

## IP MODEM Setup Guide

The ip modem configure tool and the vc demo are from the disc.

This is only to make the appropriate settings for the focus of the IP address and port , and other detailed settings according to the needs of different users , please refer to "IP MODEM using the instruction manual ."

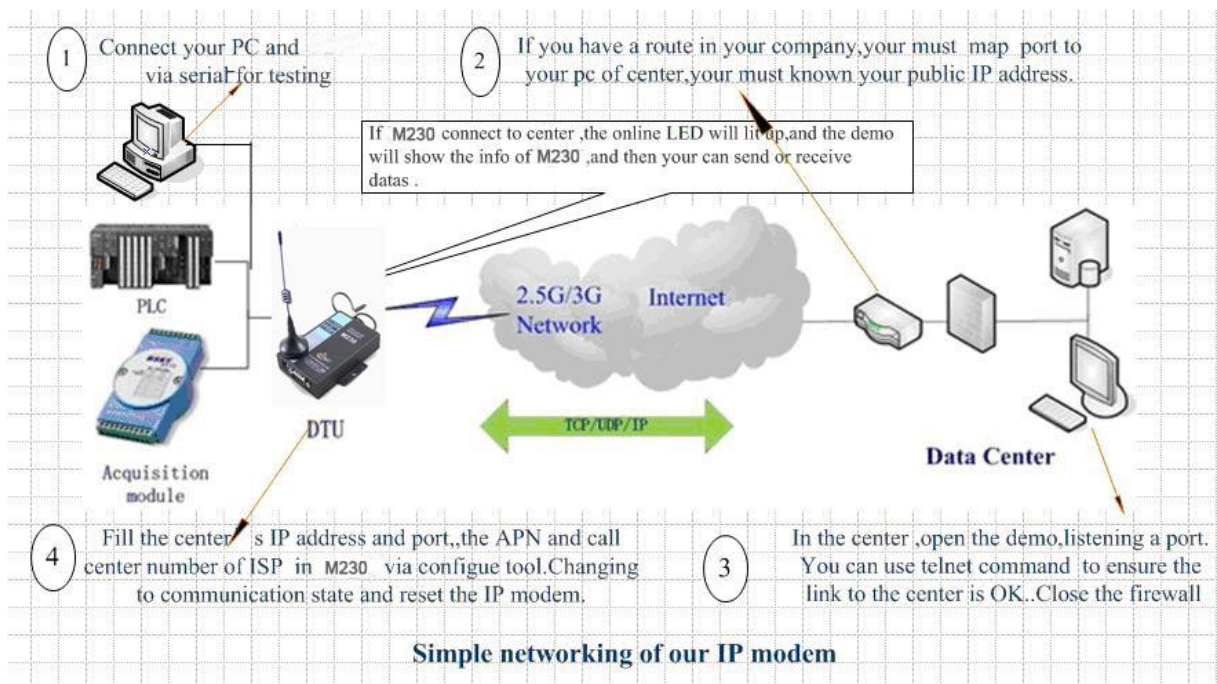
### 1. Requirements

Please confirm the following information already have before your test:

1. APN of your country's wireless ISP (including APN, username , password), ISP number (also called "call center number").
- 2 .You must have a static IP of your center , or a dynamic DNS.
3. A SIM card opening data business.
- 3.IP MODEM, PC, RS232 cable

### 2. The network topology

- 1.Please confirm whether your static IP is your company's export IP, or your PC's IP .
  - 2 Please confirm whether your company's entry is an router, whether you have permission to enter the router configuration web page.
  - 3 please briefly describe your application, or what is the testing environment that you want to establish.
  - 4.We provide the following simple and universal test topology, you can make a reference.
- If your Network topology As mentioned above,then your can establish simulative test environment as shown above..



