

EKI-7600 Series VLAN Configuration SOP

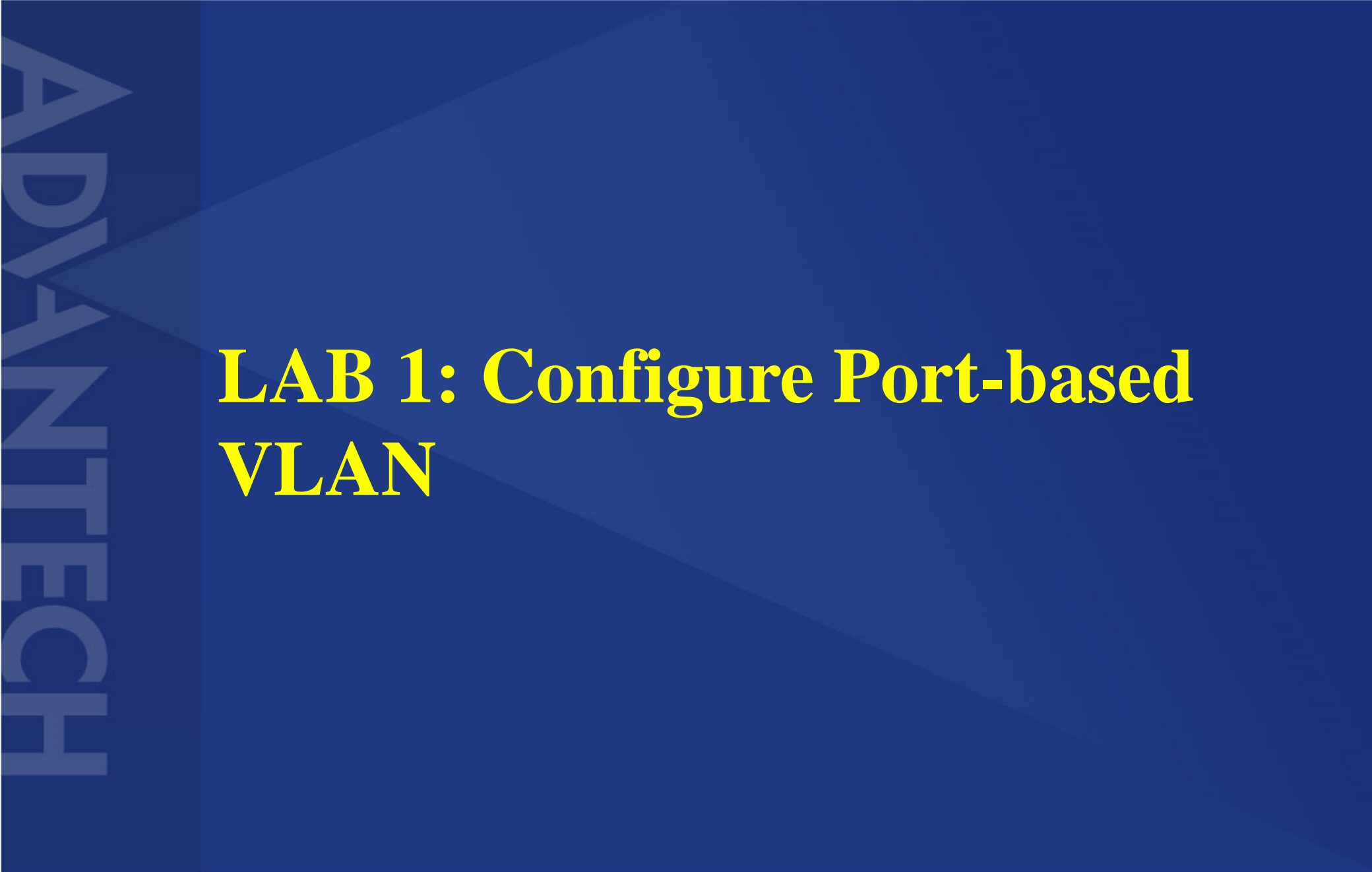
- LAB 1: Configure Port-based VLAN
- LAB 2: Configure 802.1Q based VLAN

Revision Date	Revision	Description	Author
Feb/2018	V1.0	Initial release	ICG AE Eddie.Wei / Raimen Liu

