

# **EKI-9228 / EKI-9728 / EKI-9512/9516 VLAN Configuration SOP**

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

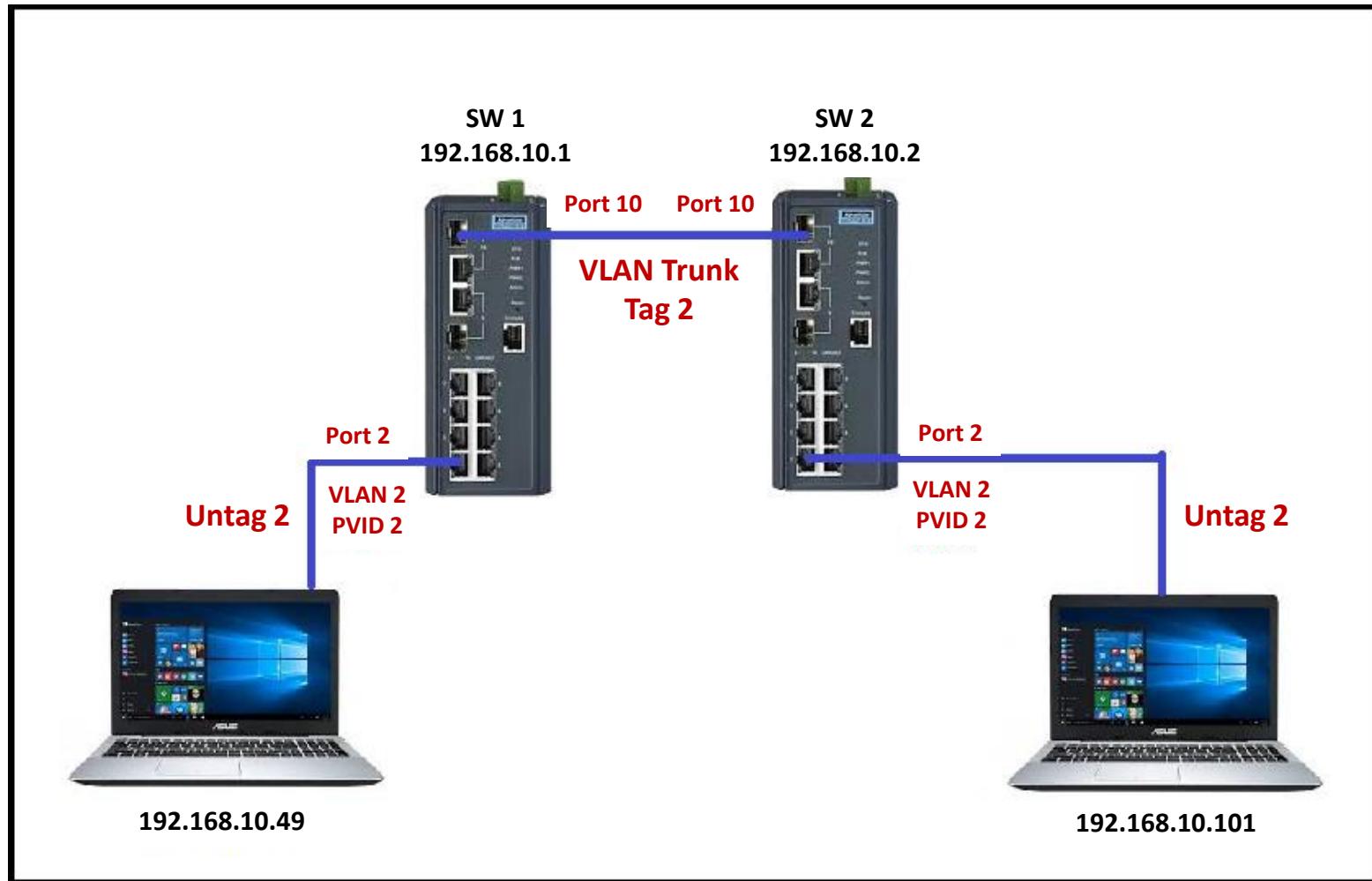
# Abstract

- ❖ This SOP explains how to configure VLAN on Advantech EKI-9228, EKI-9512/9516, EKI-9728 industrial ethernet manage switch by WebGUI.
- ❖ Related products:  
EKI-9228, EKI-9728, EKI-9516, EKI-9512
- ❖ Requirement: Advantech manage switch, RJ45 ethernet cable, PC
- ❖ EKI-9512/16 M12 connector with RJ45 PIN define FAQ:  
[http://support.advantech.com/Support/KnowledgeBaseSRDetail\\_New.aspx?SR\\_ID=1-1L5NXXP&Doc\\_Source=Knowledge+Base](http://support.advantech.com/Support/KnowledgeBaseSRDetail_New.aspx?SR_ID=1-1L5NXXP&Doc_Source=Knowledge+Base)



# Configure VLAN with WebGUI

- Topology: Create one VLAN with two switch



# Configure VLAN with WebGUI

## ■ Setting:

- Step 1: Logging the switch with admin/admin as Username/Password by default.



