
ansible-role-config-light Documentation

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USER'S GUIDE

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1.1 Introduction

- Ansible role: `config_light`
- Supported systems: `FreeBSD`, `Ubuntu`
- Requirements: None

The role installs packages, creates and configures files, services, and handlers. This provides a simple, but flexible framework to apply basic Ansible modules. Substantial part of the control-flow will be determined by the structure of the data. Some attributes of the dictionaries trigger Ansible modules to modify configuration files, configure services and create handlers.

The role can be used with any supported OS to install and configure arbitrary applications. The role is tested with supported releases of `FreeBSD` and `Ubuntu`. It can be expected that other BSD and Linux distributions, that support the Ansible modules mentioned below, should work with minimal changes. Red Hat and Debian *ansible_os_family* should work out of the box.

Used Ansible modules comprise `package` to install Linux packages, and both `pkgng` and `portinstall` to install FreeBSD packages or ports.

Ansible modules `template`, `lineinfile`, `blockinfile` and `ini_file` are used to configure files. Module `service` is used to manage both Linux and FreeBSD services.

The directory `contrib` comprises examples of how to install and configure various applications, and how to create the handlers and templates.

The user of this role is expected to master at least the following Ansible topics:

- [Basic Concepts](#)
- [Roles](#)
- [Working With Playbooks](#)

Feel free to [share your feedback and report issues](#). The contributions to the [project](#) are welcome.

1.2 Installation

The most convenient way how to install an Ansible role is to use Ansible Galaxy CLI `ansible-galaxy`. The utility comes with the standard Ansible package and provides the user with a simple interface to the Ansible Galaxy's services. For example take a look at the current status of the role

```
shell> ansible-galaxy info vbotka.config_light
```

and install it

```
shell> ansible-galaxy install vbotka.config_light
```

See also:

- To install specific versions from various sources see [Installing content](#).
- Take a look at other roles `shell> ansible-galaxy search --author=vbotka`

1.3 Playbook

Below is simple playbook that applies this role at single host `srv.example.com` (2)

```
1 shell> cat config-light.yml
2 - hosts: srv.example.com
3   gather_facts: true
4   connection: ssh
5   remote_user: admin
6   become: yes
7   become_user: root
8   become_method: sudo
9   roles:
10    - vbotka.config_light
```

Note: `gather_facts: true` (3) must be set to gather facts needed to evaluate OS specific options of the role. For example to install packages the variable `ansible_os_family` is needed to select the appropriate Ansible module.

See also:

- For details see [Connection Plugins](#) (4-5)
- and [Understanding Privilege Escalation](#) (6-8).

1.4 Debug

To see additional debug information enable debug output in the configuration

```
cl_debug: true
```

, or set the extra variable in the command:

```
shell> ansible-playbook config-light.yml -e 'cl_debug=true'
```

Note: The debug output of this role is optimized for the `yaml` callback plugin. Set this plugin for example in the environment `shell> export ANSIBLE_STDOUT_CALLBACK=yaml`.

See also:

- [Playbook Debugger](#)

1.5 Tags

The tags provide very useful tool to run selected tasks of the role. To see what tags are available list the tags of the role with the command:

```
1 shell> ansible-playbook config-light.yml --list-tags
2
3 playbook: config-light.yml
4
5   play #1 (srv.example.com): srv.example.com      TAGS: []
6   TASK TAGS: [always, cl_debug, cl_files, cl_packages, cl_sanity, cl_services, cl_
  ↳ setup, cl_vars]
```

For example display the list of the variables and their values with the tag `cl_debug` (when the debug is enabled `cl_debug: true`). With this tag specified `-t cl_debug` all imported tasks before the task `debug.yml` will also run because of the tag `always` (when sanity testing is enabled `cl_sanity: true` and `setup` is enabled `cl_setup: true`). This is the default. See [main.yml](#).

```
shell> ansible-playbook config-light.yml -t cl_debug
```

See what packages will be installed

```
shell> ansible-playbook config-light.yml -t cl_packages --check
```

Install packages and exit the play

```
shell> ansible-playbook config-light.yml -t cl_packages
```

1.6 Variables

In this chapter we describe role's default variables stored in the directory defaults.

