



CTN (Cloud Telephony Node)

User Manual

V1.0



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Chapter 1 BRIEF INTRODUCTION

Explanation

CTMC: Cloud Telephony Management Center

CTN: Cloud Telephony Node

CooVox: IP PBX Series developed by ZYCOO, including U20, U50, U60 and U100.

CTN is Cloud Telephony Node expanded based on ZYCOO CooVox IP PBX Series, applicable to CTMC management and operation remotely and centrally. For now, the upgrade is available for U20, U50 & U100. U60 will be subsequently supported in next version.

Chapter 2 QUICK START GUIDE

Step 1: Firmware Preparation & Upgrading

Download the latest CTN firmware (CTN_Upgrade_Package.zip) on ZYCOO website:
http://www.zycoo.com/files/upload/CTN_Upgrade.Package.zip

Unpack the zip file downloaded:

| Model | Firmware File |
|------------|--------------------------------|
| CooVoxU20 | E.g.:ulmage-md5.u20.node.v1.0 |
| CooVoxU50 | E.g.:ulmage-md5.u50.node.v1.0 |
| CooVoxU100 | E.g.:ulmage-md5.u100.node.v1.0 |

Use respective firmware to upgrade U20, U50 or U100 to the node mode.

Upgrade

Upgrade System Package

WEB Upgrade TFTP Upgrade

Restore Default Set:

Please choose file to upload:

Note: After the upgrading, clear browser cache and reboot, IP will be set as 192.168.1.100.

Step 2: Login



The image shows the login interface for the ZYCOO IP PHONE SYSTEM. At the top left is the ZYCOO logo with the tagline "WE FOCUS, WE DELIVER". To the right of the logo, the text "IP PHONE SYSTEM" is displayed. Below this, there are four input fields: "Mode:" with a dropdown menu currently set to "IP PBX"; "Username:" with a text input field containing "IP PBX"; "Password:" with a text input field containing "Cloud Node" (highlighted with a red box); and "Language:" with a dropdown menu set to "English". A "Login" button is located at the bottom right of the form area.

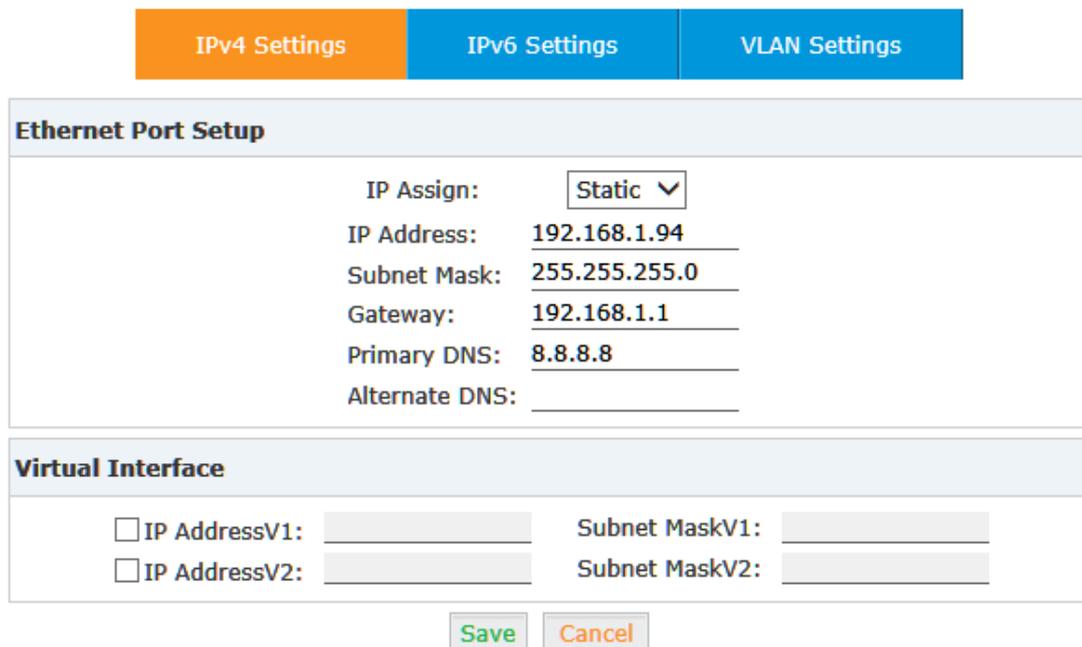
Default Username & Password: *admin/admin*

Note: once the mode is chosen, the option won't appear again, unless it's set to factory default.