# Configure VLAN with WebGUI

- Setting (Both SW1 and SW2 use the same setting):
  - Step 2: VLAN Configuration Path "Switching -> VLAN "

The screenshot shows the Advantech WebGUI interface. The top navigation bar includes tabs for System, Switching, Routing, Security, and QoS. The 'Switching' tab is highlighted with a red box. A secondary dropdown menu under 'Switching' also has its 'VLAN' option highlighted with a red box. The main content area displays various network settings and a table for port status. On the left, a sidebar lists navigation categories like System, Device, Machine, and Software, with 'VLAN' being the current selection.

System > Summary > Dashboard

System    Switching    Routing    Security    QoS

**Switching**

- Class of Service
- DHCP Snooping
- IPv6 DHCP Snooping
- DVLAN
- Dynamic ARP Inspection
- Filters
- GARP
- IGMP Snooping
- IGMP Snooping Querier
- MLD Snooping
- MLD Snooping Querier
- Multicast Forwarding Database
- MVR
- LLDP
- LLDP-MED
- Port Channel
- Port Security
- Protected Ports
- Spanning Tree
- VLAN**
- IP Subnet Based VLAN

Dashboard  
FASTPATH

System

System

System

System

IP Address

Burned In MAC Address

System

Current

Device

Machine

Machine

Serial Number

Software

Hardware

Build Version

Restore

Status

Port Configuration

Port Summary

Switchport Summary

Internal Usage

Reset

RSPAN

37

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# Configure VLAN with WebGUI

- Setting (Both SW1 and SW2 use the same setting):
  - Step 3: Under Status, add **VLAN 2** and press “Supply” button. And now VLAN 2 has already created.

The screenshot shows the 'VLAN Status' section of the Advantech WebGUI. On the left, there is a table with two rows:

	VLAN ID	Name
<input type="checkbox"/>	1	default
<input type="checkbox"/>	2	VLAN0002

On the right, a modal dialog titled 'Add VLAN' is open. It contains a text input field labeled 'VLAN ID or Range' with the value '2'. Below the input field is a note: 'Enter VLAN ID in the range 2 to 4093. Use '-' to specify a range and ',' to separate VLAN IDs or VLAN ranges in the list.' At the bottom of the dialog are 'Submit' and 'Cancel' buttons, with 'Submit' being highlighted by a red box and a blue arrow pointing towards it. A red number '3.' is positioned above the input field, and a red number '4.' is positioned next to the 'Submit' button.

# Configure VLAN with WebGUI

- Setting (Both SW1 and SW2 use the same setting):
  - Step 4: **Port Configuration**. Under VLAN 1 Port 2 is “Untag”.

Switching > VLAN > Port Configuration

System ▾ Switching ▾ Routing ▾ Security ▾ QoS ▾

Status Port Configuration Port Summary Switchport Summary Internal Usage Reset RSPAN

VLAN Port Configuration

VLAN ID 1 ▾

Display 10 rows Showing 1 to 10 of 34 entries Filter:

2.	Interface	Status	Participation	Tagging
<input type="checkbox"/>	ge0/1	Include	Include	Untagged
<input checked="" type="checkbox"/>	ge0/2	Include	Include	Untagged
<input type="checkbox"/>	ge0/3	Include	Include	Untagged
<input type="checkbox"/>	ge0/4	Include	Include	Untagged
<input type="checkbox"/>	ge0/5	Include	Include	Untagged
<input type="checkbox"/>	ge0/6	Include	Include	Untagged
<input type="checkbox"/>	ge0/7	Include	Include	Untagged
<input type="checkbox"/>	ge0/8	Include	Include	Untagged
<input type="checkbox"/>	ge0/9	Include	Include	Untagged
<input type="checkbox"/>	ge0/10	Include	Include	Untagged

1. 1 ▾

2. Interface Status Participation Tagging

3. Edit

4. Edit VLAN Port Configuration

NOTE: Tagging will only be enabled for VLAN member ports.

VLAN ID	1
Interface	ge0/2
Participation	<input checked="" type="radio"/> Include <input type="radio"/> Auto Detect <input type="radio"/> Exclude
Tagging	<input checked="" type="radio"/> Untagged <input type="radio"/> Tagged

5. Submit Cancel

A large blue arrow points from step 3 (Edit button) up to step 4 (Edit VLAN Port Configuration dialog), indicating the transition between these two steps.