See also:

- [Ansible variable precedence: Where should I put a variable?](#)

1.6.1 Default variables

Most of the variables are self-explaining. There are four very important variables `cl_handlers`, `cl_packages`, `cl_services`, and `cl_files` (10-13). These dictionaries which comprise the configuration data of handlers, packages, services, and files will be explained in details. By default these dictionaries are empty.

Best practice is to provide the data either in `host_vars` and `group_vars` or as a files in the directories `cl_handlersd_dir`, `cl_packagesd_dir`, `cl_servicesd_dir`, and `cl_filesd_dir` (17-20). Both methods can be applied at the same time. The variables will be assembled and combined by the tasks `vars_handlers.yml`, `vars_packages.yml`, `vars_services.yml`, and `vars_files.yml`. The assembled dictionaries customized for each host in the play will be stored in the host-specific files `cl_packagesd`, `cl_servicesd`, and `cl_filesd` (31-33). The variable `cl_handlers` is not host-specific because the handlers will be create at the controller (localhost). Assembled dictionary `cl_handlers` will be stored in the file `cl_handlersd` (30). Take a look at the directory `cl_dira` (27) to see assembled data.

By default the base of the directories is `role_path` (16). The user is expected to put the configuration data to more suitable directory, e.g., to `playbook_dir` directory.

[defaults/main.yml]

```

1  ---
2  # defaults for config_light
3
4  cl_sanity: true           # Import tasks/sanity.yml
5  cl_setup: true           # Import tasks/setup.yml
6  cl_debug: false          # Print debug output
7  cl_backup: false         # Backup files
8
9  # Combine assembled data with these variables
10 cl_handlers: {}
11 cl_packages: {}
12 cl_services: {}
13 cl_files: {}
14
15 # Assemble data from these directories
16 cl_dird: "{{ role_path }}/files"
17 cl_handlersd_dir: "{{ cl_dird }}/handlers.d"
18 cl_packagesd_dir: "{{ cl_dird }}/packages.d"
19 cl_servicesd_dir: "{{ cl_dird }}/services.d"
20 cl_filesd_dir: "{{ cl_dird }}/files.d"
21
22 # Assemble inventory_hostname data into these files
23 # cl_dira_owner: root      # no default
24 # cl_dira_group: adm       # no default
25 cl_dira_dmode: "0775"     # default very permissive, restrict if necessary
26 cl_dira_fmode: "0664"     # default very permissive, restrict if necessary
27 cl_dira: "{{ cl_dird }}/assemble"
28 cl_assemble_regexp: '^(.*)[^\~]$' # Any string but terminated with ~

```

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```

29 # cl_assemble_validate: 'ansible-lint -x 205 %s' # no default
30 cl_handlersd: "{{ cl_dira }}/handlersd"
31 cl_packagesd: "{{ cl_dira }}/packagesd.{{ inventory_hostname }}"
32 cl_servicesd: "{{ cl_dira }}/servicesd.{{ inventory_hostname }}"
33 cl_filesd: "{{ cl_dira }}/filesd.{{ inventory_hostname }}"
34
35 # Handlers
36 cl_handlers_validate: 'ansible-lint %s'
37
38 # OS common
39 install_retries: 10
40 install_delay: 5
41
42 # FreeBSD
43 freebsd_install_method: packages
44 # freebsd_install_method: ports
45 freebsd_use_packages: true
46
47 # EOF
48 ...

```

Warning: Defaults of the variables `cl_dira_dmode` (25) and `cl_dira_fmode` (26) are very permissive. These are the permissions to access the assembled dictionaries. Restrict the permissions if these dictionaries might comprise classified data.

<TODO: complete description of all default variables>

1.6.2 cl_handlers - dictionary with handlers

- *Synopsis*
- *Parameters*
- *Example*
- *See Also*
- *Notes*

Synopsis

The variable `cl_handlers` is a dictionary of the handlers. Structure of the dictionary depends on the template that is used to create the file with the handlers. For example, the structure below can be used with the template `handlers-auto1.yml.j2`.

Parameters

<i>Parameter</i>	<i>Type</i>	<i>Comments</i>
template	<i>string</i> required	Template filename
handler	<i>string</i> required	Name of the handler
module	<i>string</i> required	Ansible module in handler
params	<i>list</i> required	Ansible module parameters
conditions	<i>list</i>	List of conditions

Example

FreeBSD handlers for postfix

[contrib/postfix/conf-light/handlers.d/postfix-freebsd]

