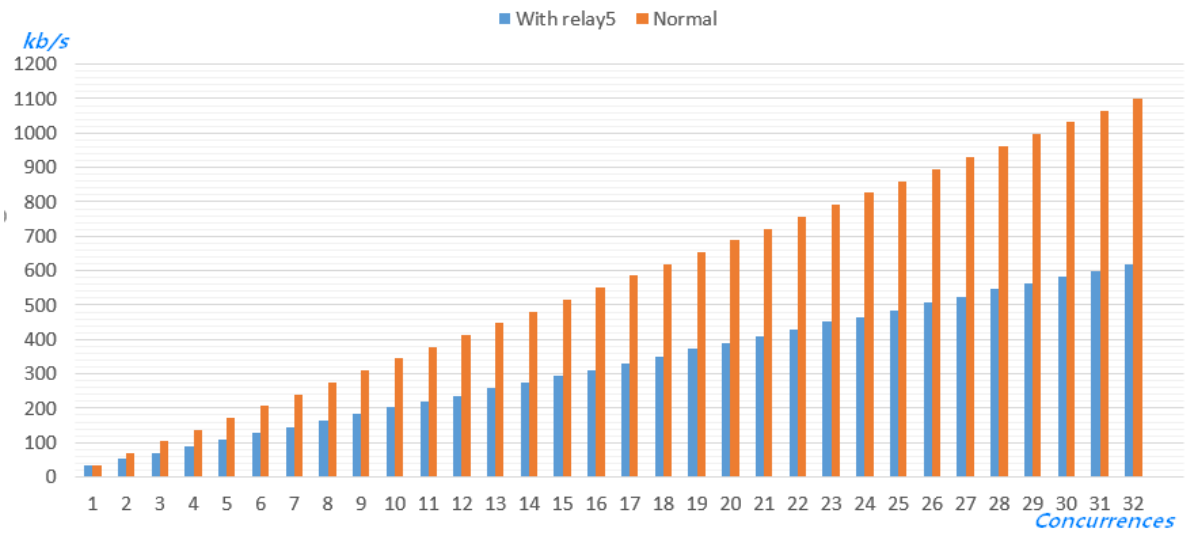
New Relay Server Beta Release

1. Overview

In order to reduce the GoIP voice data bandwidth, Hybertone Technology has developed a New Relay Server, namely Relay5(beta), which incorporates a special RTP compression algorithm.

The diagram below shows the voice data bandwidth usages for both the current and the new beta Relay Server when using the G.729 codec. The x-axis shows the number of voice channels. The y-axis shows the actual data bandwidth (kb/s) consumed. The orange bars shows the data bandwidth when using the current relay server. The blue bars shows the data bandwidth when using the Relay5.



As demonstrated in the diagram above, the more channels are deployed, the more bandwidth saving is achieved. The bandwidth saving for 4 concurrent channels is 33.9% and for 32 channels is 43.8%. Please note that the test result shown is measured against a Single GoIP. This means that a GoIP-4 can only achieve a maximum bandwidth saving of 33.9% when all 4 channels are active.

We welcome all our customers to try out the new Relay5 and feedback your valuable opinions via the following means.

- Email: support@hybertone.com
- Skype: supporthybertone

2. Installation

2.1 Server Requirements

Server hardware:
Linux OS: RedHat/CentOS/debian/Ubuntu

The following extension packages must be installed in a 64-bit system.

- For RedHat/CentOS based Linux, execute the following command:

  yum install -y glibc.i686 zlib.i686 krb5-libs.i686

- For debian/Ubuntu based Linux, execute the following commands:

  dpkg --add-architecture i386
  apt-get update
  apt-get install lib32z1-dev
  apt-get install libgssapi-krb5-2:i386

2.2 Install and Execute Relay5

Login to the Server via the ID "root" and then execute the following commands:

```
//Download the installation package
wget http://118.142.51.162/update/relay5-beta-1.0.tar
//Decompress the installation package to the root directory
tar -xvf relay5-beta-1.0.tar -C /root
//Start relay5 installation
/root/relay5/run_relaysrv
//Start relay5 web management module
/root/relay5/run_sqlwebd
//Configure to start relay5 automatically
source /root/relay5/autostart.sh
```

The relay5 can run concurrently with the current relay server in the same computer. They are using different listening ports. The relay5 are using the following ports:

TCP	31080 , 2701 , 9089
UDP	2701 , 5000~60000

If a firewall is current running in your network, please note that the corresponding ports must be open for incoming external traffics.

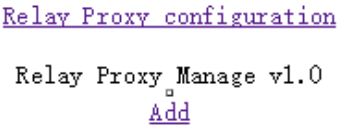
3. Setup

3.1 Configurerelay5

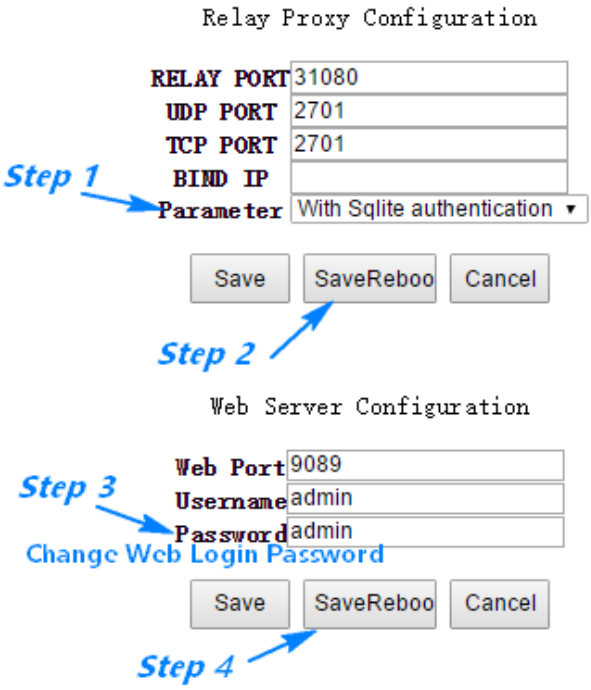
Enter the following URL in a browser to access the webpage of the relay5 as shown below.

http://<servercomputer IP>:9089/

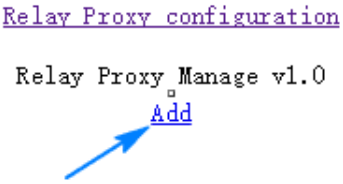
The login ID and password are both preset to "admin".



Click on "Relay Proxy configuration" to see the default settings. The recommended settings are shown below. It is also recommended to change the login ID and password.



After step 4 is completed, please wait at least 30 seconds for the relay5 to restart itself before accessing the relay5 web server (http://<servercomputer IP>:9089) again. Now, you should use the new password to login. You can then click "Add" to add a new GoIP client to the relay5.



- *"Agent" is a group reference name used to categorize GoIPs. It would be useful if you have GoIPs from different group registering to the relay server.*
- *"username" is the name that you must programmed in a GoIP that is going to register to the relay server.*
- *"password: is the password for the username above.*

3.2 Configure GoIP

Please note that only the firmware version***GST1610-1.01-57-t2****or newer can support* relay5 with bandwidth saving capability. If your current firmware has the prefix ***GST1610-1.01-xx***, please upgrade it from the link

http://118.142.51.162/update/GST1610-1.01-57-t2.pkg

Please login to the GoIP webpage and then go to the Media page as shown below to configure the "Jitter Buffer" and the "Media NAT Traversal" settings accordingly. The "username" and "password" must match the ones programmed in Section 3.1.