Adding Services

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NETWORK ENGINEER

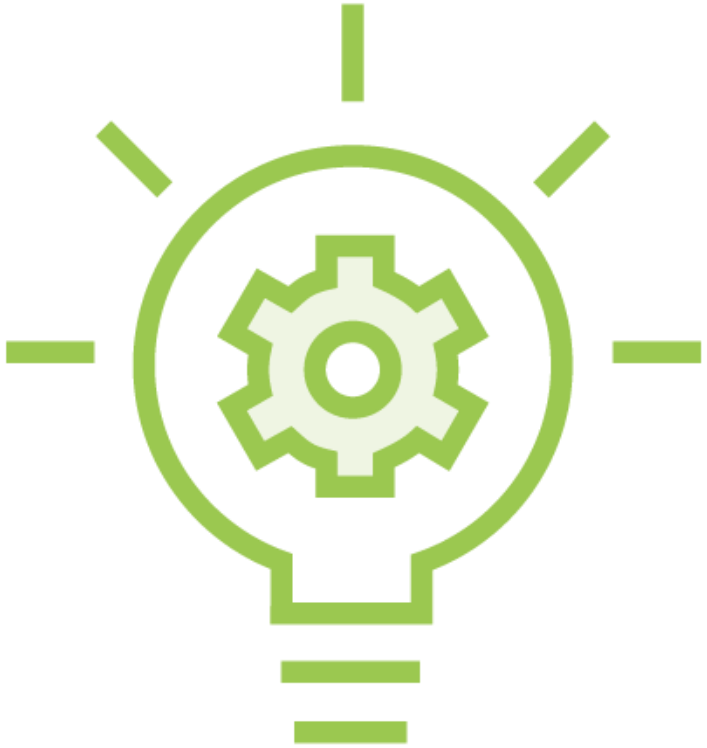
@bagurdes

Module Goals

Add Port Forwarding NAT for Internet access to web server at 10.0.80.80

Add ACL to protect web server

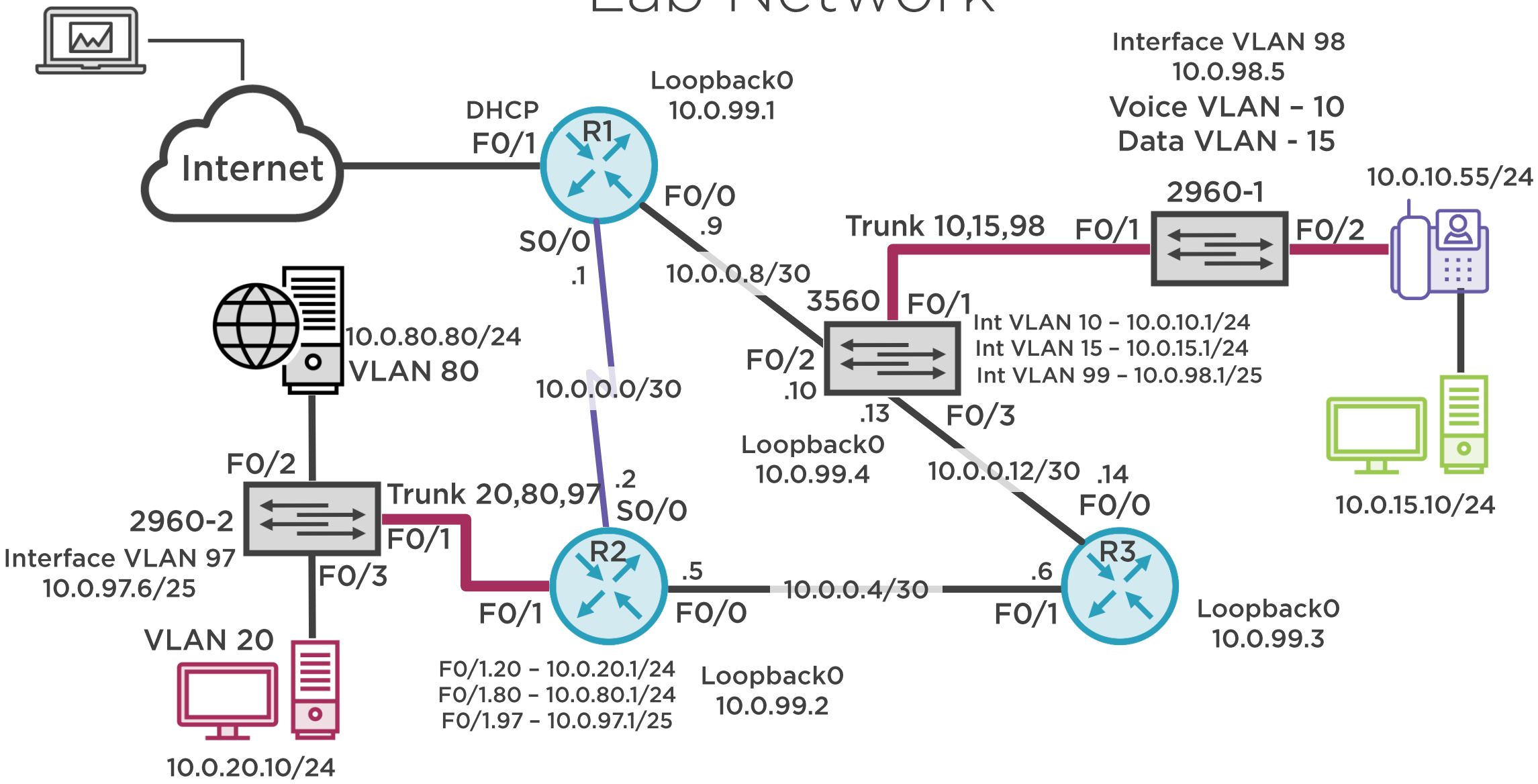
Adding Services



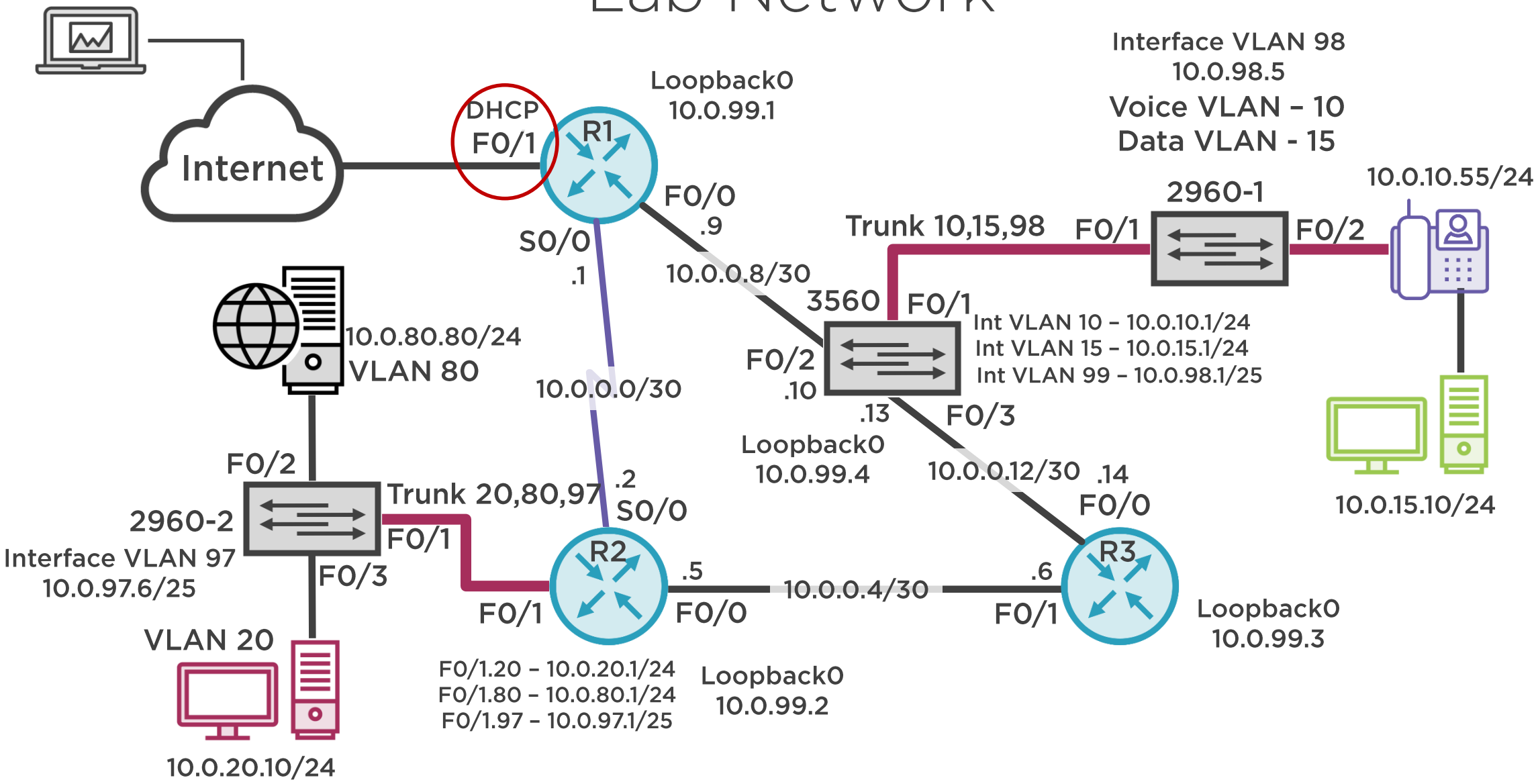
Add port forwarding NAT rule to R1 allow access to Web Server on VLAN 80

Add ACL to allow access to Web Server ONLY on port 80

Lab Network


Internet
DHCP
F0/1
R1
Loopback0
10.0.99.1
F0/0
.9
10.0.0.8/30
S0/0
.1
10.0.0.0/30
Interface VLAN 98
10.0.98.5
Voice VLAN – 10
Data VLAN - 15
2960-1
Trunk 10,15,98
F0/1
F0/2
10.0.10.55/24
3560
F0/1
Int VLAN 10 – 10.0.10.1/24
Int VLAN 15 – 10.0.15.1/24
Int VLAN 99 – 10.0.98.1/25
F0/2
.10
.13
F0/3
Loopback0
10.0.99.4
10.0.0.12/30
.14
F0/0
10.0.15.10/24
10.0.80.80/24
VLAN 80
F0/2
2960-2
Trunk 20,80,97
.2
S0/0
F0/1
Interface VLAN 97
10.0.97.6/25
F0/3
R2
.5
10.0.0.4/30
.6
R3
F0/1
F0/0
F0/1
F0/0
Loopback0
10.0.99.3
VLAN 20
F0/1.20 – 10.0.20.1/24
F0/1.80 – 10.0.80.1/24
F0/1.97 – 10.0.97.1/25
Loopback0
10.0.99.2
10.0.20.10/24

