

# Cloud Telephony Management System



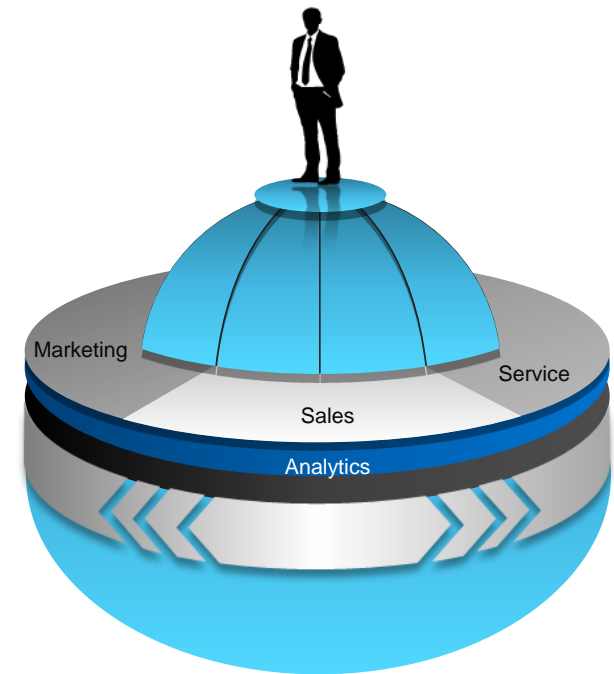
**WHITE PAPER**



# Introduction

Companies of all sizes are facing the challenge of beating tight operational schedules and customer demands. Time and staff resources are a fundamental cost for any company leader; and in today's competitive environment it is essential to limit the IT budget and staff resources. This is where Cloud Telephony Management System can assist your company.

As a business begins to grow, many companies begin to expand and branch out geographically into other cities or countries. This presents many challenges to these companies including how to manage the technology that is supporting the company's growth and how to reduce the increasing costs resulting from long distance communication.





## What problems does the group company face today?

As already eluded to within this document, long distance calling charges are a necessary part of a company's operational costs. VoIP is a credible solution to this problem and is fully supported by our cloud telephony management system.

Management of remote infrastructure creates another headache that must be addressed. Normally an IP PBX will only solve the call cost problem, and not the more pressing issue of, how do you manage offices located in different cities or countries? If an office was to suddenly fail or go offline, how do you know, and how can you help? How would you remote control and monitor? Information is crucial to a modern business and headquarters need to understand how each branch office is performing. As your company grows, how do you achieve this?





Many enterprises operating in different industries are faced with the challenges described above. Examples include:

- Middle and large enterprises: whatever the industry they are working in, maybe an advertising company, Exhibition Company, or gaming company, etc., if they have branches in other cities or countries, then they will recognize this problem.
- University: it's common to see many institutes or colleges from famous universities setting up in different cities, and even across the sea.
- Oil / gas enterprise: everybody knows that enterprise branches are distributed, almost all over the world searching for oil, gas farm, and these remote sites often include a sales office, pipeline construction, etc..
- Supermarket and Retail : for example, Amazon, Carrefour, Auchan ... We can't count how many stores they have across the world, and how many hours are required to set up the communication system, or even configure the IP PBX.
- Bank: such as China Bank, one of the four big state banks in China, etc.

The above list is just a small selection of the many industries that we could have mentioned.