```

1 postfix_freebsd:
2   template: handlers-auto1.yml.j2
3   params:
4
5   - handler: 'enable and start postfix'
6     module: service
7     params:
8       - 'name: postfix'
9       - 'state: started'
10      - 'enabled: true'
11
12   - handler: 'disable and stop postfix'
13     module: service
14     params:
15       - 'name: postfix'
16       - 'state: stopped'
17      - 'enabled: false'

```

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```

18
19 - handler: 'reload postfix'
20   module: service
21   params:
22     - 'name: postfix'
23     - 'state: reloaded'
24   conditions:
25     - '- cl_service_postfix_enable|bool'
26
27 - handler: 'restart postfix'
28   module: service
29   params:
30     - 'name: postfix'
31     - 'state: restarted'
32   conditions:
33     - '- cl_service_postfix_enable|bool'
34
35 - handler: 'postfix check'
36   module: command
37   params:
38     - 'cmd: /usr/local/sbin/postfix check'
39
40 - handler: 'newaliases'
41   module: command
42   params:
43     - 'cmd: /usr/bin/newaliases'
44
45 # - handler: 'postmap smtp sasl passwords'
46 #   module: command
47 #   params:
48 #     - 'cmd: /usr/local/sbin/postmap {{ postfix_main_cf_smtp_sasl_password_maps }}'
49 ↪
50 # - handler: 'postmap virtual aliases'
51 #   module: command
52 #   params:
53 #     - cmd: /usr/local/sbin/postmap {{ postfix_virtual }}'

```

See Also

See also:

- See [vars-handlers.yml](#) how the variable `cl_handlers` is combined with the content of the directory `cl_handlersd_dir`.
- See [setup.yml](#) how the handlers are created.
- For details see the template [handlers-auto1.yml.j2](#).

Notes

Note: The template `handlers-auto1.yml.j2` is available in the role's directory `templates`. The user is expected to create new templates when needed. Feel free to change the structure of the data and to create new templates that might fit the purpose better. Feel free to contribute new templates and configuration examples to the [project](#).

1.6.3 cl_packages - dictionary with packages or BSD ports

- *Synopsis*
- *Parameters*
- *Example*
- *See Also*

Synopsis

The variable `cl_packages` is a dictionary of the packages, or BSD ports to be installed.

Parameters

<i>Parameter</i>	<i>Type</i>	<i>Comments</i>
name	<i>string</i> required	Package or BSD port

Example

FreeBSD package for postfix

[contrib/postfix/conf-light/packages.d/postfix]

```

1 postfix:
2   name: 'mail/postfix'
```

See Also

See also:

- See [vars-packages.yml](#) how the variable `cl_packages` is combined with the content of the directory `cl_packagesd_dir`.
- See [packages.yml](#) how the packages or BSD ports are installed.

1.6.4 cl_services - dictionary with services

- *Synopsis*
- *Parameters*
- *Example*
- *See Also*

Synopsis

The variable `cl_services` is a dictionary with the services managed by this role.

Parameters

<i>Parameter</i>	<i>Type</i>	<i>Comments</i>
name	<i>string</i> required	Service
state	<i>string</i>	State of the service default: started
enabled	<i>boolean</i>	Start of boot default: true

Example

FreeBSD services for postfix

[contrib/postfix/conf-light/service.d/postfix]

```

1 postfix:
2   name: 'postfix'
3   state: '{{ cl_service_postfix_state }}'
4   enabled: '{{ cl_service_postfix_enable }}'
```

[contrib/postfix/conf-light/service.d/sendmail]

```

1 sendmail:
2   name: 'sendmail'
3   state: '{{ cl_service_sendmail_state }}'
4   enabled: '{{ cl_service_sendmail_enable }}'
```

See Also

See also:

- See [vars-services.yml](#) how the variable `cl_services` is combined with the content of the directory `cl_servicesd_dir`.
- See [services.yml](#) how the services are configured.

