



# Anybus® Wireless Bolt™

**Configuration Examples** 

This document does not include the complete instructions for the safe use of the described equipment. Make sure that you have read and understood the safety instructions in the user documentation for the described equipment before proceeding.

# **Ethernet network to existing WLAN**



# **Before You Begin**

This example describes how to connect a machine with an internal Ethernet network to an existing WLAN.

This setup allows traffic on network layer 3, but not layer 2. This means that TCP/IP based protocols such as EtherNet/IP, Modbus TCP and BACnet can be used on the WLAN, but not protocols that use layer 2 traffic, such as PROFINET.

When this setup is used in an enterprise network, such as a Cisco Wireless LAN Controller, the connectivity may be reduced.

The cause may be:

- Multiple devices sharing a single wireless interface is not typically supported without special configuration.
- The network cannot enforce a 1-to-1 mapping of IP to MAC addresses and must allow propagation of broadcasted ARP messages over the wireless segment in order to route traffic to the bridged devices.

If this for security or performance reasons is not acceptable, a setup with a single Ethernet node connected to the Wireless Bridge is recommended.

#### Configuration

- 1. Reset the Wireless Bolt to the factory default settings.
- 2. In **Network Settings**, configure the IP settings as required by the wireless network.
- 3. If the network uses DHCP, select DHCP Relay Enabled.

Internal DHCP Server

DHCP Relay Enabled

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### WLAN Settings for Small Office/Home Office Network

If the setup is used in a small office/home office network, follow these steps:

- 1. In WLAN Settings, click on Scan for Networks.
- 2. When the scan has completed, select the wireless network from the dropdown list.
- 3. If required, select the authentication mode and enter the passkey for the wireless network.



WLAN Bridge Mode must be set to Layer 3 IP forward (the default setting).

4. Click on Save and Reboot.

### Result

 $\rightarrow$  The Ethernet network should now be able to access the WLAN access point.

# WLAN Settings for Enterprise Network

If the setup is used in an enterprise network, follow these steps:

- 1. In WLAN Settings, set Bridge Mode to Layer 2 cloned MAC only.
- 2. Enter the MAC address of the PLC in the **Cloned MAC Address** field.
- 3. Enter the IP address of the PLC in the **Cloned IP Address** field.
- 4. Click on Save and Reboot.

#### Result

→ The Wireless Bolt will now function as a WLAN interface for the PLC using the MAC address of its Ethernet interface.