

How To Guides for Mac OS X

"How To" Guides for Mac OS X

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Setting Up DNS for a Home / Internal Network

How to set up [DNS](#) on your local network

This section describes how to set up DNS on your home network, or any local network. The steps are:

[Determine what names you will use on the network](#)

[Set the Local Hostname of your system\(s\)](#)

[Display the Local Domain for Web Sharing](#)

[Set up your search domains](#)

These steps are described in more detail in the following sections.

Naming the Network and the Nodes on the Network

Naming the Network

Ideally, you would like to have your own domain name for your network. You can [get a domain name](#) for under \$10/year at domain name registration sites like [A to Z Domains](#). If you own a domain name, you can create subdomains for your network(s) under it.

One option for naming your network(s) is to include the location as part of the name. For example, if you have registered the domain name [ExampleOnly.com](#) and live at "1337 Fleet Street", then your local network at home could be named FleetStreet.ExampleOnly.com. With this scheme, if you also connect to a local network someplace else, it could be named AnotherPlace.ExampleOnly.com

Naming the Node(s)

Choose a unique name for each node on the network. These names should be no more than 26 characters.

Set the Local Hostname of your system(s)

Start the System Preferences application by clicking on its icon in the dock, or, from the Terminal window, enter:

```
open -a System\ Preferences
```

and select Sharing then Edit... to navigate to the screen where the Local Host Name can be changed:

The local host name will end with .local. If it's not already set to the desired hostname, change it, and save the change. This will set the System:Network:HostNames:LocalHostName in /Library/Preferences/SystemConfiguration/preferences.plist.

Display the Local Domain for Web Sharing

Start the System Preferences application by clicking on its icon in the dock, or, from the Terminal window, enter:

```
open -a System\ Preferences
```

and navigate to the Sharing screen. If not already checked, select the check box next to Web Sharing. This will display a couple of lines that show URLs including the Local Domain name:

Your computer's website: `http:hostname.local-domain/`

Your personal website: `http:hostname.local-domain/~username/`

After you've seen the local domain name, you can deselect the check box to disable Web Sharing again.

If the local domain is not already set to the desired name, you will need to change the name of your local network. How you accomplish this depends on how you are connected to the Internet. You may need to [change the DNS settings on your router](#).

Verify the configuration

On your computer, start the Terminal application and enter hostname. If both the computer's local name and the network's local domain are set up, then you should see a fully-qualified name, such as:

```
MyMac.FleetStreet.ExampleOnly.com/
```

Set Up Your Search Domains

"Search Domains" are domains that are automatically appended to a name that you enter (in browser address field, for example). To set them up, start the System Preferences application by clicking on its icon in the dock, or, from the Terminal window, enter:

```
open -a System\ Preferences
```

and select Network, Advanced... and DNS to navigate to the screen where the Search Domains can be changed.

How To Guides for Mac OS X

To add a search domain click on the [+] under "Search Domains:". You can include your local network and the entire (global) network based on your domain name, along with any other domains you want to access more easily:

Search Domains:

FleetStreet.ExampleOnly.com

ExampleOnly.com

In this example, FleetStreet.ExampleOnly.com is the name of the local network and ExampleOnly.com is the base domain of the global network. So, to access the router administration screen on the local network, you could simply enter router in your browser's address field and you would be connected to router.FleetStreet.ExampleOnly.com. Similarly, to access a host at "AnotherPlace", you could enter the abbreviated form myHostName.AnotherPlace to connect to the host at myHostName.AnotherPlace.ExampleOnly.com.

System Configuration Utility

```
scutil
list
show key ["pattern"]
show Setup:/Network/HostNames
<dictionary> {
  LocalHostName : myhostname
}
show Setup:/Network/DynamicDNS
<dictionary> {
  RegistrationDomains : <array> {
    0 : <dictionary> {
      Domain : ExampleOnly.com
      Enabled : 0
    }
  }
}
quit
```

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