1.6.5 cl_files - dictionary with files

- *Synopsis*
- *See Also*
- *Parameters for template*
- *Example of template*
- *See Also*
- *Notes*
- *Parameters for lineinfile*
- *Example of lineinfile*
- *See Also*
- *Parameters for blockinfile*
- *Example of blockinfileinfile*
- *See Also*
- *Parameters for ini_file*
- *Example of ini_file*
- *See Also*

Synopsis

The variable `cl_files` is a dictionary of the files that shall be created or modified by this role. It's optional which Ansible module will be used to create or modify a file and more options can be applied to create and modify the same file. For example, it's possible to create a file by the Ansible module `template` and modify it with the module `lineinfile` later. Several options are available:

1. `template`: If the attribute `template` is defined in the dictionary
2. `lineinfile`: If the attribute `lines` is defined in the dictionary
3. `blockinfile`: If the attribute `blocks` is defined in the dictionary
4. `ini_file`: If the attribute `ini` is defined in the dictionary

Multiple options, when used to create or modify a file, will be applied in this order.

See Also

See also:

- See [vars-files.yml](#) how the variable `cl_files` is combined with the content of the directory `cl_filesd_dir`.
- See [files.yml](#) how the files are created and modified.
- See [files-create-backup.yml](#) how the backups are created (when enabled by `cl_backup`).
- See [files-delete-backup.yml](#) how the backup files are deleted when the files haven't been modified.

Parameters for template

<i>Parameter</i>	<i>Type</i>	<i>Comments</i>
path	<i>string</i> required	Path to file
template	<i>string</i> required	Template filename
owner	<i>string</i>	Owner of the file
group	<i>string</i>	Group of the file
mode	<i>string</i>	Mode of the file
force	<i>boolean</i>	Replace when different default: true
validate	<i>string</i>	Command to validate file
handlers	<i>list</i>	List of handlers

Example of template

File `/etc/mail/mailer.conf` for postfix

[contrib/postfix/conf-light/files.d/mailer-conf]

```
1 mailerconf:  
2   path: '/etc/mail/mailer.conf'  
3   force: true  
4   owner: 'root'  
5   group: 'wheel'  
6   mode: '0644'  
7   template: 'mailer.conf.j2'
```

See Also

See also:

- See [files-template.yml](#) how the files are modified or created by the Ansible module `template`.

Notes

Note: There are couple of templates ready to be used in the directory `templates`. The user is expected to create new templates when needed. Feel free to contribute new templates to the [project](#).

Parameters for lineinfile

<i>Parameter</i>	<i>Type</i>	<i>Comments</i>
path	<i>string</i> required	Path to file
lines	<i>list</i> required	List of regexp and lines
owner	<i>string</i>	Owner of the file
group	<i>string</i>	Group of the file
mode	<i>string</i>	Mode of the file
create	<i>boolean</i>	Create if does not exist default: false
validate	<i>string</i>	Command to validate file
handlers	<i>list</i>	List of handlers

Example of lineinfile

File `/usr/local/etc/postfix/main.cf` for postfix

[`contrib/postfix/conf-light/files.d/postfix-main.cf`]

```
1 postfix_main_cf:
2   path: '/usr/local/etc/postfix/main.cf'
3   create: true
4   owner: 'root'
5   group: 'wheel'
6   mode: '0644'
7   handlers:
8     - 'postfix_freebsd reload postfix'
9   lines:
10     - regexp: '^myhostname\s*=\s*(.*)$'
11       line: 'myhostname = {{ cl_myhostname }}'
```

See Also

See also:

- See [files-lineinfile.yml](#) how the files are modified or created by the Ansible module `lineinfile`.

Parameters for blockinfile

<i>Parameter</i>	<i>Type</i>	<i>Comments</i>
path	<i>string</i> required	Path to file
blocks	<i>list</i> required	List of blocks and markers
owner	<i>string</i>	Owner of the file
group	<i>string</i>	Group of the file
mode	<i>string</i>	Mode of the file
create	<i>boolean</i>	Create if does not exist default: false
validate	<i>string</i>	Command to validate file
handlers	<i>list</i>	List of handlers

Example of blockinfileinfile

<TODO: No example yet>

See Also

See also:

- See [files-blockinfile.yml](#) how the files are modified or created by the Ansible module `blockinfile`.

