

ZYCOO CooVox Series Hot Standby User Guide

Software version: v3.2.0

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Introduction

What is Hot Standby?

Hot Standby feature for ZYCOO Coovox series requires 2 IP PBX (U80 or U100) systems run simultaneously. Upon failure of one of the servers, the other server will take over all IP phone services. By using Hot Standby, it guarantees high availability of the enterprise phone services.

How it works?

2 units of U80 or 2 units of U100 with the same software and hardware configurations will be deployed in the same local network for Hot Standby implementation.

One of the servers will be running as primary server, another will be running as secondary server. Under normal circumstances, phone servers will always be running on the primary server. The secondary server will always “watch” the status of the primary server. Once primary server failure, secondary server will automatically take over the phone services.

These 2 servers will require 3 local network IP addresses. 2 of the IP addresses will be assigned to each of the servers respectively. The other IP address will be used by 2 servers as virtual IP address at the same time.

Normally the virtual IP will only be active on the primary server, and all IP phones should be registered to the virtual IP. Only when the primary server is down, the secondary server will then activate its virtual IP, and the phones still finds the server with this IP address. And phone services will not stop.

As for the other 2 IP addresses, they will be used by 2 servers to sync configuration data to keep configuration of 2 servers identical and watch out each other’s running state.

About this Guide

This guide is written for the system administrators, aimed at instructing system administrators for accurate and fast installation of ZYCOO IP PBX Hot Standby implementations.

The configurations of Hot Standby feature for U80 and U100 are the same. So, this guide applies to both U80 and U100. Here we take U80 as an example.

Prerequisites

To deploy Hot Standby, there are several conditions that need to be fulfilled before the deployment can be done.

- Same device model.
- Brand new systems or should be reset factory defaults.
- 2 * CooVox series U80/2 * CooVox series U100.
- Software version should be the same and at least v3.2.0.
- VoIP gateway for the physical trunks (FXO, GSM, E1/T1, BRI)

Notice:

It is recommended that the physical trunk lines are connected to a gateway, and the gateway is registered to the IP PBX via the Virtual IP (Virtual IP for Hot Standby will be introduced later). So, telephony modules might not be necessary.

Setup Hot Standby

Setup Hot Standby mainly requires the configurations to be done on the primary server. As the configuration data will be synchronized to the secondary server automatically. And the new configurations to be made in the future should be done on primary server as well.

For the initial setup, once primary server had been installed and configured, then some basic settings need to be done on secondary server to guarantee it can connect to the primary server.

Please follow the step-by-step instructions below for detailed configurations.

Setup Primary Server

Step 1:

Choose one of the U80 as primary server. Follow the Quick Installation Guide to install it to the rack and power it on.

Step 2:

Access its Web interface and complete the Quick Setup Wizard settings.

Step3:

Configure Hot Standby primary server settings from **Addons** -> **Hot Standby** page. The settings are as below example.

Hot Standby

Enable On

User Name

Password

Server Mode

Secondary Server IP Address

Virtual IP Address

Network Interface

Email Notification

Phone Call Notification

User Name and **Password** should be defined on primary server, and when configuring the secondary server, the same username and password should be used. (If in the same network there are more IP PBX configured with Hot Standby, please use different username and password between different pair of primary and secondary servers.)

Server Mode should be configured as **Primary Server**.

Secondary Server IP Address should be the IP address you are going to assign to the IP PBX system which will run as secondary server.

Virtual IP Address to be assigned to the primary server should be the same virtual IP to be assigned to the secondary server. All IP phone services will be running on the virtual IP address.

Network Interface is recommended to use WAN. This interface will be used by 2 servers to detect whether each other of them is online. And the configuration data will be synchronized through this interface.

In order to be able to receive **Email Notifications** after server switching. You should configure mail server on the primary server first, and then fill in the system administrator email address here. Once primary server down, IP phone services will be automatically switched to the secondary server and secondary server will send Email to the given Email address to notify the administrator about this event.

In order to be able to receive **Phone Call Notifications** after server switching. Please fill in an extension number here. Once primary server down, IP phone services will be automatically switched to the secondary server and secondary server will make a phone call to the given extension number to notify the administrator about this event.

Setup Secondary Server

Step 1:

Follow the Quick Installation Guide to install the other U80 to the rack and power it on.

Step 2:

Access its Web interface and skip the Quick Setup Wizard settings, as the relevant settings will be synchronized from the primary server.

