SEW832 Modbus Gateway

User's Manual









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1.Introduction

This SEW832 Ethernet+WiFi Modbus gateway provides the ways of connecting serial devices to both Ethernet and Wireless LAN (Wi-Fi 802.11 b/g/n). It is designed to operate serial ports through Ethernet (10/100Mbps) and wireless (Wi-Fi 802.11 b/g/n) over TCP/IP network. As the data is transmitted via Modbus protocol, therefore data acquisition and controlling is available to go through Intranet and Internet. There are two serial ports as one is a RS-232 and other one is RS-422/485. Configuration is easy to operate via web page setup.

This Modbus gateway is a high performance design composed with carefully selecting qualified components from reliable and certified sources. This operation manual will guide you to configure functions step by step.

This Modbus gateway provides RTU to TCP Slave, ASCII to TCP Slave ,TCP to RTU Slave , TCP to ASCII Slave Mode, and it also supports manual configuration via web browser.

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1.1 Product Views





1.2 Wiring Architecture



Figure 2 Wiring Architecture

2. Configuration

2.1Configuration Via Web

Step1 → The first thing is to configure the Host PC's IP address

IP:192.168.1.xx

Step2→ Open a web page of configuration <u>http://192.168.1.100</u>

Step3→ Default User name: "admin" and Password: "admin"

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← → ★ ☆ 192.168.1.100		<u>ک</u> ا =
Apps <table-cell> Google 🗋 Google 翻譯</table-cell>	Authentication Required × The server http://192.168.1.100:80 requires a username and password. The server says: Web Server Authentication. User Name: admin Password: ***** Log In Cancel	

Step4→And now you have successfully connected to this Modbus

gateway

		Mo	odbus Gat	eway	Log out ver : 1.2.6
System	Ne	etwork		Serial	Gateway
Admin. Password:					
Confirm Password:					
Auto Reset(Minutes):	0				
Device(Host) Name:	Device Name				
Description:	Device Desccription				
Date :	2020/9/1 下午1:27:41				O Sync with brower
Daily Reboot:			NON	E	\odot
RTC:	Not Exist				
System Up Time:	4:14				
Firmware Release:	2020/08/08 17:37				
	Sav	ve Save and Reboot Re	store to factory settings	Reboot	

2.2 Configuration Sections

2.2.1 System Setup

1.System: Where one can change Password, set up Auto Reset time and modify Device Name, Description of device etc.

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System	
Admin. Password:	
Confirm Password:	
Auto Reset(Minutes):	0
Device Name:	Device Name
Description:	Device Desccription
System Up Time:	23 min
Firmware Release:	2017/11/10 10:02

2. Appearance of Wireless and Ethernet setup:

Wireless	
IP Address:	10.0.0.1
Subnet Mask:	255.255.255.0
Gateway:	192.168.1.1
MAC Address:	9c:65:f9:24:55:56
Ethernet	
IP Address:	192.168.1.199
IP Address: Subnet Mask:	192.168.1.199 255.255.255.0
IP Address: Subnet Mask: Gateway:	192.168.1.199 255.255.255.0 192.168.1.1
IP Address: Subnet Mask: Gateway: MAC Address:	192.168.1.199 255.255.255.0 192.168.1.1 9c:65:f9:24:2a:36



3. NTP: Enable / Disable NTP function; Set up NTP server and Time

Zone.

SERVICES		
	80	
	00	
NTP Enabled:	Enabled	0
NTP Server :	openwrt.pool.ntp.or	g
NTP Offset :	ИТС	\odot

4. Firmware update:

(1) If necessary, click "Browse" to open file manager

Firmware	
Firmware :	Browse
	Update

- (2) Select the file with specified version and click "Confirm" button.
- (3) When the selected file name appears on the input column, click"Update" button.
- 5. Up to now, Setup is successfully configured. Please click "Save" this page before "Save and Reboot" for permanent web pages.



