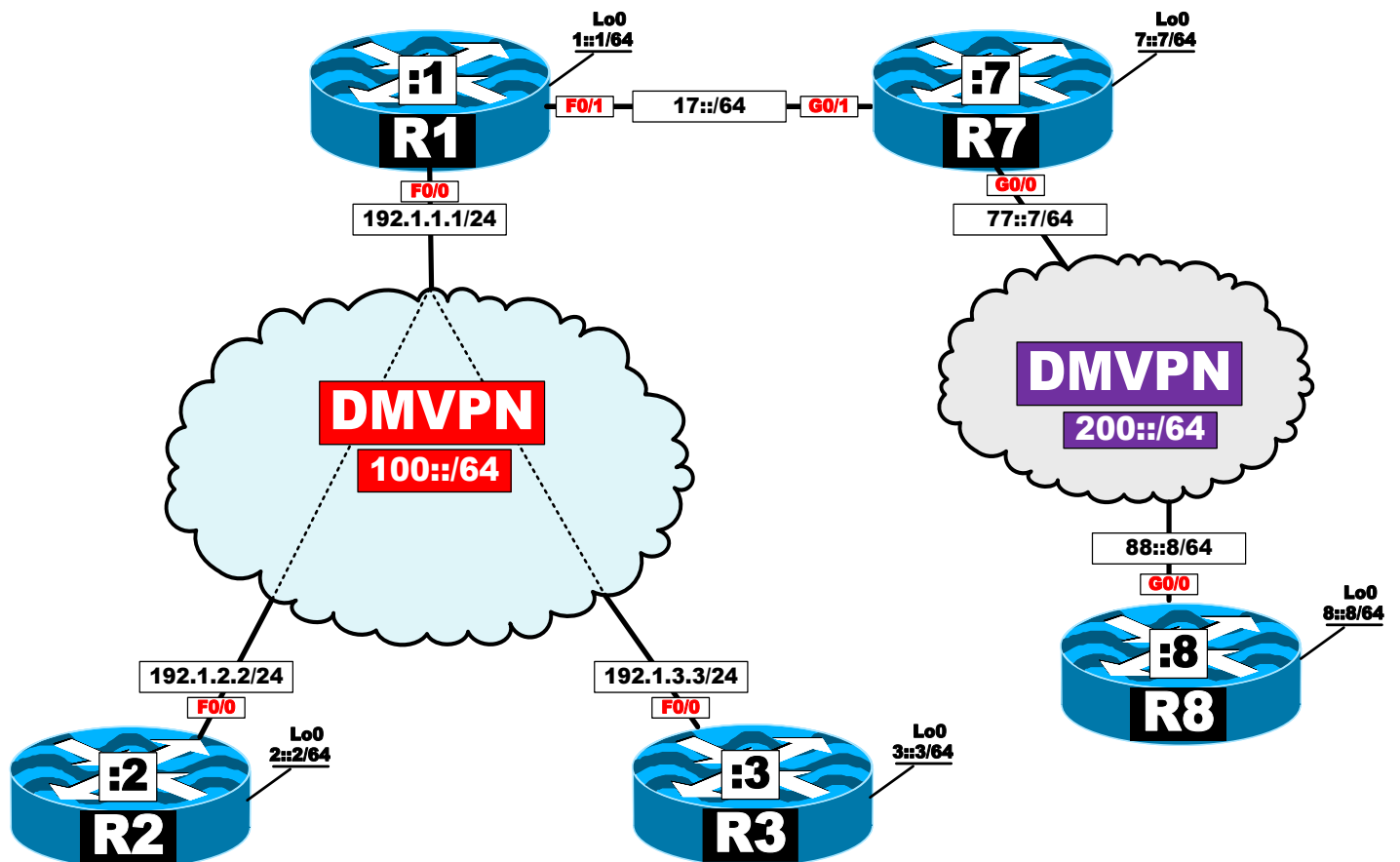
Narbik Kocharians
CCSI, CCIE #12410
R&S, Security, SP

