



LogMeIn Hamachi² – Getting Started

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What Is LogMeIn Hamachi²?

LogMeIn Hamachi² is a virtual networking service that can be set up in minutes and enables secure remote access to your business network anywhere there is an Internet connection.

Unlike traditional hardware and software based VPN systems, Hamachi² is an on-demand virtual networking service that allows you to focus your time and energy on providing the remote connections your users and systems need, and not the technology or infrastructure you are using to support them.

Who Should Use LogMeIn Hamachi²?

Here are a few examples of how you can take advantage of Hamachi².

IT Support: Building a Mobile Office LAN

Many mobile workers use their laptops in the office while connected to their company's shared resources (file servers, network printers, mail servers, etc.). But if a user moves away from the local network, he will no longer be able to access these resources. Software that is configured to work *inside* the office becomes useless *outside* the office.

Using Hamachi², mobile workers become members of a Hamachi² network wherein all shared resources are also network members. As a result, network configurations can remain unchanged. Hamachi² sets up exactly the same networking environment for the mobile user no matter where he is.



Tip: **Hub-and-spoke** and **gateway** are the best networking modes for this scenario.

IT Support: Setting Up Network Access for Home Workers

Home workers can be more productive when they have secure access to shared IT resources. Using the Hamachi² client, home workers gain a secure tunnel directly into their company's network. They can work from home and still access the resources they need.



Tip: **Hub-and-spoke** and **gateway** are the best networking modes for this scenario.

Outsourced IT: Managing Multiple Networks

A service provider with a number of administrators on his team wants to set up and maintain multiple Hamachi² networks for multiple customers. He uses **LogMeIn Central** to create Hamachi² networks, deploy Hamachi² clients, and apply default and custom settings for each customer. He can also manage other administrators in his organization, generate client activity reports, and manage network activity.

Small to Medium Sized Organizations: Virtual LAN

Organizations without a physical LAN can use the mesh network type to set up a virtual corporate LAN.

The LogMeIn Hamachi² Client

The term Hamachi² client refers to both the Hamachi² software itself and any computer with Hamachi² client software installed. With proper permission from network owners, Hamachi² clients can become members of any Hamachi² network.



Figure 1: The LogMeIn Hamachi² client for Windows



Figure 2: The LogMeIn Hamachi² client for Mac

About the Relationship Between the Client and Your LogMeIn Account

The Hamachi² client can be used in Client-only (unattached) mode as a stand-alone service with no relation to a LogMeIn account, or in web management mode as an attached member of a LogMeIn account.

Client-only mode: Unattached

The term Unattached client refers to any Hamachi² client that has not been added to a LogMeIn account and is being used in Client-only mode. Unattached clients cannot be managed on the web using the My Networks page or LogMeIn Central. It can still join existing networks and create mesh networks.

Web management mode: Attached

The term Attached client refers to any Hamachi² client that has been added to a LogMeIn account. Any LogMeIn account holder can manage attached clients on the web using the My Networks page, while LogMeIn Central subscribers can use LogMeIn Central.

About the Hamachi² Virtual IP Address

Every Hamachi² client has one virtual IP address in the 5.x.x.x range. The virtual IP address is globally unique and is used to access the client from any other Hamachi² network with at least one common mesh or hub-and-spoke network.

The virtual IP address does not conflict with any other IP ranges and therefore has no impact on standard network communications.

LogMeIn Hamachi² Network Types

LogMeIn Hamachi² provides three network types for flexibility in meeting diverse use case scenarios. They differ mainly in network topology.

Hamachi² clients can be members of any network; however, there is a limit of 16 members per network for a non-commercial license, or 256 per network owned by a commercial license holder or LogMeIn Central subscriber.

About Mesh Networks

In a mesh network, every member is connected to every other member.

Organizations without a physical LAN can use the mesh network type to set up a virtual corporate LAN.

Mesh is also the typical choice for gamers, because network games constantly have to broadcast their current status to all other participants in the game.



Figure 3: Mesh network



Note: Mesh is the only network type that can be created directly from the Hamachi² client interface.

About Hub-and-Spoke Networks

In a hub-and-spoke network, one or more computers act as hubs, while other clients connect as spokes. Spokes connect to hubs, but never to each other.

Hub-and-spoke is typically used when a workstation (spoke) needs to connect only to servers (hubs). For example, in a library, the catalog is a hub while workstations accessing the catalog are spokes. Hub-and-spoke is ideal if you want strict control over connections between network members.



Figure 4: Hub-and-spoke network



Important: If you set every member of a hub-and-spoke network to be a hub, you essentially turn the network into a mesh network. Similarly, if you set only spokes, your members will be unable to make a connection.

