

3611

Ethernet

to

Serial Converter



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# 3611 Ethernet to Serial Converter Index

**Rev 1.3** 

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# Symbols used in this manual

Format	Description
	Indicates a potentially hazardous situation which, if not avoided, could result in
Notice	equipment damage, data loss, performance deterioration, or unanticipated results.
	NOTICE is used to address practices not related to personal
	injury.
Warning	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	Calls attention to important information, best practices and tips.
	NOTE is used to address information not related to personal
Note	injury, equipment damage, and environment deterioration.
Key	The tips for correct configuration and operation.

# **Revision History**

Version No.	Date	Revision note
01	July 1, 2011	Layout Adjustment
02	October 1, 2014	Manual Maintenance
03	January 3, 2017	Add password verification function



# 1. Web Management

Before configuring your Case Communications 3611, please make sure your PC has installed the correct software as shown below

The lowest requirements of user PC is as follows:

- Installation operation system (as Windows 10 / 8 / XP/2000, Windows 7 etc)
- Installation Ethernet card
- Install Browser explorer (IE6.0 or higher version etc)
- Install and startup TCP/IP protocol

# 1.1 Network settings

The 3611's default IP address: 192.168.1.254, subnet mask: 255.255.255.0.

When accessing the 3611 server through the WEB browser. The IP address of the serial device server and PC must be in the same Local Area network. You can modify PC's or serial device server's IP address to make sure that they are in the same Local Area Network.

Follow the steps below

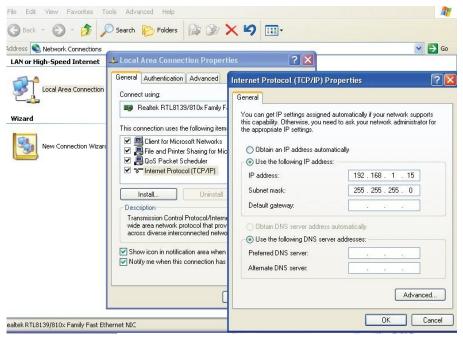
Modifying your PC's IP address.

Step 1 Click Start->Control panel->network

connections->Local area Connection->Properties-

>Internet protocol(TCP/IP)Setting PC's IP address: 192.168.1.X (X is expect 254, from 2 to 253).

**Step 2** Click "OK", IP address modified successful. Configure your IP Address in Windows as shown below.:





## 1.2 Function menu

The 3611 main menu includes 3 parts:

These are shown in the table below

Menu	Page layout	Function		
Device	Basic information	Display device name, description, Module, Serial No., Hardware Ver, Firmware Ver and MAC address etc		
information	Network information	Display IP Address, subnet mask, gateway address, DNS etc		
	System Settings	System Work Mode: Low-Power and High -performance		
	COM setting	Serial Parameter setting and working mode setting		
Serial Server	AT command settings	AT Command Mode Settings: 1. I/O port trigger; 2. Ctrl Break trigger; 3. Character strings trigger (Hex)		
	COM information Statistics Information and Link Information			
	Login Settings	Login name and password		
	Network & Reboot	Network setting and Device Reboot		
System tools	System Identification	Modify Basic information: Module, Name, Description, serial NO. and Contact information.		
	System File Update	Factory Default, Update Configuration File from Local PC and Upgrade Firmware from Local PC		
	Logout	System Logout		

# 1.3 Logging in via the Web interface

Before access serial server through IE browser, please make sure PC and device in the same Local Area Network or can access through router. Follow these steps.

**Step 1** Click your browser with right key, click "Properties", empty temporarily files and history record.

**Step 2** Open your browser, input the IP address of the serial server in the address bar, click "Enter", enter into user name and password interface as shown below.

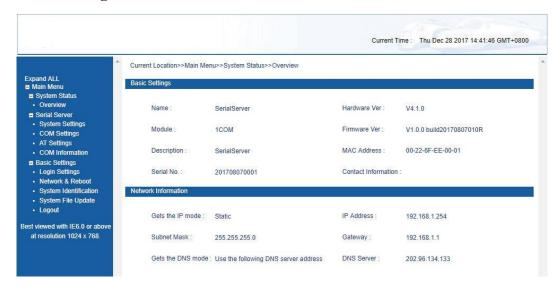
**Step 3** Input your user name and password, "Enter", enter into serial server interface as shown below.





The Web setting interface is divided into these sections:

- Title area
- Menu bar
- Setting area. Click menu of the mean bar, can enter into relevant



If you enter your user-name or password input incorrectly 3 times, you will need to start again from the beginning.

## **1.3.1.** Device Information

Device information includes the device name, device description, hardware version, software version, MAC address as shown below.

