

# EKI-6331 & EKI-6332

## Bridge mode configuration

### SOP

Revision Date	Revision	Description	Author
April/2018	V1.0	Initial release	ICG AE Jacky.Lin

# Abstract

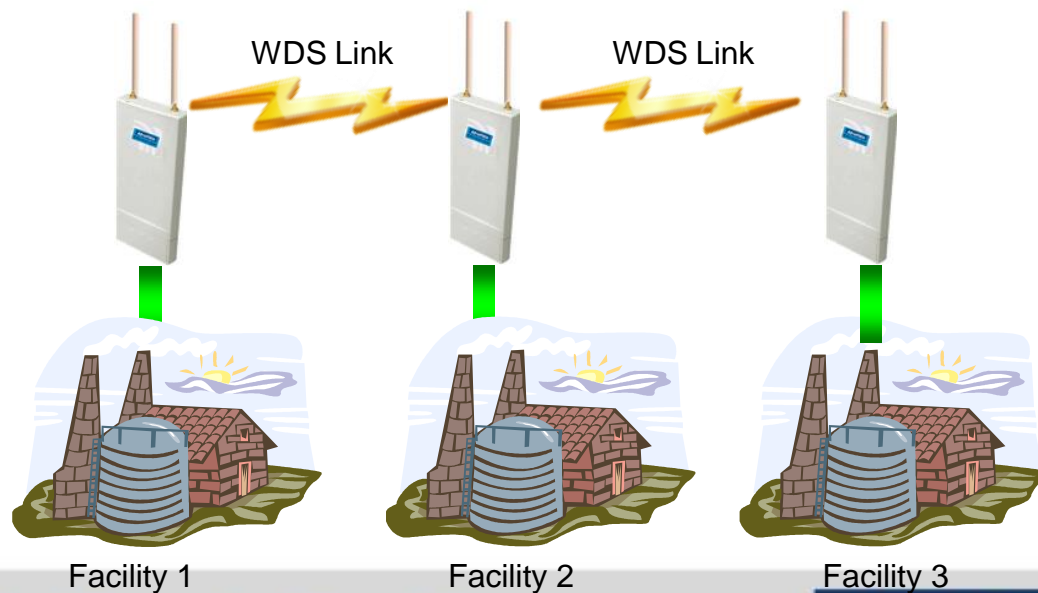
- ❖ **This SOP explains how to configure the EKI-6331 & EKI-6332 in Bridge mode.**
- ❖ **Related products:**  
EKI-6331, EKI-6332
- ❖ **Requirement:** Two EKI-6331 or EKI-6332 devices
- ❖ **Note :** Please refer the “SOP\_EKI-6331 & EKI-6332 AP & client mode configuration” for understanding basic setting first.



