NAME

route – manually manipulate the routing tables

SYNOPSIS

route [–**fn**] **add** | **delete** [**host** | **net**] *destination* [*gateway* [*metric*]]

AVAILABILITY

SUNWcsu

DESCRIPTION

route manually manipulates the network routing tables normally maintained by the system routing daemon, **routed**(1M), or through default routes and redirect messages from routers. **route** allows the super-user to operate directly on the routing table for the specific host or network indicated by *destination*. **default** is available for gateways to use after all other routes have been attempted. The *gateway* argument, if present, indicates the network gateway to which packets should be addressed. The *metric* argument indicates the number of "hops" to the *destination*. The *metric* is required for **add** commands; it must be **0** if the destination is on a directly attached network, and non-zero if the route utilizes one or more gateways.

A *metric* of **0** implies that the route does not refer to a gateway, but rather to one of the machine's interfaces. Destinations matching such a route are sent out on the interface identified by the *gateway* address. For interfaces using the **ARP** protocol, a *metric* of **0** is used to specify *all destinations are local*, meaning that a host should **ARP** for all addresses by adding a default route containing a *metric* of **0**, as illustrated in the following example:

route add default <*hostname***> 0**

<*hostname***>** is the name or IP address associated with the network interface all packets should be sent over. On a host with a single network interface, **<***hostname***>** is normally the same as the **<***nodename***>** returned by **uname** –**n**.

The **add** command instructs **route** to add a route to *destination*. **delete** deletes a route.

Routes to a particular host must be distinguished from those to a network. The optional keywords **net** and **host** force the destination to be interpreted as a network or a host, respectively. Otherwise, if the destination has a "local address part" of **INADDR_ANY**, then the route is assumed to be to a network; otherwise, it is presumed to be a route to a host. If the route is to a destination connected by a gateway, the *metric* parameter should be greater than **0**. If adding a route with metric **0**, the gateway given is the address of this host on the common network, indicating the interface to be used directly for transmission. All symbolic names specified for a *destination* (except **default**) or *gateway* are looked up in the hosts database using **gethostbyname**(3N). If this lookup fails, then the name is looked up in the networks database using **getnetbyname**(3N). **default** is also a valid destination, which is used for all routes if there is no specific host or network route.

OPTIONS

–**f** Flush the routing tables of all gateway entries. If this is used in conjunction with one of the commands described above, **route** flushes the gateways before performing the command.

–**n** Prevent attempts to print host and network names symbolically when reporting actions. This is useful, for example, when all name servers are down on your local net, and you need a route before you can contact the name server.

NOTES

All destinations are local assumes that the routers implement **proxy arp**. Normally, using **router discovery** (see **in.rdisc**(1M)) is more reliable than using **proxy arp**.

Combining the *all destinations are local* route with subnet or network routes can lead to unpredictable results: the search order as it relates to the *all destinations are local* route are undefined and may vary from release to release.

FILES

/etc/hosts
/etc/networks

SEE ALSO

netstat(1M), **routed**(1M), **ioctl**(2), **gethostbyname**(3N), **getnetbyname**(3N), **routing**(4)

DIAGNOSTICS

add [**host** | **net**] *destination*:*gateway*
The specified route is being added to the tables. The values printed are from the routing table entry supplied in the **ioctl**(2) call.

delete [**host** | **net**] *destination*:*gateway*
The specified route is being deleted.

destination **done**
When the −**f** flag is specified, each routing table entry deleted is indicated with a message of this form.

Network is unreachable
An attempt to add a route failed because the gateway listed was not on a directly-connected network. Give the next-hop gateway instead.

not in table
A delete operation was attempted for an entry that is not in the table.

routing table overflow
An add operation was attempted, but the system was unable to allocate memory to create the new entry.