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Sounding Better!

Key Server Over the Internet

By Cristhian Bermudez

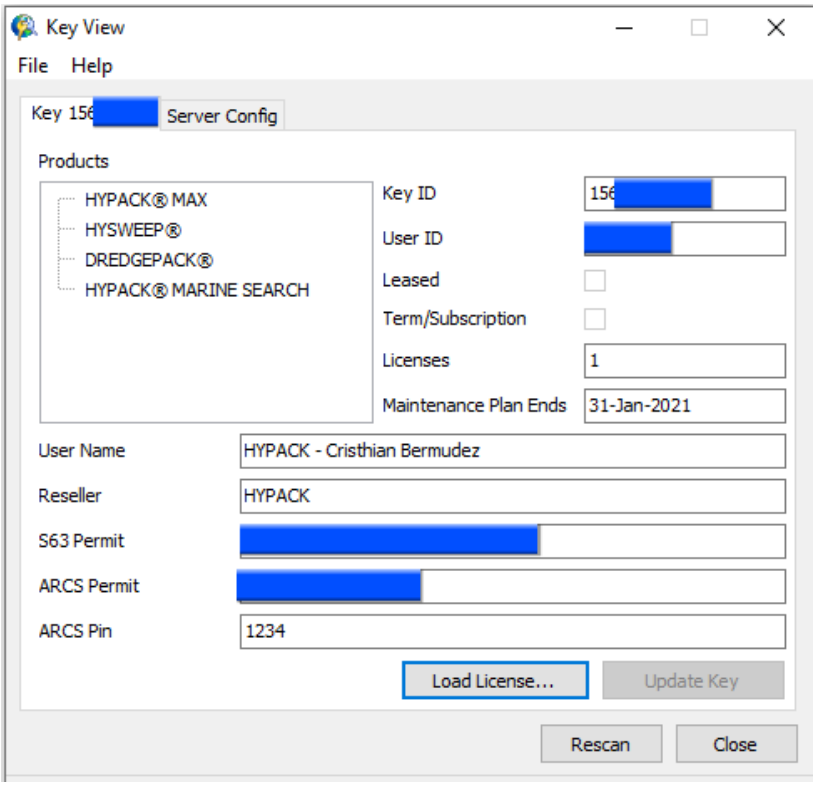
We have received a couple of questions asking about possible ways to use the key server over Internet. When you are working in the LAN it is very straight forward; you only have to start the server and, in the remote computer, enter the IP address, the port and the host user ID.

LAN SERVER

First, I am going to explain how you can start the key server to test it in LAN.

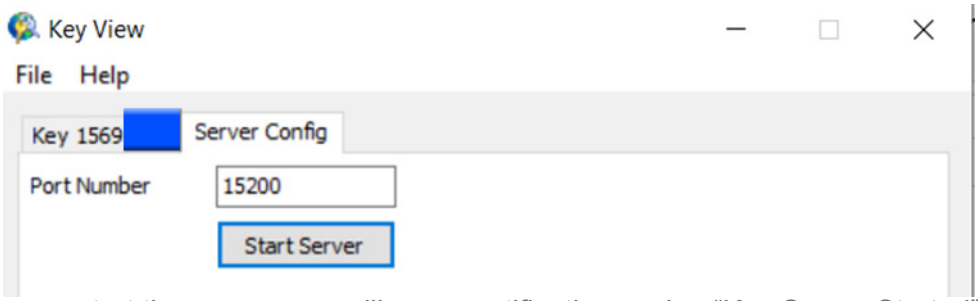
1. **On the Server computer, do the following:**
   a. **Connect the dongle to your computer that is going to work as the server**.
   b. **Open the License Manager.** Select SETTINGS - LICENSE MANAGER or double-click the C:\Hypack 2020\keyview.exe file.
   c. **Check whether the program recognizes the key**.

FIGURE 1. License Manager



d. **In the Server Config Tab, insert a port number (leave the default port) and press [Start Server]**.

