

EKI-7700 Series LACP Configuration SOP

Revision Date	Revision	Description	Author
Oct/2018	V1.0	Initial release	AE Sherry Lee/ Raimen Liu

Abstract

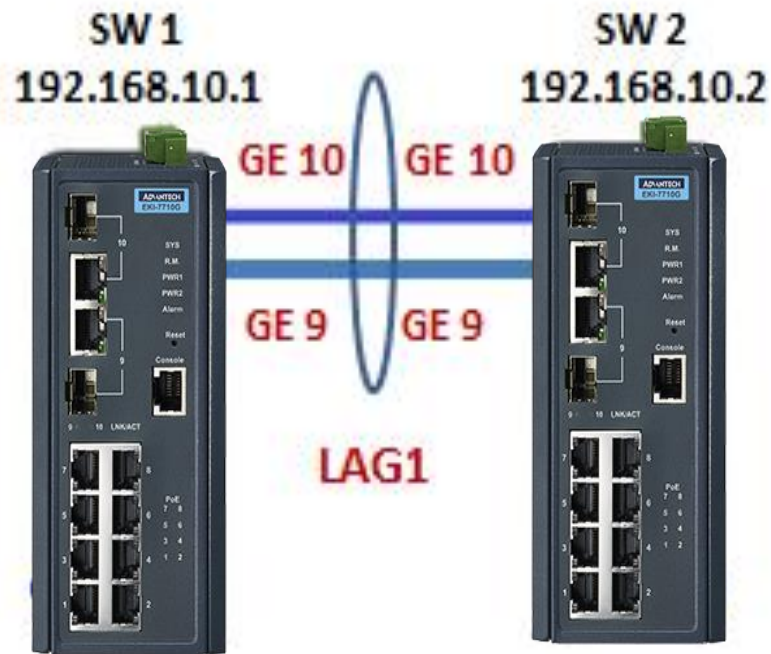
- ❖ This SOP explains how to configure LAG and LACP on Advantech EKI-7700 series Industrial Ethernet Manage Switch by WebGUI.
- ❖ Related products:
EKI-7700 series
- ❖ Requirement: Advantech Manage Switch, RJ45 Ethernet cable, PC



Static Trunk (Static LAG)

Configure LAG with WebGUI- Static Trunk

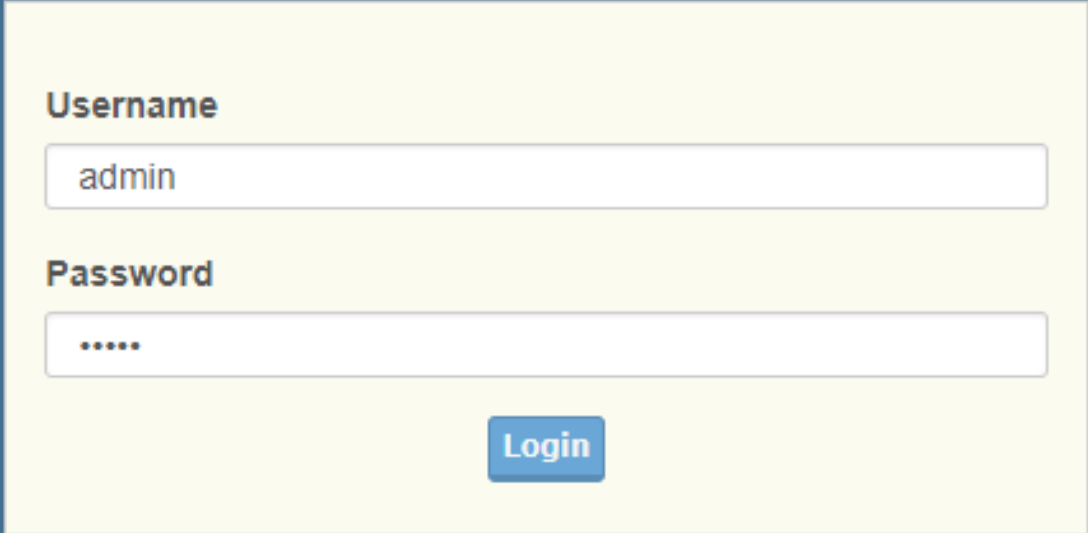
- Topology: Combining two Ethernet ports into one LAG (Link Aggregation Group), and enable the Static trunk for this LAG.



