

NetInfo no hierarchy access

Q: My NetInfo won't come up correctly. Yesterday, everything worked fine; today, NetInfo times out looking for the parent server. Everything appears to be correct on my machine. What might be wrong?

A: You might have a bad *netmask*. This is especially possible if you've specified automatic acquisition of netmask information in **NetManager**:

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(In **/etc/hostconfig**, you'll see the line

```
NETMASK=-AUTOMATIC-
```

as a result of this.)

This causes the computer to query the network for the netmask. If a

machine on the network responds with an inappropriate netmask, various things in NetInfo might not work correctly.

The netmask is set in **rc.boot**, based on the settings in **NetManager**. During a verbose boot, you might see a line similar to this:

```
en0: setting netmask to ffffffff00, received from 192.42.172.1
```

The value **fffffff00** is valid; something like **ffffff** is probably an incorrect value. The **received from** clause indicates the IP address

of the machine which provided the netmask. Once the system is up and running, you can use the following to determine the netmask:

```
myhost [/me]-249% ifconfig en0  
en0: flags=8023<UP,BROADCAST,NOTRAILERS>  
    inet 192.42.172.6 netmask ffffffff broadcast 192.42.172.255
```

A typical set of symptoms of the netmask being incorrect is:

- `nidomain` shows the correct domains being served;

- you can access all the databases using a *tagged domain* specification (e.g., `niutil -read -t 127.0.0.1/local /`);
- you cannot access the databases using the domain hierarchy;
- you cannot access the local database referencing it as `.` (dot);
- you cannot access the local database using its `@real` IP address in a tagged domain specification (e.g., `niutil -read -t 192.42.172.6/local /`);

These symptoms show that the NetInfo servers are up and running, and that all the required parts of the system are also running, yet you

cannot get to NetInfo going out through the network. (You can only access it using the loopback interface `localhost`, `127.0.0.1` which doesn't go out over the network.)

QA706

Valid for 1.0

Valid for 2.0