# Configure VLAN with WebGUI

- Setting (Both SW1 and SW2 use the same setting):
  - Step 5: **Port Configuration**. Under VLAN 1 Port 10 is “Tag”,

Switching > VLAN > Port Configuration

System ▾ Switching ▾ Routing ▾ Security ▾ QoS ▾

Status Port Configuration Port Summary Switchport Summary Internal Usage Reset RSPAN

VLAN Port Configuration

VLAN ID 1 ▾

Display 10 rows Showing

	Interface	Status	
<input type="checkbox"/>	ge0/1	Include	
<input type="checkbox"/>	ge0/2	Include	
<input type="checkbox"/>	ge0/3	Include	
<input type="checkbox"/>	ge0/4	Include	
<input type="checkbox"/>	ge0/5	Include	
<input type="checkbox"/>	ge0/6	Include	Include
<input type="checkbox"/>	ge0/7	Include	Include
<input checked="" type="checkbox"/>	2. ge0/8	Include	Include
<input checked="" type="checkbox"/>	2. ge0/9	Include	Include
<input checked="" type="checkbox"/>	ge0/10	Include	Include

NOTE: Tagging will only be enabled for VLAN member ports.

VLAN ID 1

Interface ge0/10

Participation  Include  Auto Detect  Exclude

Tagging  Untagged  Tagged

Submit Cancel

First Previous 1 2 3 4 Next Last

Refresh Edit

# Configure VLAN with WebGUI

- Setting (Both SW1 and SW2 use the same setting):
  - Step 6: **Port Configuration under “VLAN 2”**. The configuration method is the same with step 4 & step 5. Port 2 is “Untag” and Port 10 is “Tag”.

VLAN ID: 1. 2 ▾

Interface	Status	Participation	Tagging
ge0/1	Exclude	Auto Detect	Untagged
2. ge0/2	Include	Include	Untagged
ge0/3	Exclude	Auto Detect	Untagged
ge0/4	Exclude	Auto Detect	Untagged
ge0/5	Exclude	Auto Detect	Untagged
ge0/6	Exclude	Auto Detect	Untagged
ge0/7	Exclude	Auto Detect	Untagged
ge0/8	Exclude	Auto Detect	Untagged
ge0/9	Exclude	Auto Detect	Untagged
3. ge0/10	Include	Include	Tagged

# Configure VLAN with WebGUI

- Setting (Both SW1 and SW2 use the same setting):
  - Step 7: Under Port Summary, selects Port 2, and then set Port VLAN ID 2, Enabled “Ingress Filter”.

Switching > VLAN > Port Summary

System ▾ Switching ▾ Routing ▾ Security ▾ QoS ▾

Status Port Configuration 1. Port Summary Switchport Summary Internal Usage Reset RSPAN

VLAN Port Summary

Display 10 ▾ rows Showing 1 to 10 of 34 entries

	Interface	Port VLAN ID	Acceptable Frame Type	Ingress Filtering	Untagged VLANs	Tagged VLANs
2.	qe0/1	1	Admit All	Disabled	1	
	ge0/2	2	Admit All	Enabled	1-2	
	ge0/3	1	Admit All	Disabled	1	
	ge0/4	1	Admit All			
	ge0/5	1	Admit All			
	ge0/6	1	Admit All			
	ge0/7	1	Admit All			
	ge0/8	1	Admit All			
	ge0/9	1	Admit All			
	ge0/10	1	Admit All			

2. 4. 3. 5.

Edit Port Configuration

Interface	ge0/2
Port VLAN ID	2 (1 to 4093)
Acceptable Frame Type	<input checked="" type="radio"/> Admit All <input type="radio"/> Only Tagged <input type="radio"/> Only Untagged
Ingress Filtering	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Priority	0 (0 to 7)

Submit Cancel

Refresh Edit

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# Configure VLAN with WebGUI

- Setting (Both SW1 and SW2 use the same setting):
  - Step 8: Under Port Summary, selects Port 10, and then set Port VLAN ID 1, Enabled “Ingress Filter”.