### 3. Detail Configuration

**Yifan Industry Limited.**

Add: Room1603, No.79, WuShiPu Road, HuLi District, Xiamen, China

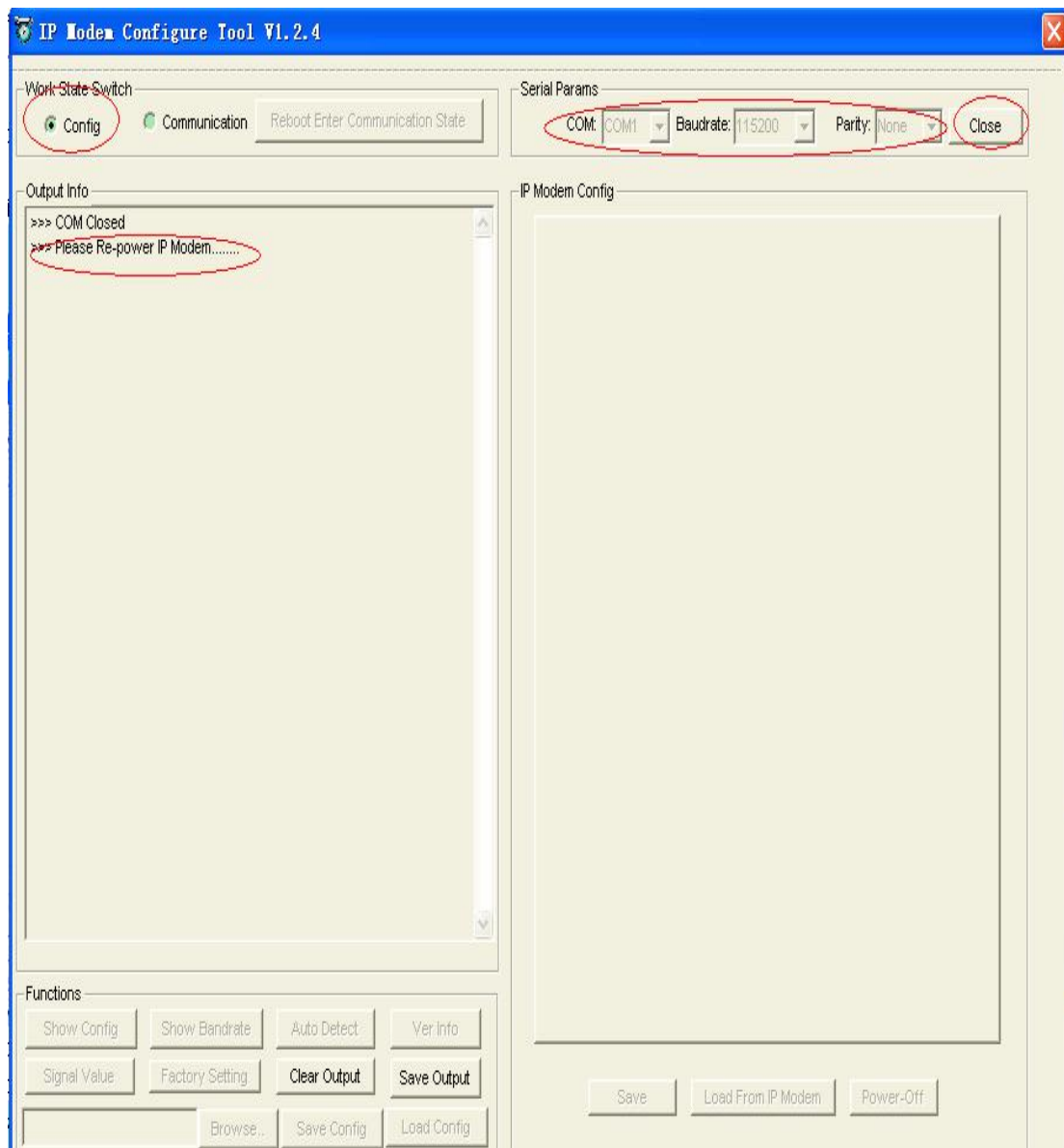
http : //www.yifanwireless.com

Tel : +86 592-5222813

Page 1 of 14

Fax : +86 592-6101492

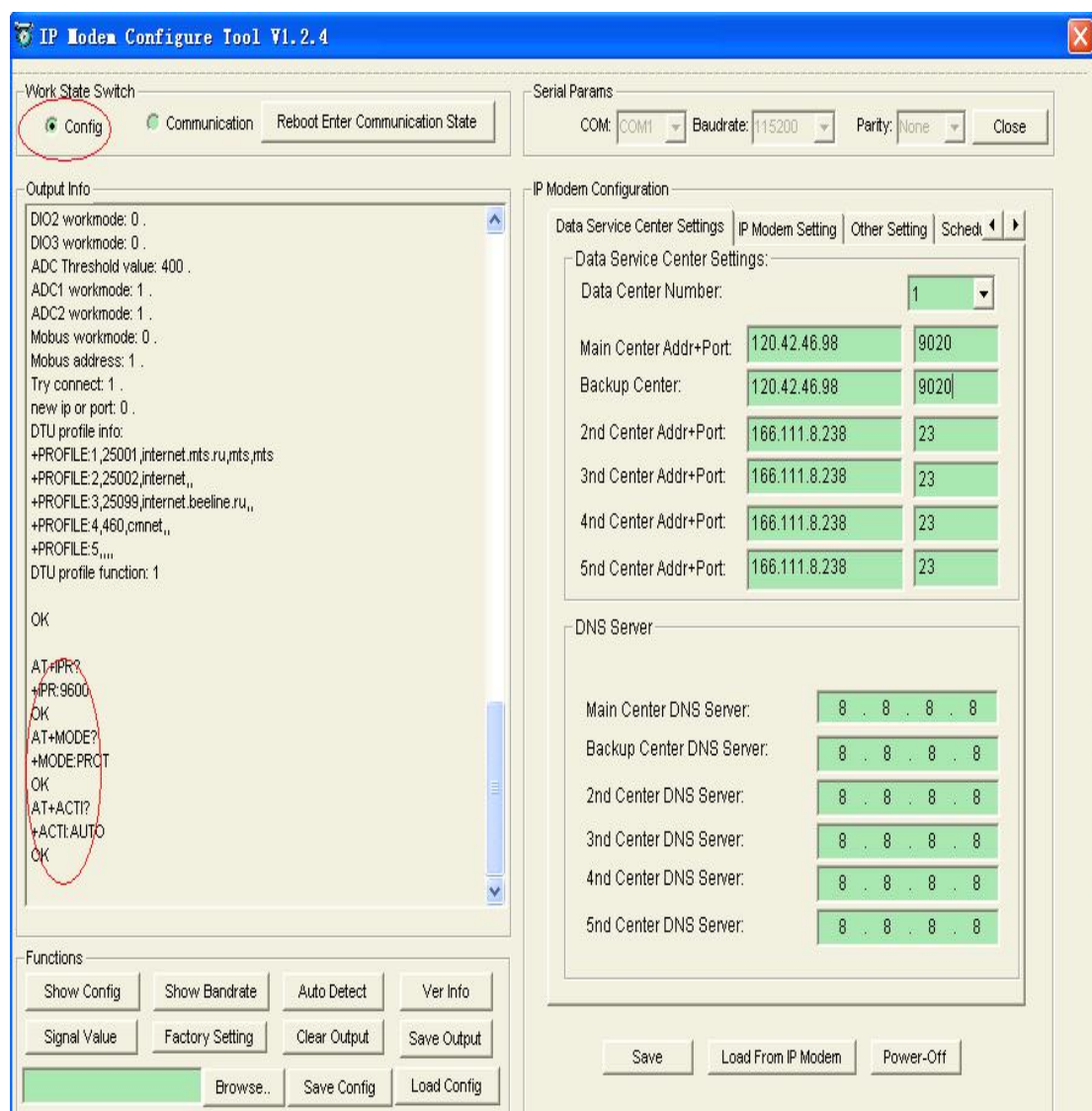
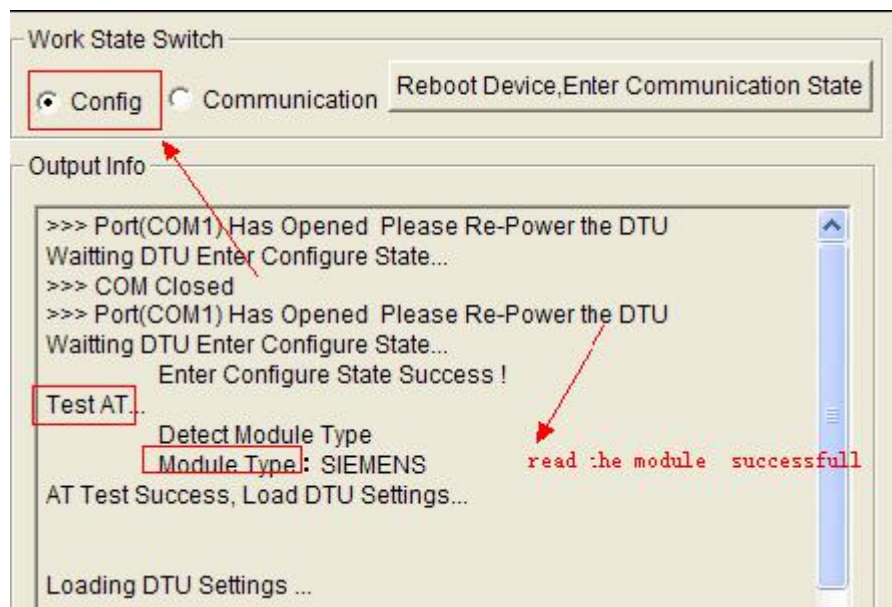
## Step 1:run the software