Current Location>>Main Menu>>System Status>>Overview

Basic Settings					
Name :	SerialServer	Hardware Ver :	V4.1.0		
Module :	1COM	Firmware Ver :	V1.0.0 build20170807010R		
Description :	SerialServer	MAC Address :	00-22-6F-EE-00-01		
Serial No. :	201708070001	Contact Information			

Option	Meaning
Module	Network Identification
Name	Serial number
Description	The description of device's features, like as used key place.
Contact information	The contact information for the person who maintains the Device. This can be configured in system information.
MAC address	Hardware address, 48bits(6 bytes,), 16 hexadecimal, it is unique
Hardware version	The current hardware version information, please note the limit of software version to hardware version
Firmware version	The current software's version information, upgrade software version will have more function



#### **1.3.2.** Network Information

The 3611 supports 2 modes of operation for IP Addressing. DHCP and static IP address. When using the DHCP function, the IP address of the device can be obtained from a DHCP Server.

If you need to connect to the Domain Name System, please fill in the Gateway and DNS address. As shown below

Network Information				
Gets the IP mode :	Static	IP Address :	192.168.1.254	
Subnet Mask :	255.255.255.0	Gateway :	192.168.1.1	
Gets the DNS mode	: Use the following DNS server address	DNS Server :	202.96.134.133	

#### **IP Address**

The IP address is a 32 bits length address. The device that connects to the Internet, IP address has 2 options configured:

- net-id
- host-id, IP address can set in static IP or DHCP.

#### **Subnet Mask**

The Subnet Mask is an IP address with 32 bit number, that divides the IP address into 2 parts: Subnet addresses and host computer addresses.

## **Default Gateway**

The default gateway in the Host computer is usually called the 'Default Route'. The Default Route is the route chosen by the network when the destination address of IP packets is on a different network. All packets not on the local subnet will use the default route.

#### **DNS Address**

The DNS is the Domain Name Server. It resolves the name of a destination to an IP address internet can identify. If the 3611 needs to visit some Host devices, it needs to use the DNS server to resolve an IP address.



Notice

If we need the 3611 to "automatically obtain an IP address", please ensure the DHCP Server is in the same network and can obtain an IP address. After "automatically obtaining an IP address", the 3611 needs to use the software manager to search the device and obtain the IP address for the device.



## 1.4 Serial Server

# 1.4.1. System Settings

The serial device server supports low-power and high-performance working mode optional, as shown below.

You are here >> Main Menu >> Serial Server >> System Settings

System Work Mode:

High-performance

Low-power
High-performance

Apply

Cancel

# 1.4.2. Serial port parameters setting

Serial interface setting menu:

Serial interface setting menu	Data optional	<b>Function Description</b>
COM Mode	RS-232full	Serial work mode
	duplex/RS-422 full duplex/RS-485 half duplex	
Baud rate(bps)	300-115200 (10 baud rate optional)	Baud rate choice
Parity bits	None, Even, Odd, Mark, Space	Checkout choice
Data bits(bits)	5, 6, 7, 8	The parameter of serial
Stop bits(bits)	1, 1.5, 2	The last of the data package
Max Frame Space (bytes)	1-1460	The length of frame from serial data to Ethernet data.
Character Delay(ms)	1-500	The time space from serial data to Ethernet data
CtrlBreak default output time(ms)	0-60000	

Logon to the serial server's Web interface, click [Serial Setting], choose the required configuration in the corresponding drop-down menu.

Serial settings Web interface as shown below. When the serial server communicates with the serial interface device, serial server's setting is as follows:



Current Location>>Main Menu>>Serial Server>>COM Settings Serial Parameters Settings Baud Rate(bps): 115200 • Parity: None • Max Frame Space(bytes): 500 (1~1460) Data Bits(bits) Stop Bits(bits): • Character Delay(ms) 20 (1~500) RS-232 CtrlBreak time : 201 (0~60000)ms COM Mode • ork Mode Setting Mode Setting Basic PWD Check Close Send Message Close Discon TimeOut Real Sessions Work Mode Target Address Local Port Target Port Connect Mode ΑT (0~65535)s (0~65535)s  $(1\sim65535)$  $(1\sim65535)$ TCP Server ▼ 30000 ΙP ▼ 192.168.0.254 Clos 4 31000 Connect n∈▼ 0 ▼ 192.168.0.254 TCP Client ▼ ΙP Oper 30001 31001 Connect n∈▼ ▼ 192.168.0.254 UDP 30002 ΙP 31002 Clos Connect n ▼ ▼ 192.168.0.254 TcpAuto 30003 ΙP 31003 Connect n ▼ 0 Apply Cancel

These configuration options are explained below,

COM Mode: RS-232 full duplex/RS-422 full duplex/RS-485 half duplex

**Baud rate:** It is a parameter to check the communication speed. It shows to transfer how many bits in 1 second. For example, 300 baud rate means have 300 bits transferred in 1 second.