FIGURE 2. License Manager, Server Config Tab

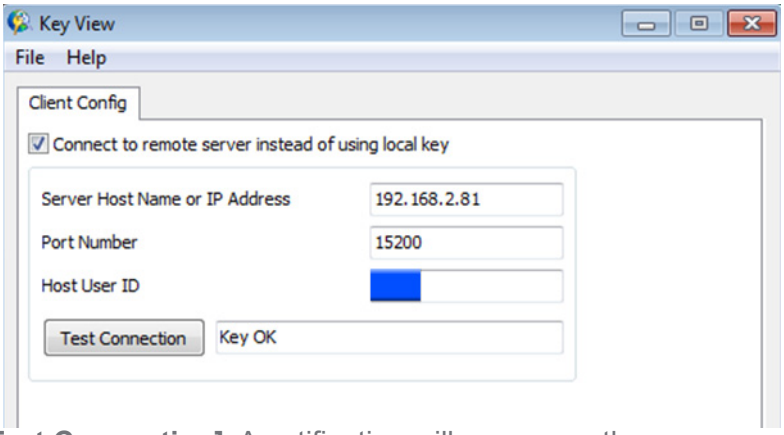


When you start the server, you will see a notification saying “Key Server Started”:

FIGURE 3. Key server started notification

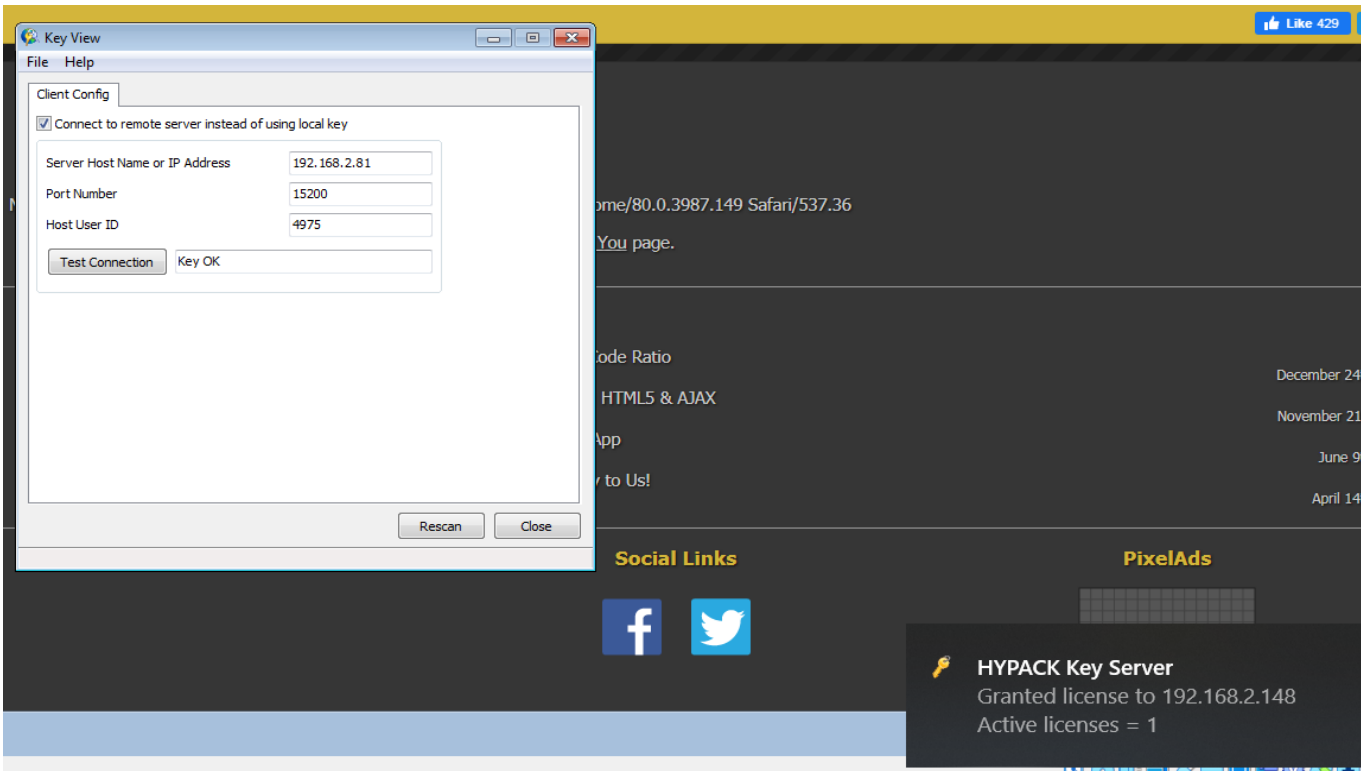
2. **On the remote computer do the following:**
   a. **Open the License Manager**, as in step 1b. The program will show a different License Manager because it is not recognizing any dongle connected.
   b. **Enter the IP address of the server.** Remember, in this example, I am doing this in the LAN.
   c. **Enter the Port and the User ID**.

