Technical user manual for the client service application.

ProEP Chat Application

Gustavo Braynner Carvalho

Kyrill Cousson

Mani Hamidisafa

Clement Le Fay

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Configure the service using IIS.

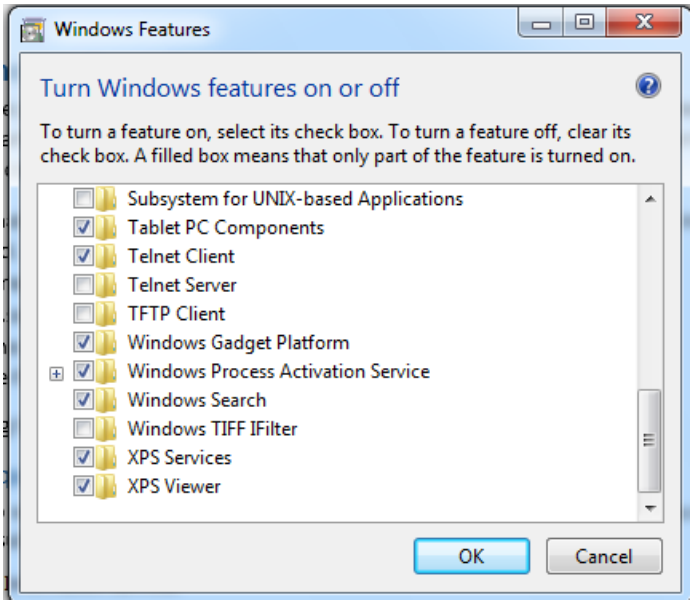
The service can be published on a local IIS, only if all the clients are connected to the same network without any 3rd party application (like a VPN). Deploying the service that is hosted in Internet Information Services (IIS) consists of the following tasks:

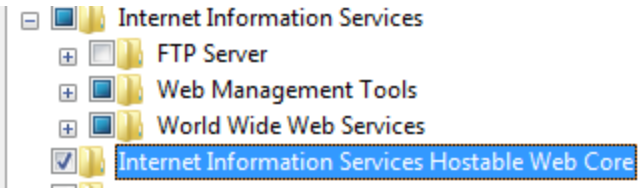
- Ensure that IIS, ASP.NET, WCF, and the WCF activation component are correctly installed and registered.
- Create a new IIS application, or reuse an existing ASP.NET application.
- Create a .svc file for the WCF service.
- Deploy the service implementation to the IIS application.
- Configure the WCF service.

Now we are going to discuss each step in more detail

Ensure that required features are installed and registered.

You can access to windows features just by typing **"Windows features"** in the start menu and selecting the appearing result "**Turn Windows features on or off**".