About Gateway Networks

Use the gateway network type to provide transparent access to your entire network from a centralized Hamachi² gateway. Members of a gateway network, such as mobile workers, will see one computer acting as a gateway towards an entire LAN, thus making all network resources accessible.



Figure 5: Gateway network



Tip: Theoretically, a hub-and-spoke network would also be a good choice for enabling mobile LAN access; however, all shared resources would also need to be running the Hamachi² client and be set up as hubs. This is fine insofar as these shared resources are servers with a Hamachi² compatible operating system; however, the gateway network remains the best option since Hamachi² currently cannot be installed on network devices such as printers, routers, access points, etc.



Important: Mac hosts cannot act as gateway nodes.

Characteristics

The gateway network type is a hybrid of the meshed and hub-and-spoke network types:

- As in a hub-and-spoke network, one computer acts like a hub (the gateway), while members act like spokes
- There can only be one gateway, which is typically a permanently online server connected to the LAN
- The number of members is virtually unlimited since even network devices that are not running the Hamachi² client can be considered members
- Each member (Hamachi² client) will see the gateway and the other members of the gateway's LAN
- Hamachi² clients will not see each other in a gateway network

Restrictions

For technical and security reasons there are strict rules for both the gateway and members:

- The gateway cannot be a member of any other network
- Members can join more than one gateway network, but can only be online in one network at a time. Gateway members can also be members of multiple non-gateway networks
- The gateway cannot be a workstation that is the member of a domain

Role of the Hamachi² Client in a Gateway Network

- Gateway network members and the gateway device itself must be running the Hamachi² client
- Network devices that are physically connected to the LAN do not need to run the Hamachi² client to be made accessible to gateway network members

Addressing

Gateway networks integrate smoothly into the LAN in terms of addressing. 5.x.x.x addresses are not available for a gateway network. Instead, the local address space is used.

Managing LogMeIn Hamachi² Clients and Networks

Hamachi² Web Management Features

Any Hamachi² user with a LogMeIn account can manage attached clients and networks using the LogMeIn web site (My Networks page).

- Create mesh, hub-and-spoke, and gateway networks
- Manage the default settings to be applied to a new client
- Remotely manage client settings
- Manage the default settings to be applied to a new network
- Edit or delete existing networks
- Install the Hamachi² client to the local computer
- Deploy the Hamachi² client to a remote computer
- Manage requests to join Hamachi² networks

Hamachi² Client Management Features

Hamachi² clients provide access to the following features:

- Create mesh networks
- Manage the default settings to be applied to a new network
- Edit or delete existing networks
- Install the Hamachi² client to the local computer
- Deploy the Hamachi² client to a remote computer
- Manage requests to join Hamachi² networks

Commercial versus Non-Commercial Use

Hamachi² is free for non-commercial use and allows up to 16 computers per network.

The commercial version offers fast relays, allows up to 256 computers per network, and is subject to an annual subscription fee.

LogMeIn Hamachi² Security

All LogMeIn Hamachi² communications are encrypted and authenticated with industry-standard algorithms and protocols. Nobody will be able to see the data transmitted between two Hamachi² peers. For detailed information, see the [LogMeIn Hamachi² Security Whitepaper](#).

LogMeIn Hamachi² and Firewalls

If running a firewall application, you may need to ensure that Hamachi² is able to access the Internet.

Please refer to the [LogMeIn Hamachi² Knowledge Base](#) for up-to-date information for working with various popular security suites.

Installing LogMeIn Hamachi²

System Requirements

Hamachi² client

- Windows Operating System: Windows XP, Windows 2000, Windows 2003, Windows Vista, Windows 2008, or Windows 7
- Mac Operating System: Mac OS 10.4 (Tiger), v10.5 (Leopard), or v10.6 (Snow Leopard) on Intel-based Macs
- Internet connection
- There are no special hardware requirements

How to Install the Client to a Local Computer

Follow this procedure to download and install the Hamachi² client to a local computer. The client will be attached to your LogMeIn account.



Important: You must be logged in to the LogMeIn account to which you want to attach the new Hamachi² client.

1. On the LogMeIn web site, switch to Network mode and click **Add Client**.
The **Add Client** page is displayed.
2. Select **Install LogMeIn Hamachi² on this computer** and click **Continue**.
3. Click **Install LogMeIn Hamachi²**.
The Hamachi² installer is launched.
4. Follow the on-screen instructions.

The client is installed on the local computer as an attached member of the active LogMeIn account. You will be able to manage this client using the LogMeIn website.

How to Deploy the Client to a Remote Computer

Follow this procedure to send an installation link that the recipient can use to download and install the Hamachi² client. The client will be attached to your LogMeIn account.