Lab Network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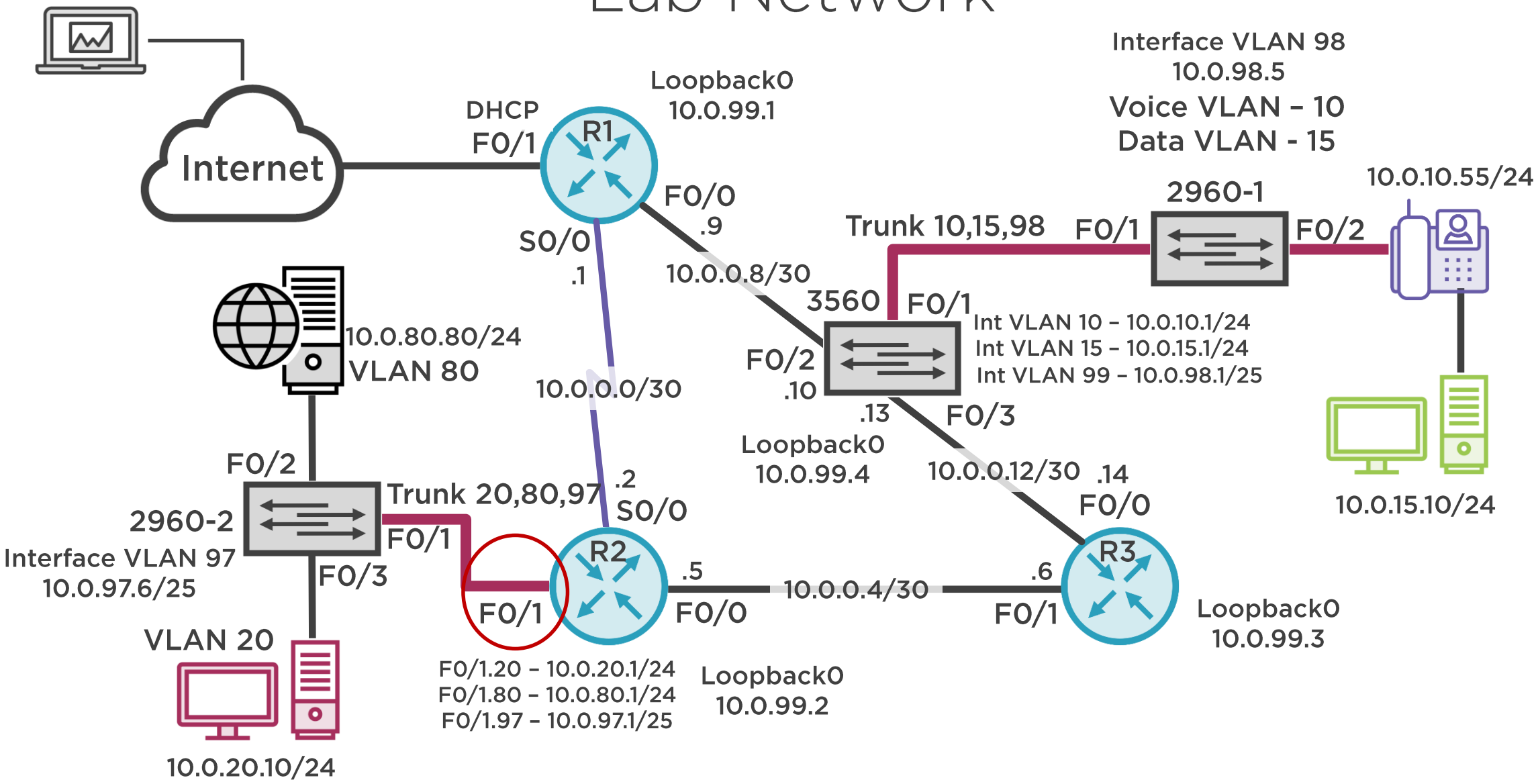
Lab Network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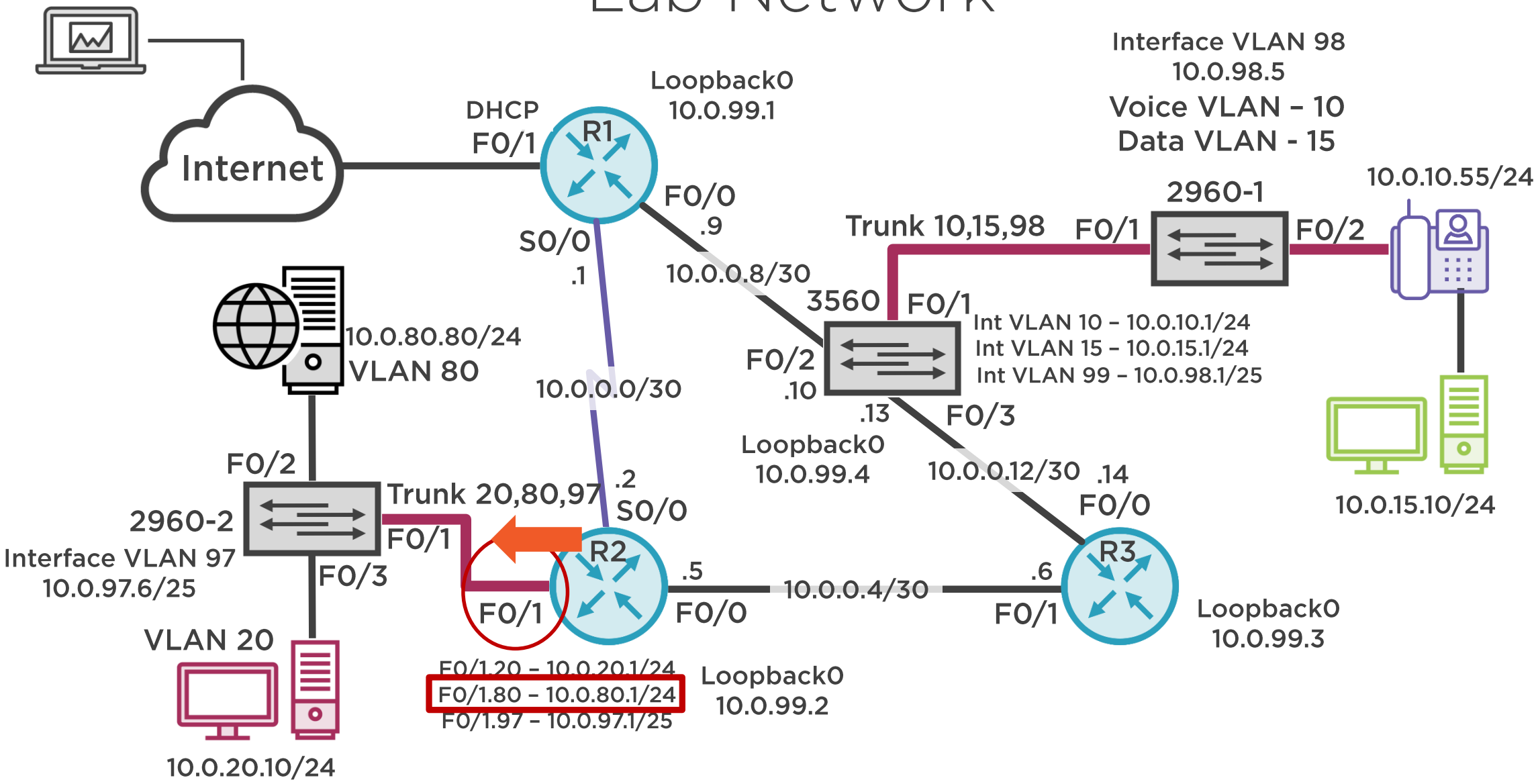
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F0/1
F0/0
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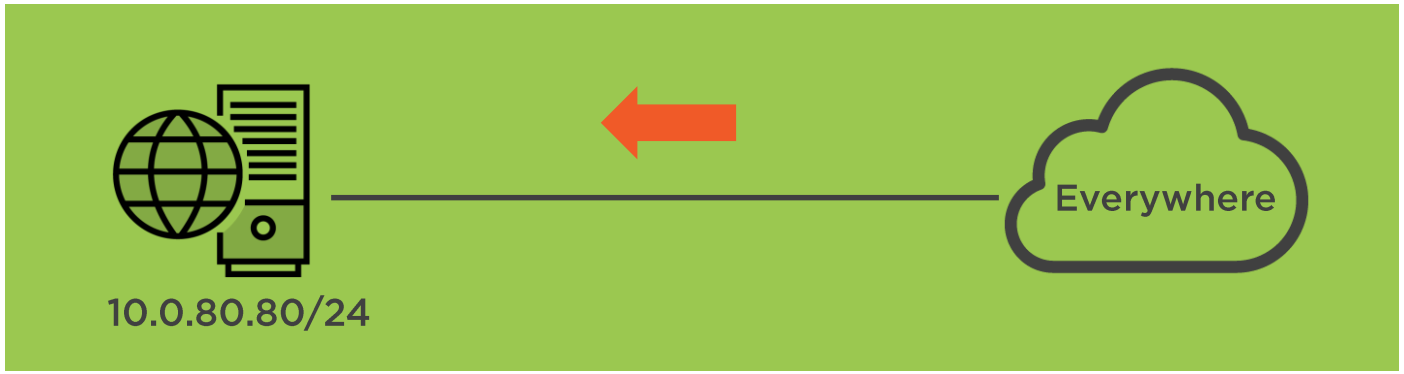
10.0.20.10/24