DMVPN & IPv6 in IP

Lab 1 – Configuring IPv6 in IPv4 Tunnel



Lab 2 – DMVPN & IPv6



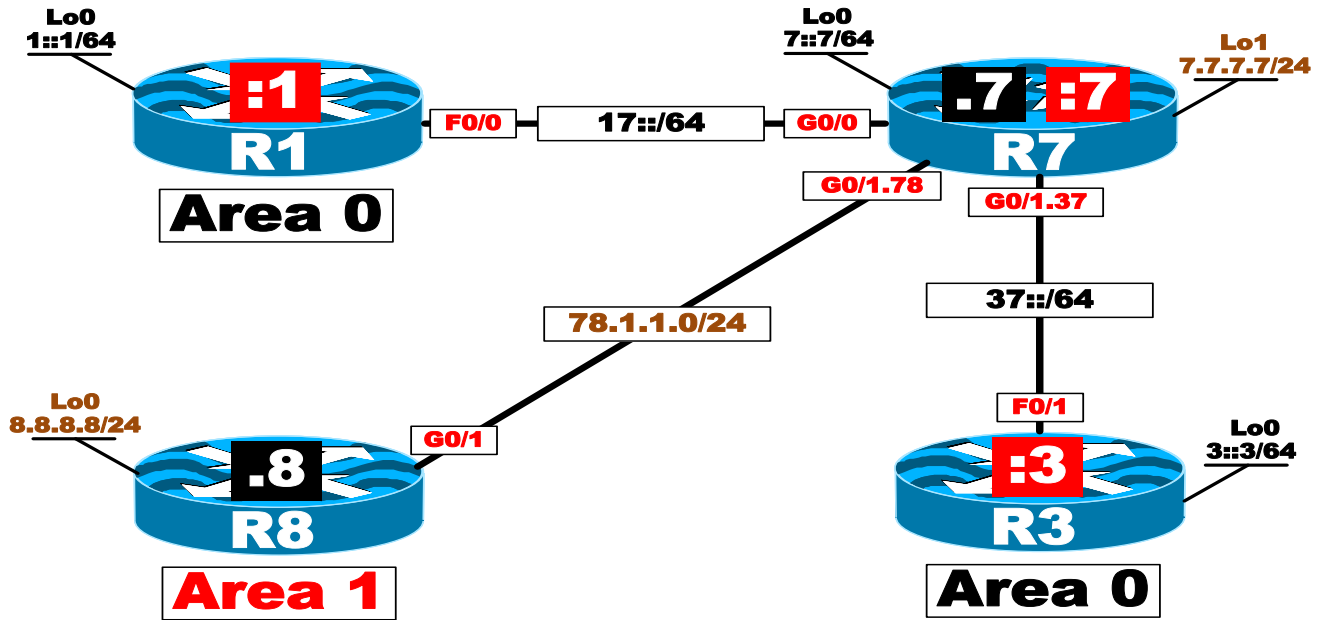
Advanced CCIE Routing & Switching v5.0

www.MicronicsTraining.com

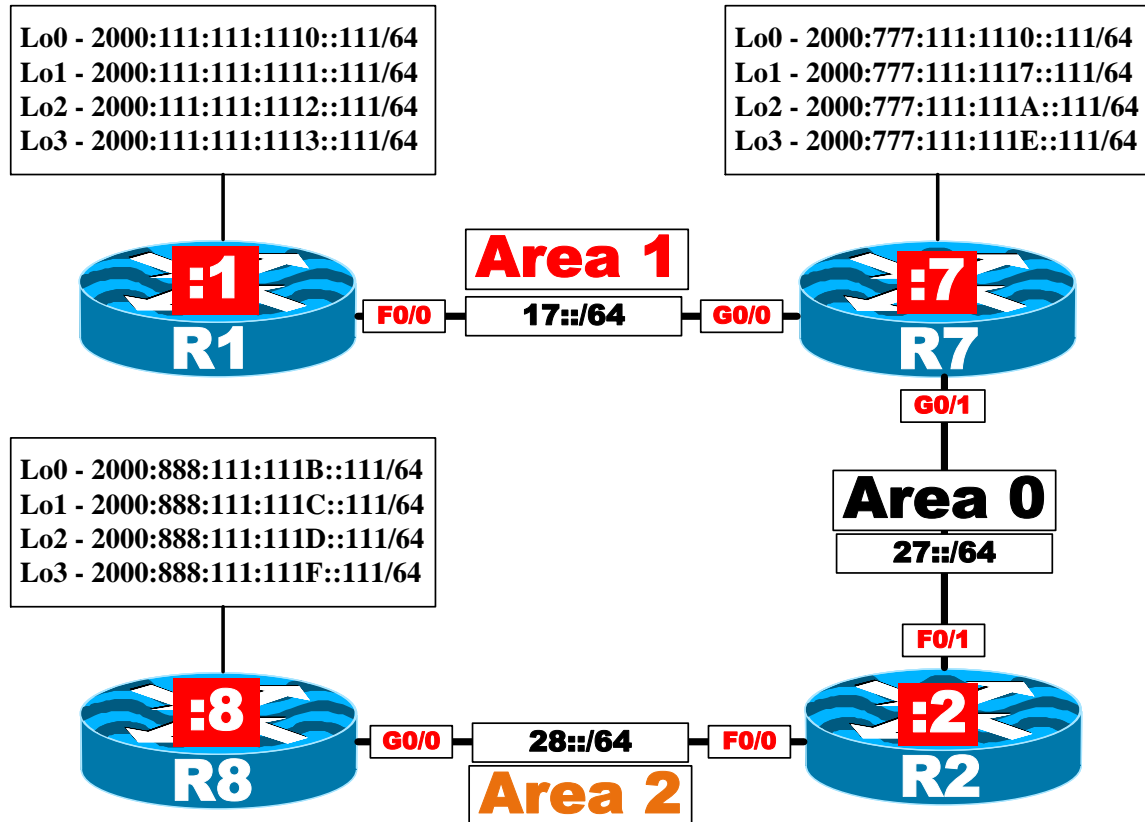
Narbik Kocharians
CCSI, CCIE #12410
R&S, Security, SP