**Parity bits:** It is a simple method to checkout fault in serial communication, have 4 types: Even, Odd, Mark, Space

**Data bits:** It is a parameter to check the actual data bits in communication. The standard is 5, 6, 7, 8.

**Stop bits:** The last bit of the single Packet, Typical bit is 1, 1.5 and 2. Serial device server's stop bit is 1, 2.

**Max frames:** The frame length that serial interface data convert into Ethernet data, within the range of setting time, it forwards when data is equal to or longer than the setting frames. Available setting value ranged from 1 to 1460.

**Character Delay:** The wait time when serial interface send data do not 1 data frames. If up to this time and do not have data, then send automatic.

CtrlBreak default output time: Setting CtrlBreak default output time



## **1.4.3.** Working Mode Settings

Configuration menu	Data option	Description		
PWD check	Open, Close	After the device is connected with the remote client, the peer client needs to send the authentication password to the device. After the password is verified, the client can communicate with the device.		
Send Message	IP, Name, Close	The infmormation s client.	ent after the device is connected to the peer	
Sessions	1-4			
Working mode	Basic mode	TCP Client TCP Server UDP Select TcpAuto	et the serial port working mode.	
	Advanced mode	TCP Server The C	default mode is closed	
Local port	1-65535 Session1 default is 3 add step by step		0000, Session4 default is 30003, between them,	
Target address	Default is 192.168.0.254			
Target port	1-65535		Session1 default is 31000, Session4 default is 31003, between them, add step by step	
Connect mode	ect mode Connect trigger In		Default immediately is connect	
AT 0-65535 s			Default is 0	
Disconnect Timeout	0-65535 s		Default is 300	
RealCom	Open/Close		Default is Close	



When password verification is enabled, only users with "admin" account privileges can send / receive messages using this device.

- The first data sent by the peer client to the device defaults to the check password.
- Verification password is "admin" account password.
- If the password is entered incorrectly, re-establish the connection and then re-enter the password.

**Sessions:** Each serial port of serial device servers can support 1-4 sessions. It means serial port of serial device server send the received data to Ethernet through socket. More than one of the sessions means serial port of serial device server sends the received data to Ethernet through more than one socket. Sessions enable to use by checking the corresponding box.



## **Basic Mode**

#### 1. TCP Client

On the TCP Client side, the 3611 server will connect to TCP/IP network equipment, such as a PC. Its necessary to setup the 3611 serial device to connect to the IP address and TCP port number to enable a connection. After creating a socket, the 3611 device will send the data received from each serial port through the socket On the contrary, the data received from socket will be sent to the corresponding serial port.

TCP Client setting option: [Target address], [Target port], [Connect mode], [AT] and [Discon timeout]

## The explanation of these setting is as follows:

## [Local port]

The configuration is the same TCP server, default is 0~65535.

## [Target address]

The IP address or domain name address that device will connect, both of them can correspond the host computer address on the Internet

## [Target port]

The TCP port number that serial device server will connect

### [Connect mode]

Connection mode has 2 types: Immediately and Data trigger

- Immediately: When serial device server has power supply, it will connect immediately, if connection cut off, it will connect immediately.
- Data trigger: Once serial device server receive the data, it will connect immediately.

#### [AT]

Serial device server send the AT package accord the setting time, if no response continue 3 times, will be cut off. If set to "0" this means this function closed, the range is 0-65535 second, default is 0 second.

## [Disconnect Timeout]

Setting the inactive time for automatic cut off, if data transfer is inactive, the connection will cut off. If its set to "0", means this is disabled. The range is 1-65535s. Default is 300s

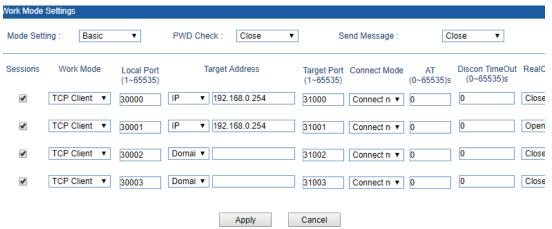
The figure below is the configuration interface for TCP Client Mode.

**Session 1** sets the local address available for the router. "192.168.0.254", the "Target Port" connected to the serial port is the host computer 192.168.0.254"31000 port.

Connection mode is 'Connect now', 'Discount timeout' is 300 seconds, note the connection to pure TCP Client, TCP Server, UDP or TCPAuto mode.