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2.2.2 Network Setup

Wireless		
Type :	ACCESS POINT	0
SSID :	CVIoT_9c_65_f9_1e_0b_7b	
Password :		
Encrypt :	NONE	0
Mode :	STATIC	0
IP Address :	192.168.1.100	
Subnet Mask :	255 255 255 0	

- 1. Wireless section:
 - (1) Type: to select "INFRASTRUCTURE" or "ACCESS POINT"

Wreless			
Туре :		ACCESS POINT	0
SSID :	INFRASTRUCTURE		
Password :	ACCESS POINT		
Encrypt :	DISABLED	WPA2	Ø
Mode :		STATIC	0
		3 mills	0
IP Address :	10.0.0.1		
Subnet Mask :	255 255 255.0		

(2)When selected "INFRASTRUCTURE", go to SSID, click "Scan" will get list of available SSID, select one to link.

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	SSID	MAC	Strength
Wireless	NAS-AP	74:DA:38:33:EA:EE	100%
- Contraction of the Contraction	edimax_2.4G	74:DA:38:14:A2:D0	73%
	nhrm	B8:55:10:C8:AC:72	7%
	Burn_in_test_1	00:02:70:65:99:A4	96%
Type :	Fortune	5C:F4:AB:5F:J**44	10%
	CHT Wi-Fi Auto	1C: 4F: F7.35.00 96	7%
	CHT Wi-Fi(HiNet)	1E.AF:F7:35'36:96	57%
SSID : Scan			
		Close	

(3) Input password for the AP and assign STATIC IP address

Type :	INFRASTRUCTURE	C
SSID : Scan	edimax_2.4G_ksh	
Password :	arp78945612	
Encrypt :	WPA2	C
Mode :	STATIC	c
IP Address :	192.168.1.100	
Subnet Mask :	255.255.255.0	

(4) In NB/PC, choose same SSID to link. NB/PC must close Ethernet in advance





 When selected "ACCESS POINT", Converter acts as an Access Point which is allowed to be connected by PC /NB /Smart Phone/ PAD. It supports DHCP server function. Soft AP broadcasts its SSID "CVIoT_XX_XX_XX_XX_XX_XX". PC /NB /Smart Phone/PAD should connect to this SSID and then open web browser with default IP for Converter setup.

Wireless		
Type :	ACCESS POINT	0
6610 -	INFRASTRUCTURE	
5510 :	ACCESS POINT	
Password :	DISABLED	
Encrypt :	NONE	0
		-
Mode :	STATIC	0
ID Address -	10.0.0.1	
IP Audress .	1999.0.1	
Subnet Mask :	255 255 255 0	

3. Password: Key in selected AP log in password

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	S	SID :	ksh66666666		(CVIoT_9c_65	_f9_2	4_55_56
	P	Password :						
4.	En	crypt			1	_		
	Er	ncrypt :		NONE				
	M	ode :		NONE WEP				
	IP	Address :		WPA				
	Sı	ubnet Mask :		255.255.255.0				
5.	Mo (1)	ode: IP Addres "DHCP": Let /	ss AP to assign	IP address	to i	tself		
		Mode :				DHCP		
	(2)	"STATIC": To	input assign	ed IP addre	ess,	Subnet Ma	sk.	
		Mode :						STATIC
		IP Address :			10.0	0.0.1		
		Subnet Mask	:		255	.255.255.0		

6. Ethernet: select STATIC or DHCP to assign IP address.



Ethernet	
Mode :	STATIC
IP Address :	192.168.1.199
Mask :	255.255.255.0

7. Gateway and DNS: To check with MIS for right IP address.

Gateway	
Gateway :	192.168.1.1
DNS	
DNS :	168.95.1.1

*The Gateway must be set with correct IP enable to connect with

Internet.

8. Up to now, Setup is successfully configured. Please click "Save" this page before permanent change of configuration.





2.2.3 Serial Port Setup

Input each parameters to match with the remote terminal units.

- 1.Baud Rate
- 2.Parity
- 3.Data Bits
- 4.Stop Bits
- 5.Flow Control
- 6.RxDelay(ms)
- 7.TxDelay(ms)

	Ser	ial Over TCP/IP	Log out ver : 1.1.0
System	Network	Serial	Over TCP/IP
Serial 1			
Baud Rate:		19200	۲
Parity:		None	0
Data Bits:		8	0
Stop Bits:		1	⊘
Flow Control:		None	$^{\circ}$
RxDelay(ms) :	0		
TxDelay(ms) :	0		