OSPFv3

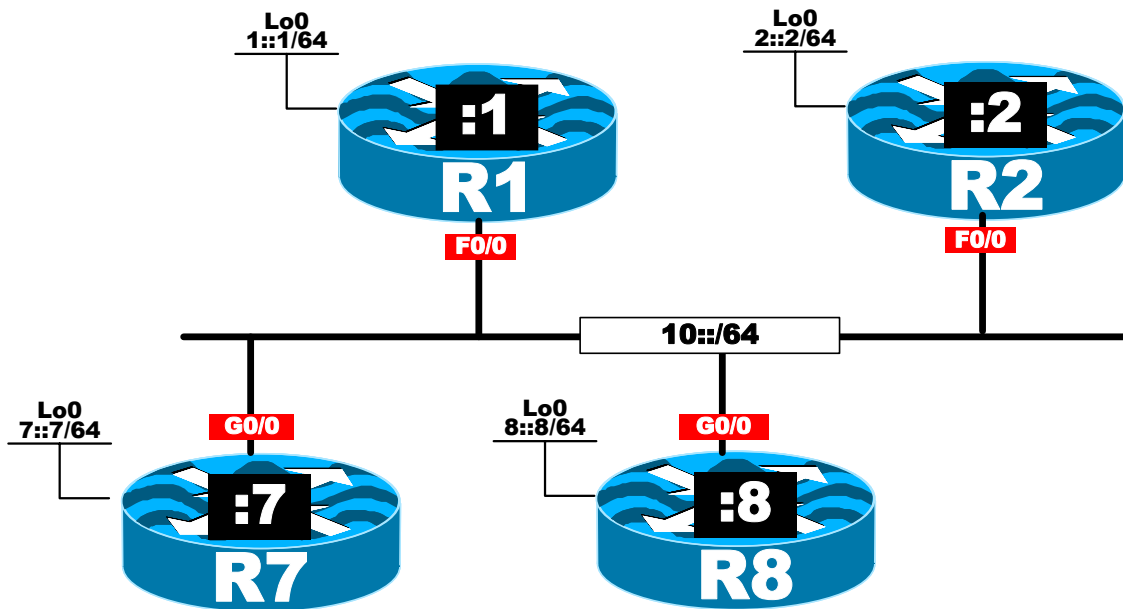
Lab 1 – Configuring OSPFv3



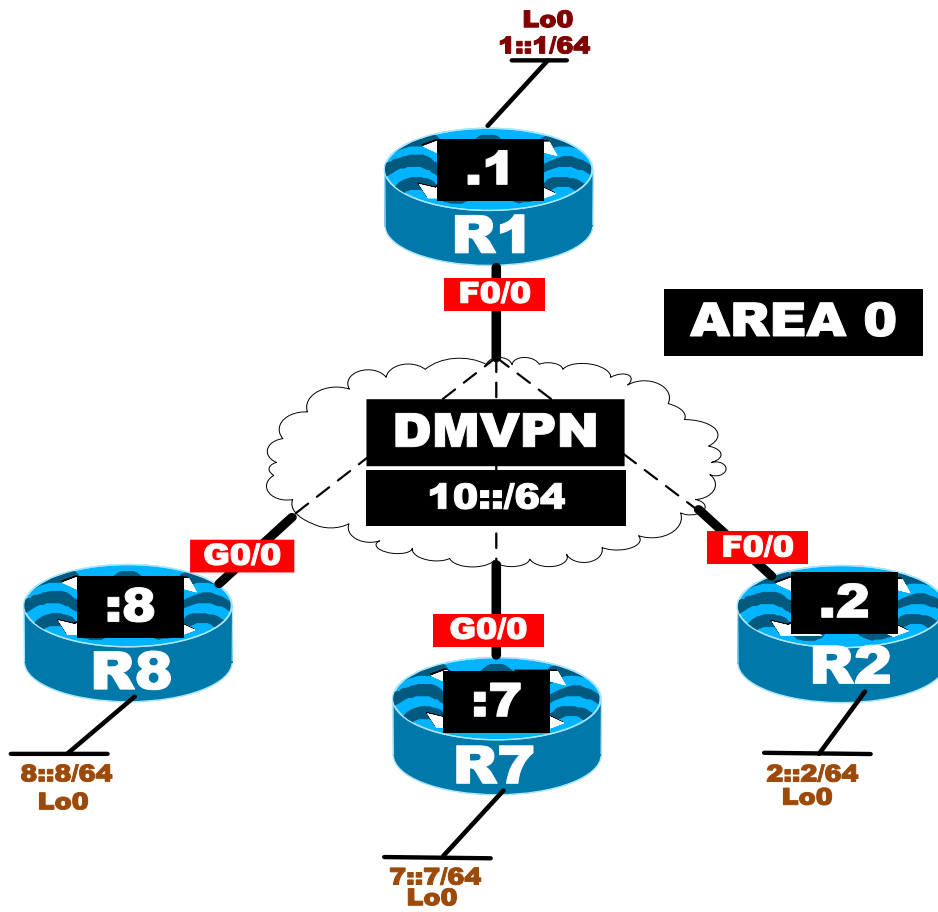
Lab 2 – Summarization of Internal and External Networks