Abstract

- ❖ **This SOP explains how to configure VLAN on Advantech EKI-7000 series industrial ethernet manage switch.**
- ❖ **Related products:**
EKI-7654, EKI-7656, EKI-7657, EKI-7659, EKI-7758, EKI-7554, EKI-7559
EKI-2748
- ❖ **Requirement:**
Advantech manage switch, RJ45 ethernet cable, PC





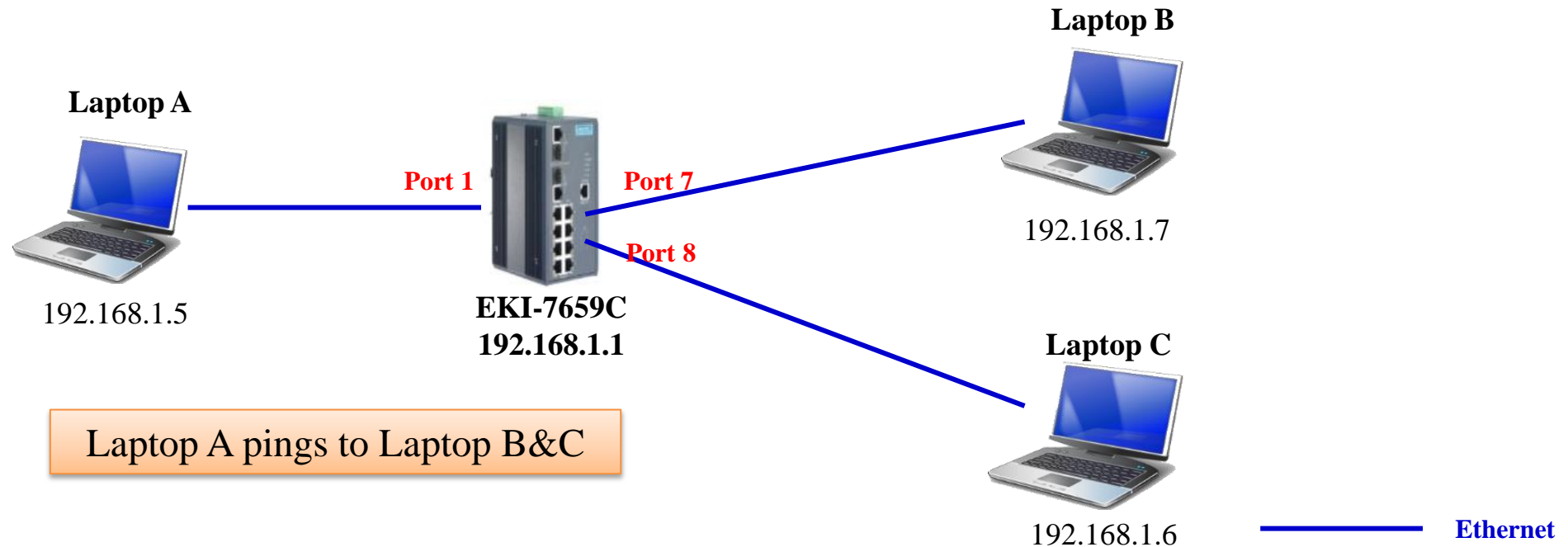
LAB 1: Configure Port-based VLAN

LAB 1: Port-based VLAN

■ Goal:

- Enable VLAN by *port-based* successfully.
- VLAN members can communicate with each other.

■ Topology:



LAB 1: Port-based VLAN

■ Task:

- Laptop A can ping to Laptop B but can't ping to Laptop C.

■ Step 1: Log in switch > Go to Protocol > VLAN



LAB 1: Port-based VLAN

■ Step 2:

- Choose the VLAN operation mode by Port Based and “**Apply**” it.
- Press “**Add**” to separate your VLAN.