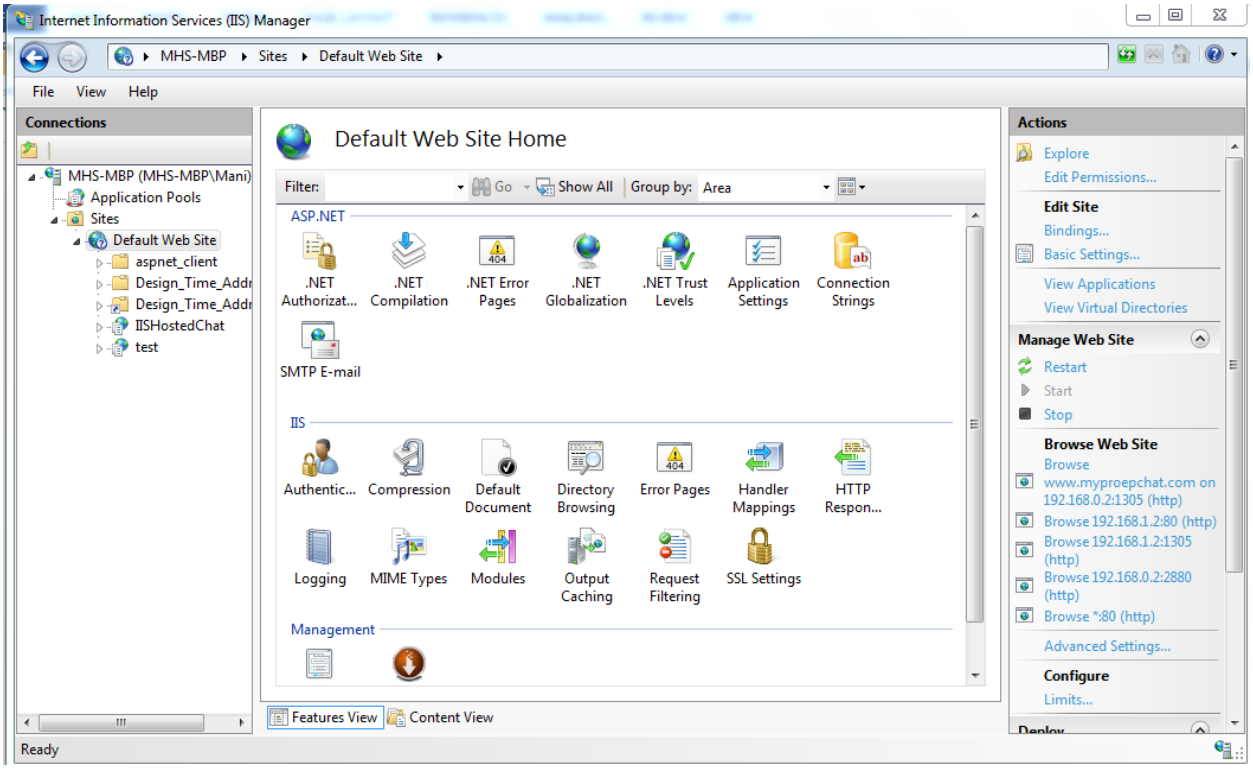




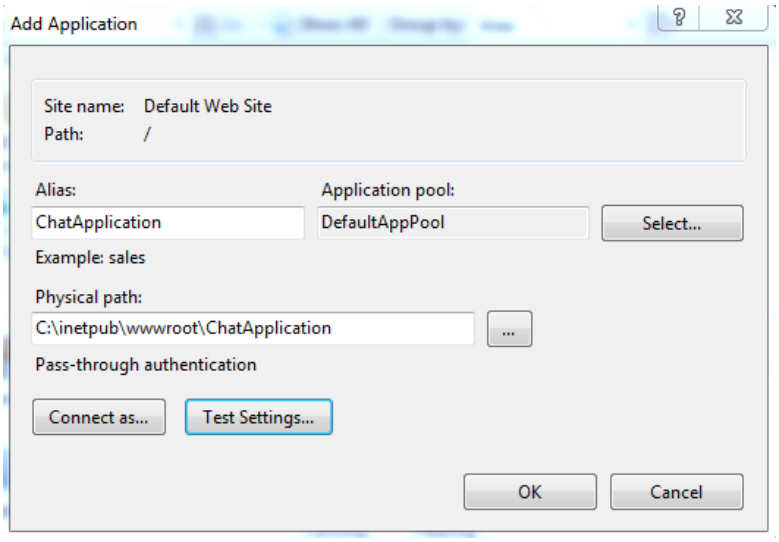
You need to make sure that the parts that are shown in the above figures are selected (in the first figure make sure about **Windows Process Activation**), otherwise select them manually and then click OK. It is possible that you need to wait several minutes so that required features will be installed on your operating system. After this process, it is strongly recommended to restart the machine.