9. Click "Save" this page before permanent pages



2.2.4 Modbus Setup

1. TCP to RTU/ASCII Slave

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System	Network	Serial	Gateway
Modbus Gateway 1			
Gateway Type :		TCP To RTU Slave	RTU To TCP Slave
Message Timeout (ms):	500		TCP To RTU Slave TCP To ASCII Slave DISABLED
TCP Properties			
Listener Port :	502		
TCP inactive timeout (Minutes):	5		
Modbus Gateway 2			
Gateway Type :		TCP To RTU Slave	•
Message Timeout (ms):	500		
TCP Properties			
Listener Port :	503		
TCP inactive	5		

2. RTU/ASCII to TCP Slave



	3		-	a	5
Syst	tem		Network	Serial	Gateway
odbus	Gateway 1				
ateway	Type :			RTU To TCP Slave	\odot
essage	e Timeout	500			
TCP	Slave map				
No.	ID Start	ID End	IP[:Port]	2 1 100 artis2 169 1 100(502)	
1	1	32	(ex.152.10		
2	33	64			
3	65	96			
4	07	120			
5	97	128			
6	129	160			
-	161	192			
7	193	224			
8 odbus (225 Gateway 2	255			
8 odbus (225 Gateway 2 Type :	255		RTU To TCP Slave	
8 odbus (ateway essage s):	225 Gateway 2 Type : e Timeout	255		RTU To TCP Slave	•
8 odbus (ateway essage s): TCP	225 Gateway 2 Type : Timeout Slave map	500		RTU To TCP Slave	○
8 bdbus (ateway essage s): TCP No.	225 Gateway 2 Type : Timeout Slave map ID Start	255 500 ID End	IP[:Port] (ex:192.16i	RTU To TCP Slave	
8 ateway sssage ss: TCP No. 1	225 Gateway 2 Type : Timeout Slave map ID Start 1	255 500 ID End 32	IP[:Port] (ex:192.164	RTU To TCP Slave 8.1.100 or192.168.1.100:502)	
8 ateway essage ss): TCP No. 1 2	225 Gateway 2 Type : D Timeout Slave map ID Start 1 33	255 500 ID End 32 64	IP[:Port] (ex:192.16i	RTU To TCP Slave	
8 ateway s): TCP No. 1 2 3	225 Gateway 2 Type : Timeout Slave map ID Start 1 33 65	255 500 ID End 32 64 96	IP[:Port] (ex:192.16)	RTU To TCP Slave	
8 ateway ateway SS TCP No. 1 2 3 4	225 Gateway 2 Type : Timeout Slave map ID Start 1 33 65 97	255 500 ID End 32 64 96 128	IP[:Port] (ex:192.16)	RTU To TCP Slave	
8 atteway atteway bodbus (atteway bodbus (atteway atteway bodbus (atteway	225 Gateway 2 Type : Dimeout Distart 1 33 65 97 129	255 500 ID End 32 64 96 128 160	IP(:Port] (ex:192.16)	RTU To TCP Slave	
8 odbus 0 ss: TCP No. 1 2 3 4 5 6	225 Gateway 2 Type : Timeout Slave map ID Start 1 33 65 97 129 161	255 500 ID End 32 64 96 128 160 192	IP[:Port] (ex:192.16)	RTU To TCP Slave	
8 ateway bessage No. 1 2 3 4 5 6 7	225 Gateway 2 Type : Timeout Slave map ID Start 1 33 65 97 129 161 193	255 500 ID End 32 64 96 128 160 192 224	IP[:Port] (ex:192.16)	RTU To TCP Slave	
8 ateway sssage ss: TCP No. 1 2 3 4 5 5 6 7 8	225 Gateway 2 Type : Dimeout Slave map ID Start 1 33 65 97 129 161 193	255 500 ID End 32 64 96 128 160 192 224 224	IP[:Port] (ex:192.16)	RTU To TCP Slave	
8 ateway ss: TCP No. 1 2 3 4 5 6 7 8	225 Gateway 2 Type : Timeout Slave map ID Start 1 33 65 97 129 161 193 225	255 500 500 32 64 96 128 160 192 224 255	IP[:Port] (ex:192.16)	RTU To TCP Slave	



2.2.5 Reset Button

If any chance you forgot the login password or have incorrect settings making this Device inoperable, upon the power is on and the "SYS" LED light on, use a point tip to press this button and hold it for more than 20 seconds the release the point tip. The Device will reboot and all the parameters will be reset to the factory default.