Step 3: Network Settings

Please configure IPv4 Settings for quick start here;
Detail network settings can be found in Chapter 3.2.

Network



The network configuration interface features three tabs: "IPv4 Settings" (selected), "IPv6 Settings", and "VLAN Settings". Below the tabs are two main sections: "Ethernet Port Setup" and "Virtual Interface".

Ethernet Port Setup

| | |
|----------------|---------------|
| IP Assign: | Static |
| IP Address: | 192.168.1.94 |
| Subnet Mask: | 255.255.255.0 |
| Gateway: | 192.168.1.1 |
| Primary DNS: | 8.8.8.8 |
| Alternate DNS: | |

Virtual Interface

| | | | |
|--|--|----------------|--|
| <input type="checkbox"/> IP AddressV1: | | Subnet MaskV1: | |
| <input type="checkbox"/> IP AddressV2: | | Subnet MaskV2: | |

At the bottom of the interface are "Save" and "Cancel" buttons.

To make sure it is connected to the public network, please click Troubleshooting to test as below:

Troubleshooting



Ping www.baidu.com Packets: 4 Run Stop

```

PING www.baidu.com (115.239.210.27): 56 data bytes
64 bytes from 115.239.210.27: seq=0 ttl=55 time=185.781 ms
64 bytes from 115.239.210.27: seq=1 ttl=55 time=48.064 ms
64 bytes from 115.239.210.27: seq=2 ttl=55 time=49.091 ms
  
```

Step 4: Local Settings

Make following Local Settings, make sure the connection status is “Connected”, then the CTN connects with CTMC successfully.

Local Settings

Local Settings

Enable:

Server IP: 117.176.159.157

Server Port: 8505

Contact: John

Address: Chengdu, China

Device Name: Chengdu

Save Cancel

Status: Connected

Reference:

| Item | Explanation |
|-------------|--------------------------------|
| Enable | Enable CTN |
| Server IP | CTMC IP |
| Server | Default 8505, CTMC access port |
| Contact | Contact of device |
| Address | Address of device |
| Device Name | Device name |

Note: After connecting with CTMC, the CTN’s extensions will be created from CTMC and other operations to CTN will be handled from CTMC as well. Detail information will be introduced in CTMC User Manual.

Chapter 3 DETAIL CONFIGURATION

3.1 Login

After connected the system to local network, run a browser on a local PC. Enter the IP (default IP of WAN is <http://192.168.1.100:9999>):



Enter Username & Password (default *admin/admin*) , then **【Login】**



Note

- 1) Please use IE (V7.0 or higher), or Firefox browser
 - 2) Always make sure the PC is in a same IP segment as the system
 - 3) After one minute's idleness, the system will time-out
-

When login succeeded, you will see the following page:

The screenshot shows a web interface with a blue sidebar menu on the left containing: Home, Operator, Network Settings, Cloud Node Settings, Report, and PBX Settings. The main content area is titled 'Home' and contains three sections: 'System Info', 'Device Info', and a status bar. The 'System Info' section includes: Network (Ethernet IP: 192.168.1.94, MAC: 68:69:2E:03:02:19), Storage (Disk Total: 3.0G, Used: 225.5M), and Slot Info (Slot 1: FXO, Slot 2: FXO, Slot 4: N/A). The 'Device Info' section shows Model No.: CooVox-U20 and System Version: 1.0.5. The status bar at the bottom indicates Current Time: 05/30/14 17:41 and Run Time: 10 days, 23 min.

- Network: IP & MAC of WAN
- Storage: Disk total space & used space
- Slot Info: Module plugged information
- Device Info: Device model & system version

Resident Buttons:

- Logout: logout the GUI
- Activate Changes: once configure made and saved, click this button to activate

System Menu:

- Home: Device information
- Operator: display extensions & trunks
- Network Settings: configure network settings
- Cloud Node Settings: configure basic CTN & CTMC settings
- Report: record & logs
- PBX Settings: user, time and modules

3.2 Network Settings

3.2.1 Network

Configure IP of WAN, click **【Network Settings】** -> **【Network】** -> **【IPv4 Settings】**:

Network

IPv4 SettingsIPv6 SettingsVLAN Settings

Ethernet Port Setup

| | |
|----------------|--|
| IP Assign: | Static ▼ |
| IP Address: | <input style="width: 90%;" type="text" value="192.168.1.94"/> |
| Subnet Mask: | <input style="width: 90%;" type="text" value="255.255.255.0"/> |
| Gateway: | <input style="width: 90%;" type="text" value="192.168.1.1"/> |
| Primary DNS: | <input style="width: 90%;" type="text" value="8.8.8.8"/> |
| Alternate DNS: | <input style="width: 90%;" type="text"/> |

Virtual Interface

| | | | |
|--|--|----------------|--|
| <input type="checkbox"/> IP AddressV1: | <input style="width: 150px;" type="text"/> | Subnet MaskV1: | <input style="width: 150px;" type="text"/> |
| <input type="checkbox"/> IP AddressV2: | <input style="width: 150px;" type="text"/> | Subnet MaskV2: | <input style="width: 150px;" type="text"/> |

SaveCancel

Reference:

| Item | Explanation |
|-------------------|----------------------------------|
| IP Assign | Static, DHCP, or PPPoE |
| Virtual Interface | Assign virtual interface for WAN |

Click **【Network Settings】** -> **【Network】** -> **【IPv6 Settings】**:

Network

IPv4 Settings IPv6 Settings VLAN Settings

Ethernet Port Setup

Enable:

IPv6 Address:

Prefix Length:

Gateway:

Primary DNS:

Alternate DNS:

Reference:

| Item | Explanation |
|--------|---|
| Enable | Enable IPv6, and assign IPv6 address, gateway or DNS server |

Click **【Network Settings】** -> **【Network】** -> **【VLAN Settings】**:

Network

IPv4 Settings IPv6 Settings VLAN Settings

VLAN 1

Enable:

VLAN ID:

VLAN IP Address:

Subnet Mask:

VLAN 2

Enable:

VLAN ID:

VLAN IP Address:

Subnet Mask:

Reference:

| Item | Explanation |
|--------|---|
| Enable | Enable VLAN, and assign VLAN address & ID |

3.2.2 DHCP Server

Configure DHCP server, click **【Network Settings】** -> **【DHCP Server】** :

DHCP Server

DHCP Server Settings

Enable:

Start IP: 192.168.1.101

End IP: 192.168.1.200

Subnet Mask: 255.255.255.0

Gateway: 192.168.1.1

Primary DNS: 61.139.2.69

Lease Time(min): 1440

TFTP Server:

Click **【Network Settings】** -> **【DHCP Server】** -> **【DHCP Client List】**:

DHCP Client List:

| Mac Address | IP Address | Host Name | Expires in |
|-------------------|---------------|-----------|------------|
| 00:22:33:11:23:32 | 192.168.1.201 | | expired |
| 68:69:2E:03:02:29 | 192.168.1.202 | | expired |
| 68:69:2E:03:02:19 | 192.168.1.203 | | expired |
| 68:69:2E:04:03:90 | 192.168.1.204 | | expired |
| 68:69:2E:04:03:2E | 192.168.1.205 | | expired |
| 68:69:2E:04:03:F2 | 192.168.1.206 | | expired |
| 68:69:2E:04:03:6F | 192.168.1.207 | | expired |
| 68:69:2E:04:03:12 | 192.168.1.208 | | expired |
| 68:69:2E:04:03:93 | 192.168.1.209 | | expired |
| 68:69:2E:04:03:22 | 192.168.1.210 | | expired |
| 68:69:2E:04:03:46 | 192.168.1.211 | | expired |
| 68:69:2E:04:03:10 | 192.168.1.212 | | expired |
| 68:69:2E:04:03:53 | 192.168.1.213 | | expired |
| 68:69:2E:04:03:75 | 192.168.1.214 | | expired |
| 68:69:2E:04:03:15 | 192.168.1.215 | | expired |

This is for displaying DHCP client details.

Bind node's MAC with IP when DHCP assigning IPs, to ensure the node is assigned the same IP every time.