## What do the SMEs expect?

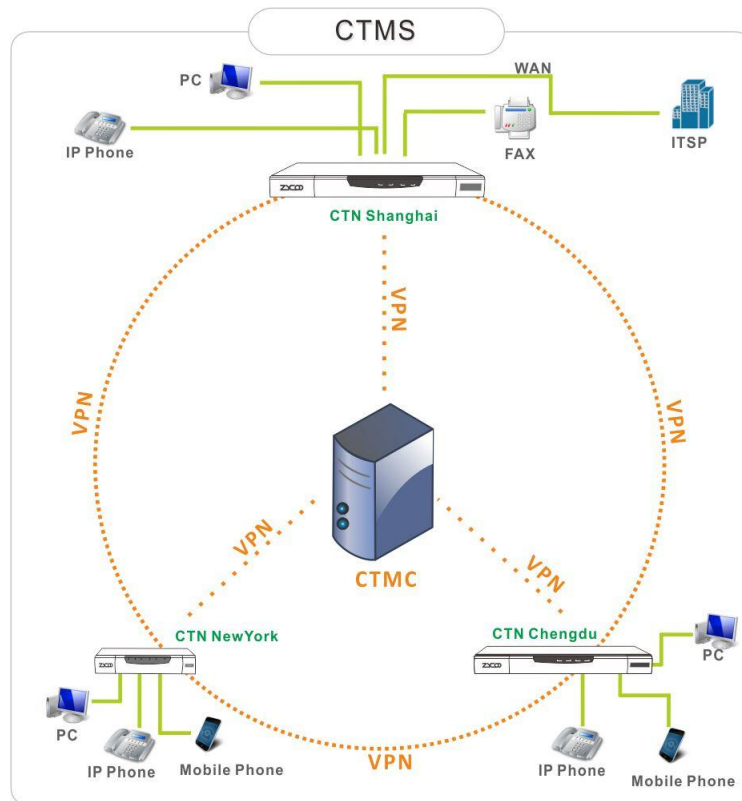
From the experience in VoIP telephony for the past years, we already have many feedbacks from customers. Most company owners are seeking a new telephony solutions for cost-effective working performance. Such telephony solution must

- Be reliable
- Save money in the following investment on operation
- Accommodate the current workflow process
- Be expandable with company's growth
- Save money on long distance calls...
- Be available to monitor the branches working status
- Manage all the branches by H.Q.; everything is under control;
- Satisfy a basic set of flexible and useful features, like voicemail to email, video call, teleconference, etc.





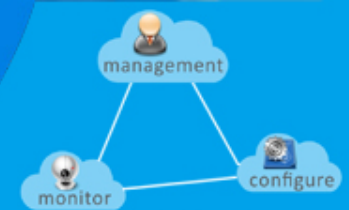
## What is the architecture of CTMS?



CTMS = CTMC + CTN + IP Phone, it's clear to see the network construction from the left topological graph.

VPN is adopted as the basic and necessary method to achieve this connection. Every CTN is upgraded from Coovox IP Phone system; after upgrading, it can be managed and monitored.

Normally CTMC supports 3 nodes by default; for more nodes supported, you need to buy the license from ZYCOO.



**CTMC** : Abbreviation of Cloud Telephony Management Center, which is a ZYCOO-developed software solution for enterprise communication management. To use this software, you have to install it into the standard PC server. Then you can start configuration, including network settings, numbering plan setting, sip phones setting under the CTNs in each branch, meanwhile, you can manage and monitor all CTNs remotely.

ZYCOO
WE FOCUS.WE DELIVER
Cloud Telephony Management Center  
(CTMC)

- ▶ Home
- Node Management**
- Logs
- Network Settings
- System Settings

● Offline   ● Online   ● Alarm

● Chengdu	● Kielce	● Doncaster
● Dubai	● Medellin	● Miami
● Hannover	● Caracas	● Taipei
● Monterrey	● Tehran	● Algiers
● La Paz	● Hanoi	● Lima
● Sofia	● Santo Domingo	● Bucharest
● Buenos Aires	● Kuala Lumpur	

Total: 20
Online: 16
Offline: 3
Alarm: 1



**CTN:** Abbreviation of Cloud Telephony Node, which is the node of cloud telephony management system and handling the switch of telephony communication. ZYCOO CooVox series IP PBX can be taken as the node after upgrading. CTN is allowed for branch's administrator to configure only because the configuration includes local network connections.







**IP Phone:** Any IP Phone support SIP protocol can be used in CTMS, and there are some brands IP Phones are supported auto-provision by ZYCOO CooVox Series IP PBX, such as ZYCOO CooFone, Yealink, Grandstream, Fanvil, etc., which are more welcomed in CTMS.

**Akuvox**



**Fanvil**





## How to solve the problems above?

ZYCOO CooVox IP Phone Systems can be configured as a CTN (Cloud Telephony Node) during the network construction. Coovox series IP Phone Systems are SIP based and run the asterisk telephony platform, which can provide the SIP trunk for VoIP telephony via VoIP carriers. Under this architecture, internal calls are free.

How about long distance calling among the enterprise headquarter and branches? Let me tell you how to realize long distance calling cost savings via the functions of Numbering Plan & DISA.