Important: You must be logged in to the LogMeIn account to which you want to attach the new Hamachi² client.

All defaults set under **Configuration > Client Defaults** will be applied to the new client(s).

1. On the LogMeIn web site, switch to Network mode and click the **Deployment** link.
2. Click **Add New Link**.

-
- The **Deploy LogMeIn Hamachi² to remote computer(s) (Step 1 of 2)** page is displayed.
3. Type a **Description** that you can use to recognize your installation link.
 4. In the **Maximum number of remote installations** box type the maximum number of computers that will be able to use the link to install the Hamachi² client.
For example, you may want to send the link to all users in an entire department.
 5. In the **Expiration** field you may choose when you want the validity of the link to expire.
 6. Select the **Network(s)** that you want the client to be able to access.
 7. Click **Continue**.
The **Add Client - Send LogMeIn Hamachi² Installation Links - Step 2 of 2** page is displayed.
 8. Send the link to the recipient(s):
 - Click **Copy** to place the link onto your clipboard for you to paste into an email or instant messaging service message to send to the user(s)
 - Click **Send** to open your default email client with the link in the body of the message for you to send to the user(s)
 - Click **Test** to view the message that will be displayed when the recipient clicks the link

The link is sent to the recipient.

The recipient must click on the installation link to actually install the client on the chosen computer. Once installation is complete, the client can be used to create and connect to Hamachi² networks.

How to Install a Windows Client in Client-Only mode

Follow this procedure to download and install the Hamachi² client without associating it with a LogMeIn account.



Important: Do not log in to your LogMeIn account.

1. Go to the LogMeIn Hamachi² product page.
2. Click the **Get Started** link.
3. Do not create a LogMeIn account.
4. Click the **Download Now** link at the bottom of the page.
The Hamachi² installer is launched.
5. Follow all on-screen instructions.

How to Install the Hamachi² for Mac Client in Client-Only mode

The Hamachi² for Mac client comes as a single executable package. This package includes the setup utility.

To install LogMeIn Hamachi² for Mac, do the following:

1. Double-click on the DMG package that you have downloaded from the LogMeIn website to extract it.
2. Double-click on the extracted PKG file to start the installation.
3. On the **Introduction** page, click **Continue**.
4. On the **License** page, click **Continue** and accept the license agreement.
5. On the **Destination Select** page, select the hard drive where you want to install Hamachi² for Mac, then click **Continue**.

6. On the **Installation Type** page, click **Install**.
7. Enter your username and password then click **OK** to start the installation process.
8. Click **Close** to exit the installer.

How to Update the Hamachi² Client

The Hamachi² client software can be updated from the client itself.

By default, the Hamachi² client downloads updates automatically when you restart your client. You should download updates manually if your client is always running or if you turn off automatic updates.

This procedure must be executed on the client.

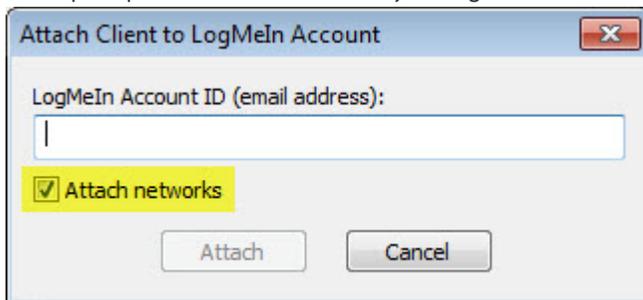
- To check whether you receive automatic updates, go to **System > Preferences > Settings** and verify that the **Enable automatic update** option is selected.
- To manually download client updates, click **Help > Check for Updates**.

Making the Transition to Hamachi² on a Windows Client

Making the transition from Hamachi to Hamachi² is a simple process.

This assumes that you were a Hamachi user without a LogMeIn account.

1. Create a LogMeIn account.
 - a) Go to www.LogMeIn.com and click **Create an account**.
 - b) Select the **LogMeIn Access, Management and Networking** product group.
 - c) Click **Continue** and follow all on-screen instructions.
2. While logged in to your account, install Hamachi² on the computer running "old" Hamachi. See [How to Install the Client to a Local Computer](#) on page 10.
3. When prompted to attach the client to your LogMeIn Account, be sure to select **Attach networks** and click **Attach**.



You will now be able to manage your Hamachi² clients and networks on the web.

Managing LogMeIn Hamachi² Networks

How to Add a Hamachi² Network

1. On the LogMeIn web site, switch to Network mode and click **My Networks**.
The My Networks page is displayed.
2. On the **My Networks** page, click **Add Network**.
The **Add Network (Step 1)** page is displayed.
3. Name the network in the **Network name** field.
Use the network name to help identify the network.
4. Select a **Network type**.
See [LogMeIn Hamachi² Network Types](#) on page 6.