ACL Design

Add ACL to allow access to Web Server ONLY on port 80



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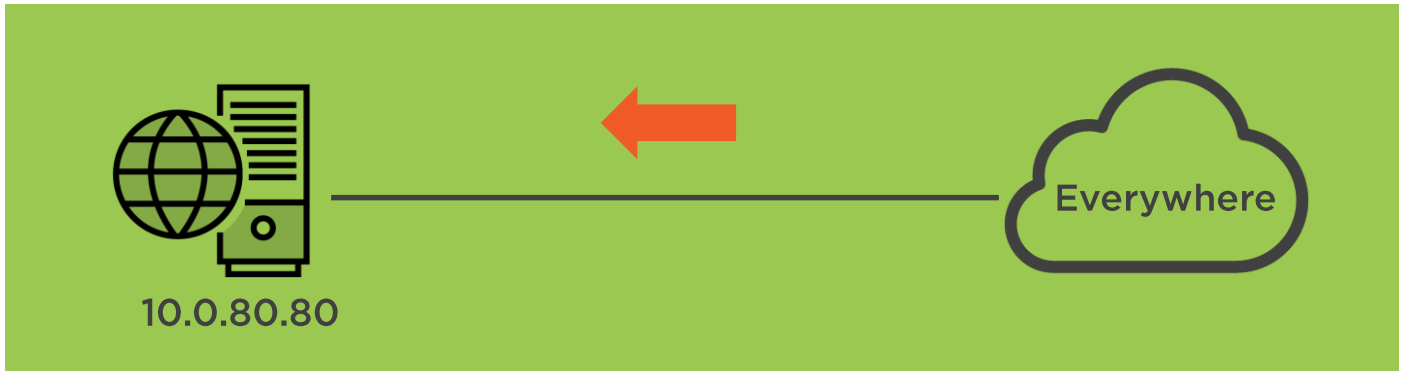
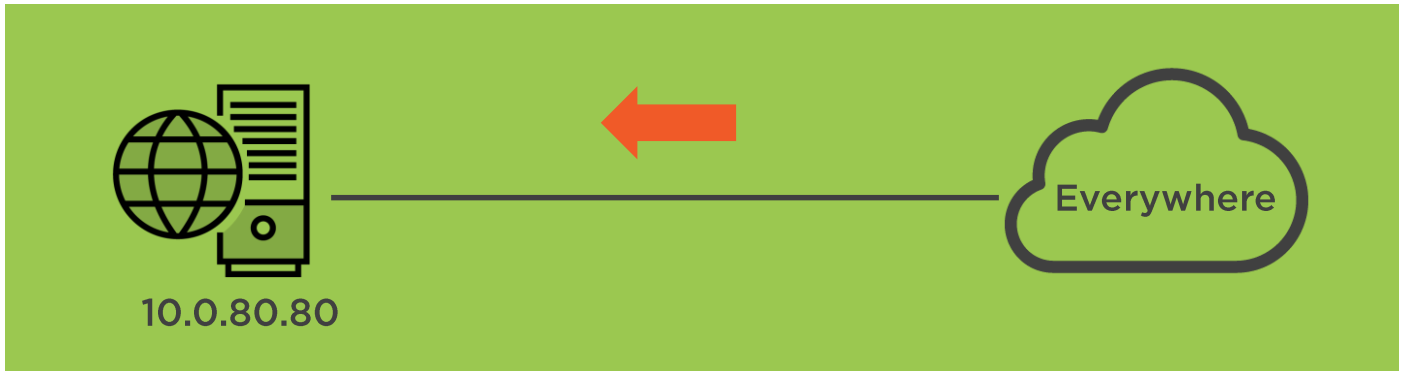
Add ACL to allow access to Web Server ONLY on port 80



