

# Server Hardening

- [DevSec Baselines](#)

# DevSec Baselines

## Overview

DevSec offers a range of baseline tests for configuring basic security across various applications. These can be ran via commandline or manually reviewed at [dev-sec.io](https://dev-sec.io)

These baseline tests requires [Inspec](#) to be installed. If you don't have it installed, it can be grabbed for RHEL, Ubuntu, and Mac using the following command.

```
curl https://omnitruck.chef.io/install.sh | sudo bash -s -- -P inspec
```

## Required Configuration / Installations

To run a baseline test, grab the required repository from the [DevSec GitHub](#) and run the following command

```
inspec exec BASELINETEST
```

For example, to run SSH-Baseline, just run the following

```
# Don't forget to install Inspec
# curl https://omnitruck.chef.io/install.sh | sudo bash -s -- -P inspec
git clone https://github.com/dev-sec/ssh-baseline
inspec exec ssh-baseline
```

When running these baselines, they will output the results as test success and failures in green and red, respectively. Some tests may be *intended* to fail in order to meet security needs. The ssh-baseline test [sshd-07](#) will output an intended error if you have modified your `/etc/sshd_config` to use a custom port instead of the default 22. For example, if you have changed your SSH port to 999, the following error will be displayed.

Note that the similar test, [ssh-07](#), is not the same and refers to the configuration stored at `/etc/ssh/ssh_config`

- × sshd-07: Server: Specify the listen ssh Port
- × SSHD Configuration Port should eq "22"

expected: "22"

got: "999"

If you are unsure if the results of a test should be a concern, check the description on the baseline's overview page. For [ssh-baseline](#), test sshd-07 has the following description.

```
control 'sshd-07' do
  impact 1.0
  title 'Server: Specify the listen ssh Port'
  desc 'Always specify which port the SSH server should listen to. Prevent unexpected settings.'
  describe sshd_config do
    its('Port') { should eq('22') }
  end
end
```

You can see by the description above that this test is intended to alert you to always specify your port within `/etc/sshd_config`

## Running the SSH-Baseline Test

When initially running this test, first be sure to check your file can be read by inspect by checking the permission checks output when running `sudo inspect exec ssh-baseline`

```
...

✓ sshd-04: Server: Check SSH folder owner, group and permissions.
  ✓ File /etc/ssh should exist
  ✓ File /etc/ssh should be directory
  ✓ File /etc/ssh should be owned by "root"
  ✓ File /etc/ssh should be grouped into "root"
  ✓ File /etc/ssh should be executable
  ✓ File /etc/ssh should be readable by owner
  ✓ File /etc/ssh should be readable by group
  ✓ File /etc/ssh should be readable by other
  ✓ File /etc/ssh should be writable by owner
  ✓ File /etc/ssh should not be writable by group
  ✓ File /etc/ssh should not be writable by other
✓ sshd-05: Server: Check sshd_config owner, group and permissions.
  ✓ File /etc/ssh/sshd_config should exist
  ✓ File /etc/ssh/sshd_config should be file
  ✓ File /etc/ssh/sshd_config should be owned by "root"
  ✓ File /etc/ssh/sshd_config should be grouped into "root"
  ✓ File /etc/ssh/sshd_config should not be executable
```

- ✓ File /etc/ssh/sshd\_config should be readable by owner
- ✓ File /etc/ssh/sshd\_config should not be readable by group
- ✓ File /etc/ssh/sshd\_config should not be readable by other
- ✓ File /etc/ssh/sshd\_config should be writable by owner
- ✓ File /etc/ssh/sshd\_config should not be writable by group
- ✓ File /etc/ssh/sshd\_config should not be writable by other

...

- ✓ ssh-01: client: Check ssh\_config owner, group and permissions.
  - ✓ File /etc/ssh/ssh\_config should exist
  - ✓ File /etc/ssh/ssh\_config should be file
  - ✓ File /etc/ssh/ssh\_config should be owned by "root"
  - ✓ File /etc/ssh/ssh\_config should be grouped into "root"
  - ✓ File /etc/ssh/ssh\_config should not be executable
  - ✓ File /etc/ssh/ssh\_config should be readable by owner
  - ✓ File /etc/ssh/ssh\_config should be readable by group
  - ✓ File /etc/ssh/ssh\_config should be readable by other
  - ✓ File /etc/ssh/ssh\_config should be writable by owner
  - ✓ File /etc/ssh/ssh\_config should not be writable by group
  - ✓ File /etc/ssh/ssh\_config should not be writable by other

...