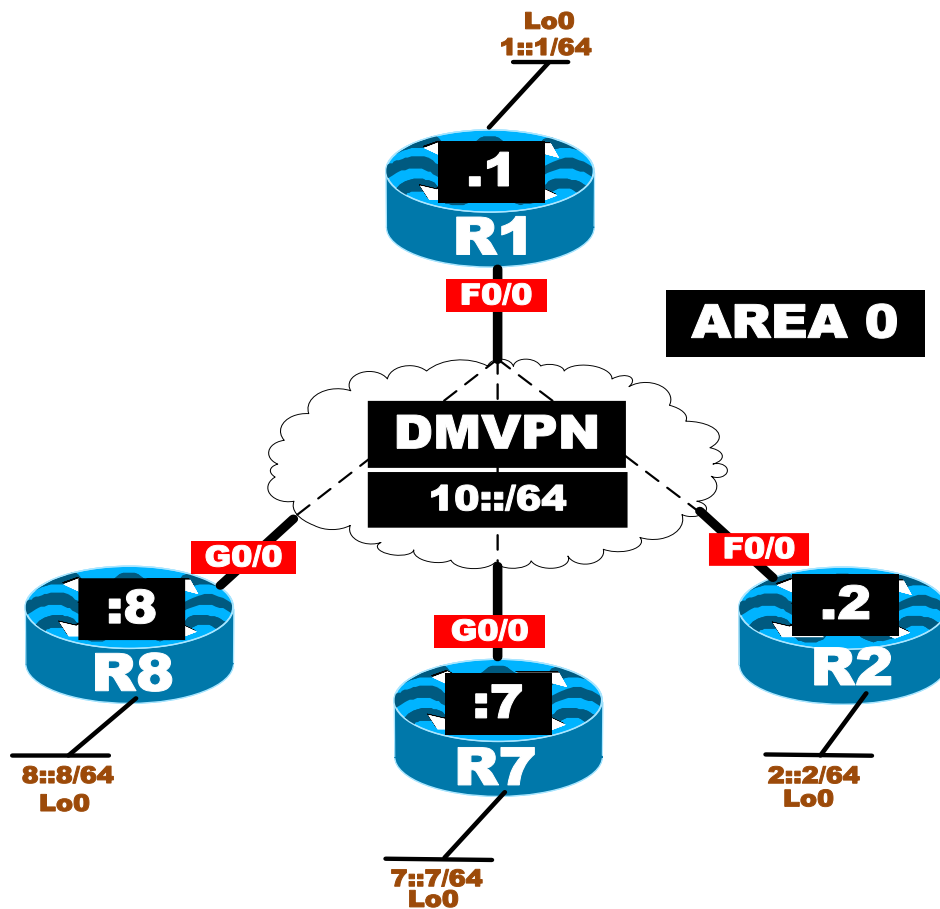
Lab 3 – OSPFv3 Broadcast Networks



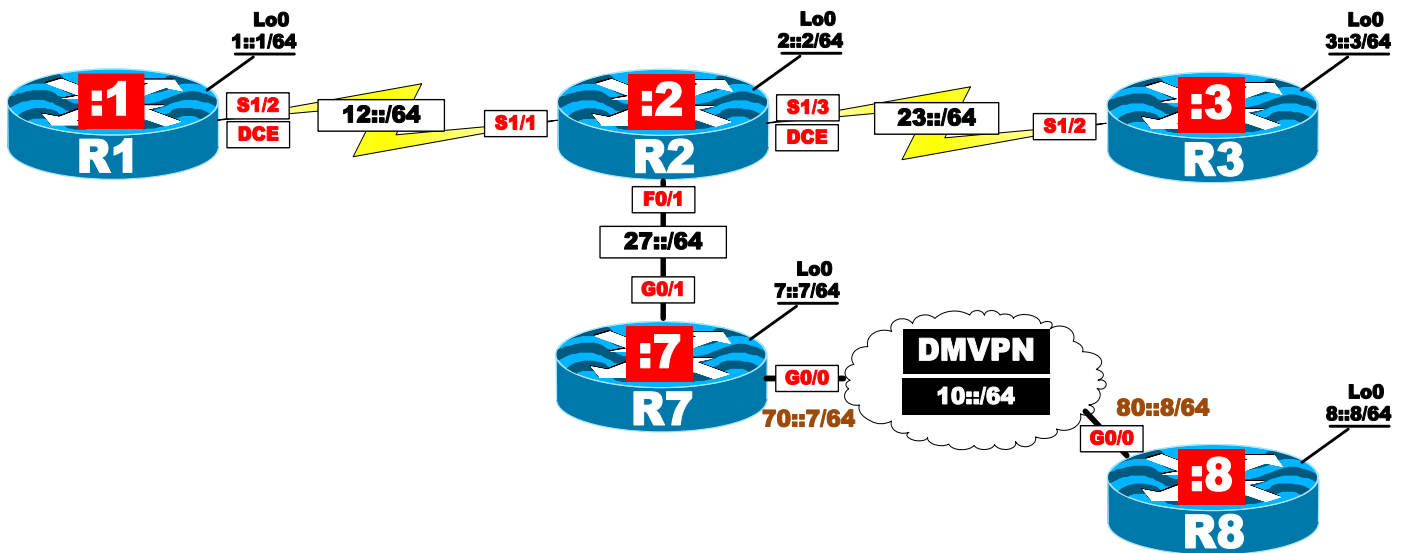
Task 2



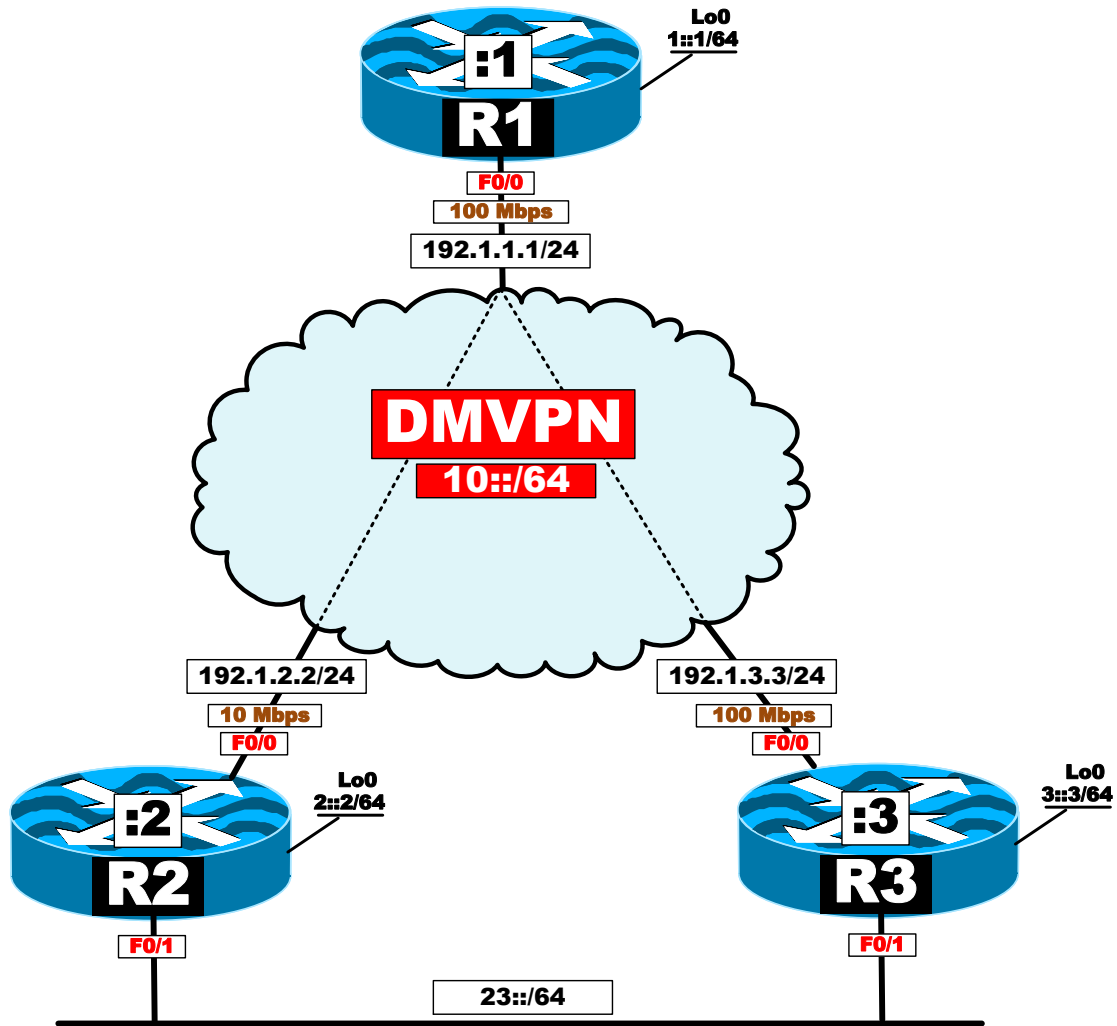
Lab 4 – OSPFv3 Non-Broadcast Networks