Permit/ Deny	Protocol	Source IP	Source Port	Destination IP	Destination Port

ACL Design

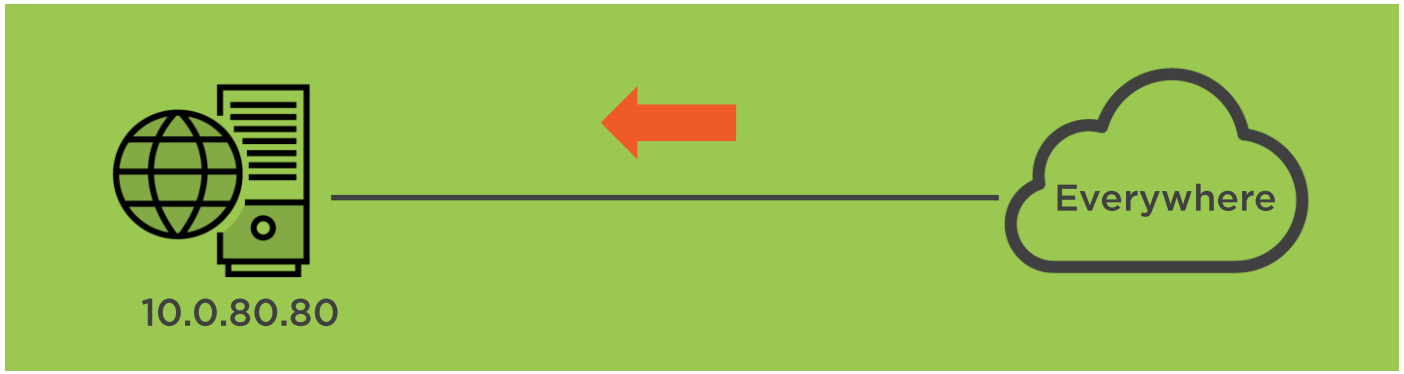
Add ACL to allow access to Web Server ONLY on port 80



Permit/ Deny	Protocol	Source IP	Source Port	Destination IP	Destination Port
permit					

ACL Design

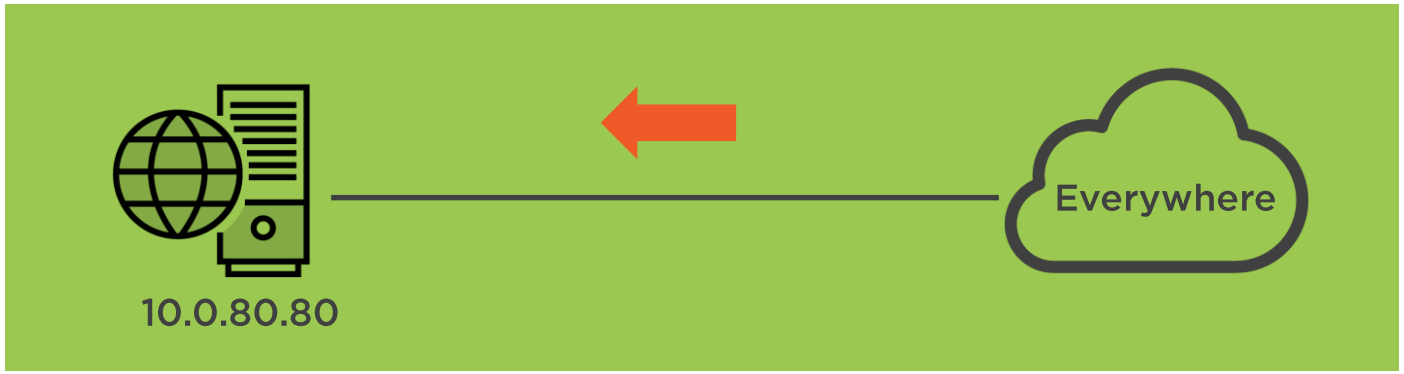
Add ACL to allow access to Web Server ONLY on port 80



Permit/ Deny	Protocol	Source IP	Source Port	Destination IP	Destination Port
permit	tcp				

ACL Design

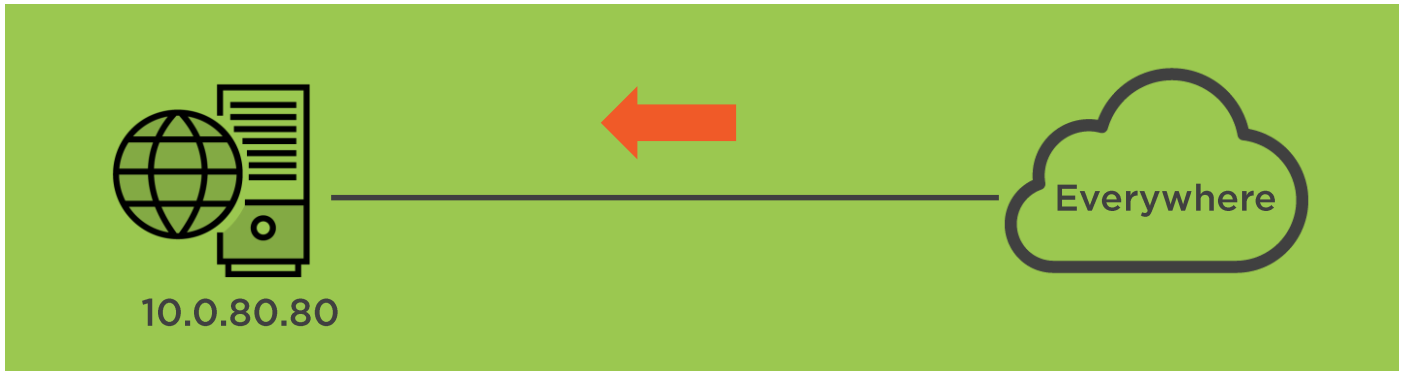
Add ACL to allow access to Web Server ONLY on port 80



Permit/ Deny	Protocol	Source IP	Source Port	Destination IP	Destination Port
permit	tcp	any			