Create a new IIS application

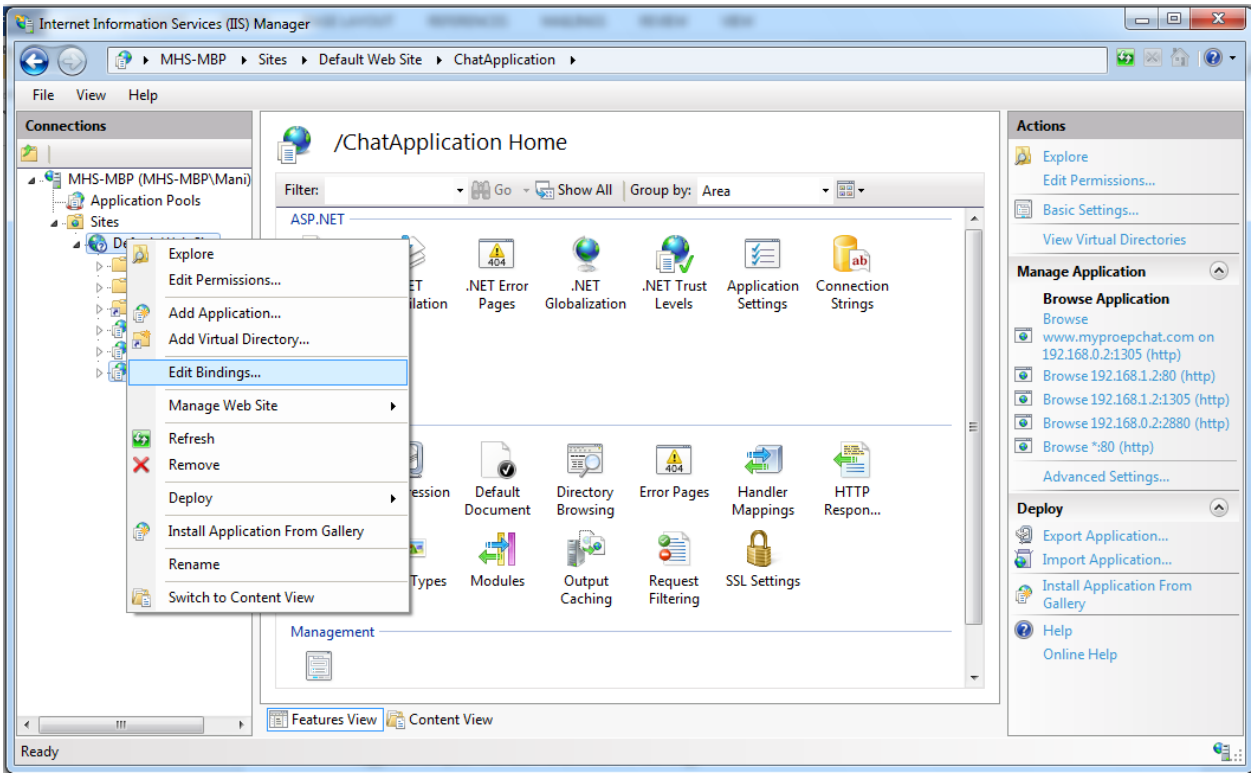
You can find your IIS manager in your administrative tools or by simply typing "**iis**" in your windows menu. Open the IIS manager in order to create a new IIS application which will host your service over the network for other clients.



This is how the IIS looks like when you open it. You have to right click on **Default Web Site** that you have under your main root and select **Add Application.**

