

# 미션

2024.Mar.6

# 준비

Configuration guide 받기

<https://www.cisco.com/c/en/us/support/switches/nexus-9000-series-switches/products-installation-and-configuration-guides-list.html>

혹은

Google -> cisco nexus 9000 configuration guide 검색

# 준비

## Configuration Guides for Cisco NX-OS 10.3(x)

Cisco DNA Service For Bonjour Configuration Guide, Cisco Nexus 9000 Series NX-OS, Release 10.3(1)F 30/Aug/2022

Cisco Nexus 9000v (9300v/9500v) Guide, Release 10.3(x) 18/Aug/2022

Cisco Nexus 9000 Series NX-OS ePBR Configuration Guide, Release 10.3(x) 08/May/2023

Cisco Nexus 9000 Series NX-OS FC-NPV and FCoE-NPV Configuration Guide, Release 10.3(x) 11/Sep/2023

Cisco Nexus 9000 NX-OS Fundamentals Configuration Guide, Release 10.3(x) 19/Dec/2022

Cisco Nexus 9000 Series NX-OS High Availability and Redundancy Guide, Release 10.3(x) 26/Aug/2022

Cisco Nexus 9000 Series NX-OS iCAM Configuration Guide, Release 10.3(x) 25/Aug/2022

Cisco Nexus 9000 Series NX-OS Intelligent Traffic Director Configuration Guide, Release 10.3(x) 09/May/2023

Cisco Nexus 9000 Series NX-OS Interfaces Configuration Guide, Release 10.3(x) 08/May/2023

Cisco Nexus 9000 Series NX-OS IP SLAs Configuration Guide, Release 10.3(x) 26/Aug/2022

Cisco Nexus 9000 Series NX-OS Label Switching Configuration Guide, Release 10.3(x) 19/Dec/2022

Cisco Nexus 9000 Series NX-OS Layer 2 Switching Configuration Guide, Release 10.3(x) 12/Sep/2023

Cisco Nexus 9000 Series NX-OS Multicast Routing Configuration Guide, Release 10.3(x) 11/Sep/2023

Cisco Nexus 9000 Series NX-OS Quality of Service Configuration Guide, Release 10.3(x) 08/May/2023

Cisco Nexus 9000 Series NX-OS SAN Switching Configuration Guide, Release 10.3(x) 12/Jan/2024

Cisco Nexus 9000 Series NX-OS Security Configuration Guide, Release 10.3(x) 08/May/2023

Cisco Nexus 9000 Series NX-OS Smart Channel Configuration Guide, Release 10.3(x) 26/Aug/2022

Cisco Nexus 9000 Series NX-OS Srv6 Configuration Guide, Release 10.3(x) 07/Oct/2022

Cisco Nexus 9000 Series NX-OS System Management Configuration Guide, Release 10.3(x) 02/Nov/2023

Cisco Nexus 9000 Series NX-OS Unicast Routing Configuration Guide, Release 10.3(x) 08/May/2023

Cisco Nexus 9000 Series NX-OS Virtual Machine Tracker Configuration Guide, Release 10.3(x) 28/Aug/2022

Cisco Nexus 9000 Series NX-OS VXLAN Configuration Guide, Release 10.3(x) 08/May/2023

Cisco Nexus 2000 Series NX-OS Fabric Extender Configuration Guide for Cisco Nexus 9000 Series Switches, Release 10.3(x) 20/Dec/2022



PDF - Complete Book (7.67 MB)

PDF - This Chapter (1.26 MB)

