

Modbus Gateway EKI-122X Redundancy - By Bridge and Virtual Gateway

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Outline

- Redundant Topology
- Setting SOP

Enabling an Intelligent Planet



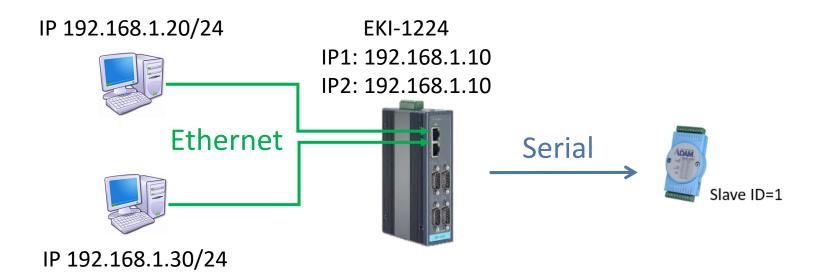
Redundant Topology

Trusted ePlatform Services



Redundant Topology - Bridge

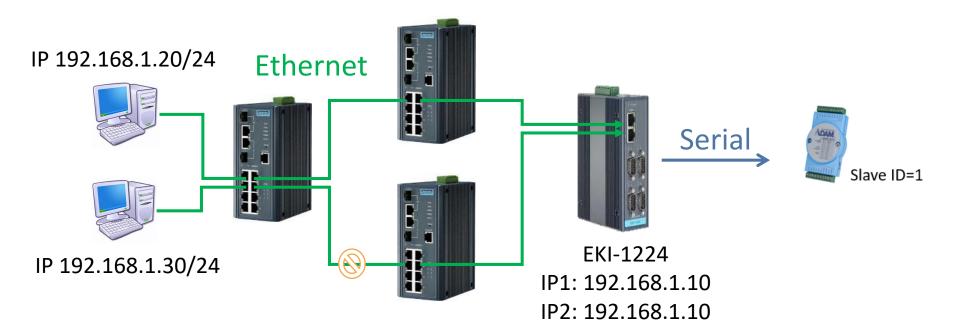
- Bridge
 - Set the 2 Ethernet interfaces as Bridge mode, and set the Ethernet Bridge with static IP. This allows the 2 Ethernet Ports became a 2port switch using the same IP.







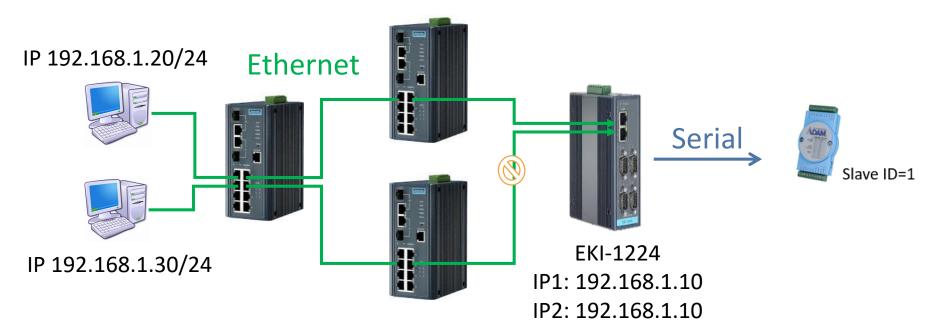
- Bridge STP Enable
 - Support STP that could work with other STP-Enabled devices.
 - The block port will be determined by all the devices running STP.







- Bridge Redundant Mode Enable
 - Support Redundant Mode to link both Ethernet cables to the same switch and block one of the link by EKI itself.
 - Default is to block Eth2.

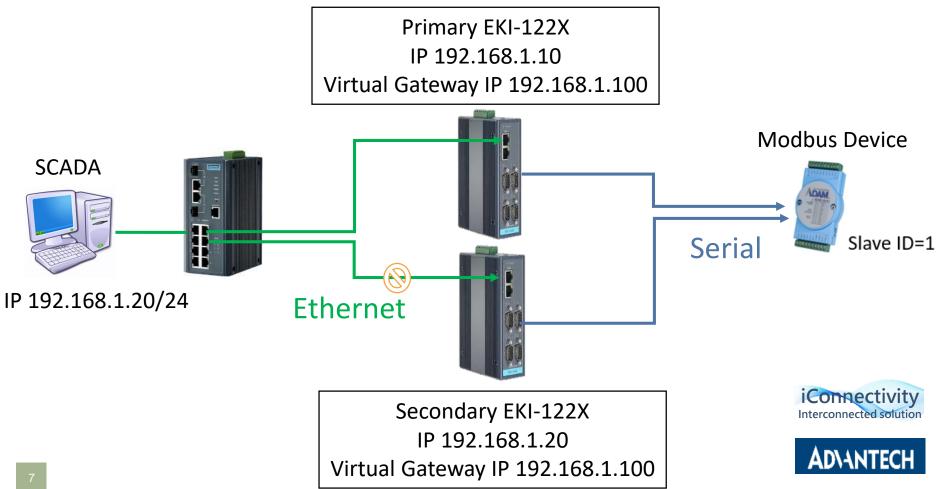






Redundant Topology - Virtual Gateway

- Virtual Gateway
 - Virtual gateway is redundant function for EKI in the same network.
 - Use 2 EKI-122X and both devices can set virtual gateway in one IP.
 - The SCADA builds the connection by the virtual gateway IP.