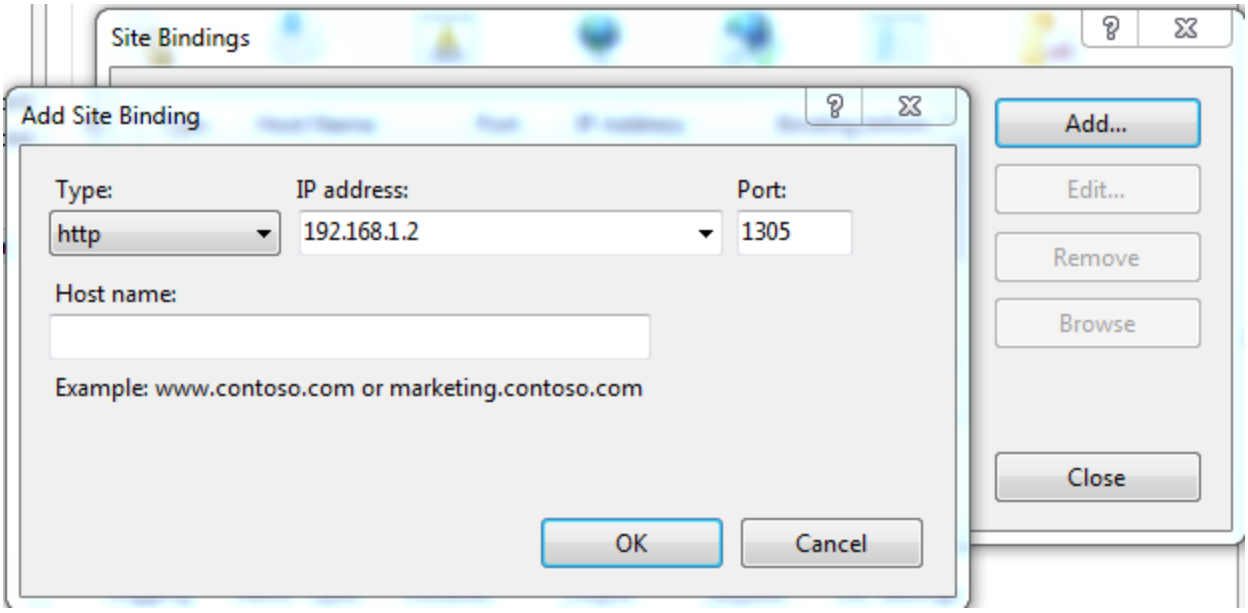


You have to fill up the appearing form according to above figure (Make sure that the physical path exists before you click OK). This will create a new application in your DefaultAppPool.



Next, you have to right click on **Default web site** and choose **Edit Bindings…**

In appearing window you can add the required binding according to following figure. IP address should be the IP address of hosting server but port should be 1305 according to application configurations.



Now you can copy the contents of "**ChatApplicationService**" folder handed to you in final delivery to the defined physical path. The next 3 steps have been taken care of by development team. If you have all features installed and updated, your service will be hosted on defined IP address.

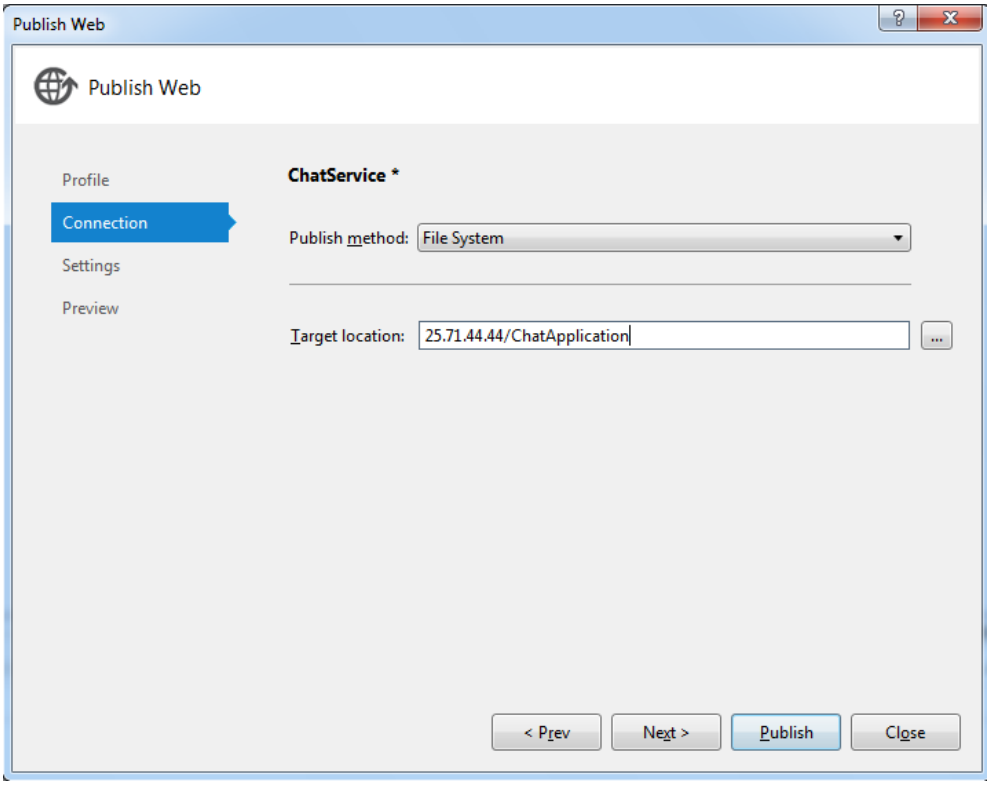
Configure the service using LogMeIn Hamachi.