Parameters for ini_file

<i>Parameter</i>	<i>Type</i>	<i>Comments</i>
path	<i>string</i> required	Path to file
ini	<i>list</i> required	List of {section,option,value} dictionaries
owner	<i>string</i>	Owner of the file
group	<i>string</i>	Group of the file
mode	<i>string</i>	Mode of the file
create	<i>boolean</i>	Create if does not exist default: true
handlers	<i>list</i>	List of handlers

Example of ini_file

<TODO: No example yet>

See Also

See also:

- See [files-inifile.yml](#) how the files are modified or created by the Ansible module `ini_file`.

1.7 Best practice

Create variables. Take a look at directory `conf-light/assemble/` what files were created.

```
shell> ansible-playbook config-light.yml -t cl_vars
```

Test sanity.

```
shell> ansible-playbook config-light.yml -t cl_sanity
```

Create handlers. Take a look at directory `roles/vbotka.config_light/handlers` what handlers were created. Run this task once to create the handlers. Then disable this task `cl_setup: false` to speedup the playbook.

```
shell> ansible-playbook config-light.yml -t cl_setup
```

Display variables. Display the variables for debug if needed. Then disable this task `cl_debug: false` to speedup the playbook.

```
shell> ansible-playbook config-light.yml -t cl_debug
```

Install packages.

```
shell> ansible-playbook config-light.yml -t cl_packages
```

Create and modify files

```
shell> ansible-playbook config-light.yml -t cl_files
```

Configure services

```
shell> ansible-playbook config-light.yml -t cl_services
```

The role and the configuration data in the examples are idempotent. Once the application is installed there should be no changes reported by *ansible-playbook* when running the playbook repeatedly.

ANNOTATED SOURCE CODE

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2.1 Tasks

2.1.1 main.yml

Synopsis: Tasks of the playbook.

Description of the task.

[main.yml]

```
1 ---
2 # tasks for config_light
3
4 - import_tasks: vars.yml
5   tags: [cl_vars, always]
6
7 - import_tasks: sanity.yml
8   when: cl_sanity|bool
9   tags: [cl_sanity, always]
10
11 - import_tasks: setup.yml
12   when: cl_setup|bool
13   delegate_to: localhost
14   run_once: true
15   tags: [cl_setup, always]
16
17 - import_tasks: debug.yml
18   when: cl_debug|bool
19   tags: [cl_debug, always]
20
21 - import_tasks: packages.yml
22   tags: cl_packages
23
24 - import_tasks: files.yml
25   tags: cl_files
26
27 - import_tasks: services.yml
28   tags: cl_services
29
30 # EOF
31 ...
```

2.1.2 vars.yml

Synopsis: Combine dictionaries of packages, services and files.

Description of the task.

[vars.yml]

```
1 ---
2
3 - name: "vars: Debug"
4   vars:
5     msg: |
6       cl_handlersd_dir [{{ cl_handlersd_dir }}]
```

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```

7     cl_packagesd_dir [{{ cl_packagesd_dir }}]
8     cl_servicesd_dir [{{ cl_servicesd_dir }}]
9     cl_filesd_dir [{{ cl_filesd_dir }}]
10    cl_dira [{{ cl_dira }}]
11    cl_handlersd [{{ cl_handlersd }}]
12    cl_packagesd [{{ cl_packagesd }}]
13    cl_servicesd [{{ cl_servicesd }}]
14    cl_filesd [{{ cl_filesd }}]
15    debug:
16        msg: "{{ msg.split('\n') }}"
17
18 - name: "vars: Packages"
19   import_tasks: vars-packages.yml
20
21 - name: "vars: Services"
22   import_tasks: vars-services.yml
23
24 - name: "vars: Files"
25   import_tasks: vars-files.yml
26
27 # EOF
28 ...

```

2.1.3 vars-files.yml

Synopsis: Combine dictionaries of files.

Description of the task.

[vars-files.yml]