ACL Design

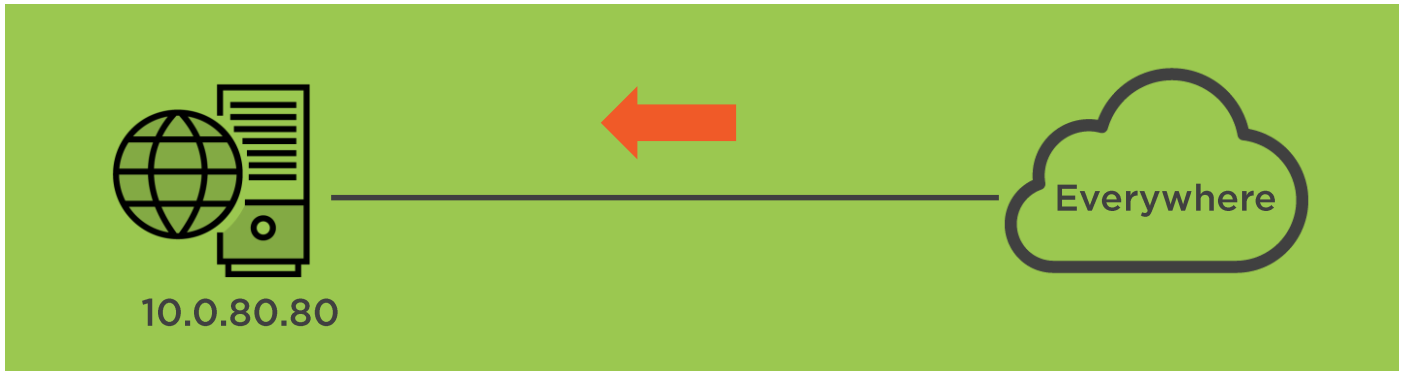
Add ACL to allow access to Web Server ONLY on port 80



Permit/ Deny	Protocol	Source IP	Source Port	Destination IP	Destination Port
permit	tcp	any	any		

ACL Design

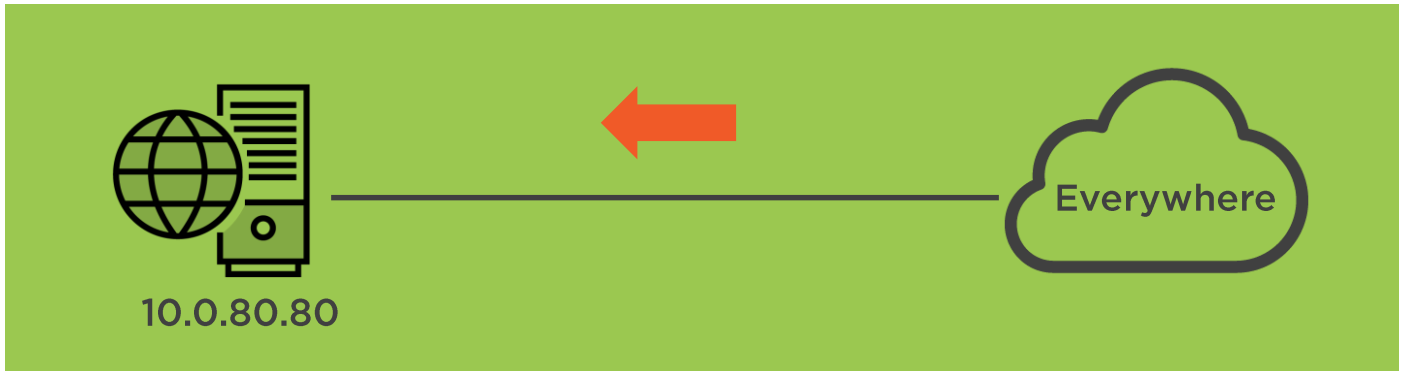
Add ACL to allow access to Web Server ONLY on port 80



Permit/ Deny	Protocol	Source IP	Source Port	Destination IP	Destination Port
permit	tcp	any	any	10.0.80.80	

ACL Design

Add ACL to allow access to Web Server ONLY on port 80



Permit/ Deny	Protocol	Source IP	Source Port	Destination IP	Destination Port
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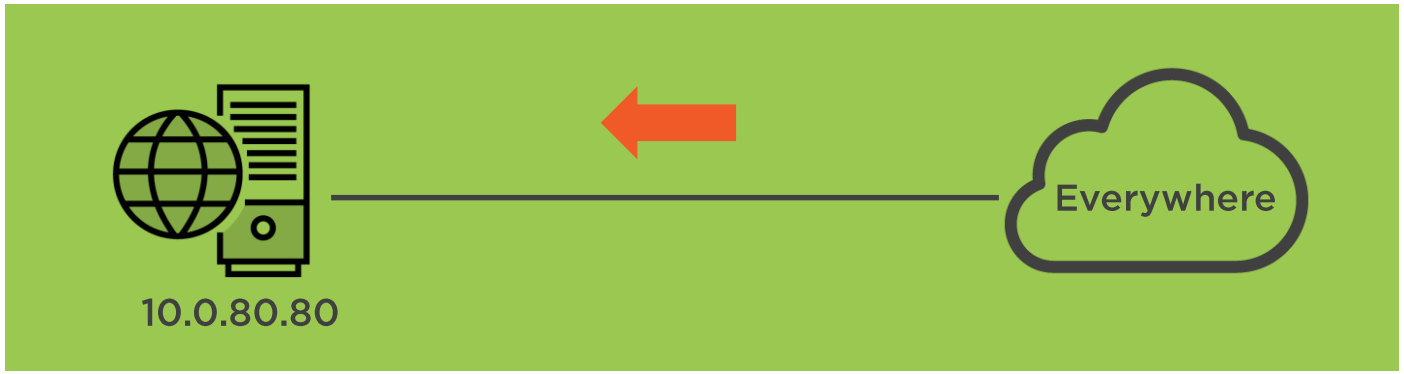
ACL Design