Please close RealCom. Session 3 is setting the Internet address available for the router "www.test.com" (the choice this time is DNS) the "Target Port" connected to serial port is host computer "www.test.com" 31002 port, Connection mode is Immediately, Disconnect timeout is 300 seconds, click "Apply", setting successful.





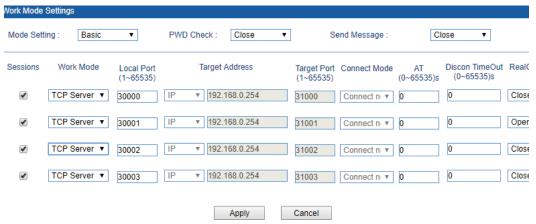
#### 2. TCP server

TCP Server, Passive connect, one pivotal parameter is [Local port], have relationship with other setting, need combine setting.

## [Local port]

The serial server provides a TCP port which can be connect to by other TCP/IP devices. The TCP port can have a relationship with the 3611 server's serial interface.

The figure below is the TCP Server configuration interface. Session 1 sets the local port to 30000, an external TCP port connects through this port. The connection / disconnect timeout is 300 seconds. Click "Apply", setting successful as shown below.



#### 3. UDP

Under the UDP configuration, the 3611 server can be set to server and also client. The relevant setting is "Local port", "Target address" and "Target port". The 3611 can support point to point and multicast UDP. The configuration setting is the same as TCP

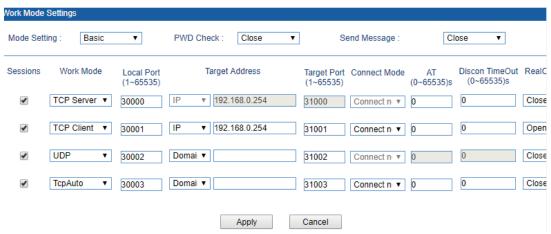
#### 4. TCP Auto

In this Mode, the 3611 can act as a server or client. Before setting this Mode, please ensure the configuration parameters are correct. When you enable server mode, client mode isautomatically disconnected.

#### 5. RealCom Mode

RealCom Mode support TCP Server, UDP and TcpAuto these 3 types, Choose "open" or "close" to enable this function under RealCom. After opening RealCom, users can make connections through Windows Hyper Terminal. Typically, RealCom needs to open.

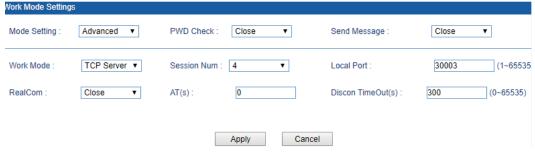




#### **Advanced Mode**

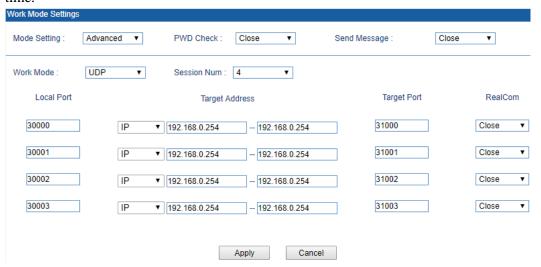
#### 1. TCP server

In this mode, the serial device server is set to 'TCP Server', and the network manager can choose 0-4 channel connections at the same time. The configuration mode is shown below:



## 2. UDP

In this mode, the Target address is an address pool. All of the addresses in this pool can connect with the 3611. The network manager can choose 0-4 channels to connect at the same time.





#### **1.4.4.** AT Command Mode

By setting "the AT order Mode", users can enter into AT Command Mode. There are 3 ways to enter into AT Command Mode, firstly, I/O port trigger, secondly, Ctrl+Break trigger, thirdly, Character strings trigger (Hex).

Way to AT Order Mode	Meaning
I/O Port Trigger	The default trigger mode, through the hardware into the AT command mode (Pin 9 low access to the device into the AT command mode)  Note: I/O trigger mode is suitable for modular products and not for products with housings.
CtrlBreak trigger	When openingthis mode, click "Ctrl + Pause Break" to enter the AT Command Mode.
Character strings trigger(Hex)	Entering the corresponding character strings for the serial port assistant to enter into AT Command Mode.

## [I/O port trigger]

By triggering the corresponding pin, you can enter the AT command setting mode. By default, pin 24 is high. If set to a low level, you can enter AT Command Mode through I/O port trigger.

