

# 1.113.1

## Configure and manage inetd, xinetd, and related services

### Weight 4

Linux Professional Institute Certification — 102

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# Outline

Context

Objective

inetd, xinetd

inetd.conf

tcpwrappers

xinetd

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# Topic 113 Networking Services [24]

Where we are up to

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- 1.113.1 **Configure and manage inetd, xinetd, and related services [4]**
- 1.113.2 Operate and perform basic configuration of sendmail [4]
- 1.113.3 Operate and perform basic configuration of Apache [4]
- 1.113.4 Properly manage the NFS, smb, and nmb daemons [4]
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# Description of Objective

## 1.113.1 Configure and manage `inetd`, `xinetd`, and related services

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Candidates should be able to configure which services are available through `inetd`, use `tcpwrappers` to allow or deny services on a host-by-host basis, manually start, stop, and restart internet services, configure basic network services including `telnet` and `ftp`. Set a service to run as another user instead of the default in `inetd.conf`.

# Key files, terms, and utilities include:

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`/etc/inetd.conf` — configuration file for the older `inetd`

`/etc/hosts.allow` — TCP Wrappers configuration file, consulted first

`/etc/hosts.deny` — TCP Wrappers configuration file, consulted second

`/etc/services` — file mapping service names ↔ network ports

`/etc/xinetd.conf` — configuration file for `xinetd`, which has built-in support for TCP Wrappers, so is now used more than `inetd`

`/etc/xinetd.log` — a file that appears to exist only in LPI objectives, but see  
`$ man 5 xinetd.log` ←

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- ▶ The internet “super-server”
- ▶ A daemon which listens on many ports and fires off the appropriate command to handle incoming requests
- ▶ `inetd` is used in older/smaller systems
  - ▶ Controlled through `/etc/inetd.conf`
- ▶ **xinetd** is an enhanced replacement
  - ▶ Controlled through `/etc/xinetd.conf...`
  - ▶ ... and through individual files in directory `/etc/xinetd.d/`

Fields are:

*service\_name sock\_type proto flags user server\_path args*

# UW-IMAP server

imap2 stream tcp nowait root /usr/sbin/tcpd /usr/sbin/imapd

imap3 stream tcp nowait root /usr/sbin/tcpd /usr/sbin/imapd

imaps stream tcp nowait root /usr/sbin/tcpd /usr/sbin/imapd

# Exim mail server

smtp stream tcp nowait mail /usr/sbin/exim exim -bs

## Built-in services (often disabled)

echo	stream	tcp	nowait	root	internal
echo	dgram	udp	wait	root	internal
chargen	stream	tcp	nowait	root	internal
chargen	dgram	udp	wait	root	internal
discard	stream	tcp	nowait	root	internal
discard	dgram	udp	wait	root	internal
daytime	stream	tcp	nowait	root	internal
daytime	dgram	udp	wait	root	internal
time	stream	tcp	nowait	root	internal
time	dgram	udp	wait	root	internal

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# hosts.allow / hosts.deny

“TCP Wrappers” aka **tcpd**

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**Manpage is** `hosts_access(5)`

```
# /etc/hosts.allow
```

```
sshd:  ALL
```

```
imapd: 10.0.6.19
```

```
ALL:   10.0.128.96/255.255.255.224
```

```
# /etc/hosts.deny
```

```
#ALL:  PARANOID
```

```
ALL:   ALL
```

# xinetd

- ▶ Same function as `inetd`
- ▶ Has built-in support for TCP Wrappers, so is now used for recent distributions instead of `inetd`
- ▶ package management system (i.e., `dpkg`, `rpm`) drops a file into directory `/etc/xinetd.d/` instead of having to edit `/etc/inetd.conf`
- ▶ Here is such a file for the `exim` mail server to run under `xinetd`:

```
service smtp
{
    socket_type      = stream
    protocol        = tcp
    wait            = no
    user            = mail
    server          = /usr/sbin/exim
    server_args     = -bs
}
```

# Topics Covered

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