Hamachi Client on Server Side.

In order to publish the service over the address provided by Hamachi for your server machine, it is necessary to have Visual Studio running for at least one time. This can be done by the development team over your network in case that you do not have access to this software.

If you have access to this program, the following steps need to be done: (Please note that you should be logged in on your Hamachi client before starting)

1- Open the **ChatService.sln** from the Service solution folder.



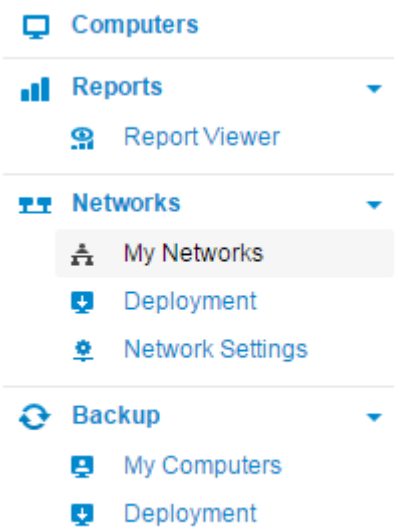
2- Select **Publish** from **Build** Menu.
3- In **Connection** tab, you should write (**IP address provided by Hamachi/ChatApplication)** in **Target location** field.
4- Click Publish Button.

This will make the service available for the clients connecting to your network.

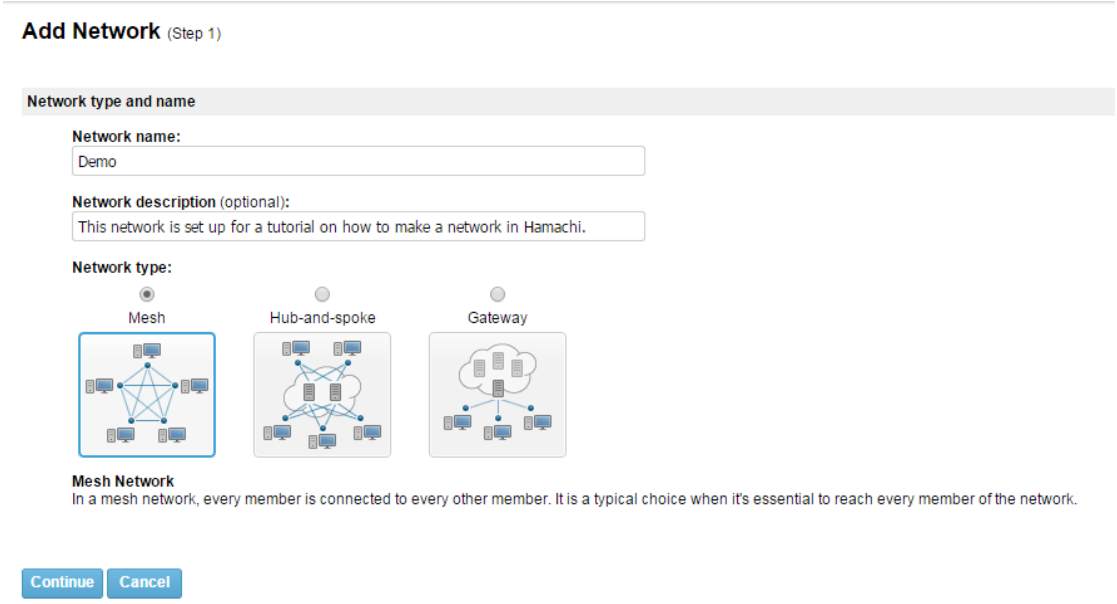
How to setup a network in Hamachi

LogMeIn Hamachi client needs to be installed and configured on the machine that is going to host the service for the rest of the clients. In order to set up a network, the technical

