

Webservers

FinMacAdmin 2017 December Event

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\$ whoami

- Antti Pettinen
 - System Analyst @ tut.fi
 - macOS & iOS, other mobile devices (Airwatch), IT Security
 - administering TCSC computation cluster
 - Ph.D in CS (comp. neuroscience)
 - i.e. ex-{researcher, hospital_phycisist} turned to sysadmin in 2012
 - Linux/Unix since early 2000, Macs since 2009
 - @apettinen in Twitter, Slack, Github etc.
 - dad, husband, football, music, beer

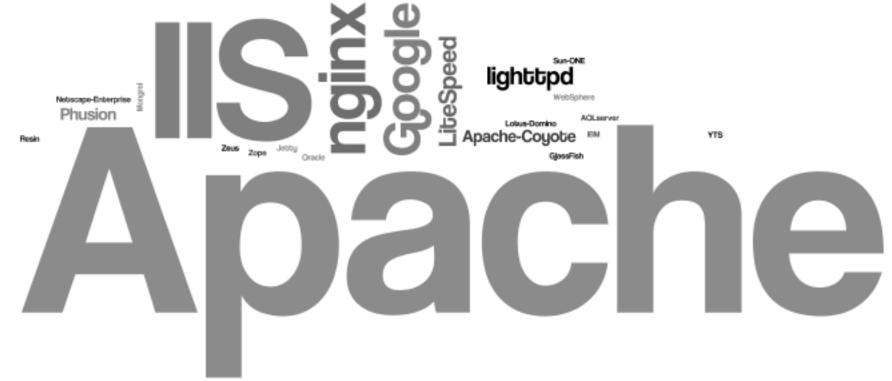


IT-Services @ TUT

- responsible for all IT in TUT
 - ~ 4000 clients, ~300 Macs, hundreds of servers
- 54 employees divided to different branches
 - IT-helpdesk & Workstation Management
 - ICT-infrastructure
 - System Services
 - Telephone services



This talk was supposed to be about...



But...



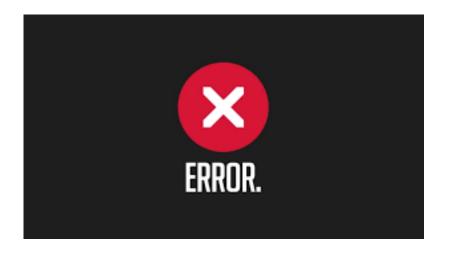


... so it's infra instead!



But why?





#tampere3



So how then?









