NAME

servxcheck − Internet service access check

SYNOPSIS

#define _MINIX_SOURCE 1
#include </net/gen/netdb.h>

int servxcheck(ipaddr_t *peer***, const char ***service***,**
    void (*logf***)(int** *pass***, const char ***name***));**
char *servxfile(const char ***file*);**

DESCRIPTION

Servxcheck() is used by programs like **inetd** to perform an access check on the host connected to the other end of the TCP channel that has IP address *peer*.

Servxcheck() translates the IP address to the associated host name if necessary, and checks if the host is granted access as guided by the file **/etc/serv.access**. (See **serv.access**(5).) The service name used to search the access file is passed by the caller as *service*. These names should be the same as the service names in **/etc/services**.

The caller should use the NWIOGTCPCONF ioctl() call to find out what the IP address of the remote end is. It is wise to bypass the **servxcheck()** call if the remote end happens to be the local machine (remaddr == locaddr), so that local connections aren't impeded by slow checks. **Servxcheck()** will itself allow connections from 127.0.0.1/8 immediately, so you don't have to check for that. Example of use:

```
if (ioctl(fd, NWIOGTCPCONF, &tcpconf) < 0
    || tcpconf.nwtc_remaddr == tcpconf.nwtc_locaddr
    || servxcheck(tcpconf.nwtc_remaddr, service_name, NULL)
) {
    serve();
}
```

An attempt to connect to a service is logged if the access is denied. You can use the special checkword "**log**" to also log if access is granted. Logging will be done with **syslog()** at the **warning** level. A syntax error in the access file may be logged under the **err** level. The caller must use **openlog()** to set the appropriate logging facility. One may do one's own logging by supplying a *logf* function that will be called by **servxcheck** with a first argument that is true if access is granted, false if denied, and a second argument that is the name of the remote host whose access has been checked.

The default is to fail the check unless the access file says otherwise. Strange errors make the check succeed. (We do not want remote access to fail because of some system error.) Note that this function is not meant to check access to the system, that's what passwords and such are for, but only to limit access to those who are allowed to use the services the system offers.

Connections from a machine to itself are accepted immediately. No further checks, no logging.

Servxfile() may be used to specify a file other than the default **/etc/serv.access**. This is useful for programs started from **inetd** that want to handle the access check themselves, using a private access file. The return value of **servxfile()** is the pathname of the old access file. Only a pointer to the new path is saved, the caller must keep the string it points to intact.

FILES

/etc/serv.access   Default access check file.

SEE ALSO

syslog(3), **serv.access**(5), **services**(5), **inetd**(8).

DIAGNOSTICS

Servxcheck() returns 0 if the access is denied, 1 if granted.

Typical syslog message:

Jan 10 20:27:20 flotsam inetd[174]: service 'shell' granted to jetsam.cs.vu.nl

BUGS

IP and DNS based access checks will stop most crackers, but not the really determined ones. Luckily Minix is sufficiently strange to thwart the well known cracking schemes. But don't ever allow yourself to feel secure.

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