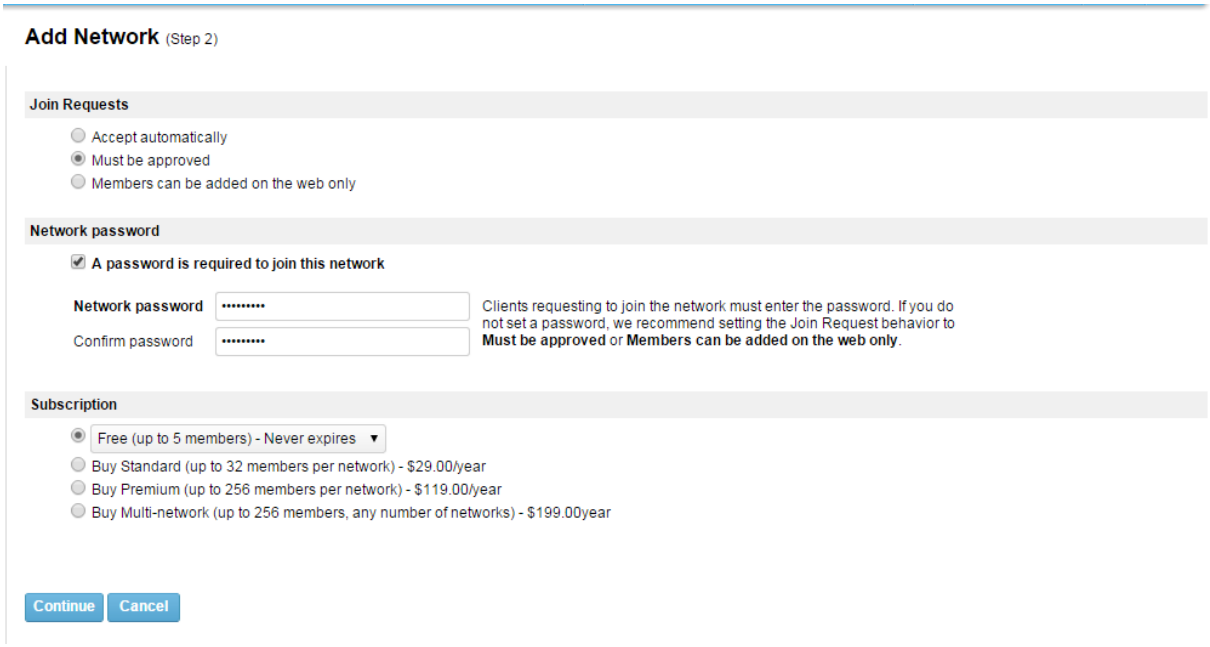
user/network administrator has to log in to Hamachi account that is responsible to host the VPN for the rest of users in the LogMeIn website.
(https://secure.logmein.com/central/Central.aspx)