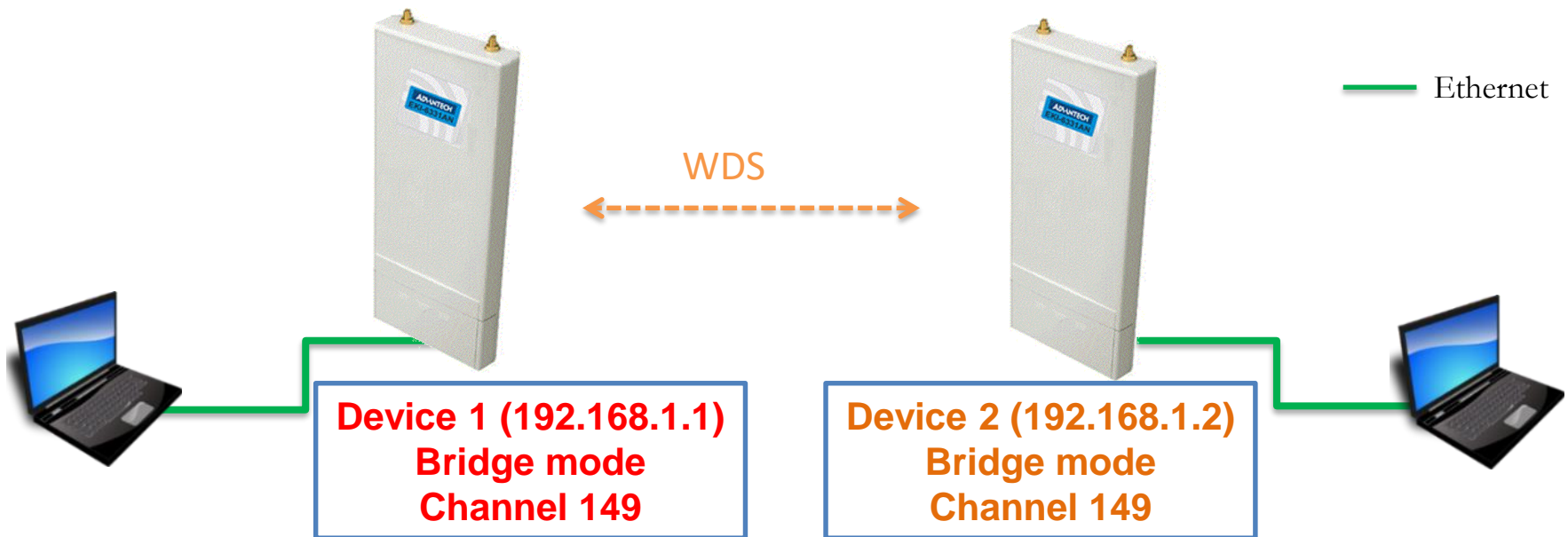
# Bridge mode

# Bridge mode

- **Scenario:** Need a dedicated [point-to-point connection](#).
  - By setting as **Bridge** mode, two or more EKI devices can act as bridges. (Bridge by WDS)
  - EKI-633x can only bridge with the same model.
- **Multiple bridges**
  - Support up to [4 WDS](#) for each EKI
  - Half of bandwidth whiling adding one more layer. (We suggest no more than three layers. Please refer the “[FAQ\\_EKI-633x\\_Application Limitation for AP repeater & Bridge mode](#)” for detail explanation )
  - Normally, the multiple bridges could only [use the omni antennas](#) but no directional antennas.



# Topology : Bridge – Bridge



## WDS setting

Local MAC

00:19:70:c1:3d:ec



Remote AP MAC

00:19:70:c1:3d:e7



00:19:70:c1:3d:e7

00:19:70:c1:3d:ec

# Bridge mode setting – Device 1



**Device 1 (192.168.1.1)**



**Device 2 (192.168.1.2)**

**Status** | **System** | **Wireless** | **Management** | **Tools**

**Basic Settings** ✕  
Security Settings  
Advanced Settings  
Traffic Shaping  
Access Control  
WDS Settings

## Basic Settings


Use this page to change the wireless mode as well as configure any associated wireless network parameters.

☐ **Disable Wireless LAN Interface**

Operation Mode: **Bridge** Site  
802.11 Mode: 802.11A/N  
Channel Mode: 20 MHz  
Channel: 5745MHz (149)  
Extension Channel: None  
Data Rate: Auto

1. Set to Bridge mode
2. Decide the 802.11 type/channel

# Bridge mode setting – Device 2



**Device 1 (192.168.1.1)**



**Device 2 (192.168.1.2)**

StatusSystemWirelessManagementTools

Basic Settings ✕

Security Settings

Advanced Settings

Traffic Shaping

Access Control

WDS Settings

## Basic Settings

Use this page to change the wireless mode as well as configure any associated wireless network parameters.

☐ Disable Wireless LAN Interface

Operation Mode:

Bridge

802.11 Mode:

802.11A/N

Channel Mode:

20 MHz

Channel:

5745MHz (149)

Extension Channel:

None

Data Rate:

Auto

Site Survey

Make sure the setting is as same as device 1 , especially channel.

# Wireless Settings- WDS setting

- The bridging EKI only communicate with the EKI whose MAC is in its WDS setting.
- Please add the MAC address of the EKI on the both side (device1 /device2)

## Bridge\_1

Status	System	Wireless	Management	Tools
--------	--------	----------	------------	-------

Basic Settings  
Profile Settings  
Advanced Settings  
Traffic Shaping  
Access Control  
**WDS Settings** >>

### WDS Settings

A Wireless Distribution System allows interconnection of access points in an IEEE 802.11 network. To do this, you must set all interconnected APs in the same channel, input the MAC addresses of the other APs which you want to communicate with in the table below and enable the WDS Separation function. This function will only work in Bridge and AP Repeater modes.

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Local MAC Address: 00:19:70:c1:3d:ec

WDS MAC Address 1: 00:19:70:c1:3d:e7

## Bridge\_2

Status	System	Wireless	Management	Tools
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Basic Settings  
Profile Settings  
Advanced Settings  
Traffic Shaping  
Access Control  
**WDS Settings** >>

### WDS Settings

A Wireless Distribution System allows interconnection of access points in an IEEE 802.11 network. To do this, you must set all interconnected APs in the same channel, input the MAC addresses of the other APs which you want to communicate with in the table below and enable the WDS Separation function. This function will only work in Bridge and AP Repeater modes.