Can I see it?



```
munki-rep... ×
iptables.yml x
               main.yml
                                                                              puppet... ×
                                                                                           munki.cc.tut.fi.yml ×
                                                                                                                 main.ym...x
                                                                                                                              main.ym...x
                                                                                                                                           puppet... X
      when: not munki.git.repo.configure-
      tags: create_munki_dirs-
                                                                                  ansible_port:
                                                                                  ansible_user: a
                                                                                  ansible_ssh_file_name:
  # this disables writing atime (access times) every time a file has
                                                                                  intermediateCA: DigiCertCA-
  # accessed. When serving files (i.e. reading files), these atime
                                                                                  #update packages: true-
  writes can-
                                                                                  #include_restart: true¬
  # cause a performance overhead upto 30%-
                                                                                  tut_rhel:¬
  # By default, the disk is mounted with relatime, which updates the
                                                                                    ntp_config: true¬
                                                                                    iptables: true-
  atime only¬
                                                                                    firewalld: false-
  # if the file has been changed or modified since the last atime update 11
  # (ctime||mtime > atime)¬
                                                                                    # leave this to false if you want to use the Satellite SSH config!-
  # Applies only to RedHat Linux (maybe others too)-
                                                                                    sshd config: false-
                                                                                    tutmac sshd config: false-
    - name: disable writing atime in munkirepo-
                                                                                    -additional_ssh_ports: false-
                                                                                    ∙# enable RHEL nginx by setting this to true¬
                                                                                    nginx_repo: false-
        path: "{{munki.dir.path}}"-
        attr: Ae-
                                                                                  install extratools:-
                                                                                   ··- name: git¬
        state: directory-
                                                                                  # use (absolute) path to your template here, since this is templated
        recurse: yes-
      when: munki.disable_atime and ansible_os_family == "RedHat"¬
      tags: disable_atime_from_munkirepo-
                                                                                  # common role by default! (see common/tasks/iptables.yml)-
                                                                                  iptables_template_path:
                                                                                  "{{localhome}}/src/ansible/roles/munki/templates/munki_etc_sysconfig_
    # Additionally, set/ensure correct SELinux file context mappings-
                                                                                  # because freaking recursive loops (using variables before-
    # for munkirepo files, so that they can be served by a webserver¬
    - name: ensure SELinux file context mappings-
                                                                                  # assigning):¬
                                                                                  munki username:
      sefcontext:-
                                                                                  munkidir_root: /srv-
        target: "{{munkidir}}(/.*)?"¬
        setype: httpd_sys_content_t-
                                                                                  munkidir: "{{munkidir_root}}/munkirepo"-
        ·state: present-
                                                                                  munki_git_remote: origin-
                                                                                  munki_git_branch: master-
      when: munkidir is defined-
      tags: munkidir_selinux_file_context-
                                                                                  munki_user_ssh_keyfile: .ssh/id_rsa-
                                                                                  git_autodeploy_config_path: "/opt/git-autodeploy/"-
    - name: run restorecon to enforce mannings-
                                                                                  git autodeploy config file: "git-autodeploy.conf.ison"¬
```

What it does?

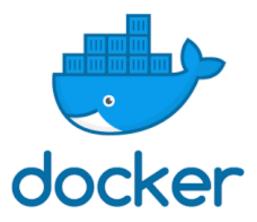














What it does not (yet)?

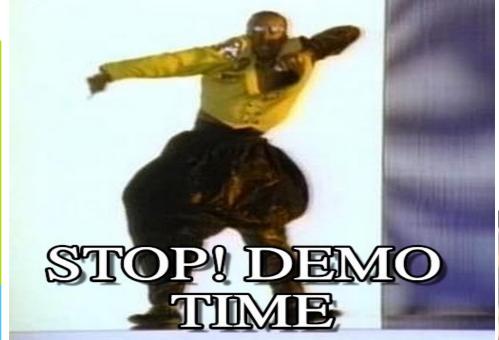


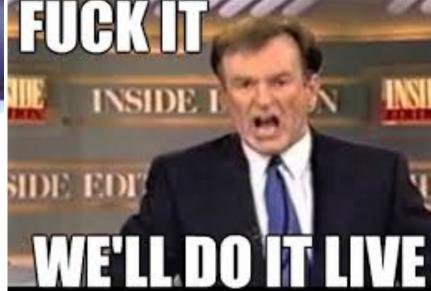
















Links

- generate configuration for webservers:
 - https://mozilla.github.io/server-side-tls/ssl-config-generator/
- Content security policy (CSP):
 - https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/Content-Security-Policy/
- · Security headers for webservers:
 - https://scotthelme.co.uk
 - https://securityheaders.io
 - https://gist.github.com/plentz/6737338
- Ansible documentation:
 - http://docs.ansible.com/ansible/latest/index.html
 - http://docs.ansible.com/ansible/latest/intro_getting_started.html
 - tips: use virtual environment to run Ansible
 - either: virtualenv (pip install virtualenv)
 - pip is not in standard installation: easy_install -U pip (installs pip to your user only, avoid system wide installations, i.e. sudoing, if possible!)
 - pro tip: familiarize yourself with python version manager, e.g. pyenv (https://github.com/pyenv/pyenv)
 create own virtual environment for Ansible only to avoid problems/version mismatch