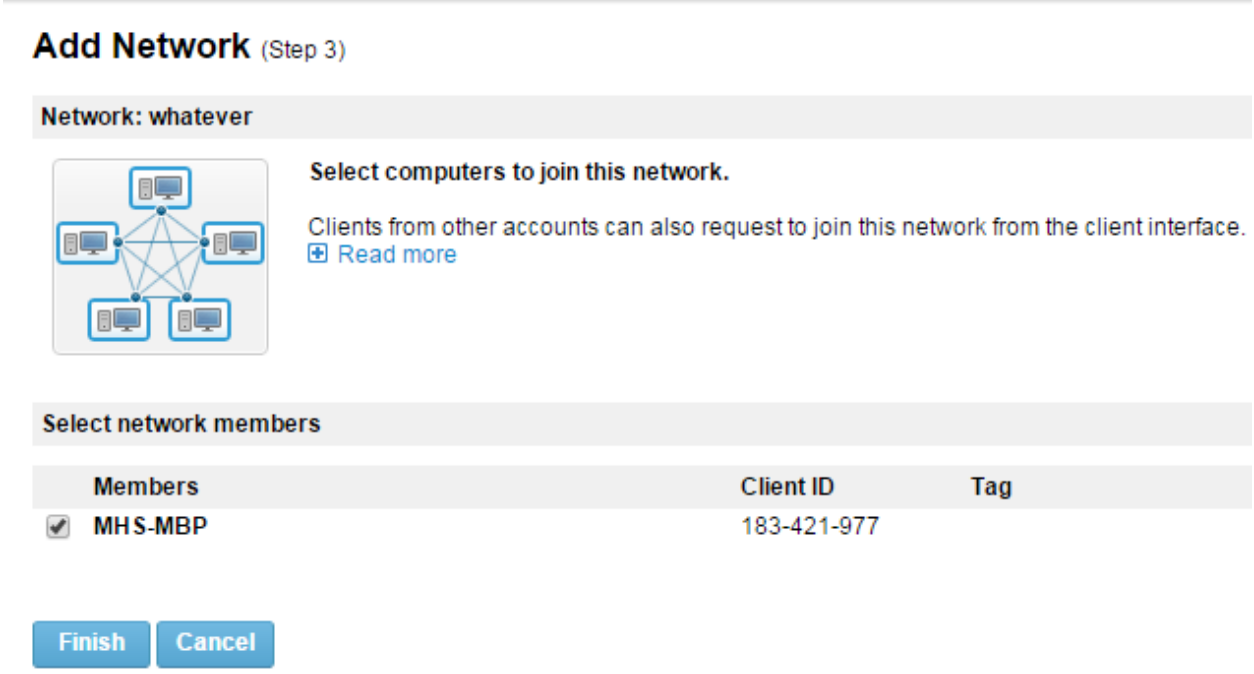
1- From the left administrative panel, go to **Networks** sub-panel and choose **My Networks.**
2- Click on **Add Network** in the right window in order to setup a new network.



3- As it is shown in the above figure, you have to define a **Network Name** and you can put a description for your network if necessary.
4- Select **Mesh** as your **Network type** and then click **Continue.**



5- In next step configure **Join Requests** on "**Must be approved".**
6- Define a password which you will later provide to your network in order to connect to you.
7- You can select the **Subscription** type according to your needs and click **Continue.**

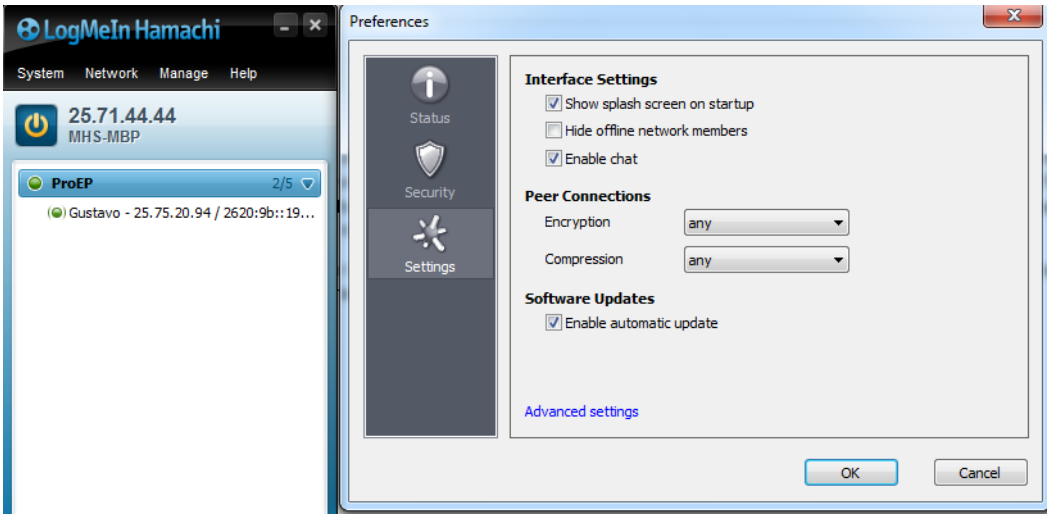


8- In the final step, you can add your host computer to the network and Finish the process to have your network.
9- You can provide your network with the **Network Name** and the **Password** so they can connect to your network to use your services