- 1) working state to switch to the " configuration state "
- 2)Select work in the PC COM port , baud rate is factory- 115200 , no parity .
- 3)use the Company that comes with the serial line IP MODEM and connect computer , after the electrical connection is completed,repower the IP MODEM .

## Step 2: IP MODEM power state after power on, power-on will appear the following information automatically.

In the process log information box will load the factory default IP MODEM parameter information

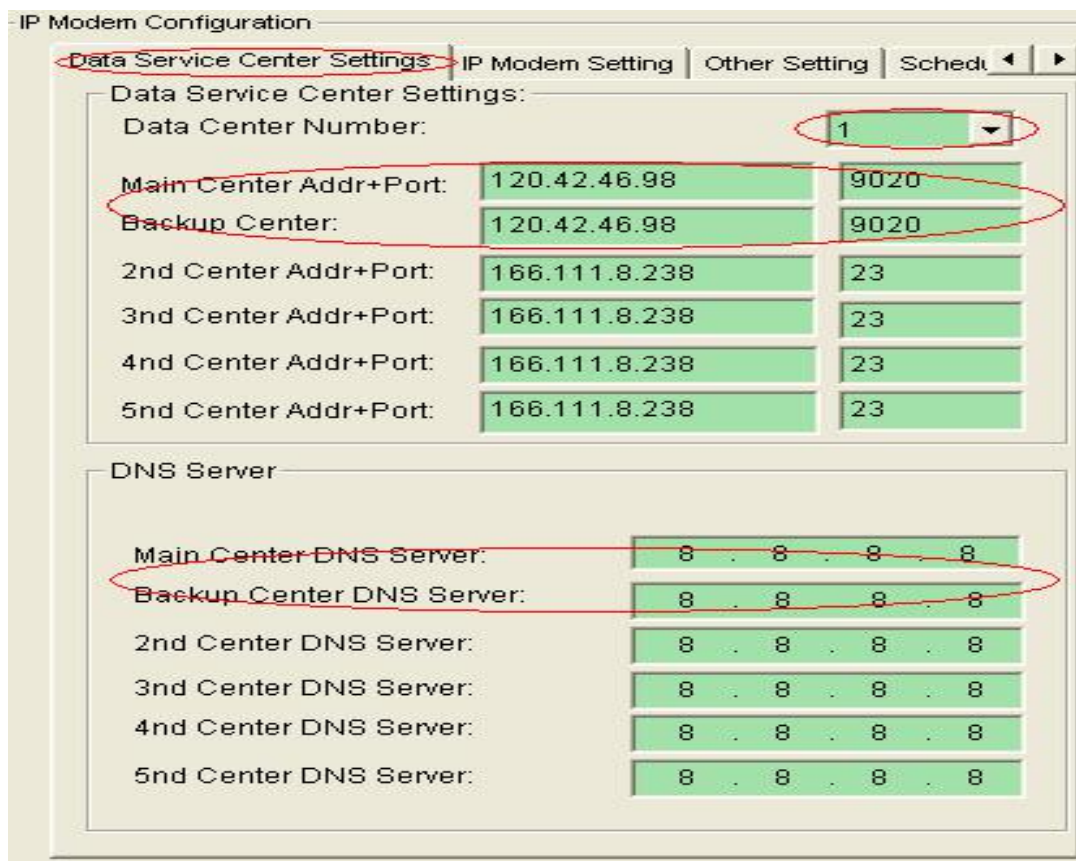


When the message box appear after loading the information successfully , the corresponding parameter settings on the IP MODEM

### Step 3:

**Set the set the number of centers of the central server , IP address and port number**

**Normal debugging only set the IP and port of the main and backup centers can communicate with**



IP Modem Configuration

Data Service Center Settings | IP Modem Setting | Other Setting | Schedule

Data Service Center Settings:

Data Center Number: 1

Main Center Addr+Port: 120.42.46.98 9020

Backup Center: 120.42.46.98 9020

2nd Center Addr+Port: 166.111.8.238 23

3rd Center Addr+Port: 166.111.8.238 23

4th Center Addr+Port: 166.111.8.238 23

5th Center Addr+Port: 166.111.8.238 23

DNS Server

Main Center DNS Server: 8 . 8 . 8 . 8

Backup Center DNS Server: 8 . 8 . 8 . 8

2nd Center DNS Server: 8 . 8 . 8 . 8

3rd Center DNS Server: 8 . 8 . 8 . 8

4th Center DNS Server: 8 . 8 . 8 . 8

5th Center DNS Server: 8 . 8 . 8 . 8

1)A number of central server settings: When the number of centers for the 1, the primary and backup centers .

When the number of centers is greater than 1 backup

Center invalid, the center 2 to 5 according to the adjustment of the number of centers to take effect (such as: the number of centers is set to 3 , the effective center

The main center, center and center 3 , the number of centers different and so on ) .