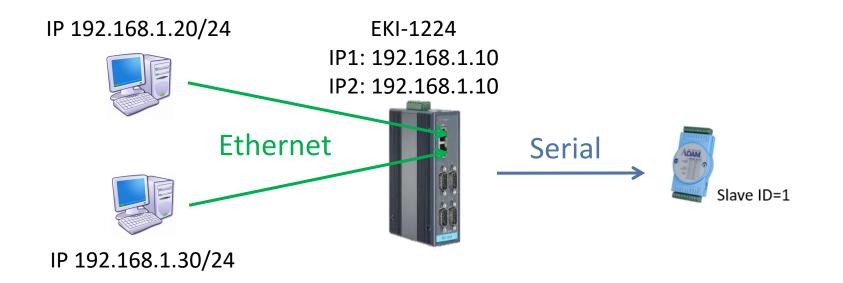
Configuration SOP

Trusted ePlatform Services



Redundant Topology - Bridge

• Bridge







Configuration – Bridge (1/2)

• IP Setting

Set Eth1 and Eth2 in Bridge mode.

🚓 Ethernet Configuration			
Eth 1	Eth1 Configuration		
Eth 2	IPv4 Configuration		
Ethernet Bridge	Mode	Bridge	
Port Configuration	MAC Address	74-FE-48-54-17-1C	
C Monitor	Current Status		
⊟ Syslogd	IP 1	fe80::76fe:48ff:fe54:171c	
🖋 Tools		Save	
Lefthernet Configuration			
	Eth2 Configuration		
Eth 1	 Eth2 Configuration IPv4 Configuration 		
Eth 1 Eth 2		Bridge	-
Eth 1	IPv4 Configuration	Bridge ~ 74-FE-48-54-17-1D	-
Eth 1 Eth 2 Ethernet Bridge	IPv4 Configuration Mode		•
Eth 1 Eth 2 Ethernet Bridge	IPv4 Configuration Mode MAC Address		

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Configuration – Bridge (2/2)

• Ethernet Bridge Setting

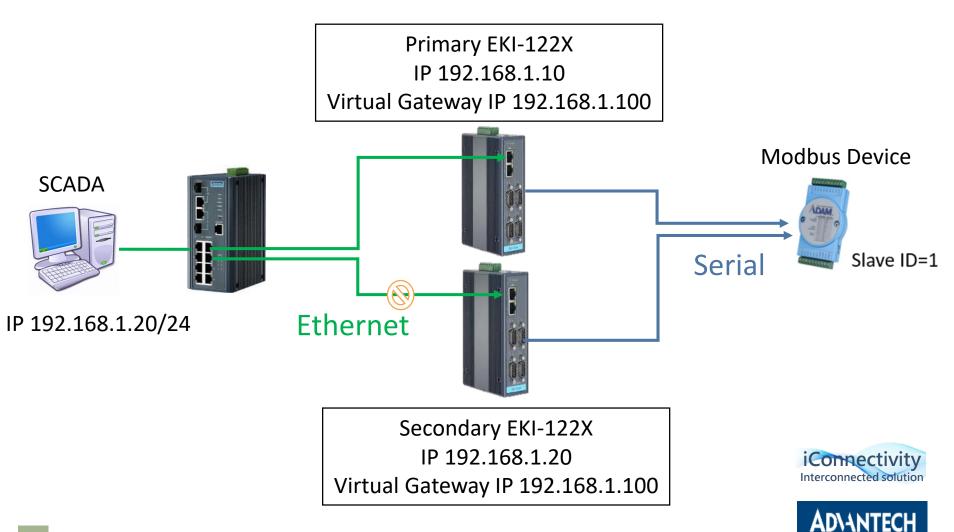
Both Eth interface use the same IP. Users can enable STP or Redundant mode.

STP mode runs spanning tree protocol with other connected devices . Redundant mode will block one Eth port on EKI-122X and it will judge to active the block port automatically.

Lethernet Configuration		
Eth 1	Br1 Configuration	
Eth 2	IPv4 Configuration	
Ethernet Bridge	Mode	Static IP 🗸
Port Configuration	MAC Address	
🖵 Monitor	IP Address	192.168.1.10
≣ Syslogd	Subnet Mask	255.255.255.0
≁ Tools	Default Gateway	0.0.0.0
Management	Spanning Tree Protocol Configuration	
	STP	O Disable O Enable
	Redundant Mode	O Disable O Enable

Configuration - Virtual Gateway

• Virtual Gateway



Configuration - Virtual Gateway

• Virtual Gateway Settings

Primary EKI-122X

O Disable O Enable	
Eth 1	
192.168.1.100	
1	(1-255)
Primary	
Save	
O Disable O Enable	
Eth 1 🗸	
192.168.1.100	
1	(1-255)
Secondary	lected
Save	
	Eth 1

Co-Creating the Future of the IoT World

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