```

1 ---
2
3 - name: "vars-files: Assemble files to {{ cl_filesd }}"
4   assemble:
5       regexp: "{{ cl_assemble_regexp }}"
6       src: "{{ cl_filesd_dir }}"
7       dest: "{{ cl_filesd }}"
8       owner: "{{ cl_dira_owner|default(omit) }}"
9       group: "{{ cl_dira_group|default(omit) }}"
10      mode: "{{ cl_dira_fmode }}"
11      validate: "{{ cl_assemble_validate|default(omit) }}"
12      delegate_to: localhost
13
14 - name: "vars-files: Include files from {{ cl_filesd }} to cl_filesd_items"
15   include_vars:
16       file: "{{ cl_filesd }}"
17       name: cl_filesd_items
18
19 - name: "vars-files: Combine cl_files with cl_filesd_items"
20   set_fact:
21       cl_files: "{{ cl_files|combine(cl_filesd_items|default({})) }}"
22
23 - name: "vars-files: Debug"
24   debug:
25       var: cl_files

```

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```

26  when: cl_debug|bool
27
28  # EOF
29  ...

```

2.1.4 vars-packages.yml

Synopsis: Combine dictionaries of packages.

Description of the task.

[vars-packages.yml]

```

1  ---
2
3  - name: "vars-packages: Assemble packages to {{ cl_packagesd }}"
4    assemble:
5      regexp: "{{ cl_assemble_regexp }}"
6      src: "{{ cl_packagesd_dir }}"
7      dest: "{{ cl_packagesd }}"
8      owner: "{{ cl_dira_owner|default(omit) }}"
9      group: "{{ cl_dira_group|default(omit) }}"
10     mode: "{{ cl_dira_fmode }}"
11     validate: "{{ cl_assemble_validate|default(omit) }}"
12     delegate_to: localhost
13
14  - name: "vars-packages: Include files from {{ cl_packagesd }} to cl_packagesd_items"
15    include_vars:
16      file: "{{ cl_packagesd }}"
17      name: cl_packagesd_items
18
19  - name: "vars-packages: Combine cl_packages with cl_packagesd_items"
20    set_fact:
21      cl_packages: "{{ cl_packages|combine(cl_packagesd_items|default({})) }}"
22
23  - name: "vars-packages: Debug"
24    debug:
25      var: cl_packages
26      when: cl_debug|bool
27
28  # EOF
29  ...

```

2.1.5 vars-services.yml

Synopsis: Combine dictionaries of services.

Description of the task.

[vars-services.yml]

```

1  ---
2
3  - name: "vars-services: Assemble services to {{ cl_servicesd }}"
4    assemble:

```

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```

5     regexp: "{{ cl_assemble_regexp }}"
6     src: "{{ cl_servicesd_dir }}"
7     dest: "{{ cl_servicesd }}"
8     owner: "{{ cl_dira_owner|default(omit) }}"
9     group: "{{ cl_dira_group|default(omit) }}"
10    mode: "{{ cl_dira_fmode }}"
11    validate: "{{ cl_assemble_validate|default(omit) }}"
12    delegate_to: localhost
13
14  - name: "vars-services: Include files from {{ cl_servicesd }} to cl_servicesd_items"
15    include_vars:
16      file: "{{ cl_servicesd }}"
17      name: cl_servicesd_items
18
19  - name: "vars-services: Combine cl_services with cl_servicesd_items"
20    set_fact:
21      cl_services: "{{ cl_services|combine(cl_servicesd_items|default({})) }}"
22
23  - name: "vars-services: Debug"
24    debug:
25      var: cl_services
26      when: cl_debug|bool
27
28  # EOF
29  ...

```

2.1.6 sanity.yml

Synopsis: Test sanity.

Description of the task.

[sanity.yml]

```

1  ---
2
3  - name: "sanity: Directories to assemble data from must exist"
4    block:
5      - name: "sanity: Directories to assemble data from must exist"
6        debug:
7          msg: "{{ msg.split('\n')[:-1] }}"
8        vars:
9          msg: |
10             Directories to assemble data from do not exist. End of host.
11             Hint: Double check existence of the directories
12             {{ cl_handlersd_dir }}
13             {{ cl_packagesd_dir }}
14             {{ cl_servicesd_dir }}
15             {{ cl_filesd_dir }}
16      - name: "sanity: End of host"
17        meta: end_host
18    when:
19      - cl_handlersd_dir is not exists or
20        cl_packagesd_dir is not exists or
21        cl_servicesd_dir is not exists or
22        cl_filesd_dir is not exists

```

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```

23
24 - name: "sanity: Check mode not possible without assembled data"
25   block:
26     - name: "sanity: Check mode not possible without assembled data"
27       debug:
28         msg: "{{ msg.split('\n')[:-1] }}"
29       vars:
30         msg: |
31           Check mode not possible without assembled data. End of host.
32           Hint: Assemble the variables first.
33           Run: ansible-playbook playbook.yml -t cl_vars
34     - name: "sanity: End of host"
35       meta: end_host
36   when:
37     - ansible_check_mode
38     - cl_filesd is not exists or
39       cl_packagesd is not exists or
40       cl_servicesd is not exists
41
42 # EOF
43 ...

