

# **Technical Note**

# VLAP Access point setup procedure

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# 1 Purpose

This document describes how to set up the WiFi access point of the VM-110 and VX-100 VLAP (VLAP). The VisionLink communication channel between the VM-110 RU/VX-100 RU (RU) and VLAP consists of two radio links called G-link and C-link. The G-link is the high capacity/limited range part, while the C-link is the limited capacity/long range link. The C-link is automatically configured when it is paired to a VM-110/VX-100 BU (BU), but the access point needs to be configured with the correct Wifi settings.

# 2 Preparation.

The VLAP uses an AWK-3131A access point from Moxa.

# 2.1 Factory default settings from Moxa

IP address: 192.168.127.253

Username: admin

Password: moxa

Please ensure that your computer and the AWK-3131A are on the same logical subnet (192.168.**127**.253). Give your computer a different static IP-address on the same subnet.

Now you can connect and logon either using wireless or wired-LAN connection to the AWK-3131A

## 2.2 Default settings on a configured VLAP from Vision Remote

IP address: 192.168.32.11

Username: admin

Password: VR134679258

SSID: VRGL5XXX

Wifi password: VR134679258

Please ensure that your computer and the AWK-3131A are on the same logical subnet (192.168.**32**.11). Give your computer a different static IP-address on the same subnet.

# 2.3 Recommended/Required instruments, tools and documents.

Ref.	Description
1.	VM-110 System to be programmed (VLAP)
2.	PC with network interface for connection to VLAP
3.	Moxa AWK-3131A User manual

# 2.4 Factory reset

The AWK-3131A has a factory reset button close to the terminal block. Pressing this for over 5 seconds until the STATE led starts blinking green and releasing the button will reset the unit to factory defaults

## 2.5 VLAP – IP addresses

The BU supports up to 3 different VLAP units. These units must all have different static IP-addresses and are to be selected from table below:



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VLAP	IP-address	
1	192.168.32.11	
2	192.168.32.12	
3	192.168.32.13	

# 3 Setup

A VLAP delivered from Vision Remote is already programmed with default settings but customer is required in most cases to modify some settings to suit their system. This can be for instance if there are several systems on one location. Having several BU's with identical configured VLAP's can result in RU not connecting to the correct VLAP

# 3.1 Required settings.

#### 3.1.1 Set operation mode to AP

The access point shall be set to operate as an access point. Settings found under "Wireless LAN Setup -> Operation mode"

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ΜΟΧΛ <sup>°</sup> ww	w.moxa.com		» Complete Solutions for Industrial Wireless Networking
Home	Operation Mode		
<ul> <li>Overview</li> <li>General Setup</li> </ul>	Wireless	Enable      Disable	
Wireless LAN Setup     AeroMag	Operation mode	AP	
Operation Mode     WLAN	Submit		

#### 3.1.2 Static IP-address

The access point must be given a static IP address according to table below

Settings located under "General setup ->Network Settings.

IP address assignment: Static

VLAP	IP-address	
1	192.168.32.11	
2	192.168.32.12	
3	192.168.32.13	

Subnet mask: 255.255.255.0

Gateway: 192.168.32.1

Primary DNS server: 192.168.32.1

#### 3.1.3 SSID

The SSID is basically the name of the WiFi. The naming of SSID is up to the customer to decide, but we recommend choosing a SSID that clearly identifies which BU the VLAP is connected to. For instance, VRGL5028. Where the four first letters stand for **V**ision **R**emote **G**-Link and last digits is the HW-ID of the BU for that system the VLAP is connected to.

Settings stored under: "WLAN -> Basic WLAN Setup" TN-0048-2 VM-110 VLAP Access point setup procedure 6



#### Document No: TN-0048 Press "edit"

$\leftarrow$ $\rightarrow$ $\bigcirc$ $\bigcirc$ 192.168.32.11/home.asp						
Home	Basic WLAN Setup (Mult	iple SSID)				
General Setup	Status S	SID		Operation Mode	Action	
🖻 🚘 Wireless LAN Setup	Active	/RGL5028		AP	Edit	
AeroMag	Add SSID					
Operation Mode     WI AN						
Basic WLAN Setup						
🗎 WLAN Security Settings						
Advanced WLAN Settings						
WLAN Certificate Settings						
MOXA	w.moxa.com			Sound	ete Solutious for Industrial Wi	reless Networkiug
Home				iii compri		in the second
🔄 Main Menu	Basic WLAN Setup					
Overview	Operation mode		AP			
General Setup	RF type		B/G/N Mixed			
AeroMag	Channel		11 ~			
Deration Mode	Channel width		20 MHz ~	_		
B WLAN	SSID		VRGL5028			
Basic WLAN Setup	SSID broadcast		Enable      Disable			
Advanced WLAN Settings	AeroLink AP		O Enable   Disable			
WLAN Certificate Settings	Management frame encryp	tion	🔾 Enable 🖲 Disable	1		
Advanced Setup	management trame encryp	uon password				
Logs and Notifications	Submit					

The SSID must also be configurated into the application file of the BU. This is done using the webinterface of the BU. Log into BU using test port and connect to 192.168.32.1. Under settings the SSID can be entered. This is to ensure that the RU receives the SSID during the pairing procedure.

#### 3.1.4 WiFi password

Settings stored under: "WLAN -> Basic WLAN Setup ->Edit"

$\leftrightarrow$ $\rightarrow$ $\circlearrowright$ $\circlearrowright$ 19.	2.168.32.11/home.asp		
ΜΟΧΛ°	w.moxa.com		» Complete Solutions for Industrial Wireless Networking
Home	WLAN Security Settings		
Overview     General Setup     General Setup     General Setup	SSID Security mode	VRGL5028 WPA V	
AeroMag Operation Mode	WPA type Encryption method	Personal V AES V	
WLAN     Basic WLAN Setup     WLAN Security Settings	Passphrase	I ∨ •••••••	
Advanced WLAN Settings     WLAN Certificate Settings	Submit	Source (60~86400 seconds)	

Select WPA encryption

Set desired password/passphrase. Please follow your own company's recommend password strategy. If no strategy is in place, we recommend using a password containing letters, numbers and special characters.

The password must also be configurated into the application file of the BU. This is done using the webinterface of the BU. Log into BU using test port and connect to 192.168.32.1. Under settings the Password can be entered. This is to ensure that the RU receives the password during the pairing procedure.

## 3.2 Optional settings

We recommend that the time, date, year and time zone settings are updated. Then any error messages will have a timestamp matching the real time

We also recommend that the default access point login username and password are updated.

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## 3.3 Activating settings

Before any settings are activated the settings need to be stored and the access point rebooted. Please follow instructions on-screen.

# 3.4 Import and Export of settings

We highly recommend that the setup of VLAP's are stored for future reference. This is done by using the "export" option. When replacing a VLAP in the future the setup can be imported using the "import" option.

ΜΟΧΛ°	w.moxa.com	>>> Committee Solutions for Industrial Wireless Networking
Home  Home  Hain Menu  Coverview  General Setup  Havanced Setup  Katus  Haintenance  Firmware Uggrade Firmware Uggrade Configuration Import & Expo Configuration Import & Expo Logs and Factory Default Account Settings	Configuration Import & Export Configuration File Encryption Setting (Excluding ABC-01) Encryption of inport/export configuration © Enable ® Disable Password Configuration Import Select configuration file Import Configuration Configuration Export Export Configuration	Bla gjennom

# 4 Testing

As a final test check that it's possible to connect to the WiFi. It is also recommended to perform a range test. Typical range will be up to 30-50m