

# 1.114.2 Setup host security Weight 3

Linux Professional Institute Certification — 102

Nick Urbanik <nicku@nicku.org>

This document Licensed under GPL—see section 5

2005 October

## Outline

## Contents

1	Context	1
2	Objectives	2
3	Set up mail alias for root’s mail	2
4	Turning off unused network services	3
4.1	Some basic rules of security	3
4.2	Identify running services	3
4.3	Turning off services on Red Hat/Fedora	3
4.4	Turning off services on Debian/Ubuntu	4
5	License Of This Document	4

## 1 Context

Topic 114 Security [8]

1.114.1 Perform security administration tasks [4]

1.114.2 Setup host security [3]

1.114.3 Setup user level security [1]

## 2 Objectives

### Description of Objective

Candidate should know how to set up a basic level of host security. Tasks include syslog configuration, shadowed passwords, set up of a mail alias for root’s mail and turning of [sic] all network services not in use.

### Key files, terms, and utilities include:

`/etc/inetd.conf` or `/etc/inet.d/*` — Where you turn off all unneeded `xinetd` services

`/etc/nologin` — only allows `root` to log in if this file exists. Other users shown contents of this file. For maintenance.

`/etc/passwd` — the file that *should not* contain passwords. See topic 1.111.1 Manage users and group accounts and related system files

`/etc/shadow` — Where shadow passwords belong

`/etc/syslog.conf` — Where syslog is configured. See notes for topic 1.111.3 Configure and use system log files to meet administrative and security needs

## 3 Set up mail alias for root’s mail

### Set up mail alias for root’s mail

- Many important problems are sent as mail to the `root` user
- You should *not* be logging in as `root`, use `sudo`
- You should be reading that email
- ... so you should create an alias for `root` that sends `root`’s mail to you:

```
$ grep '^root' /etc/postfix/aliases ←
root:                nicku
```

## 4 Turning off unused network services

### 4.1 Some basic rules of security

#### Some basic rules of security

- Use minimum privilege to do what is required
- Provide only the services your users need

### 4.2 Identify running services

#### Identify running services

- See what services are configured to start: `$ chkconfig -list | grep on` ↵
- Determine what package each service turned on comes from with a command like `$ rpm -qif /etc/init.d/<service-name>` ↵
- Decide whether this service should be turned off
- You can also check running processes with `ps` and `top`

### 4.3 Turning off services on Red Hat/Fedora

#### Turning off services on Red Hat/Fedora

- On Red Hat/Fedora systems:
  - Remove the software package, e.g., `$ rpm -e telnet` ↵
  - or
  - Disable the service: `$ chkconfig -del sendmail` ↵
  - or `$ chkconfig sendmail off` ↵
- Note that `chkconfig` also turns services on and off in `xinetd` as well.
- You should also be able to turn them off manually:
 

```
$ grep disable /etc/xinetd.d/telnet ↵
    disable          = yes
```

## 4.4 Turning off services on Debian/Ubuntu

#### Identify what runlevels a service starts/stops

- To find what runlevels a service `<service>` will start and stop on, do:
 

```
$ find /etc/rc* -name '*<service>' ↵
```
- Example: to see what links exist for `squid`:
 

```
$ find /etc/rc* -name '*squid' ↵
```

#### Turning off services on Debian/Ubuntu

- See `$ man update-rc.d` ↵
- To disable a service `<service>` that normally starts, do:
 

```
$ sudo update-rc.d -f <service> remove ↵
```
- For example, to disable initialisation of `squid`, do:
 

```
$ sudo update-rc.d -f squid remove ↵
```
- Turn off `xinetd` service `<service>` by editing `/etc/xinetd.d/<service>`, or if possible, turn `xinetd` off altogether:
 

```
$ sudo update-rc.d -f xinetd remove ↵
```
- Finally, if you liked `ntsysv` on Red Hat, then do
 

```
$ sudo apt-get install rconf ↵
```

## 5 License Of This Document

### License Of This Document

Copyright © 2005 Nick Urbanik <nicku@nicku.org>

You can redistribute modified or unmodified copies of this document provided that this copyright notice and this permission notice are preserved on all copies under the terms of the GNU General Public License as published by the Free Software Foundation — either version 2 of the License or (at your option) any later version.