```

2.1.7 setup.yml

Synopsis: Setup. Create dirs. Create handlers.

Description of the task.

[setup.yml]

```

1 ---
2
3 - name: "setup: Create directory {{ cl_dira }}"
4   file:
5     state: "directory"
6     path: "{{ cl_dira }}"
7     owner: "{{ cl_dira_owner|default(omit) }}"
8     group: "{{ cl_dira_group|default(omit) }}"
9     mode: "{{ cl_dira_dmode }}"
10
11 - name: "setup: Assemble handlers"
12   import_tasks: vars-handlers.yml
13
14 - name: "setup: Create handlers"
15   template:
16     dest: "{{ role_path }}/handlers/handlers-auto-{{ item.key }}.yaml"
17     src: "{{ item.value.template }}"
18     validate: "{{ cl_handlers_validate|default(omit) }}"
19     backup: "{{ cl_backup }}"
20     loop: "{{ cl_handlers|dict2items }}"
21
22 - name: "setup: Include handlers"
23   lineinfile:
24     path: "{{ role_path }}/handlers/main.yml"
25     line: "- import_tasks: handlers-auto-{{ item.key }}.yaml"
26     validate: "{{ cl_handlers_validate|default(omit) }}"

```

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```

27     backup: "{{ cl_backup }}"
28     create: true
29     loop: "{{ cl_handlers|dict2items }}"
30
31 # EOF
32 ...

```

2.1.8 vars-handlers.yml

Synopsis: Combine dictionaries of handlers.

Description of the task.

[vars-handlers.yml]

```

1 ---
2
3 - name: "vars-handlers: Assemble handlers to {{ cl_handlersd }}"
4   assemble:
5     regexp: "{{ cl_assemble_regexp }}"
6     src: "{{ cl_handlersd_dir }}"
7     dest: "{{ cl_handlersd }}"
8     owner: "{{ cl_dira_owner|default(omit) }}"
9     group: "{{ cl_dira_group|default(omit) }}"
10    mode: "{{ cl_dira_fmode }}"
11    validate: "{{ cl_assemble_validate|default(omit) }}"
12    delegate_to: localhost
13
14 - name: "vars-handlers: Include files from {{ cl_handlersd }} to cl_handlersd_items"
15   include_vars:
16     file: "{{ cl_handlersd }}"
17     name: cl_handlersd_items
18
19 - name: "vars-handlers: Combine cl_handlers with cl_handlersd_items"
20   set_fact:
21     cl_handlers: "{{ cl_handlers|combine(cl_handlersd_items|default({})) }}"
22
23 - name: "vars-handlers: Debug"
24   debug:
25     var: cl_handlers
26     when: cl_debug|bool
27
28 # EOF
29 ...

```

2.1.9 debug.yml

Synopsis: Display variables.

Description of the task.

[debug.yml]

```

1 ---
2
3 - name: "debug: Config Light"
4   vars:
5     msg: |
6       ansible_os_family [{{ ansible_os_family }}]
7       ansible_distribution [{{ ansible_distribution }}]
8       ansible_distribution_major_version [{{ ansible_distribution_major_version }}]
9       ansible_distribution_version [{{ ansible_distribution_version }}]
10      ansible_distribution_release [{{ ansible_distribution_release }}]
11      ansible_python_version [{{ ansible_python_version }}]
12
13      cl_backup [{{ cl_backup }}]
14      cl_handlers
15      {{ cl_handlers|to_nice_yaml }}
16      cl_packages
17      {{ cl_packages|to_nice_yaml }}
18      cl_services
19      {{ cl_services|to_nice_yaml }}
20      cl_files
21      {{ cl_files|to_nice_yaml }}
22
23      install_retries [{{ install_retries }}]
24      install_delay [{{ install_delay }}]
25
26      freebsd_install_method [{{ freebsd_install_method }}]
27      freebsd_use_packages [{{ freebsd_use_packages }}]
28
29   debug:
30     msg: "{{ msg.split('\n') }}"
31
32 # EOF
33 ...

```

2.1.10 packages.yml

Synopsis: Install packages.

Description of the task.

[packages.yml]

