services(5) File Formats Manual services(5)

NAME

services - Internet network services list

DESCRIPTION

services is a plain ASCII file providing a mapping between human-friendly textual names for internet services, and their underlying as? signed port numbers and protocol types. Every networking program should look into this file to get the port number (and protocol) for its service. The C library routines getservent(3), getservbyname(3), getservbyport(3), setservent(3), and endservent(3) support querying this file from programs.

Port numbers are assigned by the IANA (Internet Assigned Numbers Au? thority), and their current policy is to assign both TCP and UDP proto? cols when assigning a port number. Therefore, most entries will have two entries, even for TCP-only services.

Port numbers below 1024 (so-called "low numbered" ports) can be bound to only by root (see bind(2), tcp(7), and udp(7)). This is so clients connecting to low numbered ports can trust that the service running on the port is the standard implementation, and not a rogue service run by a user of the machine. Well-known port numbers specified by the IANA

The presence of an entry for a service in the services file does not necessarily mean that the service is currently running on the machine. See inetd.conf(5) for the configuration of Internet services offered. Note that not all networking services are started by inetd(8), and so won't appear in inetd.conf(5). In particular, news (NNTP) and mail (SMTP) servers are often initialized from the system boot scripts.

The location of the services file is defined by _PATH_SERVICES in <netdb.h>. This is usually set to /etc/services.

Each line describes one service, and is of the form:

service-name port/protocol [aliases ...]

where:

service-name

is the friendly name the service is known by and looked up un? der. It is case sensitive. Often, the client program is named after the service-name.

port is the port number (in decimal) to use for this service.

is the type of protocol to be used. This field should match an entry in the protocols(5) file. Typical values include tcp and udp.

aliases

is an optional space or tab separated list of other names for this service. Again, the names are case sensitive.

Either spaces or tabs may be used to separate the fields.

Comments are started by the hash sign (#) and continue until the end of the line. Blank lines are skipped.

The service-name should begin in the first column of the file, since leading spaces are not stripped. service-names can be any printable characters excluding space and tab. However, a conservative choice of characters should be used to minimize compatibility problems. For ex? ample, a-z, 0-9, and hyphen (-) would seem a sensible choice.

Lines not matching this format should not be present in the file. (Currently, they are silently skipped by getservent(3), getservby? name(3), and getservbyport(3). However, this behavior should not be relied on.)

ing service like Yellow Pages/NIS or BIND/Hesiod.

A sample services file might look like this:

```
netstat        15/tcp
qotd           17/tcp        quote
msp            18/tcp        # message send protocol
msp            18/udp        # message send protocol
chargen        19/tcp        ttytst source
chargen        19/udp        ttytst source
ftp            21/tcp
# 22 - unassigned
telnet         23/tcp
```

FILES

/etc/services

The Internet network services list

<netdb.h>

Definition of _PATH_SERVICES

SEE ALSO

listen(2), endservent(3), getservbyname(3), getservbyport(3), getser?vent(3), setservent(3), inetd.conf(5), protocols(5), inetd(8)

Assigned Numbers RFC, most recently RFC 1700, (AKA STD0002).