2) The center IP address settings: set the center can access the public network IP address of the main center and backup center . ( If there is no backup center

And the main center to set the same IP address )

3) Center port settings: in the main and backup centers, ports , set up external network access to a valid port

Note : When running the center - side software, the PC is listening on the port can not be public direct access , you need connecting PC

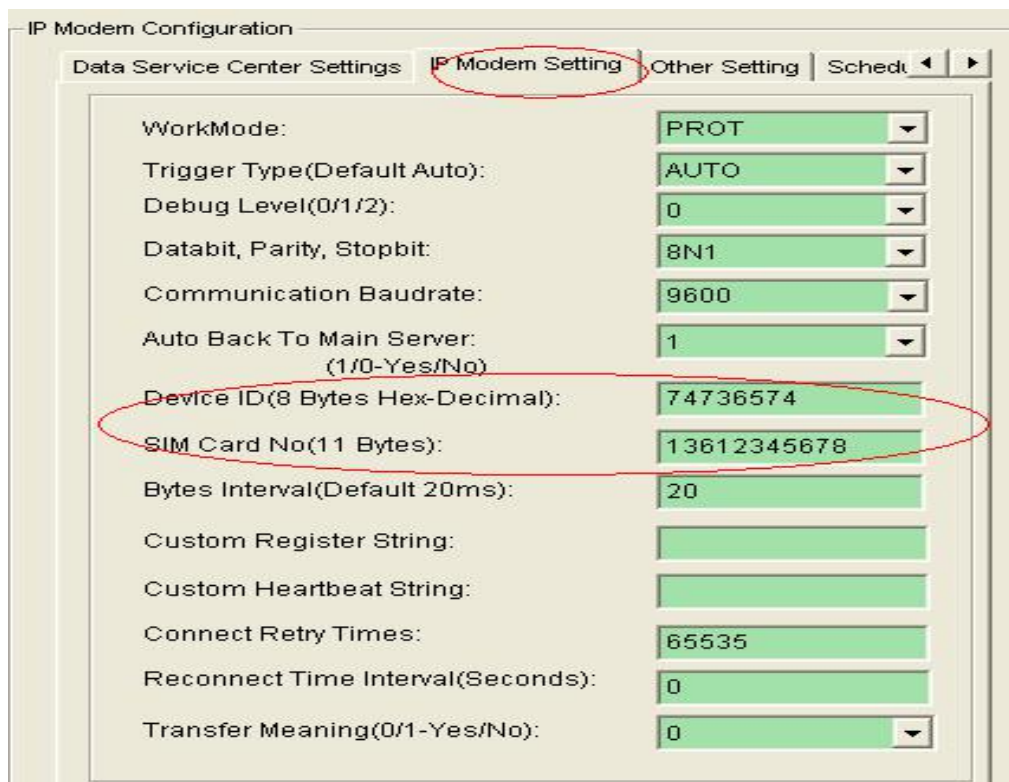
Machine on the router to map the corresponding port to a single ip of PC .

\*The main center add should be static or ddns. And the main center address is from adsl modem ,you can put in a port casual. And the main center address is from a router, you need set the corresponding port



number(such as 9020) on the router ,and put the port in the configure tool.

#### Step 4: Settings to set the IP MODEM operating parameters of the ID number and SIM card



IP Modem Configuration

Data Service Center Settings | **IP Modem Setting** | Other Setting | Schedu

WorkMode: PROT

Trigger Type(Default Auto): AUTO

Debug Level(0/1/2): 0

Databit, Parity, Stopbit: 8N1

Communication Baudrate: 9600

Auto Back To Main Server: 1  
(1/0-Yes/No)

**Device ID(8 Bytes Hex-Decimal): 74736574**

**SIM Card No(11 Bytes): 13612345678**

Bytes Interval(Default 20ms): 20

Custom Register String:

Custom Heartbeat String:

Connect Retry Times: 65535

Reconnect Time Interval(Seconds): 0

Transfer Meaning(0/1-Yes/No): 0

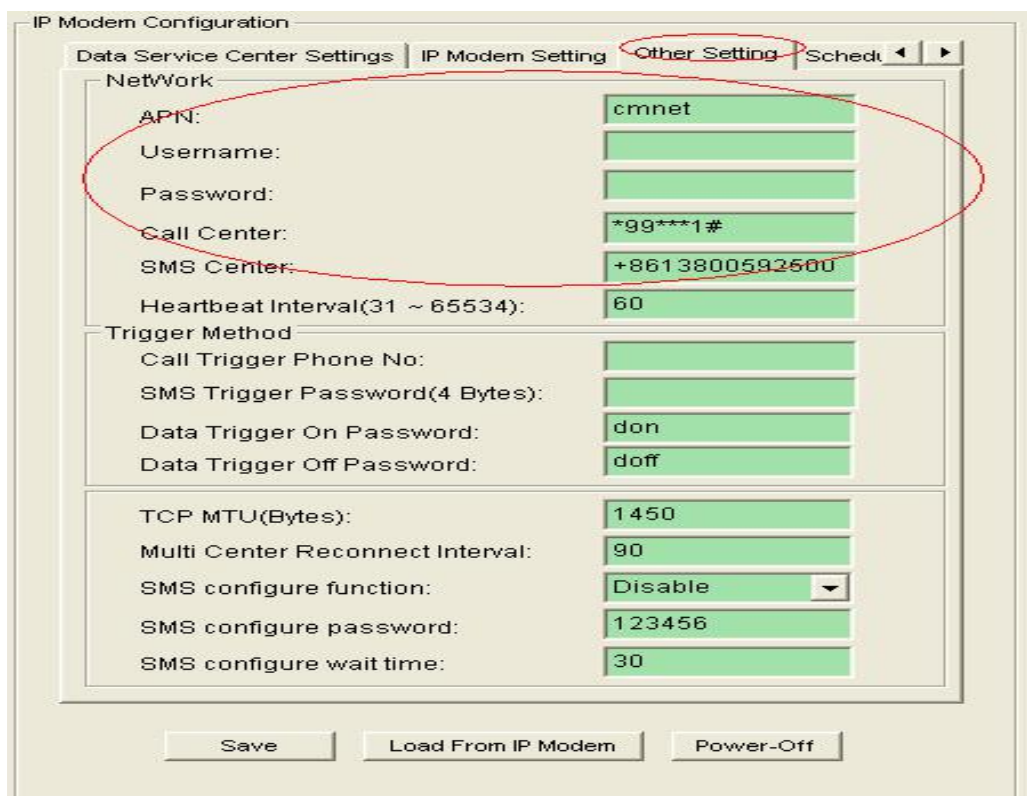
(1) the settings of the device ID number : device ID is an ID number of an IP MODEM,it's the only one for the center can know ( arbitrarily set eight : such as 10000001,10000002 )

\*When there are many modems ,make sure the one is the only.