Configure LAG with WebGUI- Static Trunk

■ Setting:

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



A screenshot of a web-based login interface for a switch. The interface is contained within a light yellow rectangular box with a thin border, set against a dark blue background. It features two input fields: the first is labeled 'Username' and contains the text 'admin'; the second is labeled 'Password' and contains six dots. Below the input fields is a blue button with the text 'Login' in white.

Configure LAG with WebGUI- Static Trunk

- Setting (Both SW1 and SW2 use the same setting):
 - Step 2: In LAG Management, choose “**Static**” for Static Trunk, and determine the port members. After finishing the setting, you will see an entry in below table.

The screenshot displays the Advantech WebGUI interface for configuring a Link Aggregation Group (LAG). The left sidebar shows the navigation menu with 'L2 Switching', 'Link Aggregation', and 'LAG Management' highlighted. The main content area shows the 'LAG Management' configuration page for 'Trunk1'. The configuration includes a dropdown for 'LAG' (Trunk1), a text field for 'Name' (Group1), radio buttons for 'Type' (Static selected, LACP unselected), and a text field for 'Ports' (GE9, GE10). An 'Apply' button is visible below the configuration fields. To the right of the configuration area, there is a legend: 'LAG Type: Static >> Static Trunk' and 'LACP >> Dynamic Trunk'. Below the configuration area is a table titled 'LAG Management Information' with the following data:

LAG	Name	Type	Link State	Active Member	Standby Member	Modify
Trunk1	Group1	Static	UP	GE9-10	-	Edit Clear
Trunk2		---	Not Present	-	-	Edit Clear
Trunk3		---	Not Present	-	-	Edit Clear
Trunk4		---	Not Present	-	-	Edit Clear

Configure LAG with WebGUI- Static Trunk

- Setting (Both SW1 and SW2 use the same setting):
 - Step 3: In LAG Port settings, choose the LAG you want to configure for LAG speed and flow control functions. After clicking “Apply” and refresh the screen, you will see the LAG port status update as below entry if the other switch already have finished the same setting from step1 to 3.

The screenshot displays the Advantech WebGUI interface for configuring LAG Port settings on an EKI-7710G-2CI-AE Intelligent Industrial Switch. The left sidebar shows navigation options, with 'L2 Switching', 'Link Aggregation', and 'LAG Port Settings' highlighted. The main content area shows the 'LAG Port settings' configuration page for 'Trunk1'. The settings are: LAG Select: Trunk1; Enabled: Enabled; Speed: Auto; Flow Control: Disabled. An 'Apply' button is visible. Below the settings is a table showing the LAG Port Status for Trunk1, Trunk2, and Trunk3. The Trunk1 status is highlighted with a red box, showing 'DOWN' link status. A second table below shows the updated status for Trunk1, showing 'UP' link status, with a red arrow pointing from the 'DOWN' status in the first table to the 'UP' status in the second table.

LAG Port settings

LAG Select:

Enabled: Enabled Disabled

Speed:

Flow Control: Enabled Disabled

LAG Port Status

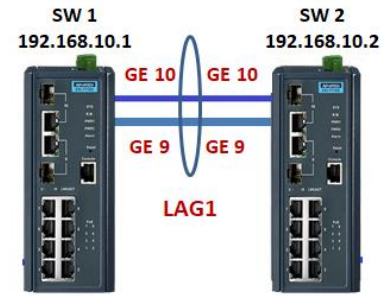
LAG	Description	Port Type	Enable State	Link Status	Speed	Duplex	FlowCtrl Config	FlowCtrl Status
Trunk1	Group1	eth1000M	Enabled	DOWN	Auto	Auto	Disabled	Disabled
Trunk2			Enabled		Auto	Auto	Disabled	Disabled
Trunk3								