FIGURE 4. License Manager in the Remote Computer



   d. **Press [Test Connection].** A notification will appear on the server computer showing the IP address from the client and the licenses available for more remote connections.

FIGURE 5. Client Connected to the Key Server



IMPORTANT: If you have the firewall enabled or an antivirus, you will need to make an exception or turn it off because it will interfere in the connection.

INTERNET SERVER

I found two ways to make the server work over the Internet.

- Using the port forwarding feature in the router/modem of your service provider or
- Using a VPN.

I am going to explain both:

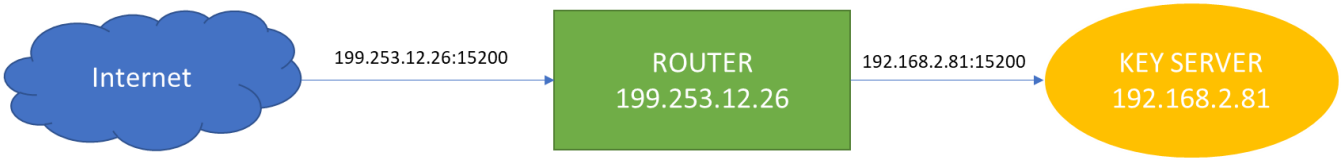
PORT FORWARDING

This method requires some knowledge about networking; however, I am going to explain all of the steps to achieve this. Before starting with the steps, let's look at some basic concepts.

By default, all of the connections from your computer are processed by the router using the Default Gateway that connects your Local Network (LAN) with the Internet (WAN). When a remote computer wants to access to your Key Server, the router needs to forward the connection to the LAN.

In the following example, the remote computer tries to be connected to the IP address 199.253.12.26 using the port 15200. That IP address is the public IP of the router. If we don't have a port forwarding enabled, the router will do nothing. When the port forwarding is enabled, the router receives the request and will forward it to the IP address 192.168.2.81.

FIGURE 6. Port forwarding schema



There is an alternative if you don't want or know how to configure port forwarding, you can put your Key Server in what is called DMZ. That is an area in your router where your computer is exposed to the Internet. It will simplify the configuration; however, it's more likely to receive hack attacks.

