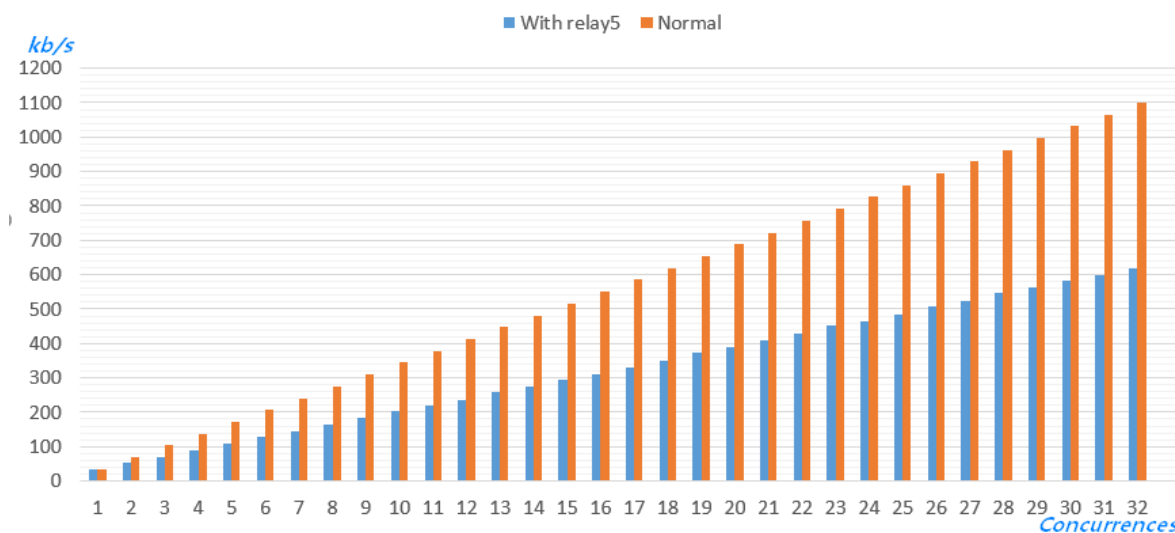


New Relay Server Beta Release

1. Overview

In order to reduce the GoIP voice data bandwidth, DBL 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@dbltek.com
- QQ: 1134418196
- Skype: support-dbl

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 Configure relay5

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

<http://<server computer IP>:9089/>

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

Relay Proxy configuration

Relay Proxy Manage v1.0
Add

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.

Relay Proxy Configuration

RELAY PORT	31080
UDP PORT	2701
TCP PORT	2701
BIND IP	
Parameter	With Sqlite authentication ▾

Step 1 →

Save SaveReboot Cancel

Step 2 →

Web Server Configuration

Web Port	9089
Username	admin
Password	admin

Step 3 → Change Web Login Password

Save SaveReboot Cancel

Step 4 →

After step 4 is completed, please wait at least 30 seconds for the relay5 to restart itself before accessing the relay5 web server (<http://<server computer 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.

Relay Proxy configuration

Relay Proxy Manage v1.0
Add

- “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.

Add User

Agent	WhateverName	It is just a Mark.
Username	username	For GoIP register
Password	password	For GoIP register

Add Cancel

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://dbltek.com/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.

Media	
RTP Port Range	16384 - 32768
PacketLength (ms)	20
Jitter Buffer	Adaptive
MinDelay	40
MaxDelay	360
Media QoS	None
Media Encryption	None
<input type="checkbox"/> Symmetric RTP	
Media NAT Traversal	Relay Proxy
Address	202.114.186.93
Port	31080
User Name	username
Password	*****
<input type="checkbox"/> Encryption	
Relay Mode	4
Backup Relay Server 1	
Backup Relay Server 2	
Backup Relay Server 3	
Backup Relay Server 4	
RTP Disconnect Detect(s)	0
Audio Codec Preference>>	
<input type="button" value="Save Changes"/>	