LAG Port Status

LAG	Description	Port Type	Enable State	Link Status	Speed	Duplex	FlowCtrl Config	FlowCtrl Status
Trunk1	Group1	eth1000M	Enabled	UP	A-1000M	A-Full	Disabled	Disabled

Result- Static Trunk

- After finishing above setting, you can go to “LAG Management” for checking the LAG status. As below screenshot, you will see port 9 to 10 are “Active” if you connect the two switches as the topology



ADVAANTECH EKI-7710G-2CI-AE Intelligent Industrial Switch

Switch / L2 Switching / Link Aggregation / LAG Management

LAG Management

LAG: Trunk1

Name: Input name

Type: Static LACP

Ports: Select Ports

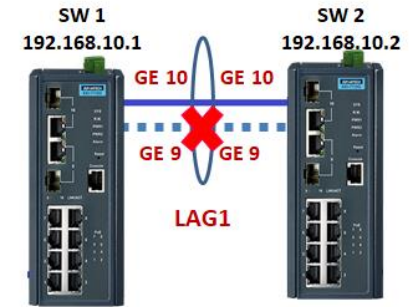
Apply

LAG Management Information

LAG	Name	Type	Link State	Active Member	Standby Member	Modify
Trunk1	Group1	Static	UP	GE9-10	-	Edit Clear

Result- Static Trunk

- If only port 10 is connected between the two switches, you will see port 10 is displayed in “**Active Member**” column while port 9 is displayed in “**Standby Member**”.



ADANTECH EKI-7710G-2CI-AE Intelligent Industrial Switch

Switch / L2 Switching / Link Aggregation / LAG Management

LAG Management

LAG: Trunk1

Name: Input name

Type: Static LACP

Ports: Select Ports

Note: Since GE9 is not connected with the other switch, it will shown in “**Standby Member**” column.

Apply

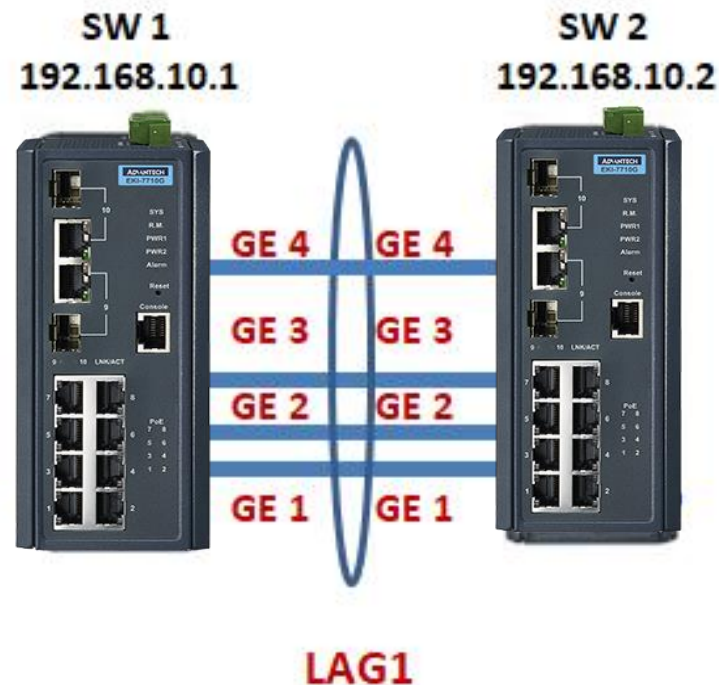
LAG Management Information

LAG	Name	Type	Link State	Active Member	Standby Member	Modify
Trunk1	Group1	Static	UP	GE10	GE9	Edit Clear

Dynamic Trunk (LACP)

Configure LAG with WebGUI- Dynamic Trunk

- Topology: Combining four Ethernet ports into one LAG (Link Aggregation Group), and enable the LACP (Link Aggregation Control Protocol) for this LAG.