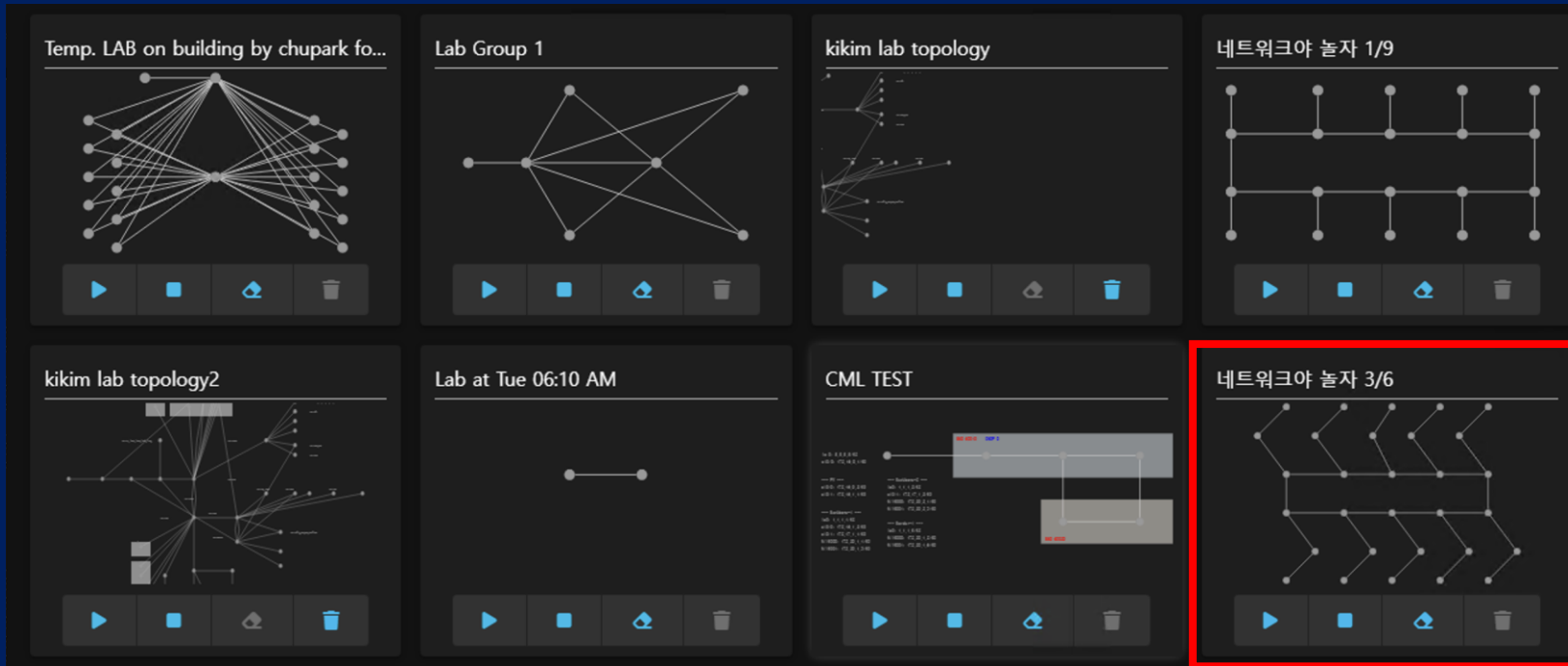
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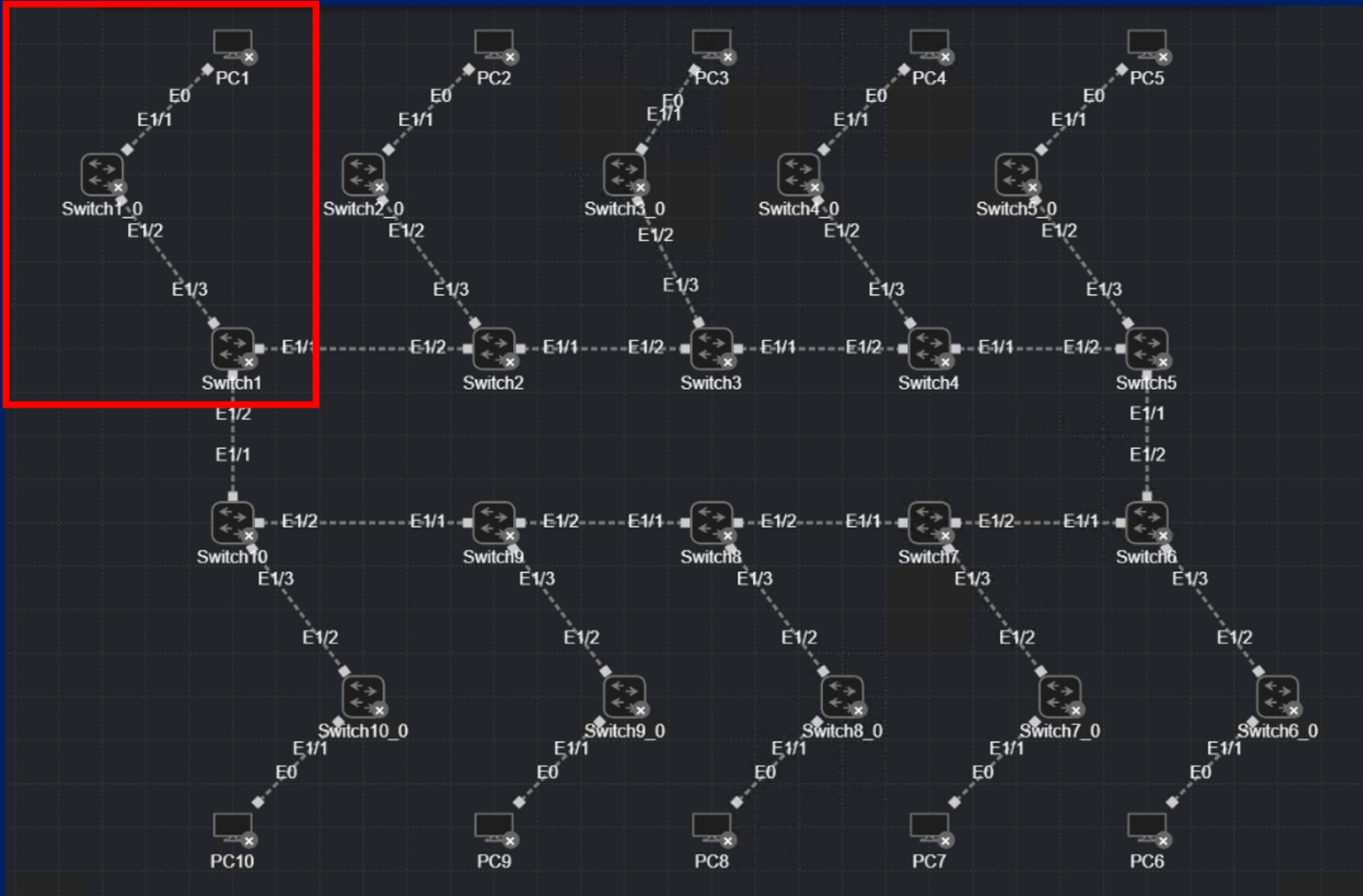
# 테스트 환경

