

Technical Note

VLAP Access point setup procedure for RUTX10

Document No: TN-0082

REV	DATE	REASON FOR ISSUE	PREPARED BY	CHECKED BY	APPROVED BY
1	2024-06-13	Initial revision	StianA	StåleR	AdrianL

This document is proprietary and confidential. No part of this document may be disclosed in any manner to a third party without the prior written consent of Vision Remote AS.



Table of Contents

1	Pu	urpose	
2	Pre	reparation.	
	2.1	Factory default settings	3
	2.2	Default settings on a configured VLAP from Vision Remote	3
	2.3	Recommended/Required instruments, tools and documents.	4
	2.4	Factory reset	4
	2.5	VLAP – IP addresses	4
3	Se	etup	4
	3.1	Required settings	4
	3.1	.1.1 Static IP-address	5
	3.1	.1.2 SSID	6
	3.2	Optional settings	7
	3.3	Activating settings	8
	3.4	Import and Export of settings	8
4	Te	esting	8



1 Purpose

This document describes how to set up the RUTEX10 WiFi access point of the VM-110 VLAP (rev. 3). The VisionLink communication channel between the VM-110 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 BU (BU), but the access point needs to be configured with the correct Wifi settings.

2 Preparation.

Rev. 3 of the VM-110 VLAP uses an RUTX10 access point from Teltonika.

2.1 Factory default settings

SSID: RUT_****_2G or RUT_****_5G

WiFi Password: located on the device information label/engraving

IP address: 192.168.1.1

Username: admin

Password: located on the device information label/engraving

Please ensure that your computer and the RUTX10 are on the same logical subnet (192.168.**1**.1). 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 RUTX10.

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 RUTX10 are on the same logical subnet (192.168.**32**.11). Give your computer a different static IP-address on the same subnet.

The default Vision Remote settings can be loaded into the access point via the RUTX10 WebUI. Go to Serviceses->Maintenance->Backup and drag and drop the config file into the red circle as shown in the picture below. The file is located at: Documentation/Software/Teltonika/RUTX10_VR_config_yyyy-mm-dd.tar.gz



	Administration >	
.4	Maintenance Y	~ CREATE DEFAULT CONFIGURATION
Status	Auto Reboot	Created 07/11/2024 10:13
۲	Backup	
Network	Troubleshoot	
ø	Events Log	~ BACKUP CONFIGURATION
Services	Traffic Log	MD5 d0d2cc45ebd4d021757474979bb71644
	Hotspot Log	SHA256 5fadefcd59eb288731b049a854ff8e065f38d3898f965f66fd2b992b9065f71f
System	CLI	Encryot
	Speed Test	" off on
	Custom Scripts	Backup archive DOWNLOAD
	Package Manager >	~ RESTORE CONFIGURATION
	Firmware >	Encrower
	Setup Wizard >	off on
	License	Restore from Deckup BROWSE or drag and deep your file here

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.	Teltonika RUTX10 User manual.

2.4 Factory reset

The RUTX10 has a reset button close to the power supply connection. Pressing this for at least 12 seconds (but max 20 seconds) will result in a factory reset and reboot.

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:

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. The example settings in the following chapters represents the default settings.

3.1 Required settings.

The access point shall be set up to operate as an access point with static IP. Follow the nest steps to set the AP up with VR default setting. Go to "Network -> LAN''



	<< <u>NETWORK</u>		TELTONIKA	Networks	Basic Advanced	Q /	RUTX_R_00.07.05.4 View Settings	•
	WAN							
.al	LAN		✓ LAN INTERFACES					
Status	Wireless							
۲	Failover		1 Ian	Status: Up	IP: 192.168.32.11/24 ?	Uptime: 0h 3m 37s TX: 352.07 KB		
Network	Firewall			Type: Bridge	MAC: 20:97:27:2D:87:B4	RX: 139.07 KB		off on
5	VLAN			-				
Services	Routing		~ ADD NEW INSTANC	Ł				
	Traffic Shaping		INTERFACE NAME					
o System	Ports						CAVE	
	DHCP						SAVE	& AFFLY
	DNS							

Press the button under LAN INTERFACES.

GENERAL SETTINGS	Enable off on	
IPV6 SETTINGS		
ADVANCED SETTINGS	Protocol Static	\checkmark
PHYSICAL SETTINGS	IPv4 address 192.168.32.11	
FIREWALL SETTINGS		
	IPv4 netmask 255.255.255.0	~
V DHGP SERVER		
GENERAL SETUP	Enable DHCP Relay	$\overline{}$
IPV6 SETTINGS		

Change the fields so that they look like above.