(2) the settings of the device SIM card number : set directly when the IP MODEM SIM card number (eg : 13612345678 ) .

\*:when test,set debug level 2 to see detailed information.And normally you can set 0.

You can use the modem serve as a server, and it can connect 4 clients. It serves as client, it can connects 5 centers at the same time. You can also run a demo on the pc to serve as a server. The demo can connect more than 100 device,and you can also develop the demo .



IP Modem Configuration

Data Service Center Settings | IP Modem Setting | **Other Setting** | Sched

Network

APN: cmnet

Username:

Password:

Call Center: \*99\*\*\*1#

SMS Center: +8613800592500

Heartbeat Interval(31 ~ 65534): 60

Trigger Method

Call Trigger Phone No:

SMS Trigger Password(4 Bytes):

Data Trigger On Password: don

Data Trigger Off Password: doff

TCP MTU(Bytes): 1450

Multi Center Reconnect Interval: 90

SMS configure function: Disable

SMS configure password: 123456

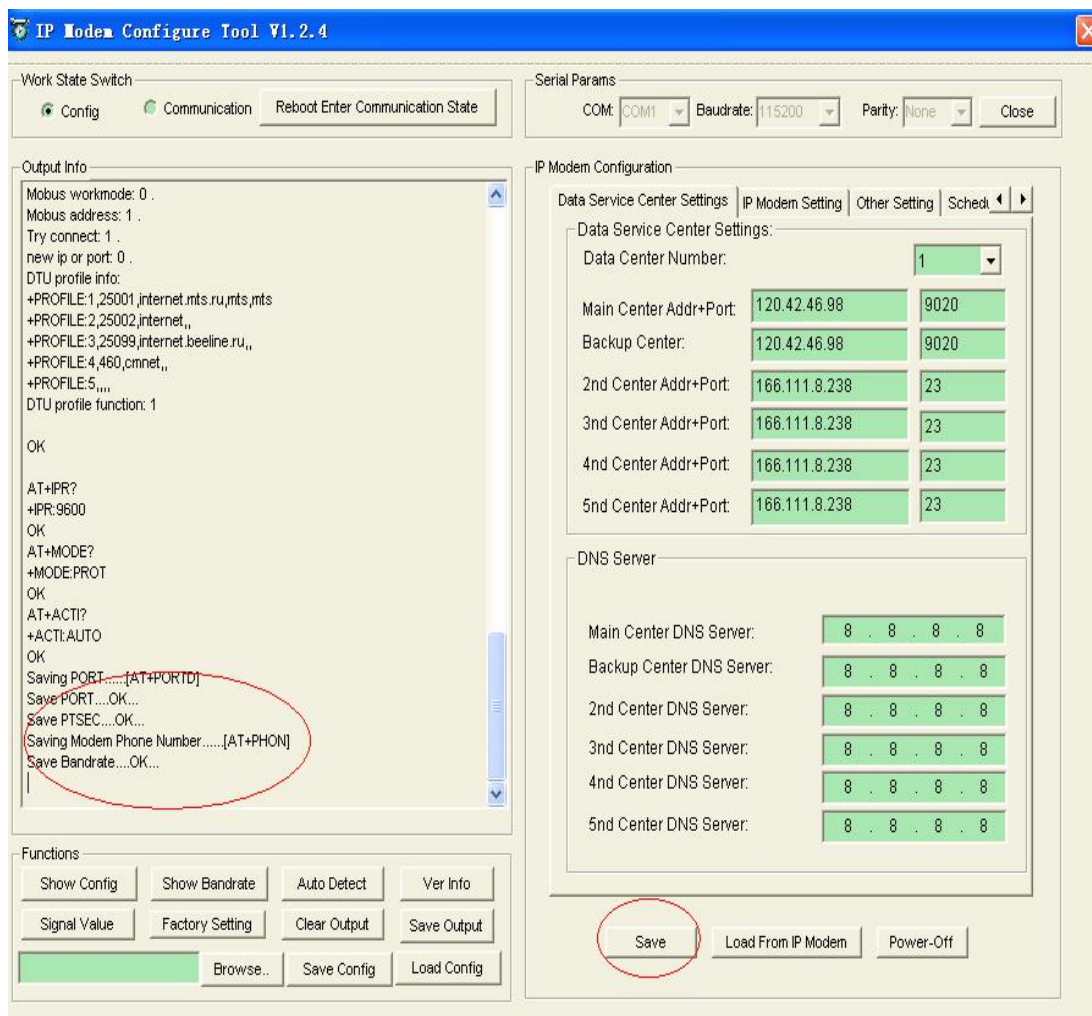
SMS configure wait time: 30

Save Load From IP Modem Power-Off

put in the APN,username,password,call center,sms center(you can call the operator to make sure )  
\*heartbeat interval