Step 3:

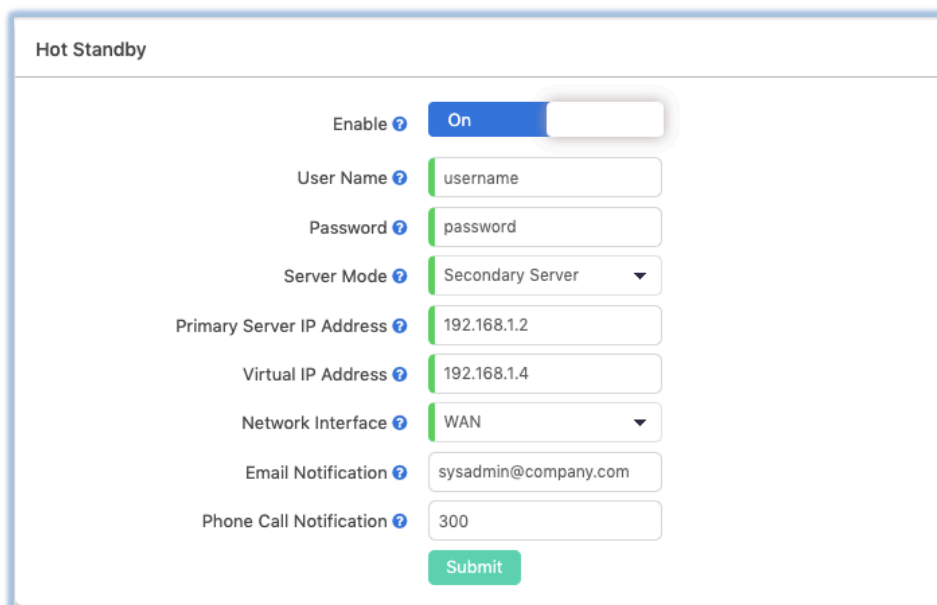
Configure its network profile from **System** -> **Network** -> **Network Profiles** page.

Step 4:

Setup mail server. Please go to **System** -> **Email Services** -> **Mail Server Settings** page. Here you'll have to use a dedicated Email account to setup mail server on the IP PBX system. This Email account will be used by the IP PBX system to send notification Emails.

Step 5:

Configure Hot Standby secondary server from **Addons** -> **Hot Standby** page.



The screenshot shows the 'Hot Standby' configuration page. It contains the following fields and controls:

- Enable**: A toggle switch set to 'On'.
- User Name**: A text input field containing 'username'.
- Password**: A text input field containing 'password'.
- Server Mode**: A dropdown menu set to 'Secondary Server'.
- Primary Server IP Address**: A text input field containing '192.168.1.2'.
- Virtual IP Address**: A text input field containing '192.168.1.4'.
- Network Interface**: A dropdown menu set to 'WAN'.
- Email Notification**: A text input field containing 'sysadmin@company.com'.
- Phone Call Notification**: A text input field containing '300'.
- Submit**: A green button at the bottom.

User Name and **Password** should be the same as given on the primary server.

Server Mode should be set as **Secondary Server**.

Primary Server IP Address should be the IP address of the WAN interface of primary server.

Virtual IP should be the same as given on the primary server.

Network Interface, Email Notification and **Phone Call Notification** should be configured same as the primary server.

After these settings, please click on **Submit** button. And now, secondary server will try to connect to the primary server. If connection is successfully established, you'll see connection status displayed as "**Connected**". If after 1-2 minutes still not connected, please check your settings and click on Submit button again.

Setup Phone Services

Once Hot Standby had been configured, the next step would be configuring phone services on the primary server.

Phones, gateways, SIP trunks, and other SIP terminals/systems should be registered to the CooVox series IP PBX via its virtual IP address.

Configure Departments, IVR, Inbound/outbound Routes, Call Queues and other features as per your requirements. The configurations and data will be synchronized to the secondary server automatically to guarantee 2 servers identical.

Notices:

1. After Hot Standby feature configured, please do not activate VPN facilities and Static Routing, otherwise Hot Standby might malfunction.
2. If you are going to connect PSTN, GSM, E1/T1 or BRI trunks, please use a gateway to connect the trunks, then the gateway connects to the CooVox series IP PBX using SIP trunk.
3. If you have activated Billing on the primary server, once phone call services been switched to secondary server, Billing feature will be temporarily unavailable.
4. Once primary server is back online; phone call services will be automatically switched back to primary server.