Click **【Network Settings】** -> **【DHCP Server】** -> **【Static MAC】** -> **【New Static MAC】**:

3.2.3 Troubleshooting

Troubleshooting section allows you to confirm the status of the network by performing simple diagnostics including, ping to other network devices or Traceroute command to trace network routings, click **【Network Settings】** -> **【Troubleshooting】** :

```

PING 192.168.1.1 (192.168.1.1) 56(84) bytes of data.
64 bytes from 192.168.1.1: icmp_seq=1 ttl=64 time=0.357 ms
64 bytes from 192.168.1.1: icmp_seq=2 ttl=64 time=0.275 ms
64 bytes from 192.168.1.1: icmp_seq=3 ttl=64 time=0.263 ms
64 bytes from 192.168.1.1: icmp_seq=4 ttl=64 time=0.269 ms
--- 192.168.1.1 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3003ms
rtt min/avg/max/mdev = 0.263/0.291/0.357/0.038 ms

```

3.3 Node Settings

3.3.1 Local Settings

Make the local settings of CTN to connect with CTMC, click **【Node Settings】** -> **【Local Settings】**:

Local Settings

Local Settings
Enable:
Server IP: 117.176.159.157
Server Port: 8505
Contact: John
Address: Chengdu, China
Device Name: Chengdu

Status: **Connected**

Please make the sure status is “Connected”. After finishing the local settings, CTN will connect with CTMC successfully. And CTN extensions or operations can be managed by CTMC remotely.

Reference:

| Item | Explanation |
|-------------|--------------------------------|
| Enable | Enable CTN |
| Server IP | CTMC IP Address |
| Server Port | Default 8505, CTMC access port |
| Contact | Administrator of device |
| Address | Address of device |
| Device Name | Name of device |

3.3.2 Reset & Reboot

Reboot or reset to factory default, click **【Cloud Node Settings】** -> **【Reset & Reboot】** :

Reset & Reboot

Factory Defaults
Warning: Restoring factory settings,will lose all configuration data on the system!

Reboot
Warning: Rebooting the system will terminate all active calls!

Note: The system will be resumed to factory default once click “Factory defaults”, and rebooting the system will terminate all active calls.

3.4 Report

3.4.1 Call Logs

Search call logs of node by caller ID or callee ID, click **【Report】** -> **【Call Logs】** :

Call Logs

| | | | | | | | | |
|-------------|-----------|----------------|--------------|---------------|-------------|----------------------|---------------------------------------|---|
| Start Date: | Apr | 23 | 2013 | Field: | Caller ID | <input type="text"/> | <input type="button" value="Filter"/> | |
| End Date: | Apr | 23 | 2013 | | | | | <input type="button" value="Download"/> <input type="button" value="Delete"/> |
| Call Start | Caller ID | Destination ID | Account Code | Duration(sec) | Disposition | | | |

CTMC reserves the right to search the call logs of each node by searching node's name.



Note:

Call duration in call logs is different from the actual billing time.

3.4.2 System Logs

Display system logs, click **【Report】** -> **【System Logs】** . It's able to download or delete.

- Home
- Operator
- Basic
- Inbound Control
- Advanced
- Network Settings
- Security
- Report
- Register Status
- Record List
- Call Logs
- System Logs
- System