---

Local MAC Address: 00:19:70:c1:3d:e7

WDS MAC Address 1: 00:19:70:c1:3d:ec



# Reboot the device

- Reboot the device1 /device 2
  - Path: Management → configuration file → Reboot

The screenshot shows the Advantech device management web interface. The top navigation bar includes tabs for Status, System, Wireless, Management, and Tools. The left sidebar contains links for Password Settings, Firmware Upgrade, Configuration File (highlighted with a red box), User Certificates, Remote Services, and SNMP Settings. The main content area is titled 'Configuration File' and contains instructions: 'This page allows you to save current settings to a file or load the settings from the file which was saved previously. You may also reset the current configuration to factory default or reboot the device.' Below this, there are four sections: 'Save Settings to File:' with a 'Save...' button; 'Load Settings from File:' with a button labeled '選擇檔案' (Select File) and the text '未選擇任何檔案' (No file selected); 'Reset Settings to Default:' with a 'Reset' button; and 'Reboot The Device:' with a 'Reboot' button (highlighted with a red box). A yellow arrow points from a red callout box to the 'Reboot' button. The callout box contains the text: 'Reboot the device and wait for starting the WiFi service'. Below the interface, a yellow arrow points down to a message box that says: 'This device has been reboot, you have to login again. Please wait for 36 seconds before attempting to access the device again...'. The browser's address bar shows the URL 'http://192.168.1.100:8080/advantech/'.

**Configuration File**

This page allows you to save current settings to a file or load the settings from the file which was saved previously. You may also reset the current configuration to factory default or reboot the device.

Save Settings to File:

Load Settings from File:  未選擇任何檔案

Reset Settings to Default:

Reboot The Device:

**Reboot the device and wait for starting the WiFi service**

This device has been reboot, you have to login again.  
Please wait for 36 seconds before attempting to access the device again...

# Check the Connection status

Bridge\_1 192.168.1.1

Bridge\_1

**Status**SystemWirelessManagementTools

Information  
**Connections**   
Statistics  
ARP Table  
Bridge Table

## Association List

This table shows the MAC Address,802.11 Mode,Signal Strength and Connected Time for each associated device(s).

#	MAC Address	802.11 Mode	Signal Strength	Connected Time
1	00:19:70:c1:3d:e7	802.11A/N	-36 dBm	4s

Bridge\_2

**Status**SystemWirelessManagementTools

Information  
**Connections**   
Statistics  
ARP Table  
Bridge Table

## Association List

This table shows the MAC Address,802.11 Mode,Signal Strength and Connected Time for each associated device(s).

#	MAC Address	802.11 Mode	Signal Strength	Connected Time
1	00:19:70:c1:3d:ec	802.11A/N	-32 dBm	2m:25s

# Advanced - Multiple Bridge

- Set more bridge as below structure



## WDS setting

Local MAC

00:19:70:c1:3d:ec

Remote AP MAC

00:19:70:c1:3d:e7

Remote AP MAC 2

00:19:70:c1:3d:e7

00:19:70:c1:3d:ec

00:19:70:c1:3d:e8

00:19:70:c1:3d:e8

00:19:70:c1:3d:e7

# Advanced – Multiple Bridge

## Check the Connection status

### Bridge\_1

Connections ✖

Statistics

ARP Table

Bridge Table

This table shows the MAC Address,802.11 Mode,Signal Strength and Connected Time for each associated device(s).

#	MAC Address	802.11 Mode	Signal Strength	Connected Time
1	00:19:70:c1:3d:e7	802.11A/N	-35 dBm	7m:17s

### Bridge\_2

Connections ✖

Statistics

ARP Table

Bridge Table

This table shows the MAC Address,802.11 Mode,Signal Strength and Connected Time for each associated device(s).

#	MAC Address	802.11 Mode	Signal Strength	Connected Time
1	00:19:70:c1:3d:ec	802.11A/N	-27 dBm	3m:21s
2	00:19:70:c1:3d:e8	802.11A/N	-33 dBm	3m:21s

### Bridge\_3

Connections ✖

Statistics

ARP Table

Bridge Table

This table shows the MAC Address,802.11 Mode,Signal Strength and Connected Time for each associated device(s).

#	MAC Address	802.11 Mode	Signal Strength	Connected Time
1	00:19:70:c1:3d:e7	802.11A/N	-27 dBm	3s



# Enabling an Intelligent Planet