VLAN Configuration

VLAN Operation Mode : Port Based ▼

☐ Enable GVRP Protocol

Management Vlan ID : 0 *

Apply

VLAN Configuration

VLAN Operation Mode : Port Based ▼

☐ Enable GVRP Protocol

Management Vlan ID : 0 *

Apply

▲

▼

Add Edit Delete Help

LAB 1: Port-based VLAN

- Step 3:
 - Distribute Port 01/Port 07 into a group
 - Distribute Port 08 into another group

VLAN Configuration

VLAN Operation Mode : Port Based ▼

☐ Enable GVRP Protocol

Management Vlan ID : 0 *

Apply

Group Name	Group1	
VLAN ID	1	
Port.02 ▲ Port.03 Port.04 Port.05 Port.06 Port.08 Port.09 Port.10 ▼	Add Remove	Port.01 ▲ Port.07 ▼

VLAN Configuration

VLAN Operation Mode : Port Based ▼

☐ Enable GVRP Protocol

Management Vlan ID : 0 *

Apply

Group Name	Group2	
VLAN ID	2	
Port.01 ▲ Port.02 Port.04 Port.05 Port.06 Port.07 Port.09 Port.10 ▼	Add Remove	Port.03 ▲ Port.08 ▼

LAB 1: Port-based VLAN

- Step 4: Finally you may have two groups and ping result as below.