CML 접속 -> 192.168.123.103 (ID/PW - student/1234Qwer!)



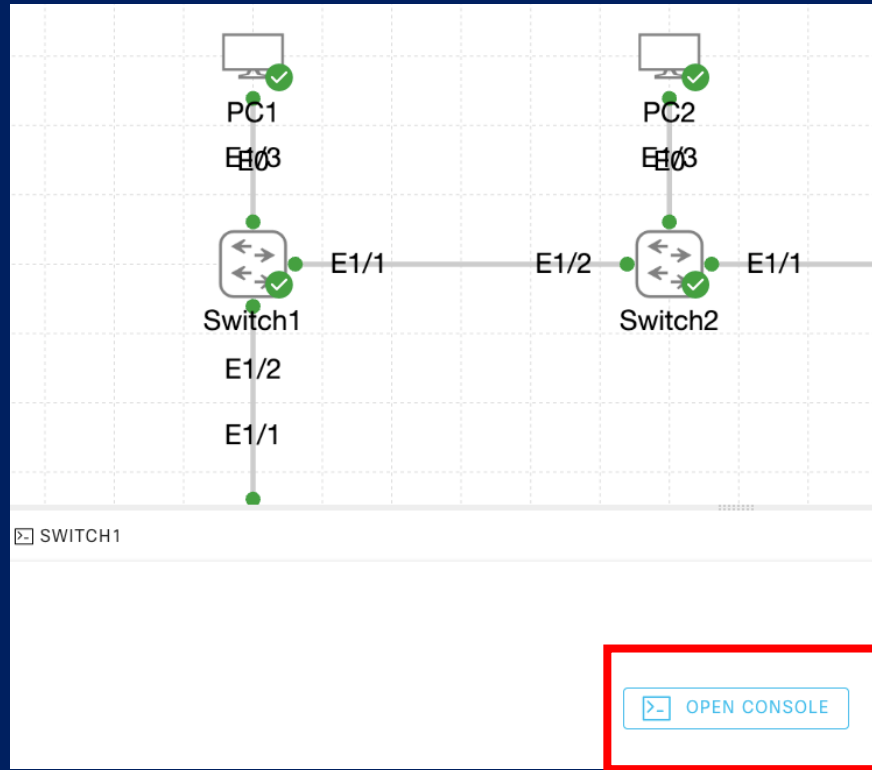
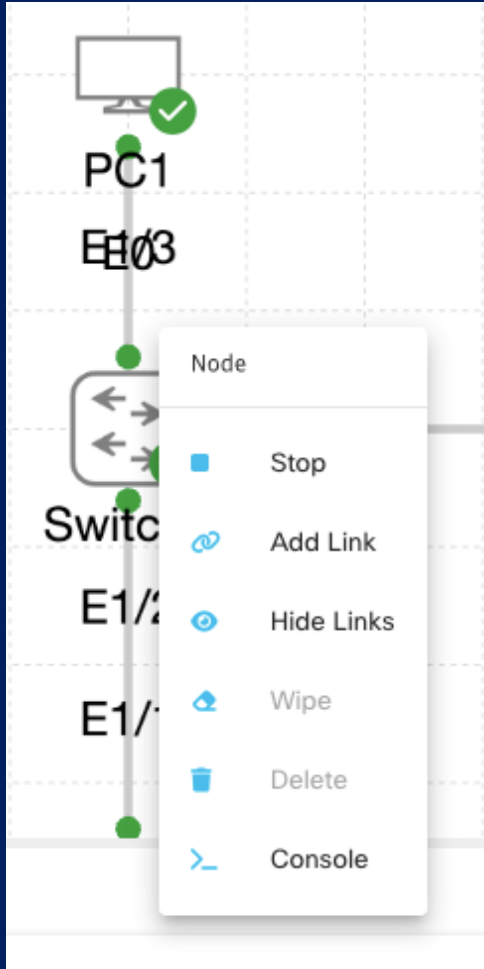
선택