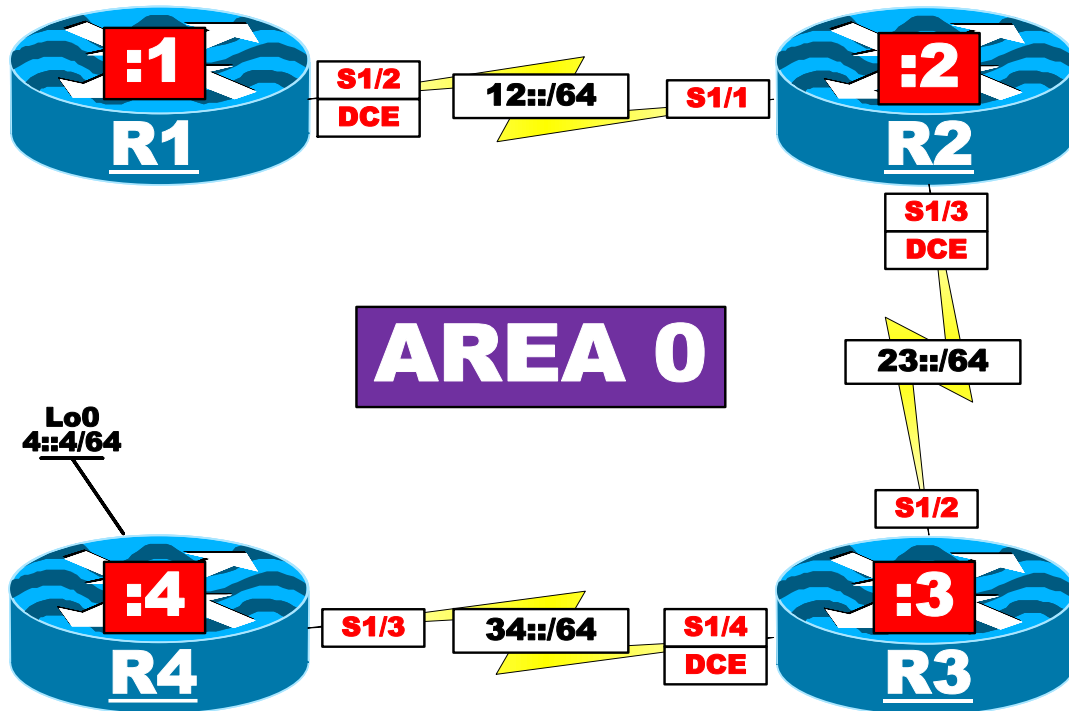
Lab 5 – OSPFv3 Point-to-Point Networks



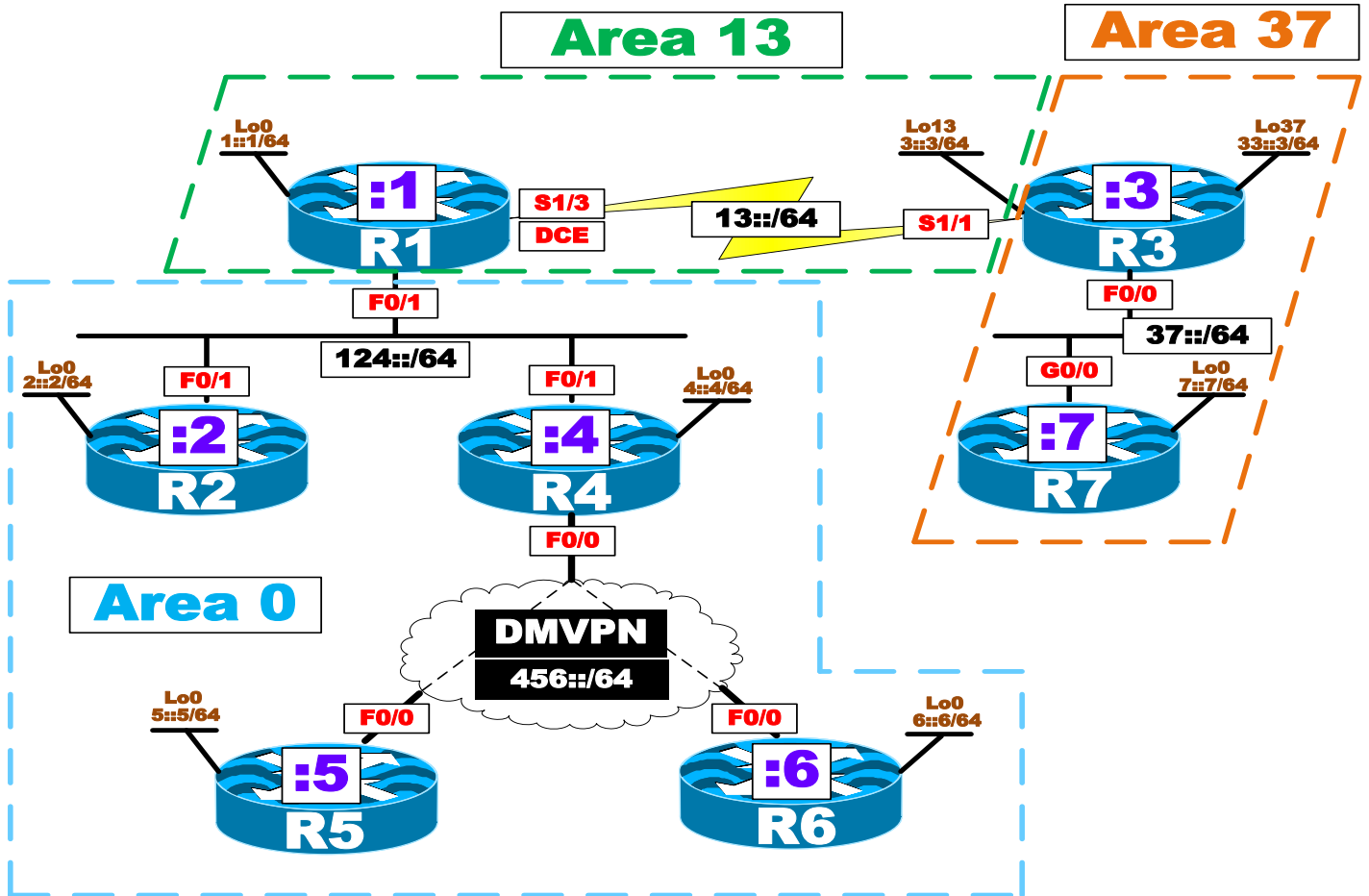
Lab 6 – OSPFv3 Point-to-Multipoint Networks