Configure LAG with WebGUI- Dynamic Trunk

- Setting (Both SW1 and SW2 use the same setting):
 - Step 1: Go to L2 Switching >> Link Aggregation >> Load Balance, for setting the Load Balance Algorithm.

The screenshot displays the Advantech WebGUI interface for an EKI-7710G-2CI-AE Intelligent Industrial Switch. The breadcrumb navigation path is Switch / L2 Switching / Link Aggregation / Load Balance. The 'Load Balance Settings' section shows the 'Load Balance Algorithm' set to 'MAC Address', with radio buttons for 'IP/MAC Address' and 'Source Port'. An 'Apply' button is visible below the settings. The 'Load Balance Information' table below shows the current configuration.

Information Name	Information Value
Load Balance Algorithm	src-dst-mac

Configure LAG with WebGUI- Dynamic Trunk

- Setting (Both SW1 and SW2 use the same setting):
 - Step 2: In LAG Management, choose “LACP” for Dynamic Trunk, and determine the port members. After finishing the setting, you will see an entry in below table.

The screenshot displays the Advantech WebGUI interface for LAG Management. The left sidebar shows navigation options, with 'L2 Switching', 'Link Aggregation', and 'LAG Management' highlighted. The main content area shows the configuration for LAG 'Trunk1'. The 'Name' field is 'Group1', and the 'Type' is set to 'LACP'. The 'Ports' field lists 'GE1', 'GE2', 'GE3', and 'GE4'. An 'Apply' button is visible below the configuration fields. To the right of the configuration area, a text box explains the LAG Type options: 'Static >> Static Trunk' and 'LACP >> Dynamic Trunk'. Below the configuration area, a table titled 'LAG Management Information' shows the current configuration:

LAG	Name	Type	Link State	Active Member	Standby Member	Modify
Trunk1	Group1	LACP	UP	GE1-4	-	Edit Clear
Trunk2		---	Not Present	-	-	Edit Clear

Configure LAG with WebGUI- Dynamic Trunk

- Setting (Both SW1 and SW2 use the same setting):
 - Step 3: In LAG Port settings, choose the LAG you want to configure for LAG speed and flow control functions. After clicking “Apply” and refresh the screen, you will see the LAG port status update as below entry if the other switch already have finished the same setting from step1 to 3.

The screenshot displays the Advantech WebGUI interface for configuring LAG Port settings. The left sidebar shows the navigation menu with 'L2 Switching', 'Link Aggregation', and 'LAG Port Settings' highlighted. The main content area shows the 'LAG Port settings' configuration page for 'Trunk1'. The settings include: LAG Select: Trunk1; Enabled: Enabled; Speed: Auto; Flow Control: Disabled. An 'Apply' button is visible. Below the settings is a table titled 'LAG Port Status' showing the current status of the LAG ports. The table has columns: LAG, Description, Port Type, Enable State, Link Status, Speed, Duplex, FlowCtrl Config, and FlowCtrl Status. The first row (Trunk1) is highlighted with a red box, showing Link Status as 'DOWN'. A red arrow points from this row to a second, identical table below, where the Link Status for Trunk1 is 'UP', indicating a successful update.

LAG	Description	Port Type	Enable State	Link Status	Speed	Duplex	FlowCtrl Config	FlowCtrl Status
Trunk1	Group1	eth1000M	Enabled	DOWN	Auto	Auto	Disabled	Disabled
Trunk2			Enabled		Auto	Auto	Disabled	Disabled
Trunk3								

LAG	Description	Port Type	Enable State	Link Status	Speed	Duplex	FlowCtrl Config	FlowCtrl Status
Trunk1	Group1	eth1000M	Enabled	UP	A-1000M	A-Full	Disabled	Disabled

Configure LAG with WebGUI- Dynamic Trunk

- Setting (Both SW1 and SW2 use the same setting):
 - Step 4: In LACP Priority settings, you can enter a value if you want to change the LACP system priority. (Note: you can leave it with the default value)