VLAN Configuration

VLAN Operation Mode : Port Based ▼

☐ Enable GVRP Protocol

Management Vlan ID : 0 *

Apply

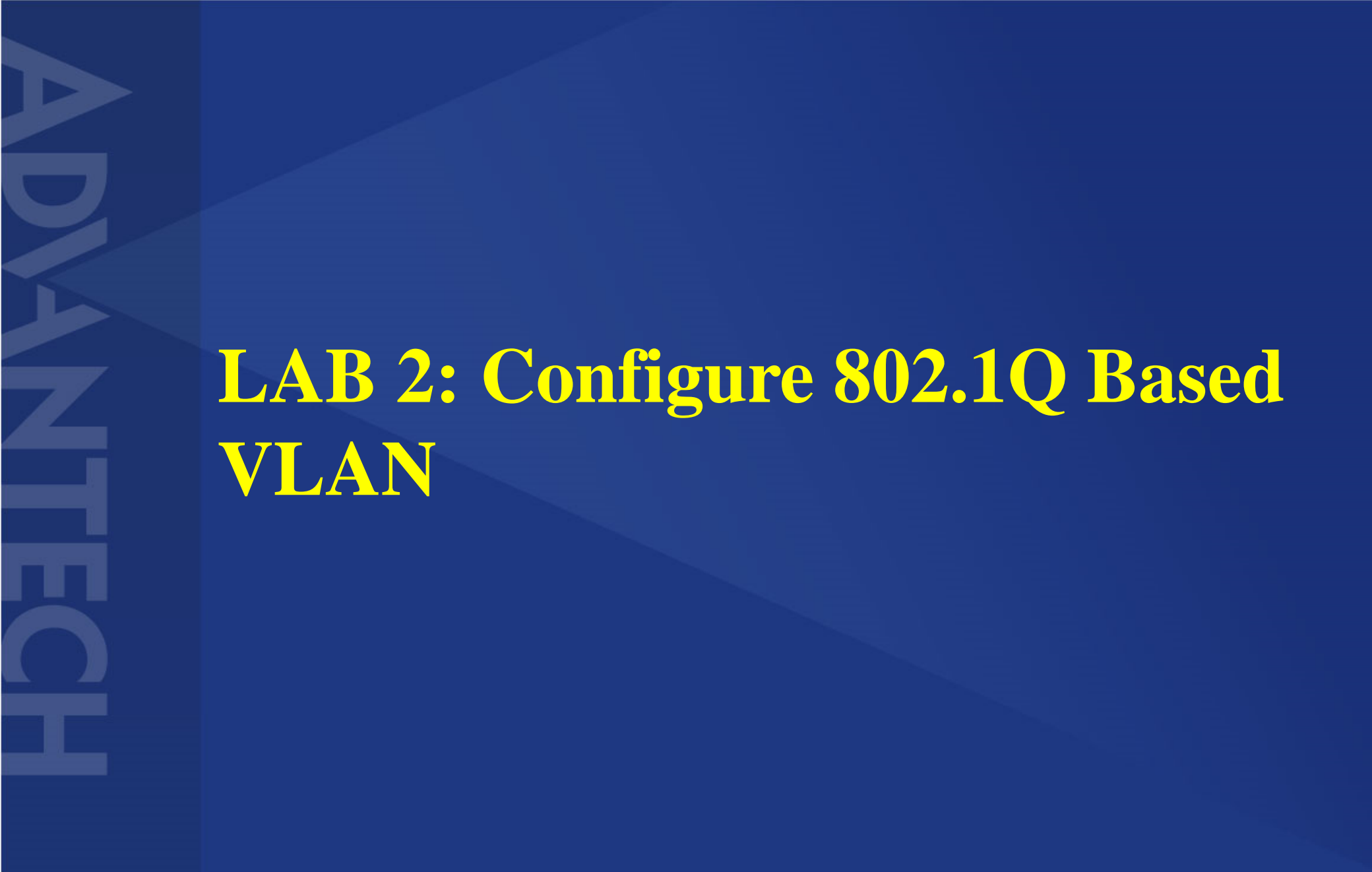
Group1__1 ▲

Group2__2 ▼

Add Edit Delete Help

```
Pinging 192.168.1.7 with 32 bytes of data:  
Reply from 192.168.1.7: bytes=32 time=2ms TTL=128  
Reply from 192.168.1.7: bytes=32 time=1ms TTL=128  
Reply from 192.168.1.7: bytes=32 time=1ms TTL=128  
Reply from 192.168.1.7: bytes=32 time=1ms TTL=128
```

```
Pinging 192.168.1.6 with 32 bytes of data:  
Request timed out.
```

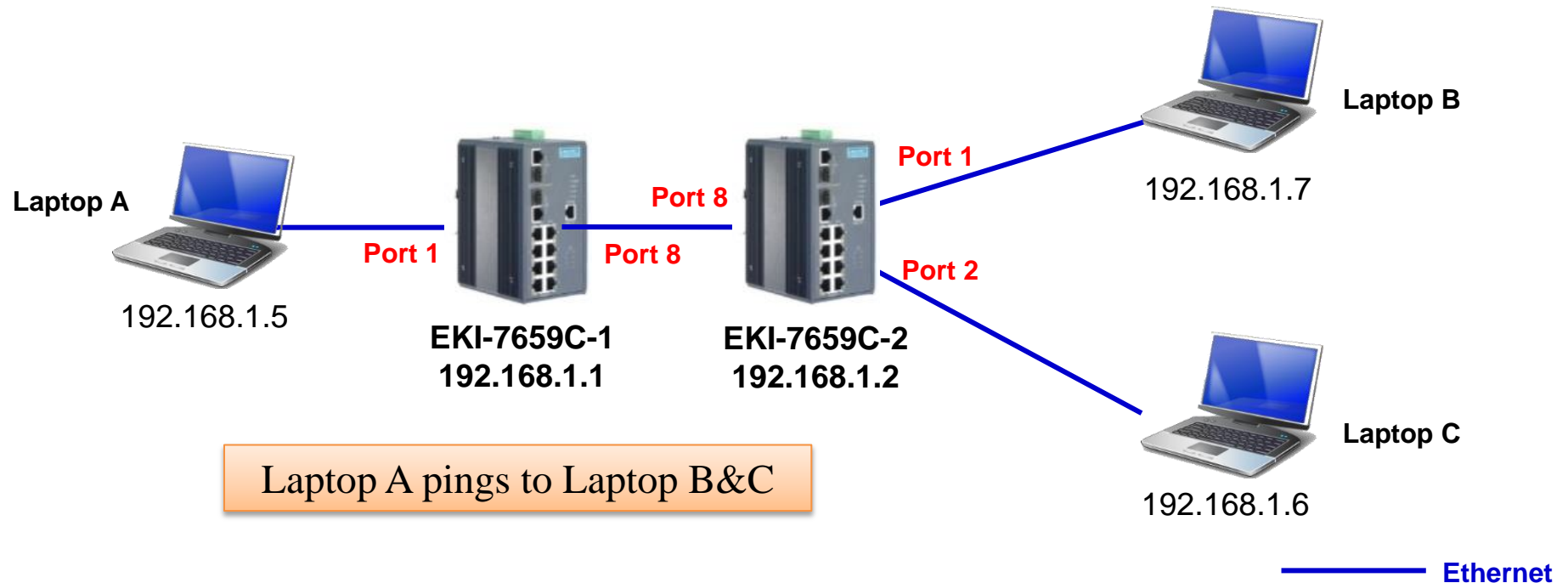
LAB 2: Configure 802.1Q Based VLAN

LAB 2: 802.1Q based VLAN

■ Goal:

- Enable VLAN by **802.1Q based** successfully.
- VLAN member can communicate with each other.