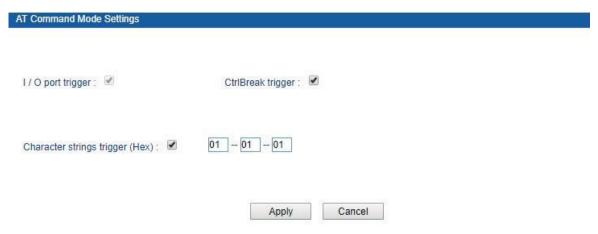
## [CtrlBreak trigger]

Open Virtual Serial Port, click "Ctrl+PauseBreak", then open the Web page of the 3611 serial server, click [Serial Server/AT Settings] to enter into AT Command Mode page.

## [Character strings trigger (Hex))]

By setting "Character" in "Character Strings Trigger (Hex)". "Serial Settings", this allows predefined characters to be sent via the serial port and into AT Command Settings Mode. By setting "Ctrl+PauseBreak" and "Character Strings Trigger (Hex)", either one of these options can allow the network manager to enter the AT Command Mode.

Current Location>>Main Menu>>Serial Server>>AT Settings



**Step 1** After entering AT Command Mode", then open the Hyper Terminal to execute AT command, as shown below.



**Step 2** Select the computer, on the Windows interface, click "Start/All Programs/Accessories/communication", run a terminal emulation program to create a new connection.



**Step 3** Using Hyper Terminal in Windows for example, as shown to the left. Type in a new name for the connection in the text box "name", then click the "OK" button



## Step 4 Select a serial port.

Select a serial port under" New Connection" (ensure the chosen serial port is the port connected to the 3611, and has a configuration cable). Click "OK".

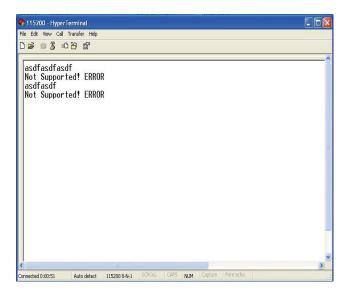


**Step 5** Set the serial port parameters. As shown to the left.

- Set the "Bits per second "to 115200bit/s,
- "Data bits" is 8, "parity" is None,
- "Stop Bits" is 1,
- "Flow Control" is None.

Click "OK" button to enter to "Hyper Terminal" Window



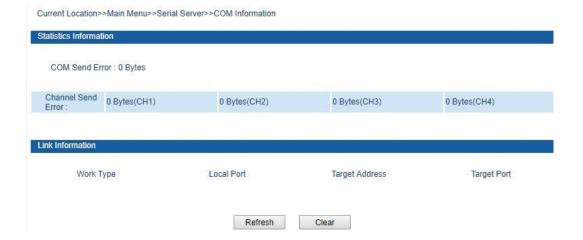


Step 6 As shown to the left, click "Ctrl+Break", at the same time click "Enter" until blinking cursor appears on the screen. At this time you can enter the AT configuration through Hyper Terminal.

Specific command format and configuration reference.

## 1.4.5. COM Information

The main function of serial port information: Display incorrect data statistics and connection information that send by serial port.





# 1.5 Basic Settings

## **1.5.1.** Login Settings

Go to the [Basic Settings/Login Setting] menu. Follows the' Serial device server' initial interface to modify user-name and password. Users can use this function to modify user name and password.

Some enterprises require different layers of management, for example administrators who monitor the 3611 and more powerful users who control the 3611 The 3611 serial device server provides different levels of management. Observers just have authority to check the statues of the 3611 and administrators can configure the 3611.

#### **User Index**

User Index means which group user, there are 3 items of user index in drop down list

#### **Access levels**

Administrator: check and configure authority. Observer:- check authority.

## Login name

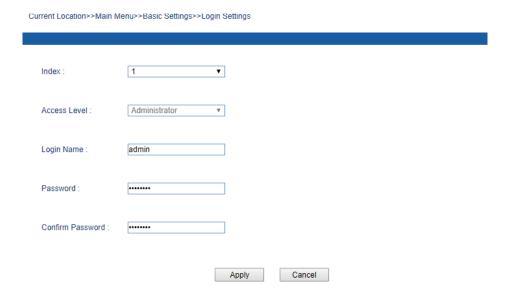
Allow English characters, digit and "-"" "combined and no more than 16 bytes

#### **Password**

Allow English characters, digit combine and no more than 20 bytes

## **Confirm password**

Input password once again.



#### 1.5.2. Network & Reboot

Configure an IP address to support 2 modes, DHCP and static IP address, when you open the DHCP function, then you can get the IP address from Hyper Terminal.

Device configuration support two modes, DHCP and static IP address, can get the device's IP address via client when the DHCP function is running, if you need NTP that need to connect internet, please enter the available and correct gateway and DNS address.



