



Ecole d'ingénieurs et d'architectes de Fribourg
Hochschule für Technik und Architektur Freiburg

5: SSHD

References

```
[1]: http://cvedetails.com
      http://www.osvdb.org
      http://secunia.com
      http://www.securityfocus.com
      http://cve.mitre.org
```

Install the last version of openssh

Install the last version of sshd on the nanoPi.

- 1) Check the signature of the openssh package (www.openssh.com, for other systems: Linux)
- 2) Configure package (./configure) with these options for Intel processor:
 - With hardening (what are the hardening options)
 - Don't install to the default directories (--prefix and *perhaps sysconfdir* (for the configuration file) options)
 - Generate code for Intel processor, check if files are stripped
- 3) Like point 2, but for nanoPi
- 4) Install sshd, ssh-keygen, moduli, sshd_config on nanoPi in this directory /root/sshd.
- 5) On nanoPi, create these keys (without password): rsa 4096 bits, dsa 1024 bits, ecdsa 521, ed25519 256bits. These keys are stored in /root/sshd
- 6) Configure sshd
 - Sshd uses only IPv4
 - Don't allow port forwarding
 - Allow these encryption-hash algorithms: Ciphers aes256-cbc, aes256-ctr, aes128-cbc, hmac-sha-256, hmac-sha1
 - The login root is not allowed
 - Indicate a banner
- 7) **Optional:** Nmap scan gives the version of sshd :) `nmap -sV -p 22 192.168.0.11 → 22/tcp open ssh` **OpenSSH**
8.8 (protocol 2.0)
Modify sshd and change the original version with this string: "It is a ssh server without version"