

# Manual for Elexis Admin

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## Abstract

Manual for administrator for Elexis focused medical practices.

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## 1 Goals

- Document some design decision
- Give hints for some common problems, task. Eg. what to do when a new version of Debian is released
- Give hints on how to find information

## 2 Getting started

### 2.1 Used Tools

Elexis admin uses a plethora of free software tools

- Based on the stable release of GNU/Debian/Linux for server. Clients can use Windows, MacOSX or other Linux-distribution, e.g. Ubuntu.
- Virtualization, often VirtualBox and kvm/qemu/libvirt
- Use veewee to create base boxes for virtualbox and kvm which have a known good combination of Ruby, gem, bundler, Puppet, librarian-puppet pre-installed (Sometimes also already localized for swiss-german)
- Vagrant (mostly Virtualbox, as kvm is still a little bit unstable) to bring up several virtual machines to test a real setup and experiment with changes/adaptions for a given practice.
- Puppet with hiera, augeas, facter

- Hiera, a hierarchical, yaml based backend which stores the configuration. Ideally everything can be fine tuned using
- Java
- Elexis
- database server is either mysql or postgresql
- Samba for sharing network drives with MacOSX and Windows users
- rsync/rsnapshot
- x2go for thin clients
- elxis-cockpit to visualize health status of Elexis DB

## 2.2 First steps

Get acquainted with the tools! Use small steps. Skip veewee unless you must port elxis admin to a new Debian/Ubuntu version. If you like learning by doing I suggest the following steps (assuming a good desktop system with a 2 cores and at least 2 GB to spare):

Checkout elxis-vagrant, install vagrant (1.6.0) and Virtualbox (e.g. 4.3.x). In the checkout try to get the following commands to work

```
vagrant up server # might take several minutes as it must download a lot of stuff
vagrant ssh server # if you succeed, you may have a look around your elxis server
```

## 2.3 Design decisions

Every item should be configurable (if there is any need) by a hiera variable, as this helps to keep the code clean.

Here a short justification for my configuration of `/etc/hiera.yaml`

```
:yaml:
  : datadir: /etc/hieradata
:hierarchy:
  - '%{::environment}/%{::fqdn}' # most specialised. Only needed to override defaults
  - '%{::environment}/%{calling_module}' # if you want to test module variable inheritance
  - '%{::environment}/%{::environment}' # handy for development
  - 'common/%{calling_module}' # default values for modules (not much used at the moment)
  - common # sane default values.
```

In the code we always part from the idea that some user DO NOT like our stuff. In this case you should not install anything and if possible even cleanup stuff a client does not like anymore. (Opt-Out possibility) a good idea is to have a tests/absent.pp which cleans up everything.

### 2.3.1 User home

Puppet has no good project for managing home directories. Therefore I wrote my own in puppet-elexis/manifests/users.pp. Idea is that password are stored in cleartext in a private hieradata directory where normal users cannot read.

### 2.3.2 User desktop experience

puppet-desktop/manifests should fulfill (Peter Schönbucher's) requirements

- Add shortcuts for Elexis (KDE-Launcher, Favorits, but not desktop)
- Shortcuts for some users for Elexis test database
- Shortcuts for commonly used application
  - FileManager (nemo)
  - WebBrowser (firefox)
  - MailClient (thunderbird)
- Irfanview via wine (needs ghostscript for PDF). Should be default viewer for pdf, tiff, png.

### 2.3.3 Samba

No PDC. Only offers network devices. Migrating PDC from one server to another is not easy and did cost Peter, Daniel and Lutz over a day in May 2014. Fax/Print-To-PDF-File should work

## 2.4 Ideas for further work

- Setup initial Elexis database
- Add support for
- Rethink security, password, ssh certifacts, access via OpenVPN and/or ssh
- Yubico-Key verwenden (Optional)
- Asterisk