#### **IP Address**

The IP address is an address of 32 bits length which is assigned to the device on the internet. The IP address consists of two fields: the network number field (net-id) and the Host ID field (host-id). To conveniently manage IP addresses, the IP addresses are divided into five categories. As shown below:

Network type	Address range	Available IP network range
A	0.0.0.0~126.255.255.255	1.0.0.0~126.0.0.0
В	128.0.0.0~191.255.255.255	128.0.0.0~191.254.0.0
C	192.0.0.0~223.255.255.255	192.0.0.0~223.255.254.0
D	224.0.0.0~239.255.255.255	Non
E	240.0.0.0~246.255.255.255	Non
Others	255.255.255.255	255.255.255.255

A, B, C class address is unicast address; D class address is multicast address; E class address is reserved to prepare for the future for special purposes. IP address using dotted decimal. Each IP address is represented as four decimal integers separated by decimal points; each integer corresponds to a byte, such as, 10.110.50.101.

#### **Subnet Mask**

Mask is corresponding 32 bits number of IP address. Some are 1, the others are 0. These 1 and 0 can be combined arbitrary in principle, but the first continuous bits are 1 when designing subnet mask. IP address can be divided into 2 parts by subnet mask: subnet address and host address. 1 in IP address and subnet corresponds to subnet address, other bits are host address. A type of address corresponding mask is 255.0.0.0; mask of B type address is 255.255.0.0; mask of C type address is 255.255.255.0.

### **Default Gateway**

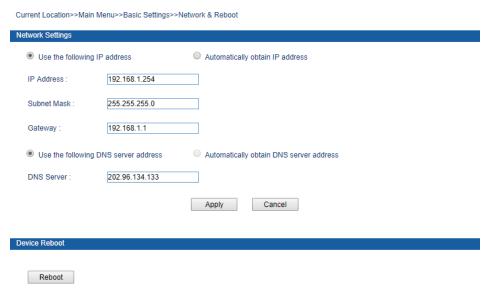
Default gateway in the host PC is generally called the default route. The default route refers to a route that destination address of IP data packet will select when it cant find another route to the destination. All data packets with the destination address which don't exist in the router lisy will choose the default route.

#### **DNS Address**

DNS (Domain Name Server) allows users to enter the name of a service and the DNS Server converts the name to an IP Address.



# 3611 Ethernet to Serial Converter Basic Settings



You can restart the 3611 serial server remotely.

Select the [Basic Setting/Network & Reboot] menu, and enter the Reboot interface. Select the <Reboot> button, "confirm", and the 3611 will reboot, after 20 seconds. Select the "menu bar" and return back to WEB management log in interface.

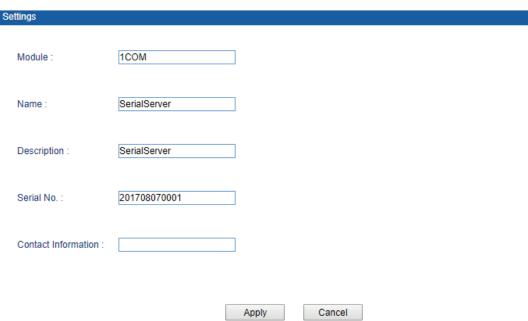


If using the automatic IP address, the network manager must let the 3611 access the DHCP server. Before rebooting, please save the configuration, otherwise, the configuration will be lost.

## 1.5.3. System Identification

The figure below shows the 3611 Serial device server' interface. This shows the module, name, description, serial No. and contact information. You can modify these items through this function, it will available after reboot.

Current Location>>Main Menu>>Basic Settings>>System Identification





## 3611 Ethernet to Serial Converter Basic Settings

#### Module

Maximum of 18 bytes. English character, digit and "-""\_" but do not allow space

#### Name

No more than 18 bytes. English character, digit and "-" " but do not allow space

## **Description**

No more than 18 bytes. English character, digit and "-" " but do not allow space

## Serial No.

No more than 30 bytes. English character, digit and "-" " but do not allow space

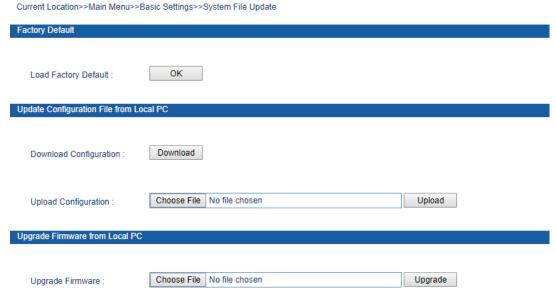
#### **Contact information**

No more than 18 bytes. English character, digit and "-""\_""@""! "",""." but do not allow space

# 1.5.4. System File Update

The figure below is the interface of the 3611, file management system. It has 4 sections.