Important: Once a network is created, its network type cannot be changed.

5. Enter a **Network description** (optional).
6. Click **Continue**.
The **Add Network (Step 2)** page is displayed.
7. Select the default response to join requests.

Option	Description
Accept automatically	All requests to join the network will be accepted automatically. We recommend that you require a network password when using this option.
Must be approved	All requests to join the network must be approved on the web.
Members can be added on the web only	Clients will not be able to join the network from the client. Clients can be added to the network on the web only.

8. Under **Network password**, select **A password is required to join this network** to protect your network.



Tip: If you do not set a password, we recommend setting the Join Request behavior to **Must be approved** or **Members can be added on the web only**.

9. Click **Continue**.
The **Add Network (Step 3)** page is displayed.
10. Follow the on-screen instructions.
11. Click **Finish**.
Your network is created with a system-generated Network ID.



Note: When you assign a gateway, you will lose your network connection for a few seconds while the Hamachi² virtual network adapter bridges to the physical network adapter.

How to Add a Hamachi² Network from the Client

This procedure must be executed on the client.

1. Click **Network** > **Create a new network**.
2. Type the network ID and password of the network.
3. Click **Create**.

How to Approve or Reject Join Requests

If you receive a request from another client to join your network, you can approve or reject that request.

1. On the web interface, you will see the following message when you have requests from clients waiting to join your account or networks:
You have x pending join requests.
2. Click the **pending join request** link.
The Join Requests page is displayed.
3. Choose **Accept** or **Reject**, as appropriate.
4. Click **Save**.

How to Delete a Network

1. On the LogMeIn web site, switch to Network mode and click **My Networks**.
The My Networks page is displayed.
2. On the **My Networks** page, click **Edit** next to the network you want to work with.
The **Edit Network** page is displayed.
3. Select the **Delete** tab.
4. Click the **Delete** button.
The network is permanently deleted. All client installations and client-to-account relationships are left intact.

How to Leave a Network

This procedure must be executed on the client.

1. On the client, right-click on the network that you want to leave.
2. Click **Leave network**.



Important: You cannot transfer the ownership of a network; therefore, you cannot leave a network that you created. You can only delete such networks as described in [How to Delete a Network](#) on page 14.



Note: A network owner can prohibit members leaving a network. To check if members are allowed to leave a network without the owner's permission, see [How to Edit Network Settings](#) .

LogMeIn Hamachi² Glossary

Attached client

The term Attached client refers to any Hamachi² client that has been added to a LogMeIn account. Any LogMeIn account holder can manage attached clients on the web using the My Networks page, while LogMeIn Central subscribers can use LogMeIn Central.

Gateway network

Use the gateway network type to provide transparent access to your entire network from a centralized Hamachi² gateway. Members of a gateway network, such as mobile workers, will see one computer acting as a gateway towards an entire LAN, thus making all network resources accessible.

Hamachi² client

The term Hamachi² client refers to both the Hamachi² software itself and any computer with Hamachi² client software installed. With proper permission from network owners, Hamachi² clients can become members of any Hamachi² network.

Hamachi² network

For Hamachi², a network is not a physical network, but rather a group of users who want to use common resources or applications (two or more Hamachi² clients interconnected by tunnels make up a Hamachi² network). Hamachi² offers three network types: meshed, hub-and-spoke, and gateway.

Hub-and-spoke network

In a hub-and-spoke network, one or more computers act as hubs, while other clients connect as spokes. Spokes connect to hubs, but never to each other.

LogMeIn Central

LogMeIn Central is LogMeIn's Essential Remote Services solution for IT professionals and small and medium businesses. Certain premium Hamachi² features are only available to LogMeIn Central subscribers.

Mesh network

In a mesh network, every member is connected to every other member.

NAT

Network Address Translation

Peer

A computer that is a member of a computer network.

Peer Label

The Peer Label is used to define your online presence to other Hamachi² users. This is what other users see as your identification when you are in a Hamachi² network.

Unattached client

The term Unattached client refers to any Hamachi² client that has not been added to a LogMeIn account and is being used in Client-only mode. Unattached clients cannot be managed on the web using the My Networks page or LogMeIn Central. It can still join existing networks and create mesh networks.

Unattached network

The term Unattached network refers to any Hamachi² network that was created on an unattached client. Unattached networks can only be mesh networks and they cannot be managed on the web using the My Networks page or LogMeIn Central.

VPN

Virtual Private Network

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