NAME

nss-mymachines, libnss_mymachines.so.2 − Hostname resolution for local container instances

SYNOPSIS

libnss_mymachines.so.2

DESCRIPTION

nss−mymachines is a plug−in module for the GNU Name Service Switch (NSS) functionality of the GNU C Library (**glibc**), providing hostname resolution for the names of containers running locally that are registered with **systemd-machined.service**(8). The container names are resolved to the IP addresses of the specific container, ordered by their scope. This functionality only applies to containers using network namespacing (see the description of **−−private−network** in **systemd-nspawn**(1)). Note that the name that is resolved is the one registered with **systemd−machined**, which may be different than the hostname configured inside of the container.

Note that this NSS module only makes available names of the containers running immediately below the current system context. It does not provide host name resolution for containers running side−by−side with the invoking system context, or containers further up or down the container hierarchy. Or in other words, on the host system it provides host name resolution for the containers running immediately below the host environment. When used inside a container environment however, it will not be able to provide name resolution for containers running on the host (as those are siblings and not children of the current container environment), but instead only for nested containers running immediately below its own container environment.

To activate the NSS module, add "mymachines" to the line starting with "hosts:" in /etc/nsswitch.conf.

It is recommended to place "mymachines" before the "resolve" or "dns" entry of the "hosts:" line of /etc/nsswitch.conf in order to make sure that its mappings are preferred over other resolvers such as DNS.

CONFIGURATION IN /ETC/NSSWITCH.CONF

Here is an example /etc/nsswitch.conf file that enables **nss−mymachines** correctly:

```
passwd:         compat systemd
group:          compat [SUCCESS=merge] systemd
shadow:         compat systemd
gshadow:        files systemd

hosts:          mymachines resolve [!UNAVAIL=return] files myhostname dns
networks:       files

protocols:      db files
services:       db files
ethers:         db files
rpc:            db files

netgroup:       nis
```

EXAMPLE: MAPPINGS PROVIDED BY NSS−MYMACHINES

The container "rawhide" is spawned using **systemd-nspawn**(1):

```
# systemd−nspawn −M rawhide −−boot −−network−veth −−private−users=pick
Spawning container rawhide on /var/lib/machines/rawhide.
Selected user namespace base 20119552 and range 65536.
...

$ machinectl −−max−addresses=3
MACHINE CLASS     SERVICE        OS     VERSION ADDRESSES
rawhide container systemd−nspawn fedora 30      169.254.40.164 fe80::94aa:3aff:fe7b:d4b9
```

```
$ ping −c1 rawhide
PING rawhide(fe80::94aa:3aff:fe7b:d4b9%ve−rawhide (fe80::94aa:3aff:fe7b:d4b9%ve−rawhide)) 56 data bytes
64 bytes from fe80::94aa:3aff:fe7b:d4b9%ve−rawhide (fe80::94aa:3aff:fe7b:d4b9%ve−rawhide): icmp_seq=1 ttl=64 time
...
$ ping −c1 −4 rawhide
PING rawhide (169.254.40.164) 56(84) bytes of data.
64 bytes from 169.254.40.164 (169.254.40.164): icmp_seq=1 ttl=64 time=0.064 ms
...

# machinectl shell rawhide /sbin/ip a
Connected to machine rawhide. Press ^] three times within 1s to exit session.
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
   ...
2: host0@if21: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default qlen 100
   link/ether 96:aa:3a:7b:d4:b9 brd ff:ff:ff:ff:ff:ff link−netnsid 0
   inet 169.254.40.164/16 brd 169.254.255.255 scope link host0
      valid_lft forever preferred_lft forever
   inet6 fe80::94aa:3aff:fe7b:d4b9/64 scope link
      valid_lft forever preferred_lft forever
Connection to machine rawhide terminated.
```

SEE ALSO

systemd(1), **systemd-machined.service**(8), **machinectl**(1), **nss-systemd**(8), **nss-resolve**(8), **nss-myhostname**(8), **nsswitch.conf**(5), **getent**(1)