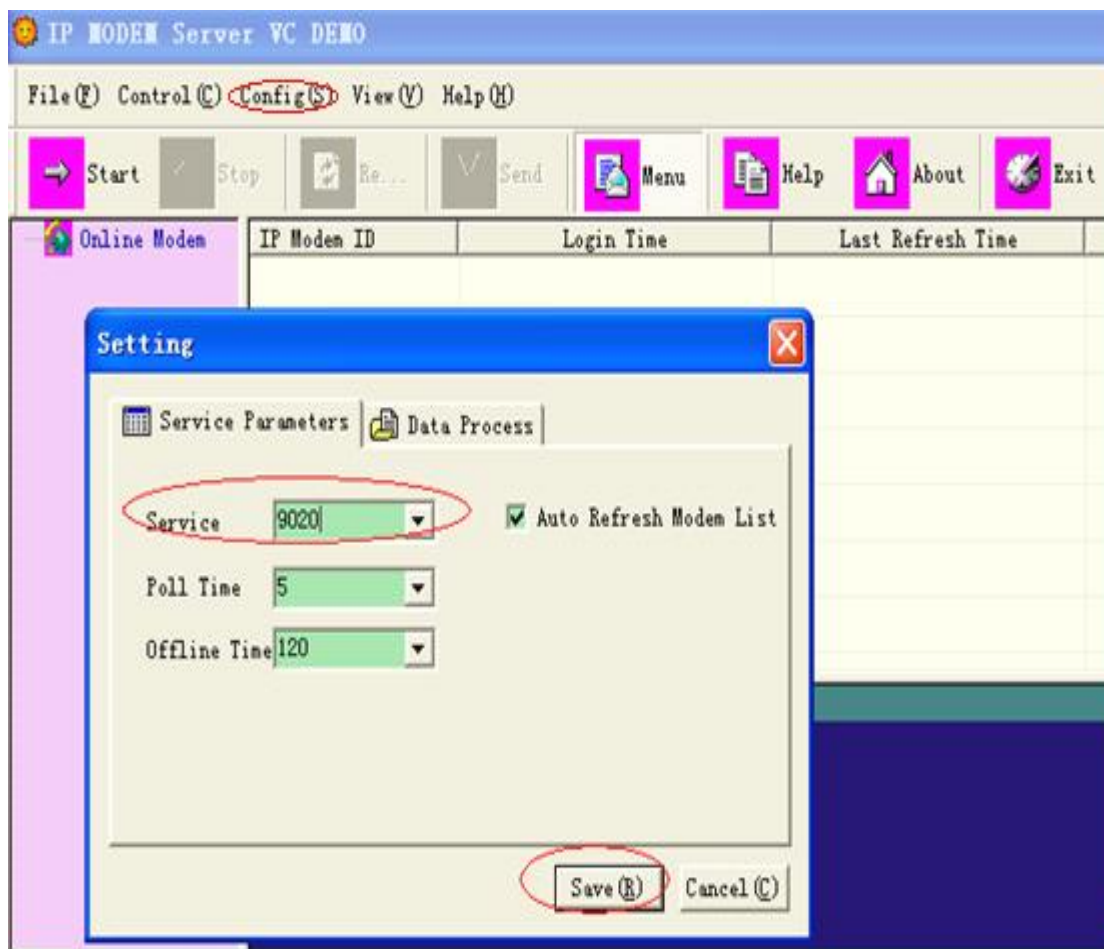
**Step 5: Above settings have been basically completed the easy set above settings has been basically completed the simple set , and other items , such as no special requirements for default other items , such as no special requirements for the default ,then press the save button.**

Information box on the right will be prompted to successfully set at the same time on the right information box will be prompted to set successfully , the following diagram as shown below.

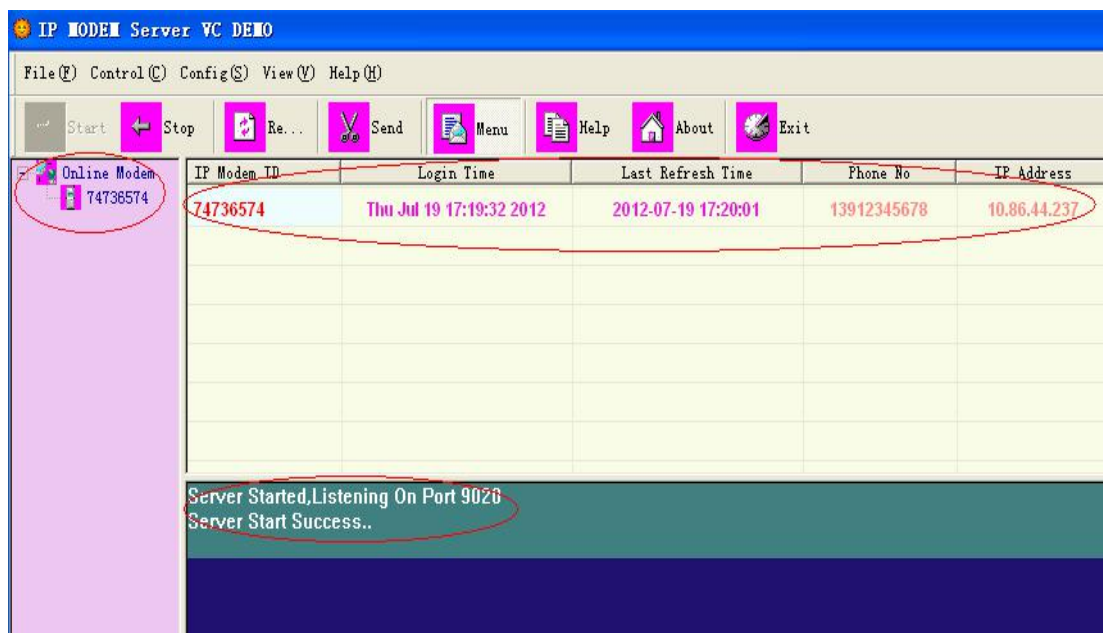


More than set up the basic needs of the communications link , the operations center software and IP MODEM can communicate .