Switching > VLAN > Port Summary

System ▾ Switching ▾ Routing ▾ Security ▾ QoS ▾

Status Port Configuration Port Summary Switchport Summary Internal Usage Reset RSPAN

VLAN Port Summary

Display 10 rows Showing 1 to 10 of 34 entries

Interface	Port VLAN ID	Acceptable Frame Type	Ingress Filtering	Untagged VLANs	Tagged VLANs
ge0/1	1	Admit All	Disabled	1	
ge0/2	2	Admit All	Enabled	1-2	
ge0/3	1	Admit All	Disabled	1	
ge0/4	1	Admit All	Disabled	1	
ge0/5	1	Admit All	Disabled	1	
ge0/6	1	Admit All	Disabled	1	
ge0/7	1	Admit All	Disabled	1	
ge0/8	1	Admit All	Disabled	1	
ge0/9	1	Admit All	Disabled	1	
ge0/10	1	Admit All	Enabled		1-2

1. ge0/10

First Previous 1 2 3 4 Next Last

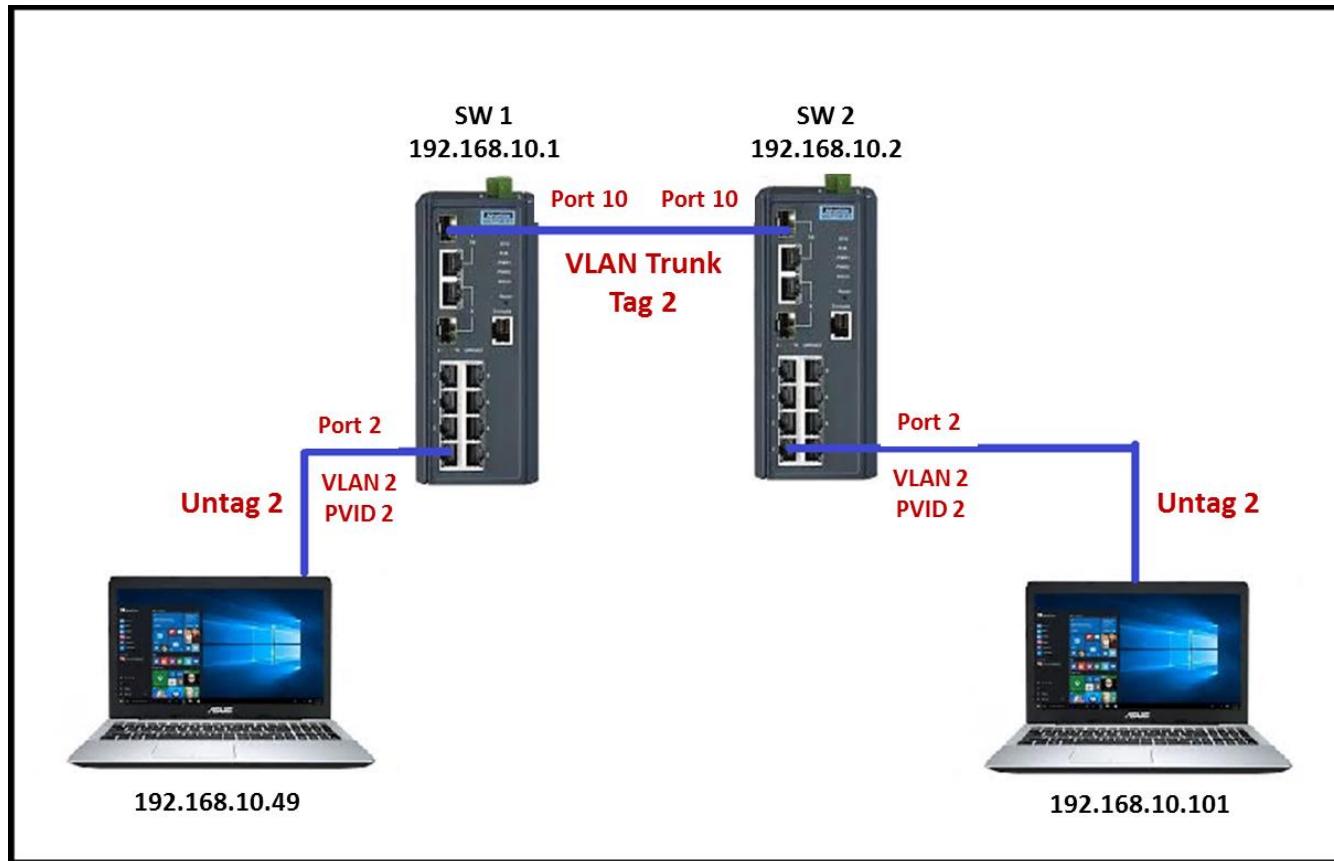
Refresh Edit Edit All

TECH

# Configure VLAN with WebGUI

## ■ Result:

- After the setting on SW1 and SW2, the laptop 192.168.10.49 on SW1 can communicate with laptop 192.168.10.101 on SW2 now. Because SW1 port 2 and SW2 port 2 are all belonging to VLAN 2 member.





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