Numbering Plan: Generally speaking, it's a standard call from NPA(Numbering Plan Area), but it's different from NPA. When CTNs are connected to CTMC, the CTMC will provide the Numbering Plan to each CTN, to meet the requirement of free calls between the CTNs.

E.g.:

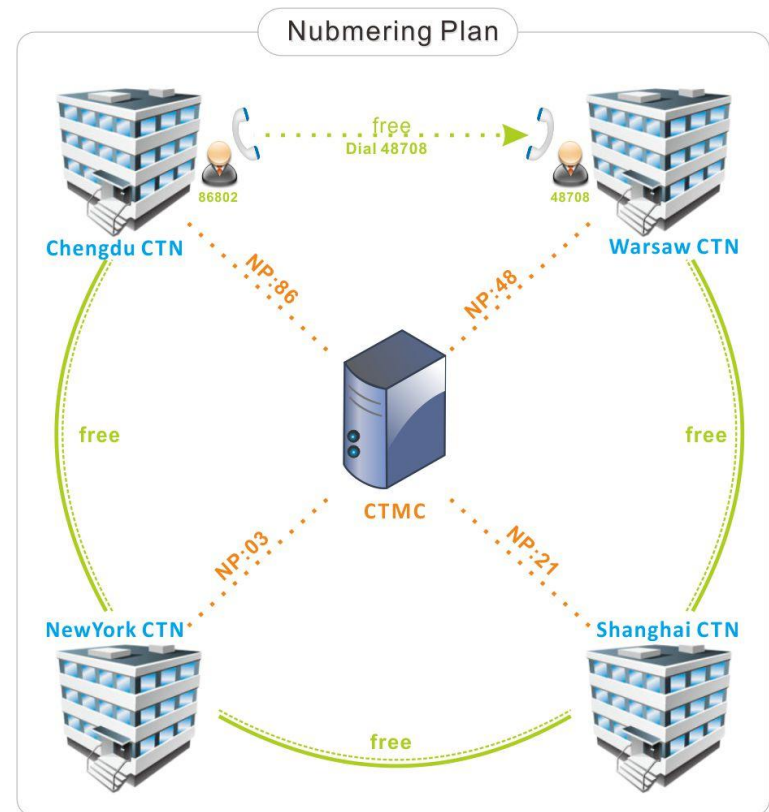
Headquarter-Chengdu (CTN 1)	Numbering Plan -86	Ext.: 868xx
Branch-Warsaw (CTN 2)	Numbering Plan -48	Ext.: 487xx
Branch-NewYork (CTN 3)	Numbering Plan -03	Ext.: 036xx
Branch-Shanghai (CTN 4)	Numbering Plan -21	Ext.: 215xx



## Internal calls

User A (ext.86802) from H.Q. in Chengdu calls user B (ext.48708) located in Warsaw branch, he/she needs to dial the user B's extension: 48708.

Then the free call is set up. Wherever the call will be reach, to NewYork or Shanghai, there is no exception that the call is free.

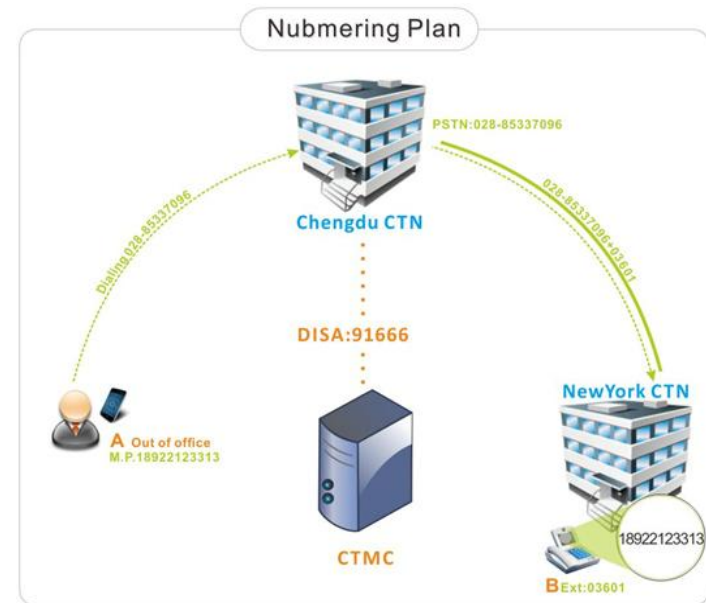




## Calls out of office

Although internal call is an essential function for businesses, outbound call is equally as important. So, how can we save on the cost of outbound calls? E.g.: User A is out of Chengdu office and in a business trip in Shenzhen. He/she wants to call the colleague B(ext.03601) in NewYork office via company telephone line; he/she needs to dial telephone number of Chengdu office 028 85337096, then dial the extension number of the colleague B directly: 028 85337096+03601

The user A's cell phone number will be displayed on the colleague B's phone.