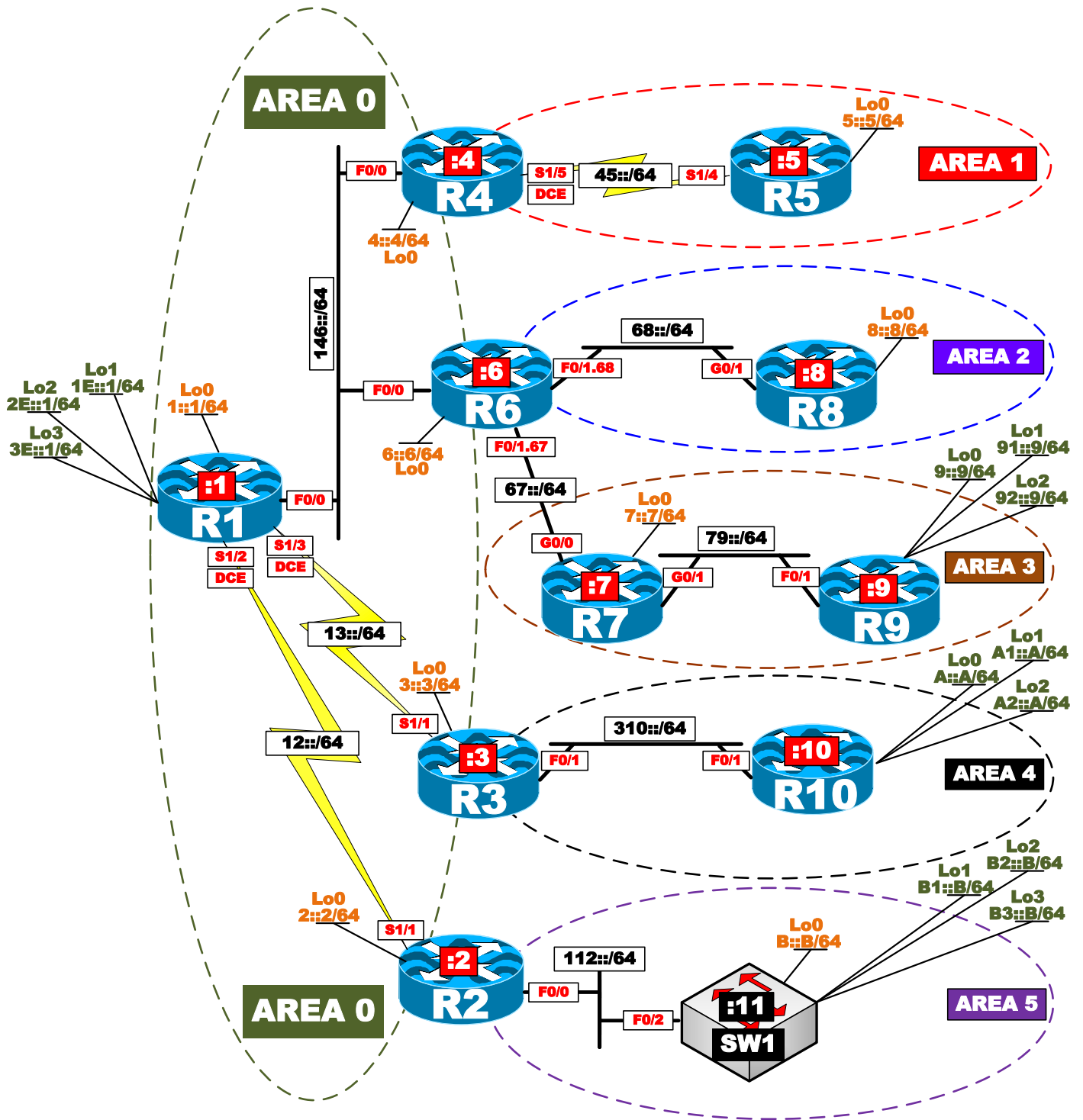
Lab 7 – OSPFv3 Cost and Auto-Cost



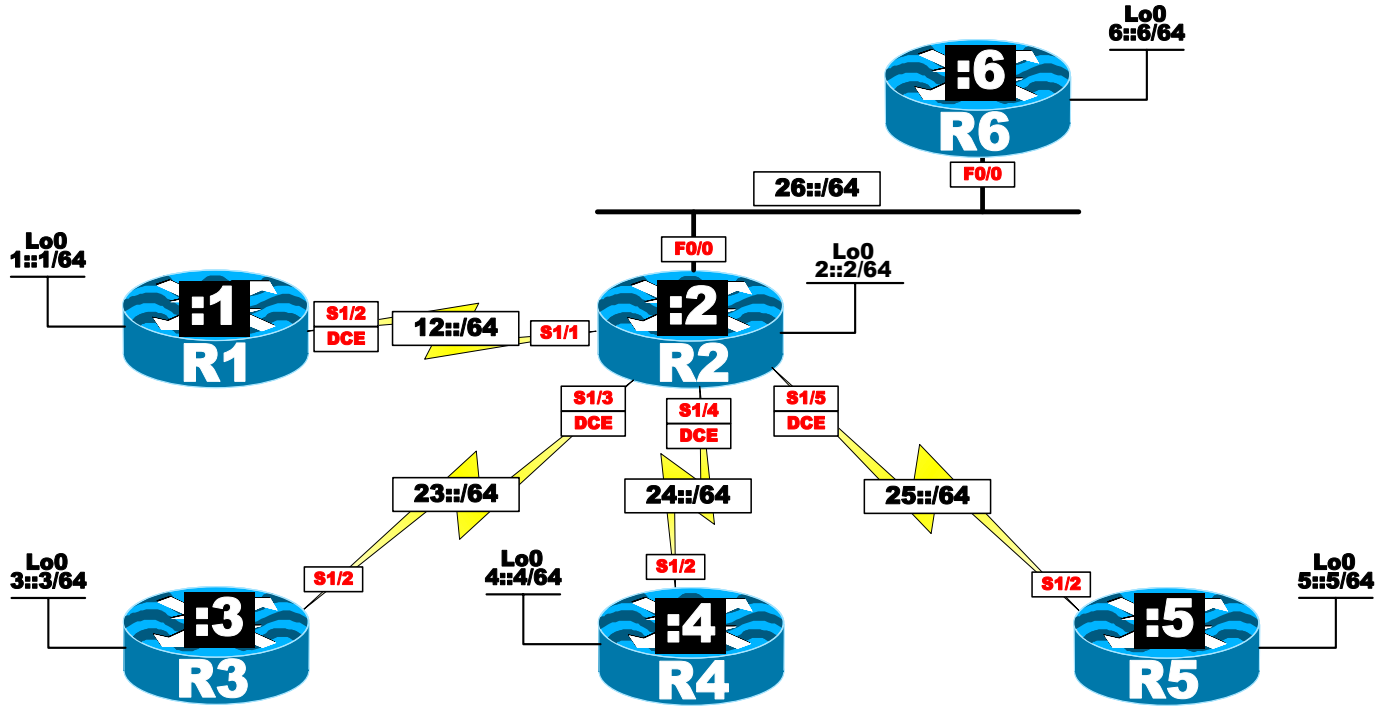
Lab 8 – LSAs in OSPFv3



Lab 9 – OSPFv3 Area Types



Lab 10 – OSPFv3 Authentication