**Step6: open the software of vc-demo on the computer. Config-----service, put in the port:9020-----save----start.**

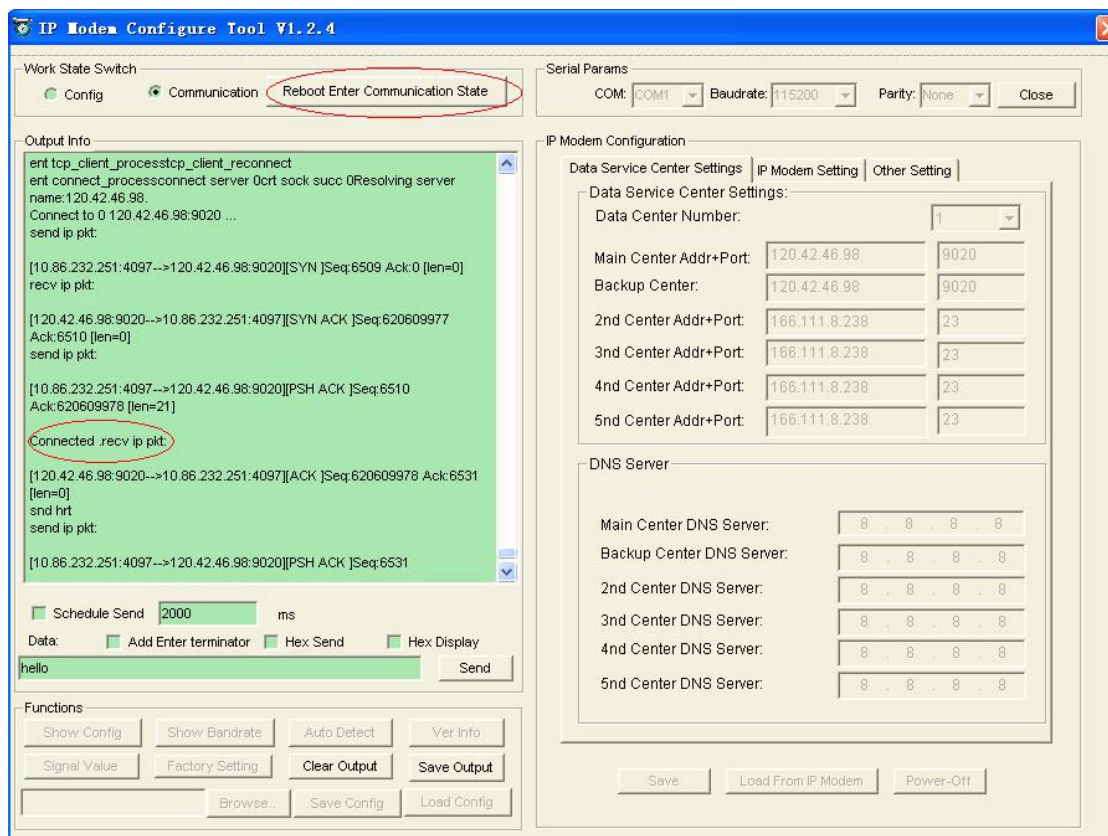


**Step 7:**Then you can see the server start success.

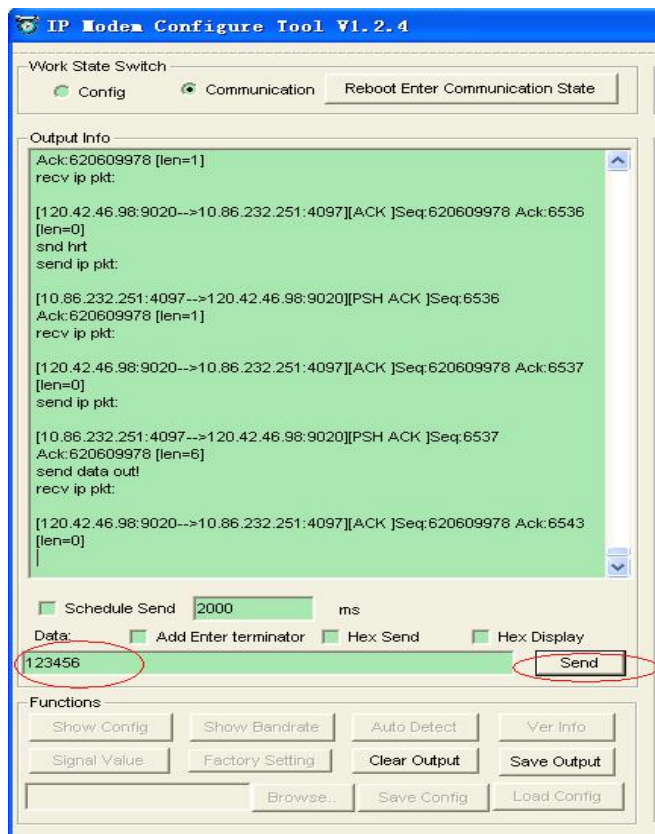


**Step 8:**Then press the bottom reboot enter communication state,then you can see the “connected”





**Step 9: You can send data from the tool to the ip modem server vc demo:**



**Step 10: And you can see the data in the demo:**

The screenshot shows the 'IP MODEM Server VC DEMO' application window. The title bar is blue with the application name. Below it is a menu bar with options: File(F), Control(C), Config(S), View(V), Help(H). A toolbar contains icons for Start, Stop, Re..., Send, Menu, Help, About, and Exit. On the left, there's a sidebar titled 'Online Modem' showing a modem icon and the ID '74736574'. The main area displays a table with columns: IP Modem ID, Login Time, Last Refresh Time, Phone No, and IP Address. The first row contains data for modem 74736574.

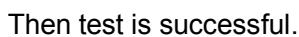
IP Modem ID	Login Time	Last Refresh Time	Phone No	IP Address
74736574	Thu Jul 19 17:47:50 2012	2012-07-19 17:54:22	13912345678	10.86.232.251

At the bottom, a status bar displays the text: userid:74736574,time:Thu Jul 19 17:50:56 2012,len:6123456. This text is circled in red.

If you connect many IP modem to a demo.you can see that the data ia come after the corresponding id.

