

APPENDIX – SUGGESTED ADDRESSING SCHEME

While students are encouraged to generate their own addressing scheme for the workshop network, use the example in Figure 1 below as an aid.

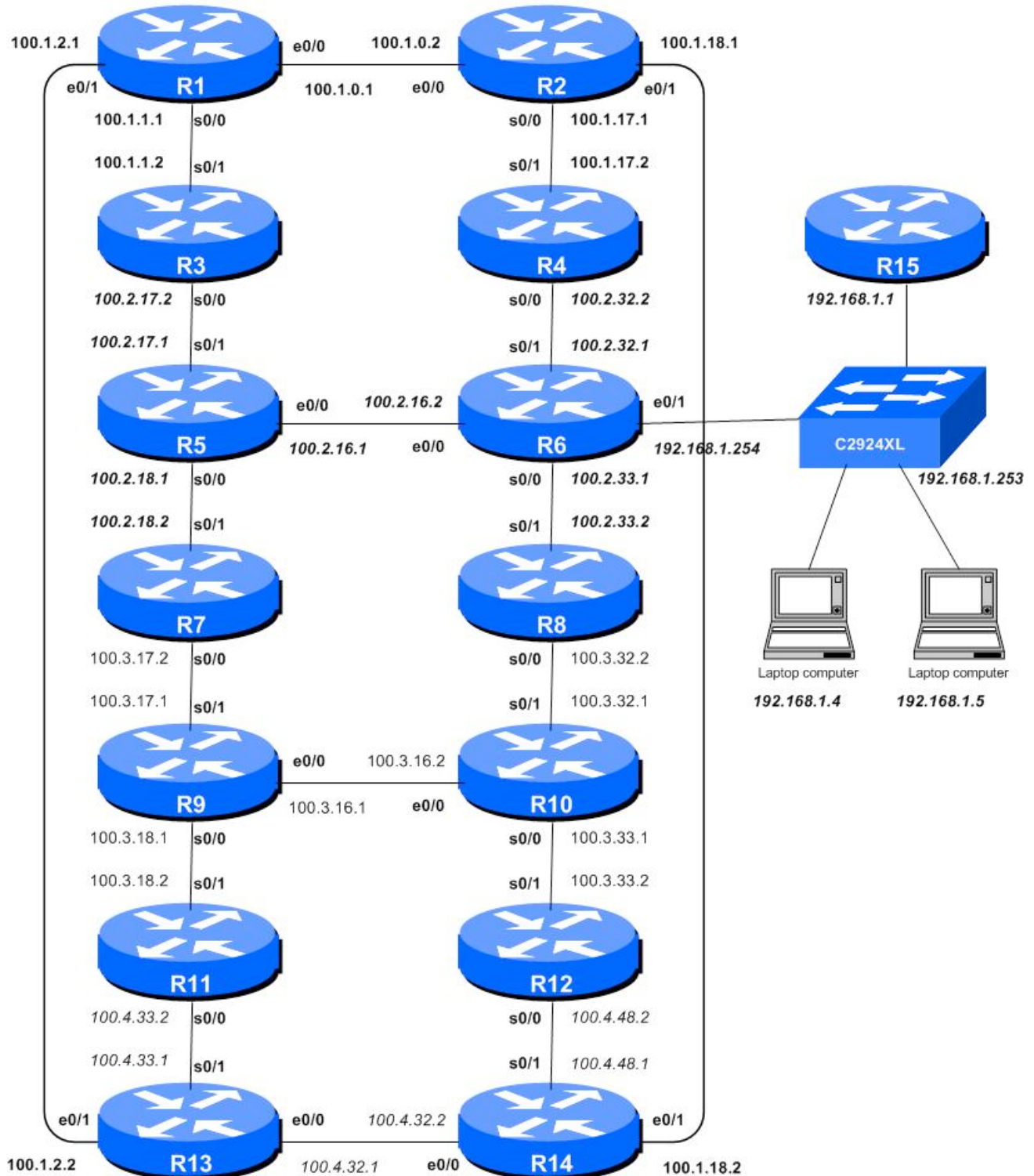


Figure 1 – Suggested addressing scheme

APPENDIX – Netmask Table

Subnet Mask	Wild-Card Mask	Network Bits	Host Bits	Prefix
0.0.0.0	255.255.255.255	0	32	/0
128.0.0.0	127.255.255.255	1	31	/1
192.0.0.0	63.255.255.255	2	30	/2
224.0.0.0	31.255.255.255	3	29	/3
240.0.0.0	15.255.255.255	4	28	/4
248.0.0.0	7.255.255.255	5	27	/5
252.0.0.0	3.255.255.255	6	26	/6
254.0.0.0	1.255.255.255	7	25	/7
255.0.0.0	0.255.255.255	8	24	/8
255.128.0.0	0.127.255.255	9	23	/9
255.192.0.0	0.63.255.255	10	22	/10
255.224.0.0	0.31.255.255	11	21	/11
255.240.0.0	0.15.255.255	12	20	/12
255.248.0.0	0.7.255.255	13	19	/13
255.252.0.0	0.3.255.255	14	18	/14
255.254.0.0	0.1.255.255	15	17	/15
255.255.0.0	0.0.255.255	16	16	/16
255.255.128.0	0.0.127.255	17	15	/17
255.255.192.0	0.0.63.255	18	14	/18
255.255.224.0	0.0.31.255	19	13	/19
255.255.240.0	0.0.15.255	20	12	/20
255.255.248.0	0.0.7.255	21	11	/21
255.255.252.0	0.0.3.255	22	10	/22
255.255.254.0	0.0.1.255	23	9	/23
255.255.255.0	0.0.0.255	24	8	/24
255.255.255.128	0.0.0.127	25	7	/25
255.255.255.192	0.0.0.63	26	6	/26
255.255.255.224	0.0.0.31	27	5	/27
255.255.255.240	0.0.0.15	28	4	/28
255.255.255.248	0.0.0.7	29	3	/29
255.255.255.252	0.0.0.3	30	2	/30
255.255.255.254	0.0.0.1	31	1	/31
255.255.255.255	0.0.0.0	32	0	/32

Chart 1 – IPv4 Subnets

Subnet Mask

Wild-Card Mask

Network Bits

Host Bits

Prefix

The subnet mask of the CIDR block.

Wild-Card Mask used in OSPF and packet filters

The number of bits in the network part of the mask

The number of bits in the host part of the mask

Short hand syntax of the CIDR block.