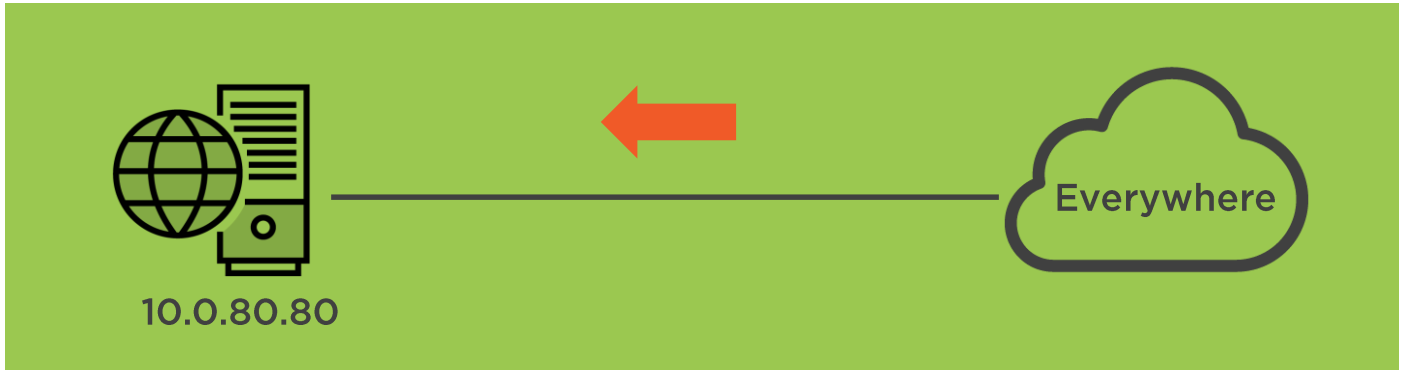
Add ACL to allow access to Web Server ONLY on port 80



Permit/ Deny	Protocol	Source IP	Source Port	Destination IP	Destination Port
permit	tcp	any	any	10.0.80.80	80
deny	ip	any	--	any	--

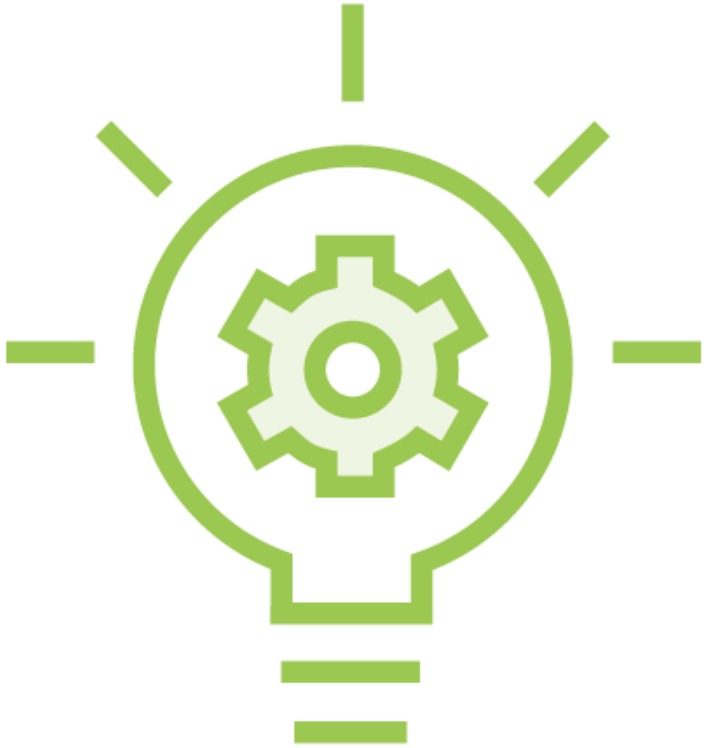
ACL Design

Add ACL to allow access to Web Server ONLY on port 80




```
ip access-list extended WebFilter
permit tcp any host 10.0.80.80 eq 80
deny ip any any
```

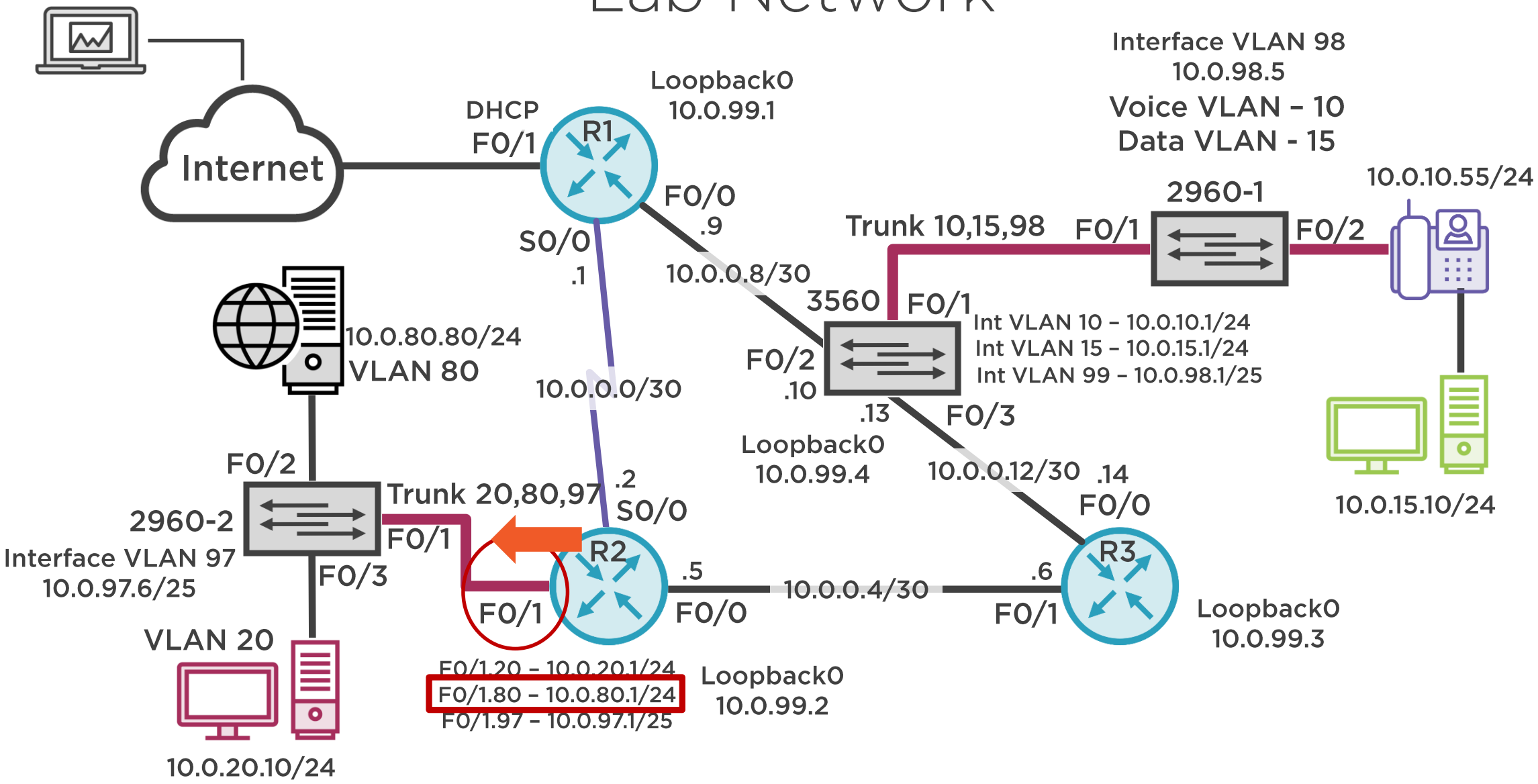
Permit/ Deny	Protocol	Source IP	Source Port	Destination IP	Destination Port
permit	tcp	any	any	10.0.80.80	80
deny	ip	any	--	any	--



