1.113.1
Configure and manage
inetd, xinetd, and
related services
Weight 4

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1.113.1
Configure and manage inetd, xinetd, and related services
Weight 4

Linux Professional Institute Certification — 102

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Outline

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Topic 113 Networking Services [24]
Where we are up to

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Context

Objective

inetd, xinetd

tcpwrappers

xinetd

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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]

1.113.5 Setup and configure basic DNS services [4]

1.113.7 Set up secure shell (OpenSSH) [4]

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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:

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

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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 $\leftrightarrow$ 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 ↩
```

inetd/xinetd

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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/

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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
```

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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
```

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
```

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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
}
```

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