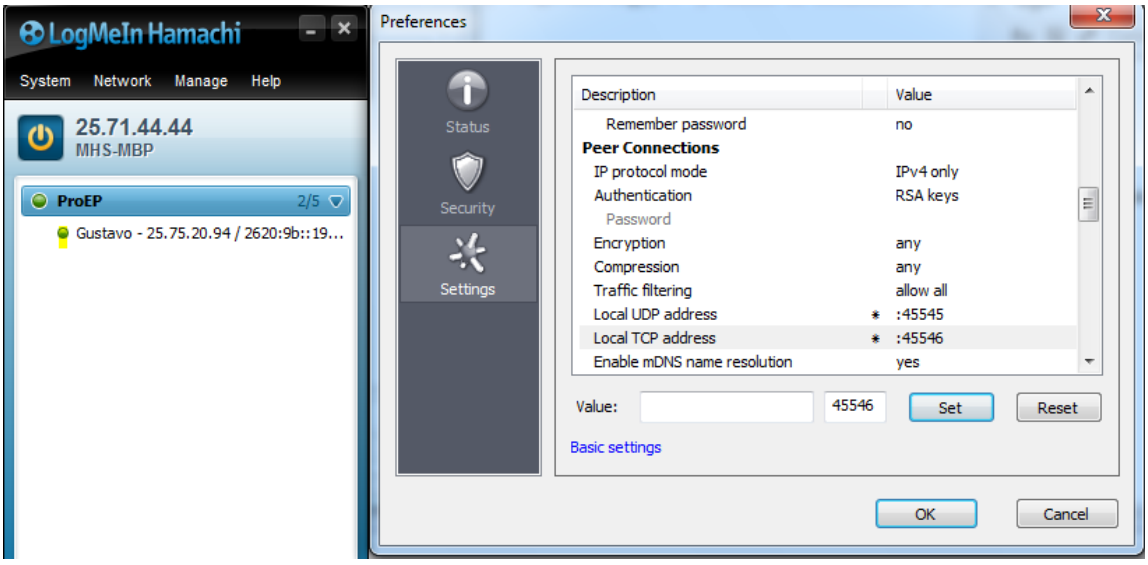
Maintenance possible problem (The blue dot).

It can happen while using Hamachi that one or more than one client get through relay tunnel instead of direct tunnel to get connected with the server. A blue dot instead of a green dot beside the name of the client shows this situation in Hamachi client. This means that there will be only UDP transfer between the client and the server and all the TCP packets will be blocked.

In order to fix this problem, the technical user/network administrator needs to do some configuration on Hamachi client and router on server side.



1- Open “Preferences” from System Menu.
2- Direct to “Settings” tab from the navigation bar on the left side.
3- Click on “Advanced settings”.



4- In **Peer Connections** part of the advanced settings, it is required to change the following items:
    a. IP protocol mode -> IPv4 only (in case you are not using IPv6).
    b. Encryption -> Any.
    c. Compression -> Any.
    d. Traffic Filtering -> Allow all (if you trust the traffic from the incoming client, otherwise you can choose block untrusted).
    e. Local UDP address should be set on one free port (we use 45545 in this document).
        i. **Be sure to click on "Set" button after defining the port.**
    f. Local TCP address should be set on one free port (we use 44546 in this document).
        i. **Be sure to click on "Set" button after defining the port.**
    g. Click "OK" button to save the configuration, and turn off the Hamachi client.

So far, we configured Hamachi client in a way that we need. Now it is necessary to do a port forwarding on the router. There are different interfaces for different routers, but usually the steps for doing it is like the following:

1- Login to your router settings.
2- Find the "port forwarding" item under advanced settings tab.
3- Set up a new rule for the router.
4- Enter a descriptive name for this new rule.
5- In the protocol filed, select TCP/UDP.
6- In the "Starting port" enter "The port you are using for Local UDP address in Hamachi" (45545 in this case).
7- In the "Ending port" enter "The port you are using for Local TCP address in Hamachi" (45546 in this case).
8- In the Server IP Address field, enter the IP address of your local computer that will provide this service.
9- Confirm this configuration.

After these configurations you usually need to restart your router and wait for it to return to stable situation. Now you can turn on Hamachi client again and all the clients will be connected through a direct tunnel (with green dot).