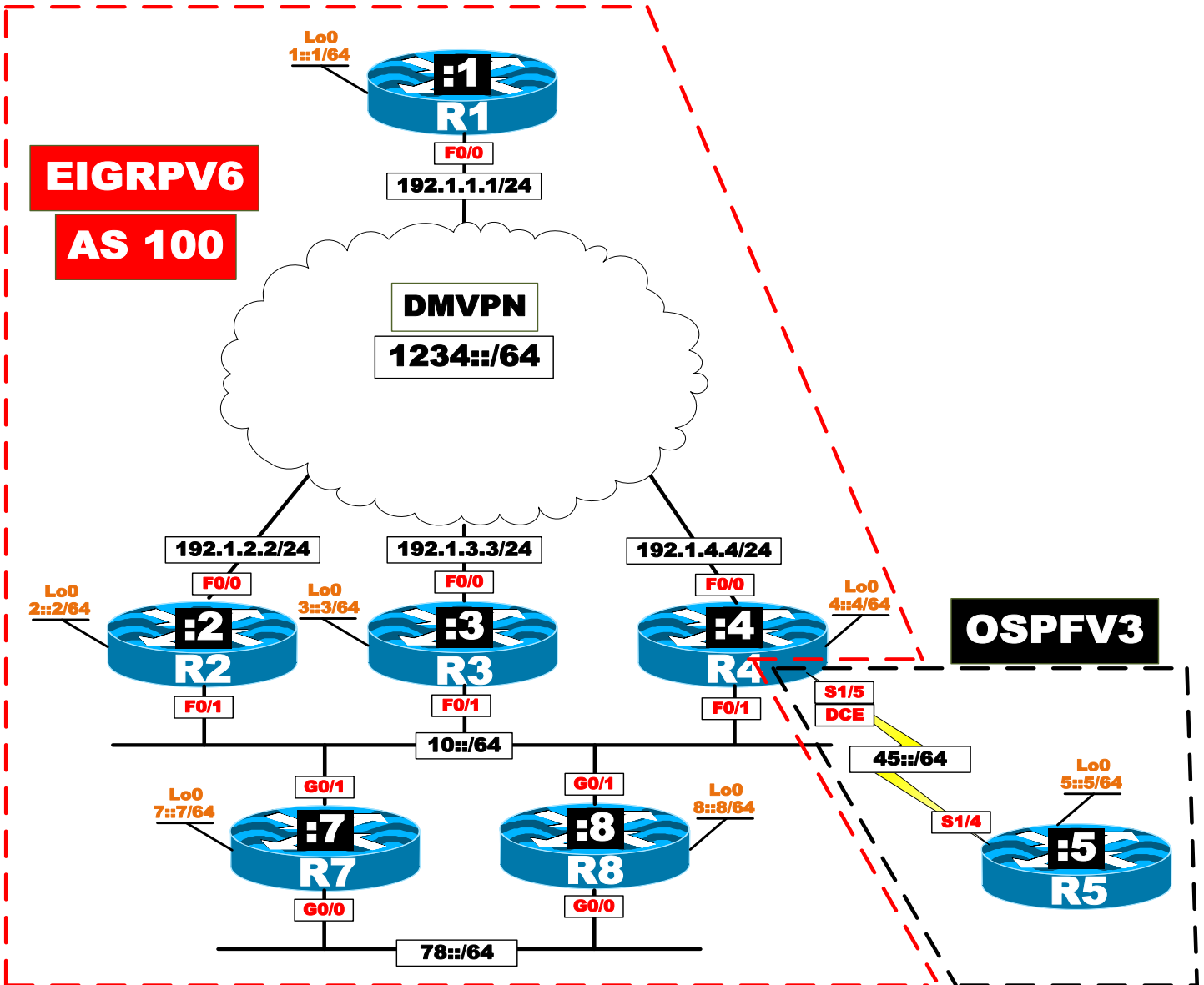
Advanced CCIE Routing & Switching 5.0

www.MicronicsTraining.com

Narbik Kocharians
CCSI, CCIE #12410
R&S, Security, SP

EIGRPv6

Lab 1 – EIGRPv6



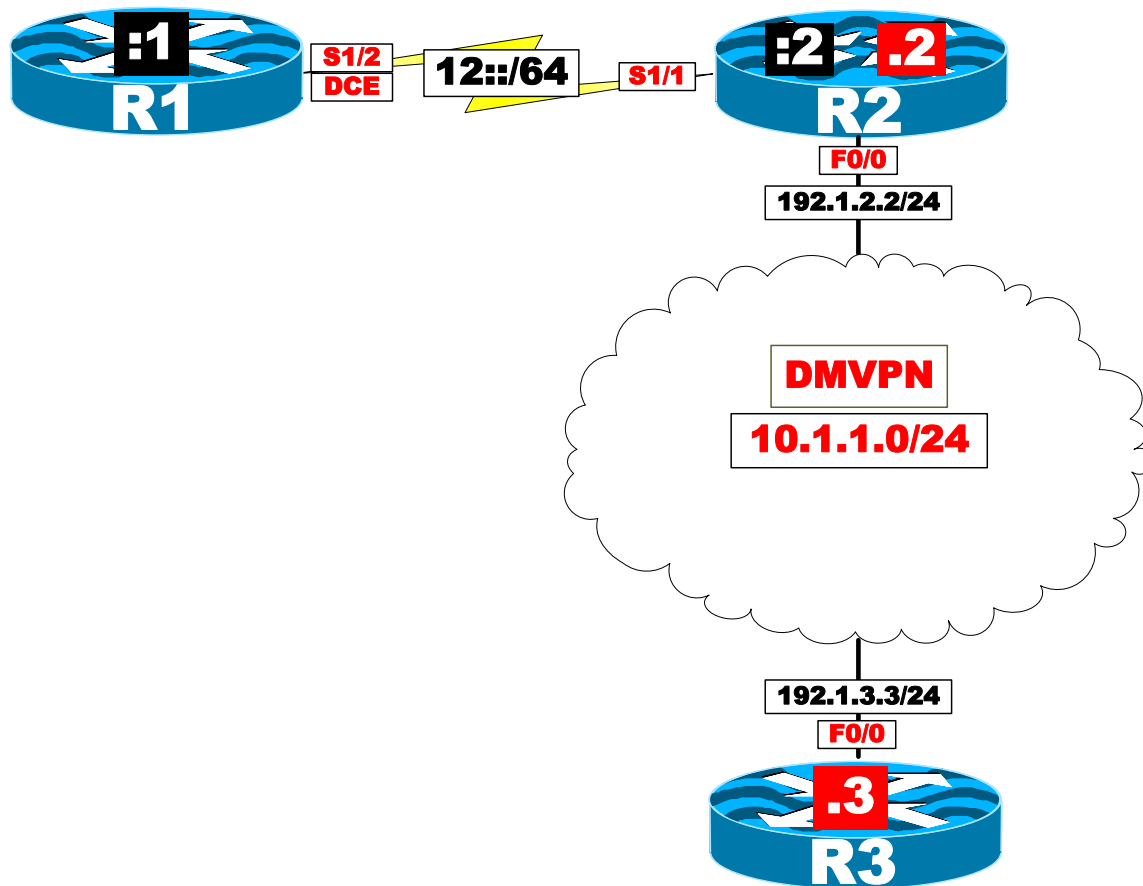