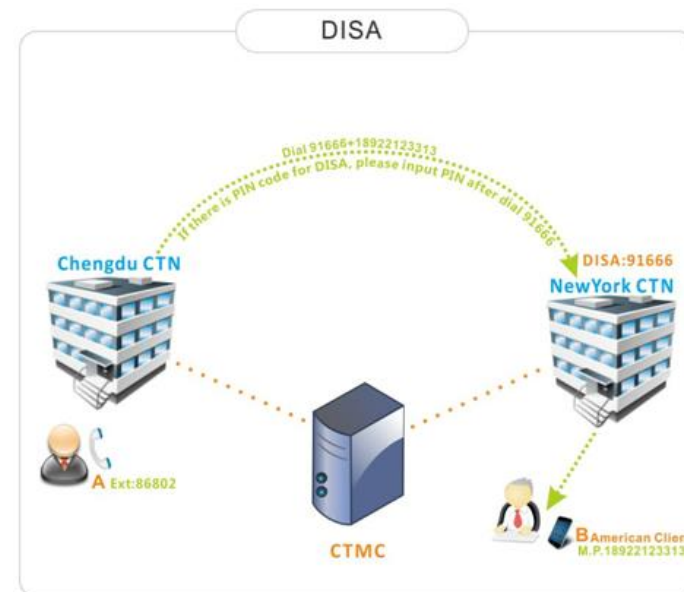
DISA (Direct Inward System Access) is a most effective feature for enterprise to save on the call cost. Let's see how this function is well applied in CTMS.

E.g.:

User A is in Chengdu office. He/she wants to call the American client B; he/ she needs to dial the DISA number of NewYork CTN, then dial the phone number of client B(e.g. 18922123313).

Sometimes enterprise set the PIN code for DISA to limit the long distance calls, you need to input the PIN code after DISA No.:

91666+18922123313

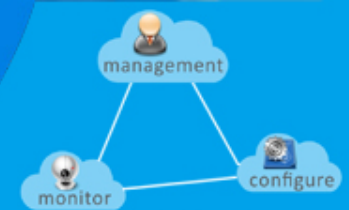




## CTMS Vs. Host PBX / Cloud PBX

CTMS allows a business to generate a hybrid architecture delivering the benefits available from both Cloud and on premise based telephony solutions. In a cloud based solution, the PBX is hosted within the Cloud and only the end points (SIP phones etc) reside on an organizations premises. This approach can be beneficial in some ways but there are factors that make cloud telephony a poor choice for many organizations. These include:

- Security for your business systems now reside with the hosting provider so you wouldn't know that your valuable company information is safe or not;
- The hosted solution presents a single point of failure because if the hosted platform or network connections fails then all of your branches will lose communications;
- Cloud solutions are charged on a per user, per month basis and over a 3 to 5 year period are significantly more expensive than an equivalent on premise system;
- The ability to monitor system performance and overall management of the hosted platform is limited to anyone other than the service provider;
- Software revisions and system updates are undertaken by the service provider and these changes are mandatory and therefore some features that your business relies upon may change or be removed without your consent.



CTMS provides many of the benefits of a Cloud service including the ability to connect your remote branches into a single solution, but also allows key benefits that only an on premise system can deliver. These include:

- Breakout to the PSTN in the event of loss of internet connectivity;
- A local system deployed at each site so internal branch calls are passed across the local high speed network;
- Full administrative access to the ZYCOO CooVox systems so that availability and performance can be monitored and fully managed;
- Customization of local branch configurations to meet the requirements of each local business;
- Better support for legacy devices including fax machines No single point of failure across the whole organization;
- CTMC License is life-time effective once purchased, to save long term investment in company operation;
- CTMC will configure, manage, monitor, upgrade each CTN on each site to achieve distributed management



**For more information, please visit our official website:**

**[www.zycoo.com](http://www.zycoo.com)**