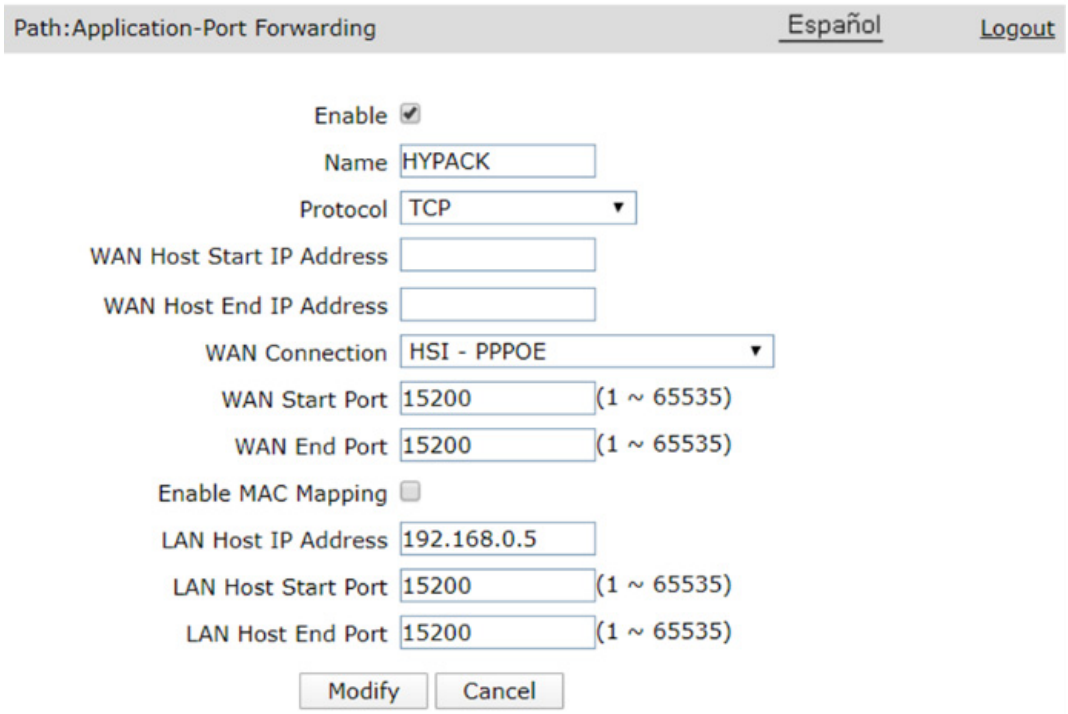
When you configure the port forwarding method you can share your license with any user over Internet. It's only necessary to enter the IP address of the router.

Let's start with the configuration:

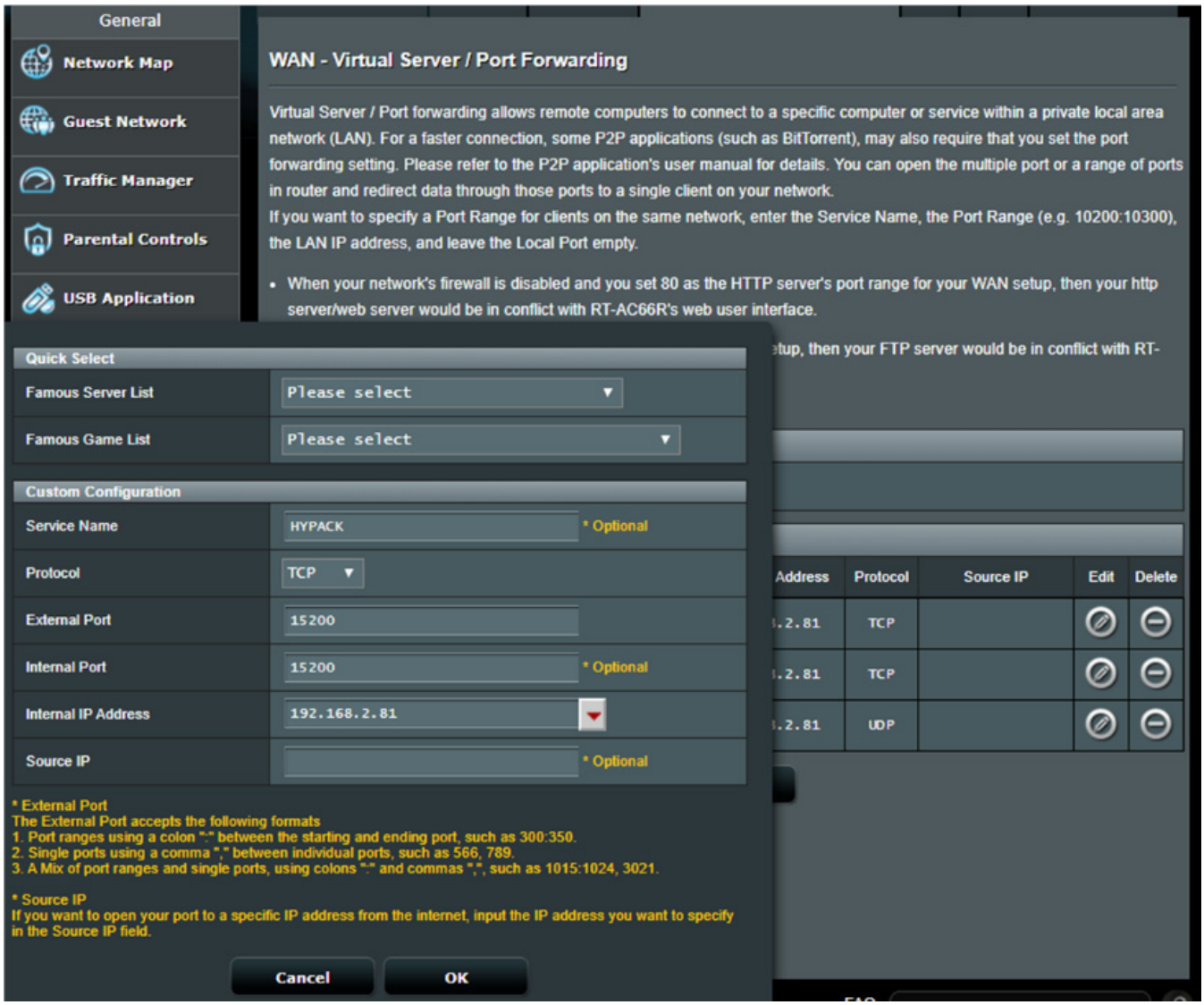
1. **You have to start the server** in the same way I explained before.
2. **Enter to the router/modem of your service provider, find the Port Forwarding section, and enter the Port and Local IP Address** that is going to be receiving the incoming connections.