Call Logs

| | | | | | | | | |
|---------------------|---------------------|----------------|--------------|---------------|-------------|----------------------|---------------------------------------|---|
| Start Date: | Feb | 1 | 2014 | Field: | Caller ID | <input type="text"/> | <input type="button" value="Filter"/> | |
| End Date: | Mar | 6 | 2014 | | | | | <input type="button" value="Download"/> <input type="button" value="Delete"/> |
| Call Start | Caller ID | Destination ID | Account Code | Duration(sec) | Disposition | | | |
| 2014-02-28 14:24:38 | 18380217610 | 805 | | 0 | NO ANSWER | | | |
| 2014-02-28 14:24:31 | <18380217610> | | | 9 | ANSWERED | | | |
| 2014-02-28 14:24:00 | 806 <806> | 315828035910 | | 0 | NO ANSWER | | | |
| 2014-02-28 14:23:10 | ReDial 315828035910 | 315828035910 | | 0 | ANSWERED | | | |
| 2014-02-28 14:22:49 | <315828035910> | | | 14 | ANSWERED | | | |
| 2014-02-28 14:22:57 | 805 <805> | 218380217610 | | 3 | ANSWERED | | | |
| 2014-02-28 14:19:58 | 15828035910 | callback | | 19 | ANSWERED | | | |
| 2014-02-28 14:20:06 | | | | 3 | ANSWERED | | | |
| 2014-02-28 14:19:25 | | | | 16 | ANSWERED | | | |
| 2014-02-28 14:04:46 | | | | 7 | ANSWERED | | | |
| 2014-02-28 13:45:22 | | | | 4 | ANSWERED | | | |
| 2014-02-28 13:45:58 | | | | 0 | ANSWERED | | | |
| 2014-02-28 13:45:33 | | | | 0 | ANSWERED | | | |
| 2014-02-28 13:44:05 | | | | 6 | ANSWERED | | | |
| 2014-02-28 13:44:43 | | | | 0 | ANSWERED | | | |
| 2014-02-28 13:44:18 | | | | 1 | ANSWERED | | | |
| 2014-02-28 13:42:34 | 805 <805> | conference | | 30 | ANSWERED | | | |
| 2014-02-28 13:43:01 | 805 <805> | 812 | | 0 | ANSWERED | | | |
| 2014-02-28 13:42:48 | 805 <805> | 806 | | 1 | ANSWERED | | | |
| 2014-02-28 13:41:34 | 805 <805> | conference | | 5 | ANSWERED | | | |
| 2014-02-28 13:42:06 | 805 <805> | 812 | | 0 | ANSWERED | | | |
| 2014-02-28 13:41:50 | 805 <805> | 806 | | 1 | ANSWERED | | | |
| 2014-02-28 13:41:16 | 805 <805> | 900 | | 16 | ANSWERED | | | |

Create Contact

Name:

Phone Number:

3.5 PBX Settings

3.5.1 User Management

Check extensions of CTN, Click **【PBX Settings】** -> **【User Management】** :

Extensions

Extension:

Extensions

| | Name | Extension | Port | Protocol | DialPlan | Outbound CID | Options |
|---|------|-----------|------|----------|-----------|--------------|----------------------|
| 1 | 1000 | 1000 | -- | SIP | DialPlan1 | | View |
| 2 | 1001 | 1001 | -- | SIP | DialPlan1 | | View |

Note: All the extensions are created or edited from CTMC. The extension numbers will be displayed here only automatically; they are unable to edit or delete actually.

3.5.2 Time Settings

Set the time of system via NTP server or manually.

Select NTP, click **【Time Settings】** -> **【NTP】** :

Time Settings

NTP Manual Time Set

NTP Server:

Time Zone:

Reference:

| Item | Explanation |
|----------------------------|---|
| NTP Server | Specify an NTP server, that could be IP or domain, remote or local. Default is pool.ntp.org. Please ensure a valid NTP server |
| Time Zone | Select a time zone in drop-down list |

Select manual, click **【Manual Time Set】** :

Time Settings

NTP Manual Time Set

Year: (YYYY, eg: 2010)

Month: (MM, eg: 05)

Day: (DD, eg: 08)

Hour: (HH, eg: 09)

Minute: (MM, eg: 30)

Synchronize with current PC time

Enter each blank, save and activate, or click **【Sync】** to synchronize with your PC.

3.5.3 Module Settings (only on U50/U100)

When other modules are in service except for FXO/FXS/GSM, some respective settings need to be made.

Click **【PBX Settings】** -> **【Module Settings】** :

Module Settings

SLOT 1

Module Type: FXS/FXO/GSM ▼

Save
Cancel

Module Type: Select the type of module

- FXS/FXO/GSM Module: default, no need to set
- E1/T1 Module

Module Settings

SLOT 1

Module Type: E1/T1 ▼

E1/T1 Settings:

Mode: E1 ▼

Signaling: CPE ▼

Framing: CCS ▼

Coding: HDB3 ▼

CRC4:

Save
Cancel

Reference:

| Item | Explanation |
|-----------|--|
| Mode | E1 or T1 mode |
| Signaling | Signaling of module |
| Framing | “D4” or “ESF” on T1 mode, “CAS” or “CCS” on E1 mode |
| Coding | “AMI” or “B8ZS” on T1 mode, “AMI” or “HDB3” on E1 mode |
| CRC4 | Enable CRC4 verification |

- ISDN BRI Module

Module Settings

SLOT 1

Module Type: ▼

BRI Settings:

Type of Port 1: ▼

Type of Port 2: ▼

Type of Port 3: ▼

Type of Port 4: ▼

Choose NT or TE mode on each port

<End of Manual>