3.1.1 Static IP-address

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

IP address assignment: Static

VLAP	IP-address
1	192.168.32.11
2	192.168.32.12
3	192.168.32.13

IPv4 netmask: 255.255.255.0

DHCP server: 192.168.32.1



3.1.2 SSID

M/A NI

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:	"Network ->	Wireless"
----------	--------	--------	-------------	-----------

AL.	LAN		✓ WIFI 2.4GHZ							
Status	Wireless	~								
۲	SSIDs		စိုဒို 2.4GHz Device	e status: Running 802.11bgn Channel 6 (2.44	GHz)					
Network	Relayd				Mode: Access Point					
¢	Failover	>	VRGL5XXX	Interface status: Running 🔐 📶 0%	BSSID: 20:97:27:2D:87:B6 Clients: 0 Encryption: WPA2 PSK (CCMP)	50 69		off on		
Services	Firewall	>					S	CAN ADD		
o	VLAN	>								
System	Routing	>	✓ WIFI 5GHZ							
	Traffic Shaping	>	0 5GHz Device status: Punning 802 11ar Channel 52/5 26 GHz)							
	Ports	>								
	DHCP	>	VRGL5XXX	Interface status: Running 📶 84%	Mode: Access Point BSSID: 20:97:27:2D:87:B7	60				
	DNS				Encryption: WPA2 PSK (CCMP)			off on		
							S	CAN ADD		
								SAVE & APPLY		

Press the button under *WIFI 2.4GZ* first and then the same for *WIFI 5GHZ*.

GENERAL SETUP	Enable		
ADVANCED SETTINGS		off on	
WIRELESS SECURITY	Mode	Access Point V	
MAC-FILTER	ESSID	VRGL5XXX	
	Password	VR134679258 (0)	
	Network	lan v	
	Hide ESSID	off on	
	802.11r Fast Transition	off on	
	802.11r Fast Transition	off on	



✓ VRGL5XXX INTERFACE CONFIGURATION

GENERAL SETUP	Encryption	WPA2-PSK V	
ADVANCED SETTINGS			
WIRELESS SECURITY	Cipher	Auto	
MAC-FILTER	Password	••••••	
			SAVE & APPLY

Sett the settings in the two boxes above for both wireless networks.

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.

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. Go to "System -> Administration -> Date & Time", click the SYNC WITH BROWSER button.

	Administration ~				
Status	General	GENERAL			NTP
	Date & Time	✓ TIME SYNCHRONIZATION			
۲	User Settings	Current system time	11/07/2024 10:40:46		
Network	Access Control	current system une			
A	Recipients		SYNC WITH BROWSER	J	
Services	Certificates	Time zone	Europe/Oslo	~)	
	Profiles				SAVE & APPLY
<mark>↔</mark> System	Storage Memory Expansion				
	Maintenance >				

We also recommend that the default access point login username and password are updated. Go to the avatar icon on the top right corner and select Change password.

TELTONIKA Networks	Basic Advanced	Q /	4	RUTX_R_00.07.05.4 View Settings	• ^
				admin Change password	
✓ GENERAL SETTINGS				Logout	



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. Go to "System -> Maintenance -> Backup". Click CREATE under the CREATE DEFAULT CONFIGURATION section. Then download the configuration file to a secure place by clicking DOWNLOAD in the BACKUO CONFIGURATION section.

1	Maintenance Y	✓ CREATE DEFAULT CONFIGURATION
Status	Auto Reboot	Created 07/11/2024 10:13
۲	Backup	
Network	Troubleshoot	User's default configuration UKEALE KEMUVE
ø	Events Log	~ BACKUP CONFIGURATION
Services	Traffic Log	MD5 d0d2cc45ebd4d021757474979bb716f4
	Hotspot Log	SHA256 5fadefcd59eb288731b049a854ff8e065f38d3898f965f68fd2b992b9065f71f
System	СП	Encrypt
	Speed Test	- off on
	Custom Scripts	Backup archive DOWNLOAD
	Package Manager >	~ RESTORE CONFIGURATION
	Firmware >	Encrypted
	Setup Wizard >	orrion
	License	Restore from backup BROWSE or drag and drop your file here
	Debeet	

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