

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



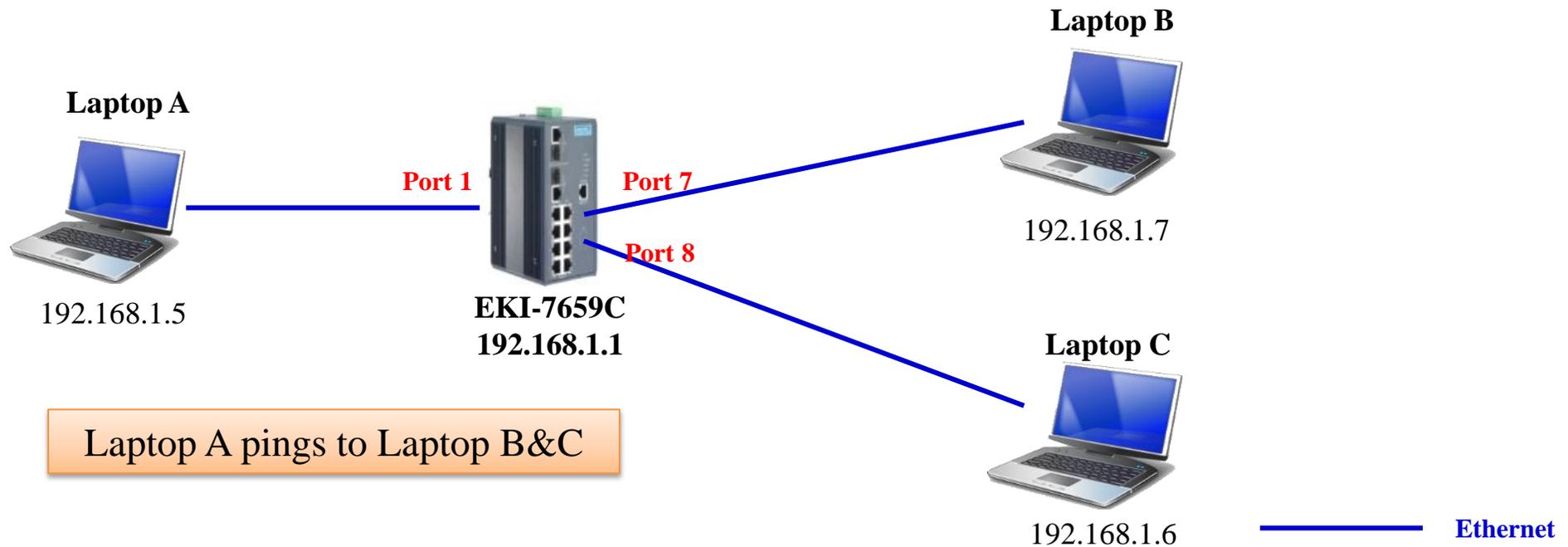
LAB 1: Configure Port-based VLAN

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



The screenshot shows a web browser window with the URL 192.168.1.1. The browser's address bar and tabs are visible at the top. The main content area displays the Advantech logo and a navigation menu on the left. The menu includes 'Open all', 'Main Page', 'System', 'Port', and 'Protocol'. The 'Protocol' folder is expanded, and the 'VLAN' option is highlighted with a red box. The main content area shows the 'VLAN Configuration' page with the following settings:

- VLAN Operation Mode : Disable
- Enable GVRP Protocol
- Management Vlan ID : 0 *

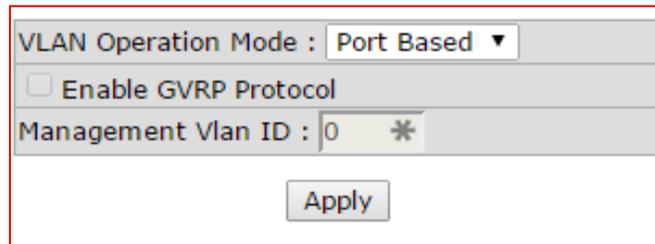
An 'Apply' button is located below the configuration fields.

LAB 1: Port-based VLAN

■ Step 2:

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

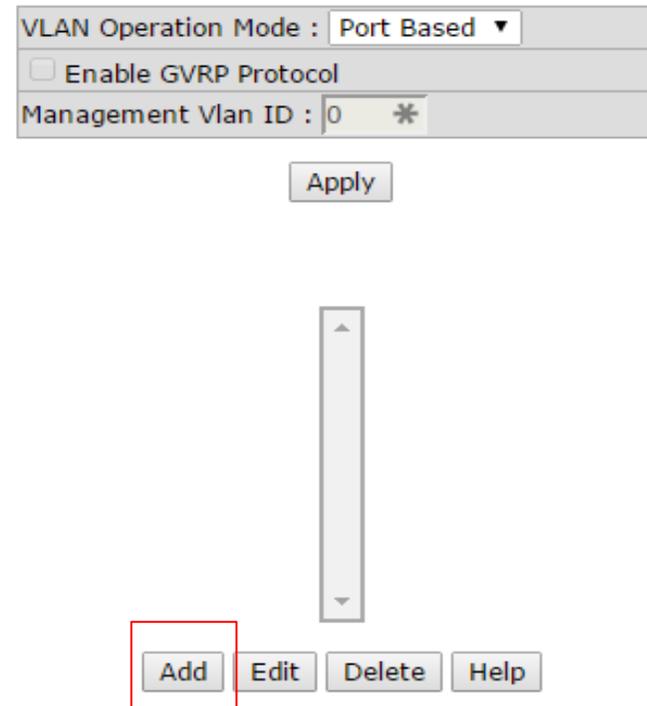
VLAN Configuration



VLAN Configuration interface showing the following fields:

- VLAN Operation Mode : Port Based ▼
- Enable GVRP Protocol
- Management Vlan ID : 0 *
- Apply

VLAN Configuration



VLAN Configuration interface showing the following fields:

- VLAN Operation Mode : Port Based ▼
- Enable GVRP Protocol
- Management Vlan ID : 0 *
- Apply

Below the configuration fields is a vertical scrollbar and a row of buttons: Add, Edit, Delete, Help. The **Add** button is highlighted with a red box.

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.
```

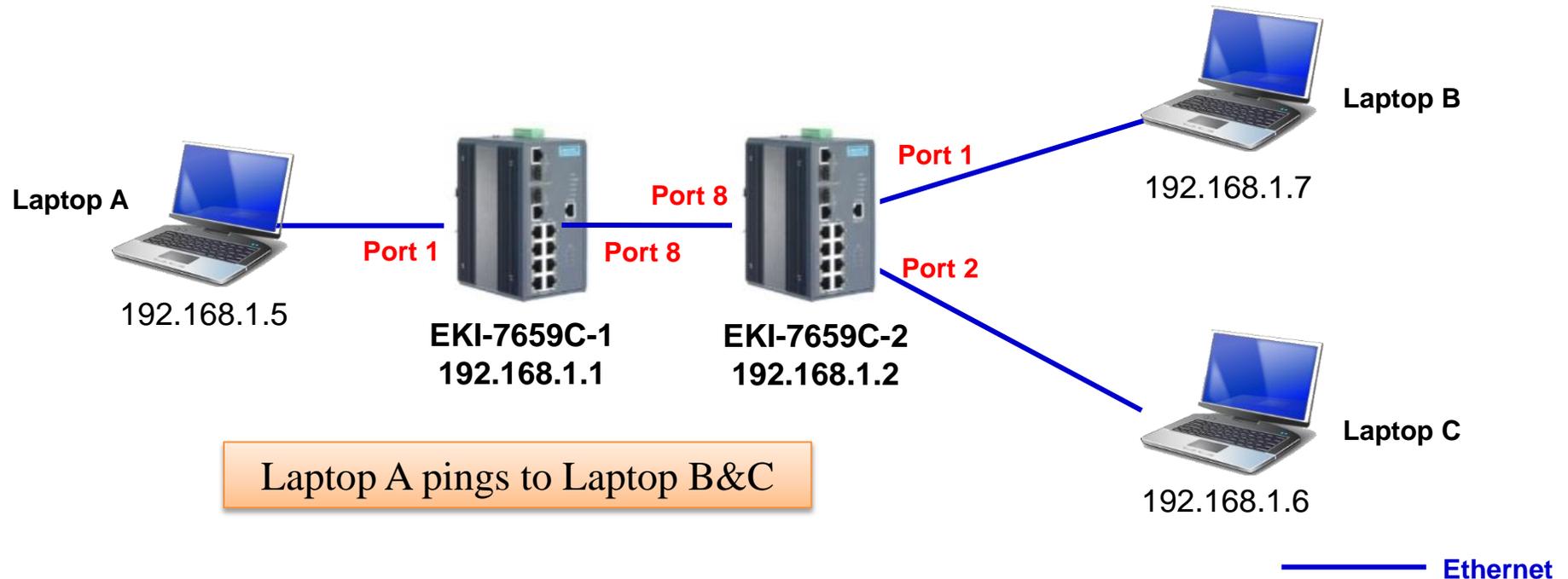
LAB 2: Configure 802.1Q Based VLAN

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 web interface. The left sidebar shows a navigation menu with 'Protocol' and 'VLAN' highlighted in a red box, labeled '1. Select VLAN'. The main content area is titled 'VLAN Configuration' and contains a form with 'VLAN Operation Mode' set to '802.1Q', 'Enable GVRP Protocol' unchecked, and 'Management Vlan ID' set to '0'. This form is enclosed in a red box, labeled '2. Select 802.1Q' and '3. Apply'. Below the form are two tabs: '802.1Q Configuration' and 'Group Configuration'. The '802.1Q Configuration' tab shows a table with columns 'Port', 'Link Type', 'Untagged Vid', and 'Tagged Vid'. The first row shows 'Port.01' as an 'Access Link' with 'Untagged Vid' set to '1'. Below this table are 'Apply' and 'Help' buttons. A second table below shows the configuration for 'Port.02' and 'Port.03', both as 'Access Link' with 'Untagged Vid' set to '1'.

1. Select VLAN

2. Select 802.1Q

3. Apply

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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