Factory default, download configuration, upload configuration and upgrade Firmware.



## 1. Default to factory setting (Use this option with caution)

Select the Load Factory Default button and then the <OK> button. After initiating the factory, default setting the IP address will be 192.168.1.254 and all the configuration options are set to factory default. Under the default configuration, the user name and password will be: **admin.** 

## 2. Downloading configuration files

Select the<Download>Button. After confirmation, the system will display a dialog box and invite the network manager to save the configuration file in .cfg. Allowing the network manager to use restore this configuration

## 3. Uploading configuration files

Select the <Browse> button, and look for the correct .cfg file (Configuration file) and select <upload>. After confirming, the configuration upload file has been uploaded to 3611 the unit will automatically reboot.



# 3611 Ethernet to Serial Converter Basic Settings

## 4. Upgrading the firmware from local PC

Select the 'Upgrade firmware from local PC' button. Select the option to upgrade a file, then select the<Upgrade> button. Notice its "**DO NOT POWER OFF**" when upgrading", confirm and then 'write to flash'. The 3611 will automatically reboot after the upload.



Notice

After setting to factory default, its necessary to change the 3611' IP address, otherwise, there maybe an IP address conflict. Especially if another 3611 is installed on the same network and its been defaulted back to its original address..

When upgrading, ensure you select the correct file, otherwise, it is easy to damage the software.

The upgrade file must be a 'bin' type, please do not try and make any changes while upgrading, it can cause an upgrade failure. When upgrading, please do not operate the device or access the device's WEB page. If the upgrade is interrupted, please reboot the device and try again.

## 1.5.5. System Logout

Select the <Start> button. The 3611 will put you back to the Web login interface, without changing the configuration.

Current Location>>Main Menu>>Basic Settings>>Logout

System Logout: OK





# 2. Frequently Asked questions

# 2.1 Login Problems

## Why is the web browser page displayed abnormally?

Before accessing the WEB configuration, please clear your browser cache and cookies. Otherwise it may cause the page to display abnormally.

## What should I do if I forget my login password?

When you forget your user name and password, you can restore the 3611 to the factory settings via the management software or the DIP switch to restore to the initial user name and password. The initial user-name and password are "admin".

# Is it better to configure unit through the browser or management software?

Both configuration methods are the same and do not conflict.

# 2.2 Configuration Problems

## 2.2.1. The TCP Socket communication cannot communicate properly?

#### **Possible Problems**

- The IP address and port number may not be configured correctly.
- The serial port parameters may not be configured correctly.
- RS-485 wiring may be abnormal.
- Check that the parity bit error, none parity modified to mark parity, communication is normal.

# 2.2.2. Serial server cannot communicate properly, the 3611 data is wrong? Possible Problems

- Older versions of VSP Manager's function to receive a code algorithm exception, resulting in the serial server to open the WEB function and Manager opens the Realcom function, the serial port sends and receives wrong data.
- Check that after upgrading the VSP management software, that communication is normal.

## 2.2.3. PC with straight-through cable losing Ping packets

Check whether the Ethernet port of the serial server is damaged, if it has been damaged, it will cause Ping test packet loss.

## 2.2.4. Receiving "!" from the 3611 with local connection limited.

#### **Possible Problems**

- MAC address aging.
- The computer and the serial server are not on the same network segment. Problem Solving: After a period of time to see whether the local connection "!" Exclamation mark or the computer and serial server can be changed to the same network segment.

## 2.2.5. Serial server link LED does not light?

## **Possible Problems**

- The serial server is not powered on.
- Network cable or fiber optic cable is not connected or poor contact, network cable damage.
- Network port damage, network cable line error and did not do according to the standard line.
- Optical port damage, fiber type, fiber wavelength, transmission distance, transmission medium and data format does not match.



# 3611 Ethernet to Serial Converter Frequently Asked Questions

- The serial port server Link indicator is damaged.
- Confirm the communication environment, whether the device is powered on, check the network cable contact problem.
- Use the Ping command to the IP address of the serial server. If the Ping succeeds, the serial port link is corrupted. If the Ping fails, proceed to the following steps.
- For electrical, replace the network cable, computer or serial port to test the electrical port.
- For optical ports, check whether the fiber type, fiber wavelength, transmission distance, transmission medium, and data format match. If it matches, replace the fiber or optical port for testing.
- The 3611 serial server power supply not powered?
- Check whether the power supply is damaged or whether the positive and negative terminals are connected; whether the power indicator light is on and the power supply is stable.