Advanced CCIE Routing & Switching 5.0

www.MicronicsTraining.com

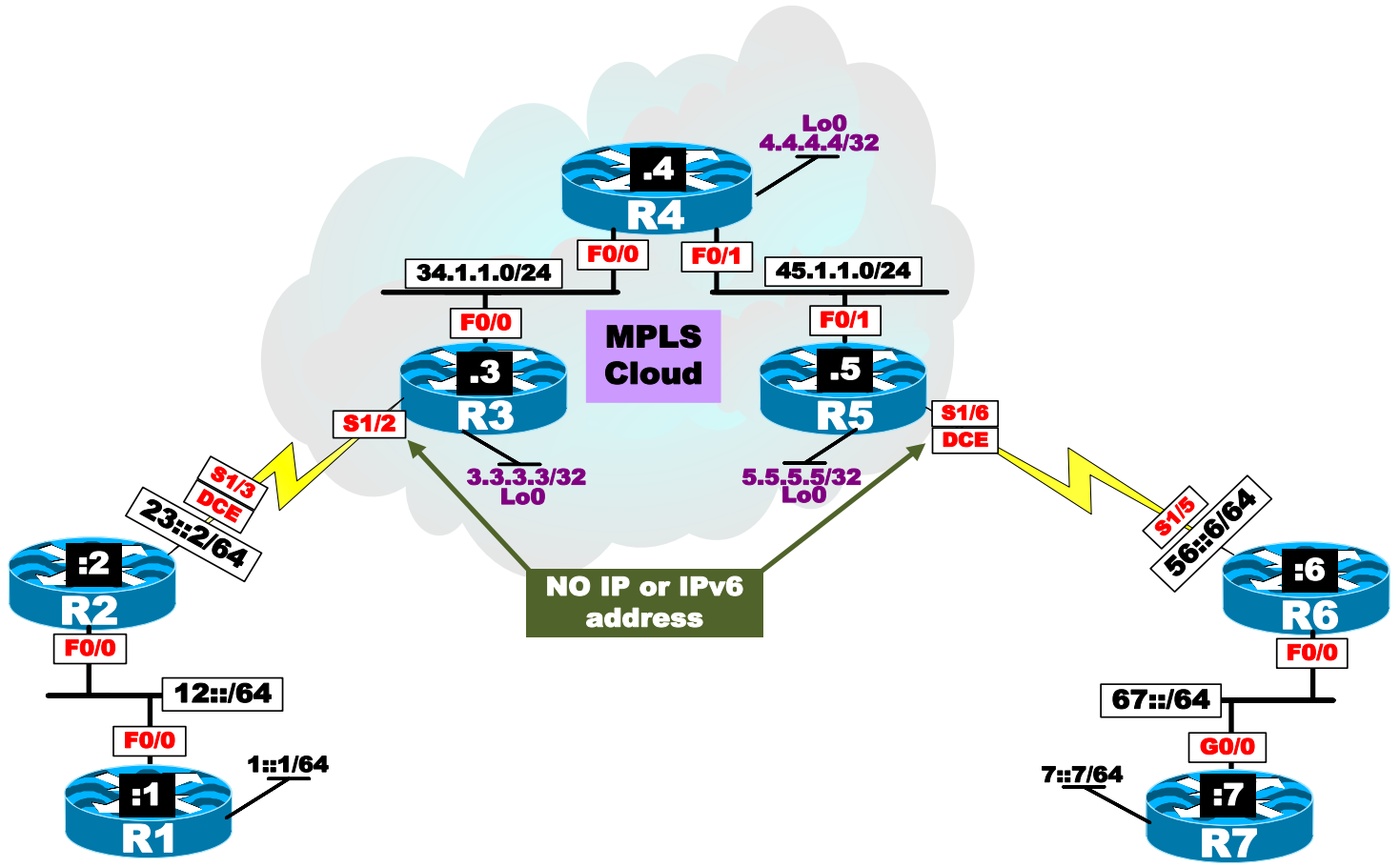
Narbik Kocharians
CCSI, CCIE #12410
R&S, Security, SP

Transitional Solutions

Lab 1 – Static NAT-PT



Lab 2 – AToM



Lab 3 – 6VPE