# 테스트 환경



- 조별 Switch/PC 각 1대씩
- PC IP - 10.0.X.5, X=조 번호
- 예 (1조)
- SW1/SW1-0/PC1 사용
- PC1 IP - 10.0.1.5

# 테스트 환경



클릭  
Switch (admin/cisco)  
PC (cisco/cisco)

- 장비 우 클릭 -> Console 선택

# 실습 1

- PC에서 G.W로 통신되는지 ping으로 확인해 보세요

```
Router1#ping 172.16.0.12
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.16.0.12, timeout is 2 seconds:
!!!!!!
Success rate is 100 percent (5/5)
```

```
Router1#ping 172.16.4.34
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.16.4.34, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)
```

```
Router1#ping 172.16.4.34
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.16.4.34, timeout is 2 seconds:
U.U.U
Success rate is 0 percent (0/5)
```

# 실습 2

- SW[X] 와 SW[X]-0 와 통신되도록 연결구간에 IP 를 할당해 보세요

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27

- 사용할 IP 대역: 20.0.X.? / 30



# 실습 3

- SW[X] 와 SW[X]-0 의 라우팅테이블 정보를 확인해 보세요

# 실습 4

- PC[X] 에서 SW[X]의 loopback IP까지 통신되도록
- SW[X] 와 SW[X]-0 에 static routing을 설정해 보세요

# 실습 5

- SW[X] 와 SW[X]-0 의 라우팅테이블 정보를 확인해 보세요

# 실습 6

- PC[X] 에서 SW[X]의 loopback IP까지 traceroute 로 경로를 확인해보세요

```
Router1#traceroute 172.16.4.34
```

```
Type escape sequence to abort.
```

```
Tracing the route to 172.16.4.34
```

```
 1 172.16.0.12  4 msec  4 msec  4 msec  
 2 10.0.3.23   20 msec 16 msec 16 msec  
 3 172.16.4.34 16 msec *   16 msec
```

# 실습 7

- SW[X]에서 Dynamic routing [OSPF] 를 사용하기위한 기능을 활성화 해보세요

# 실습 8

- SW[X]와 SW[X+1] , SW[X-1] 간 통신되도록 연결구간에 IP 를 할당해 보세요

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27

- 사용할 IP 대역: 30.0.X.? / 30  
40.0.X.? / 30
- X+1 조, X-1 조 와 협력하세요!

# 실습 9

- PC[X] 에서 SW[X+1], SW[X-1],의 loopback IP까지 통신되도록
- SW[X] 에 OSPF routing을 설정해 보세요

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27

- instance-tag: 100
- Area : 0

# 실습 10

- SW[X] 와 SW[X]-0 의 라우팅테이블 정보를 확인해 보세요



# 보너스 실습

- PC[X+1], PC[X-1] 에서 PC[X] 의 IP까지 통신되도록
- SW[X] 에 OSPF routing에 Redistribution 설정을 해 보세요