■ Topology:



LAB 2: 802.1Q based VLAN

■ Task:

- Laptop A can ping to Laptop B but can't ping to Laptop C.

■ Step 1: Log in switch > Go to Protocol > VLAN

The screenshot displays the Advantech Industrial Switch configuration web interface. The left sidebar shows a navigation tree with 'Protocol' and 'VLAN' highlighted. The main area is titled 'VLAN Configuration' and contains a red box around the 'VLAN Operation Mode' dropdown set to '802.1Q', the 'Enable GVRP Protocol' checkbox, and the 'Management Vlan ID' field set to '0'. Below this, the '802.1Q Configuration' tab is active, showing a table for port configuration. The table has columns for Port, Link Type, Untagged Vid, and Tagged Vid. The first row shows Port.01 configured as an Access Link with Untagged Vid 1. Red annotations '1. Select VLAN', '2. Select 802.1Q', and '3. Apply' are present.

ADVANTECH Industrial Switch

VLAN Configuration

VLAN Operation Mode : 802.1Q
☐ Enable GVRP Protocol
Management Vlan ID : 0
Apply

2. Select 802.1Q
3. Apply

1. Select VLAN

802.1Q Configuration Group Configuration

Port	Link Type	Untagged Vid	Tagged Vid
Port.01	Access Link	1	

Apply Help

Port	Link Type	Untagged Vid	Tagged Vid
Port.01	Access Link	1	
Port.02	Access Link	1	
Port.03	Access Link	1	

LAB 2: 802.1Q based VLAN

■ Step 2:

- Assign the same untagged Vid (ex:2) for Port01 on EKI-7659C-1&2.
- Assign the same tagged Vid (ex:2) for Port08 on EKI-7659C-1&2 (Untagged Vid & tagged Vid should be the same)



EKI-7659C-1 & 2

VLAN Configuration

VLAN Operation Mode : 802.1Q ▼

☐ Enable GVRP Protocol

Management Vlan ID : 0 *

Apply

802.1Q Configuration

Group Configuration

Port	Link Type	Untagged Vid	Tagged Vid
Port.01 ▼	Access Link ▼	2	



EKI-7659C-1 & 2

VLAN Configuration

VLAN Operation Mode : 802.1Q ▼

☐ Enable GVRP Protocol

Management Vlan ID : 0 *

Apply

802.1Q Configuration

Group Configuration

Port	Link Type	Untagged Vid	Tagged Vid
Port.08 ▼	Trunk Link ▼	1	2

LAB 2: 802.1Q based VLAN

■ Step 3:

- Follow the below setting, and you can let Laptop A ping to Laptop B but unable to ping Laptop C.



EKI-7659C-1

802.1Q Configuration

Group Configuration

Port	Link Type	Untagged Vid	Tagged Vid
Port.01 ▼	Access Link ▼	1	

Apply

Help

Port	Link Type	Untagged Vid	Tagged Vid
Port.01	Access Link	2	
Port.02	Access Link	1	
Port.03	Access Link	1	
Port.04	Access Link	1	
Port.05	Access Link	1	
Port.06	Access Link	1	
Port.07	Access Link	1	
Port.08	Trunk Link	1	2
Port.09	Access Link	1	
Port.10	Access Link	1	



EKI-7659C-2

802.1Q Configuration

Group Configuration

Port	Link Type	Untagged Vid	Tagged Vid
Port.01 ▼	Access Link ▼	1	

Apply

Help

Port	Link Type	Untagged Vid	Tagged Vid
Port.01	Access Link	2	
Port.02	Access Link	1	
Port.03	Access Link	1	
Port.04	Access Link	1	
Port.05	Access Link	1	
Port.06	Access Link	1	
Port.07	Access Link	1	
Port.08	Trunk Link	1	2
Port.09	Access Link	1	
Port.10	Access Link	1	



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