[illegible]

**Step 11:**You can also send data for the demo to the ip modem.



1.If our SIM card Owe postage, signal is very low or the call center number is wrong ,we can see the following output.

```
>>> To Enter Communication State,Please Re-power DTU
[AT Command : AT+RESET] ...

OK
Resetting ...

System started!
Press 's' key continuously to enter configure program.
dtu enters protocol mode.
Now start at proc.Max AT Command RetryAt Proc Error!Max AT
Command RetryAt Proc Error!
```

2.If APN and call center is wrong , we can see the following output.

```
System started!
Press 's' key continuously to enter configure program.
dtu enters protocol mode.
Now start at proc.At Proc Success!      if APN is wrong!
Now start at proc.At Proc Success!
Now start at proc.At Proc Success!
Now start at proc.At Proc Success!Resetting ...
```

3. If the center isn't correct,we can see below info.

```
Press 's' key continuously to enter configure program.
dtu enters protocol mode.
Now start at proc.At Proc Success!Ppp dial succ, Got Ip Addr
:10.88.167.135Resolving server name:120.42.46.55.
Connect to 0 120.42.46.55:6767 ...
Connect error.connect error
```

4.And we can use telnet command to test whether the data link to the center is OK. If we can see the phenomenon below,it shows that it is OK.



If you can't solve the problem, or meet new troubles , please contact us as soon as possible!

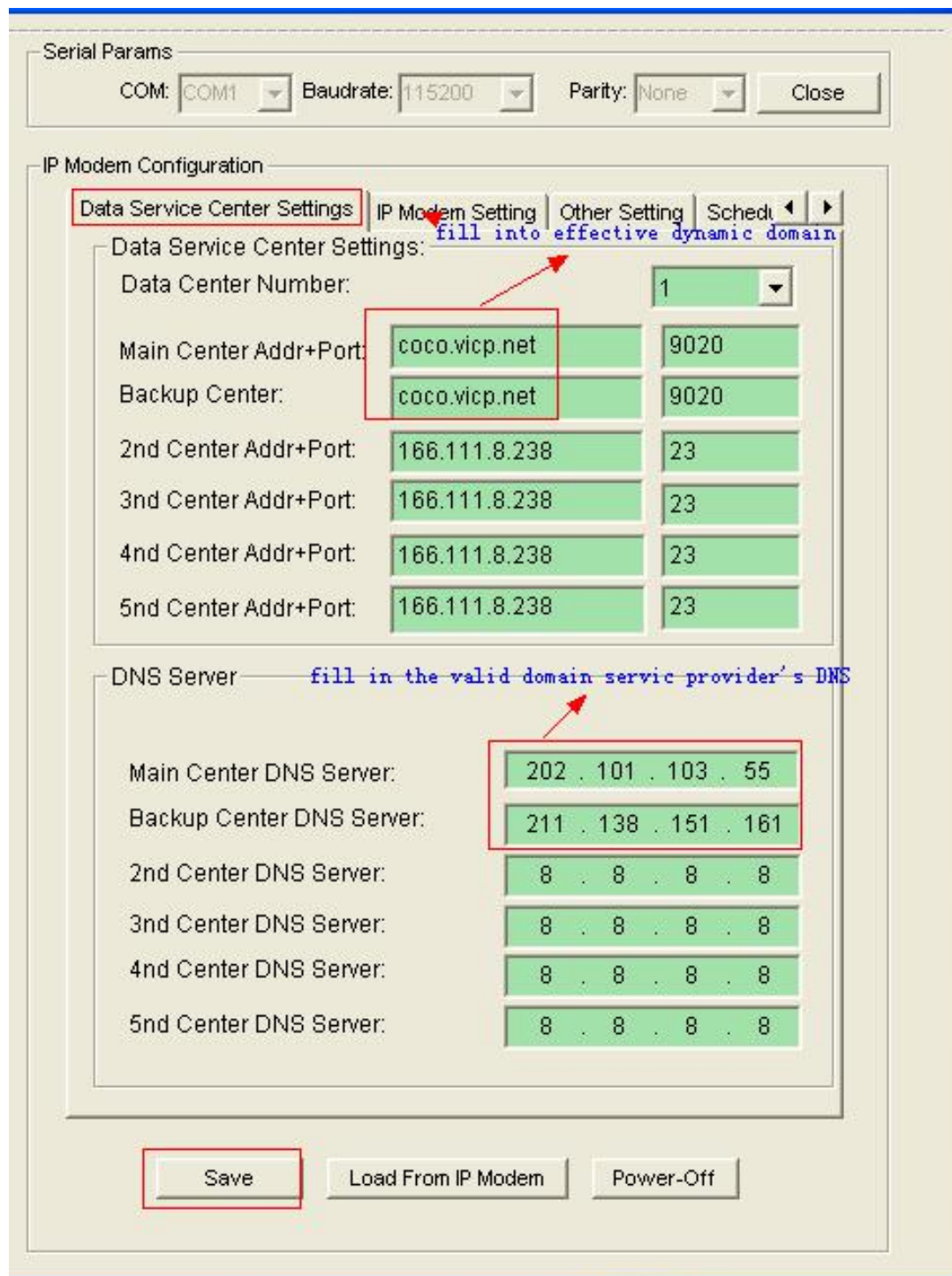
## Annex 1

Center IP setting method of dynamic domain name

Center IP setting method using dynamic domain name and the setup steps , the difference is directly filled as long as the IP Settings column Into the dynamic domain name and fill in a DNS resolution service provider address ; at the same time be in the center -side run Dynamic DNS client side .



As shown below



Serial Params

COM: COM1 Baudrate: 115200 Parity: None Close

IP Modem Configuration

Data Service Center Settings IP Modem Setting Other Setting Sched

Data Service Center Settings:

Data Center Number: 1

Main Center Addr+Port: coco.vicp.net 9020

Backup Center: coco.vicp.net 9020

2nd Center Addr+Port: 166.111.8.238 23

3rd Center Addr+Port: 166.111.8.238 23

4nd Center Addr+Port: 166.111.8.238 23

5nd Center Addr+Port: 166.111.8.238 23

DNS Server

Main Center DNS Server: 202 . 101 . 103 . 55

Backup Center DNS Server: 211 . 138 . 151 . 161

2nd Center DNS Server: 8 . 8 . 8 . 8

3nd Center DNS Server: 8 . 8 . 8 . 8

4nd Center DNS Server: 8 . 8 . 8 . 8

5nd Center DNS Server: 8 . 8 . 8 . 8

Save Load From IP Modem Power-Off

If you have any problem with your settings or communication, you can check the pic,pls wait a long time to get the full log,and send the log to me. I will analyse it for you.