Tasks

- Configure PAT on R1
- Test access to Web Server from Internet
- Configure ACL on R2
- Test access to Web Server from inside network
- Test access to Web Server from Internet

Lab Network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R1
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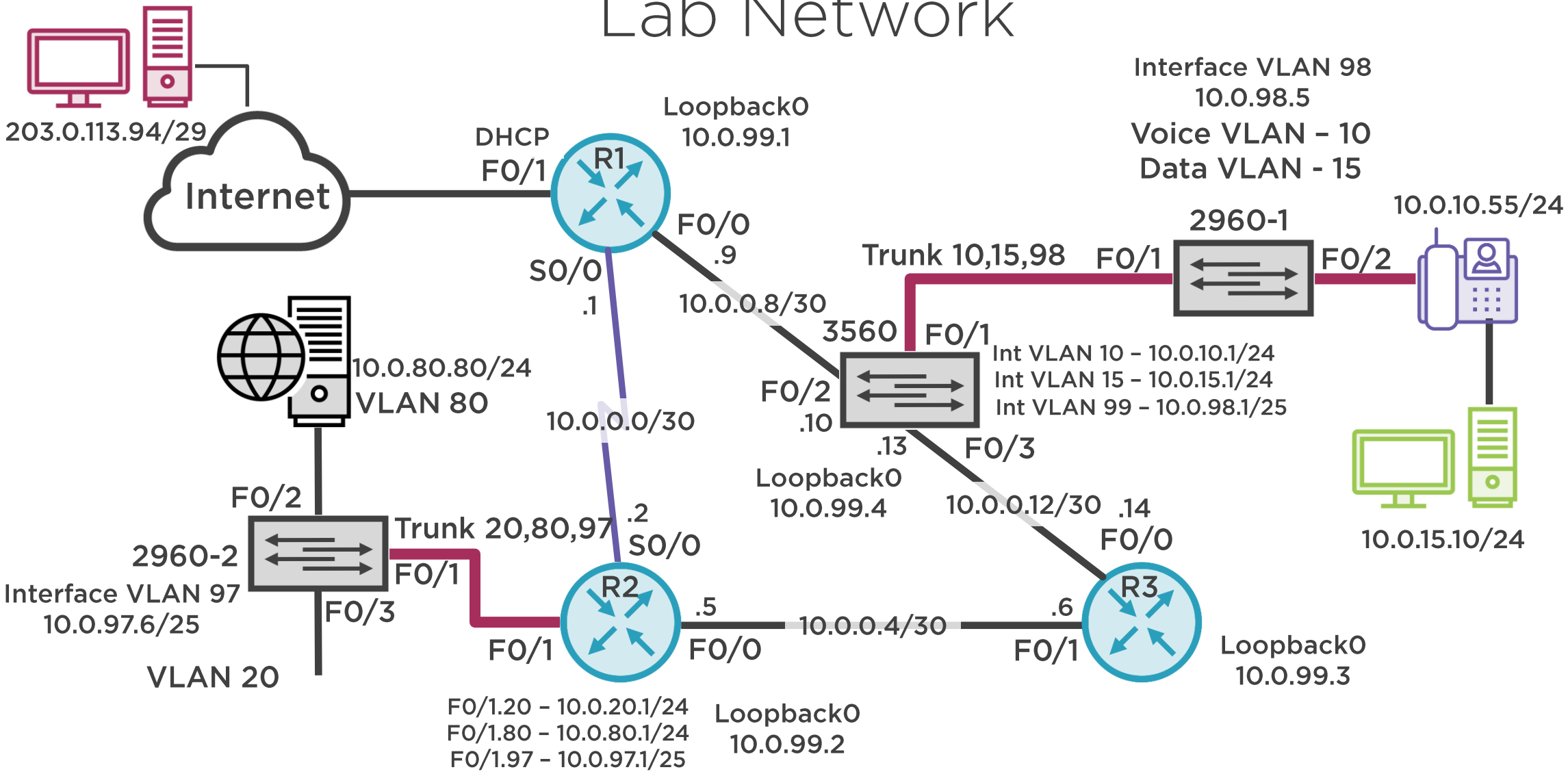
Lab Network


203.0.113.94/29
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Loopback0
10.0.99.3
F0/1.20 – 10.0.20.1/24
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Loopback0
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Summary

Add Port Forwarding NAT for Internet access to web server at 10.0.80.80

Add ACL to protect web server