# 2.2.6. Virtual Serial port unable to link using the VSP Manager Possible Problems

- Confirm the communication environment, if you can search the device, Link indicator light is also bright, that PC to the serial server can communicate.
- Check whether the PC and the serial server can Ping successfully. If the Ping fails, change the PC and serial server to the same network segment.
- Enter the configuration interface of the serial server to check whether the working mode is configured correctly; whether the IP address and port number of the remote virtual serial device and the serial server are consistent.

## 2.2.7. Data is garbled using the serial port?

## **Possible Problems**

Serial port parameters do not match.

## Possible Problems.

- Confirm the communication environment (whether there is a strong magnetic field around), check whether the communication line has good contact, and whether the quality of the communication line is OK.
- Verify that the serial parameters of the test software, serial server, and serial device are matched.
- When creating a virtual serial port, select "RealCom Mode" for the working mode in the WEB configuration interface of the serial server.

## 2.2.8. Why is the serial server disconnected after a period of connection?

- Equipment supply voltage instability.
   Check the power supply wiring and supply voltage.
- Network status is unstable.
  - **Check**: Ping the IP address of the serial server to view the network.
- TCP connection channel is occupied.
   Check: Modify the serial server's IP address and local port number.
- VSP driver software is modified.



**Check:** Install the high version of the VSP driver software.

• The firewall caused the device to fail to connect.

Check: Turn off the firewall and anti-virus software.

Hardware problems.

Check Replace the computer, network cable, serial server.

## 2.2.9. Need to change the MAC Address?

• If the MAC address is not a broadcast or multicast address, it will not affect the communication. Its not possible to change the 3611 MAC Address..

## 2.2.10. Can a serial server support multiple computer communications?

 The 3611 can support up to four computer communications, as long as the open multi-session connection can be active.

## 2.2.11. Connecting two computers via their virtual ports.

Open two sessions, to establish two virtual serial ports to enable communications.

## 2.2.12. Can the serial server communicate after crossing the network segment?

Yes, set the default gateway address, the serial server can communicate across the network segment.

## 2.2.13. In Serial Mode the LEDS are all on but communications fail.

• There is a LAN / Broadcast storm.

Check: Host directly connected to the serial server.

Network IP address conflicts.

Check: the host directly connected with the serial server, modify the IP address of the serial server.

The baud rate is set too high.

**Check:** Modify the baud rate of the serial server.

Indicator is abnormal.

**Check:** Replace the other serial server for testing.

## 2.2.14. The 3611 supporting virtual serial communications in TCP client mode

- The serial server works in TCP Server mode, support virtual serial communication, RealCom function is turned on.
- The serial server works in TCP Client mode, but does not support virtual serial communication, RealCom function is turned off.
- The serial server work in UDP mode, but does not support virtual serial communication, RealCom function is turned off.

## 2.2.15. Can we use the 3611serial server via a wireless router?

• The computer is connected via Wi-Fi, but the VSP software on the computer must search for the device (the wireless router and the serial server must be on the same network segment).

## 2.2.16. How do we wire the RS485 Serial port?

• RS-485 terminals are T + / D + and T - / D-.

## 2.2.17. How many RS-485 terminal nodes can the serial server support?

The conventional serial server supports 32 devices and can also customize 64,128 nodes.



## 2.2.18. Unable to save the 3611 parameters

• The browser displays the problem.

Check: Replace the browser to view or replace the host.

System software problems.

Check: Restore factory settings.

## 2.2.19. Can the serial server be used in pairs?

Yes, the 3611 has an operating mode for the TCP Server, another 3611 working mode for the TCP Client, the middle connected with the network cable. Or a device operating mode for the Pair slave, another device working mode for the Pair master, the middle connected with the network cable.

## 2.2.20. If running multiple RS-485 devices will only 1 IP Address impact the data?

The data will not be affected, because the RS485 device address code and machine number are not the same.

## 2.2.21. The 3611 creates a virtual serial port, causing the computer to crash?

Usually the driver causes the computer blue screen crash, troubleshooting method:

- Replace to the higher version of the driver.
- Turn off the firewall, exit antivirus software.

## 2.2.22. Can the baud rate of the serial server support 921.6k?

No; the 3611 only supports baud rate: 300 ~ 115200bps.

## 2.2.23. How should I use the 3611 debug the device?

Do not cross the gateway (the 3611 should be on the same gateway as the monitoring host as shown below).



The 3611 will be connected to the same serial port with the host LAN (with the network segment, with the VLAN, with the broadcast domain), use the management software to search for the device and view the device IP address

- In the management software, modify the device IP and host IP to be on the same network segment. Configure the parameters at both ends of the communication (virtual serial port / serial port server).
- Access terminal serial equipment (attendance, access control, etc.), the use of data acquisition and management software to test whether the normal communication connection.





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