   In the following images there are a couple of examples: (a) Configuration in a ZTE Modem/Router from the ISP, (b) Configuration in my ASUS Router.

Port Forwarding Configuration: ISP Router/Modem



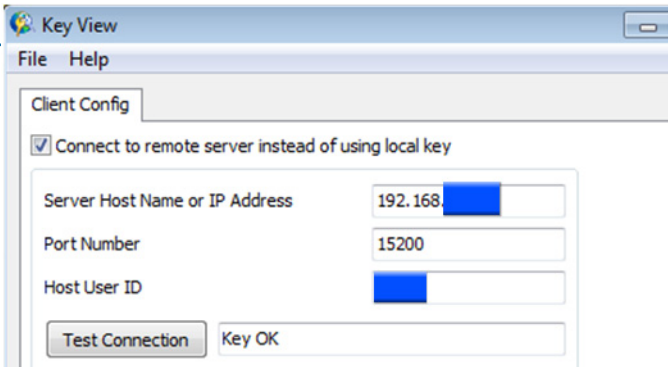
Port Forwarding Configuration: Asus Router



As you can see in both examples, I entered the port 15200 (default HYPACK® Key Server). I also entered the host IP address or internal IP address where the router will redirect the requests.

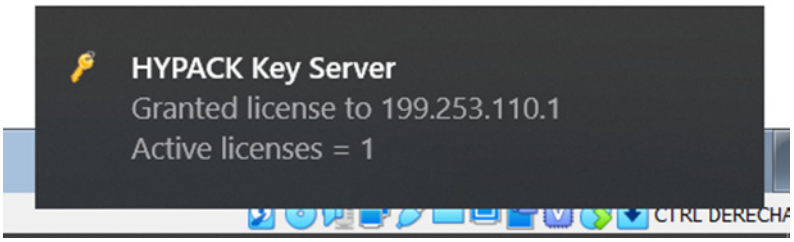
3. **In the remote computer, enter the public IP address of the router.**

FIGURE 6. Key Server Client.



4. **Press [Test Connection].** A notification appears in the server computer, showing the public IP address of the client.

FIGURE 7. Connection Success



Forwarding ports, it's only possible when you have a router/modem with a service provider. It's not possible to have this feature when you share Internet with your cellphone or use a USB modem. In that case, you can use the VPN.

VPN

The VPN allows you to have a Local Area Connection over the Internet; thus, the configuration is the same as the method I explained at the beginning of the article.

NOTE: When you have a VPN, Both computers must be on the same VPN network; only the users in the same VPN network will have access to the key server.

1. **Start the key server.**
2. **In the client computer, enter the VPN IP address.**

FIGURE 8. Connection Success Using a VPN