The screenshot shows the Advantech WebGUI interface for an EKI-7710G-2CI-AE Intelligent Industrial Switch. The left sidebar contains a navigation menu with the following items: Monitoring, System, L2 Switching (highlighted with a red box), Port Configuration, Port Mirror, Link Aggregation (highlighted with a red box), Load Balance, LAG Management, LACP Priority Settings (highlighted with a red box), LACP Port Settings, 802.1Q VLAN, Q-in-Q, and GARP. The main content area displays the 'LACP Priority Settings' configuration page. The breadcrumb navigation is 'Switch / L2 Switching / Link Aggregation / LACP Priority Settings'. The 'LACP Priority Settings' section shows a 'System Priority' input field with the value '32768' and a range '(1-65535)'. Below the input field is an 'Apply' button. The 'LACP Priority Information' section contains a table with the following data:

Information Name	Information Value
System Priority	32768

Configure LAG with WebGUI- Dynamic Trunk

- Setting (Both SW1 and SW2 use the same setting):
 - Step 5: In LACP Port settings, set all the port members in this dynamic trunk to “Active” to ensure the LACP can work normally.

The screenshot displays the Advantech WebGUI interface for configuring LACP Port Settings. The left sidebar shows the navigation menu with 'L2 Switching' expanded, and 'LACP Port Settings' selected. The main content area shows the 'LACP Port Settings' configuration page. The 'Mode' is set to 'Active', and the 'Apply' button is visible. Below the configuration is a table of LACP Port Information.

Port Name	Priority	Timeout	Mode
GE1	1	Long	Active
GE2	1	Long	Active
GE3	1	Long	Active
GE4	1	Long	Active
GE5	1	Long	Passive
GE6	1	Long	Passive
GE7	1	Long	Passive

Result- Dynamic Trunk

- After finishing above setting, you can go to “LAG Management” for checking the LACP result. As below screenshot, if all four ports are connected between two switches as the right topology, you will see port 1 to 4 are displayed in “Active Member”.



ADVANTECH EKI-7710G-2CI-AE Intelligent Industrial Switch

Monitoring
System
L2 Switching
Port Configuration
Port Mirror
Link Aggregation
Load Balance
LAG Management
LAG Port Settings
LACP Priority Settings
LACP Port Settings
802.1Q VLAN

Switch / L2 Switching / Link Aggregation / LAG Management

LAG Management

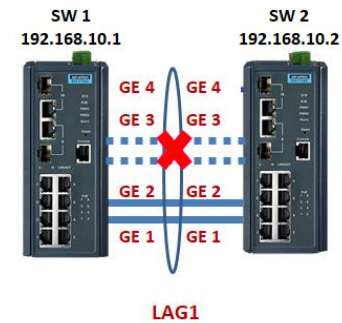
LAG: Trunk1
Name: Input name
Type: Static LACP
Ports: Select Ports
Apply

LAG Management Information

LAG	Name	Type	Link State	Active Member	Standby Member	Modify
Trunk1	Group1	LACP	UP	GE1-4	-	Edit Clear

Result- Dynamic Trunk

- If only port 1 and port 2 are connected between the two switches, you will see only port 1 and 2 are displayed in “Active Member” while port 3 and 4 are displayed in “Standby Member”



ADVANTECH EKI-7710G-2CI-AE Intelligent Industrial Switch

Monitoring
System
L2 Switching
Port Configuration
Port Mirror
Link Aggregation
Load Balance
LAG Management
LAG Port Settings
LACP Priority Settings
LACP Port Settings
802.1Q VLAN

Switch / L2 Switching / Link Aggregation / LAG Management

LAG Management

LAG: Trunk1
Name: Input name
Type: Static LACP
Ports: Select Ports
Apply

Note:
Since GE3,4 are not connected with the other switch, it will shown in “Standby Member” column.

LAG Management Information

LAG	Name	Type	Link State	Active Member	Standby Member	Modify
Trunk1	Group1	LACP	UP	GE1-2	GE3-4	Edit Clear



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