```

1 ---
2
3 # FreeBSD -----
4 - name: "packages: Install packages FreeBSD"
5   block:
6     - name: "packages: Install packages FreeBSD"
7       pkgng:
8         name: "{{ item.value.name }}"

```

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```

9     state: "{{ item.value.state|default(omit) }}"
10    annotation: "{{ item.value.annotation|default(omit) }}"
11    autoremove: "{{ freebsd_pkgng_autoremove|default(omit) }}"
12    cached: "{{ freebsd_pkgng_cached|default(omit) }}"
13    chroot: "{{ freebsd_pkgng_chroot|default(omit) }}"
14    jail: "{{ freebsd_pkgng_jail|default(omit) }}"
15    pkgsite: "{{ freebsd_pkgng_pkgsite|default(omit) }}"
16    rootdir: "{{ freebsd_pkgng_rootdir|default(omit) }}"
17    loop: "{{ cl_packages|dict2items }}"
18    loop_control:
19        label: "{{ item.key }}"
20    register: result
21    until: result is succeeded
22    retries: "{{ install_retries }}"
23    delay: "{{ install_delay }}"
24    - name: "packages: Debug FreeBSD packages"
25      debug:
26          var: result
27      when: cl_debug|bool
28    when:
29        - ansible_os_family == "FreeBSD"
30        - freebsd_install_method|lower == "packages"
31
32    - name: "packages: Install ports FreeBSD"
33      block:
34          - name: "packages: Install ports FreeBSD"
35            portinstall:
36                name: "{{ item.value.name }}"
37                state: "{{ item.value.state|default(omit) }}"
38                use_packages: "{{ item.value.use_packages|default(freebsd_use_packages) }}"
39            loop: "{{ cl_packages|dict2items }}"
40            loop_control:
41                label: "{{ item.key }}"
42            register: result
43            until: result is succeeded
44            retries: "{{ install_retries }}"
45            delay: "{{ install_delay }}"
46          - name: "packages: Debug FreeBSD ports"
47            debug:
48                var: result
49            when: cl_debug|bool
50        when:
51            - ansible_os_family == "FreeBSD"
52            - freebsd_install_method|lower == "ports"
53
54    # Linux -----
55    - name: "packages: Install packages Linux"
56      block:
57          - name: "packages: Install packages Linux"
58            package:
59                name: "{{ item.value.name }}"
60                state: "{{ item.value.state|default('present') }}"
61                use: "{{ item.value.use|default('auto') }}"
62            loop: "{{ cl_packages|dict2items }}"
63            loop_control:
64                label: "{{ item.key }}"
65            register: result

```

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```

66     until: result is succeeded
67     retries: "{{ install_retries }}"
68     delay: "{{ install_delay }}"
69   - name: "packages: Debug Linux"
70     debug:
71       var: result
72     when: cl_debug|bool
73   when: ansible_os_family == "RedHat" or
74         ansible_os_family == "Debian"
75
76 # EOF
77 ...

```

2.1.11 files.yml

Synopsis: Create or modify files.

Description of the task.

[files.yml]

```

1 ---
2
3 - name: "files: Create backup"
4   import_tasks: files-create-backup.yml
5   when: cl_backup|bool
6
7 - name: "files: Template"
8   import_tasks: files-template.yml
9
10 - name: "file: Lineinfile"
11   import_tasks: files-lineinfile.yml
12
13 - name: "file: Blockinfile"
14   import_tasks: files-blockinfile.yml
15
16 - name: "files: INI file"
17   import_tasks: files-inifile.yml
18
19 - name: "file: Delete backup"
20   import_tasks: files-delete-backup.yml
21   when:
22     - cl_backup|bool
23     - not ansible_check_mode
24
25 # EOF
26 ...

```


2.1.12 files-create-backup.yml

Synopsis: Create backup files.

Description of the task.

[files-create-backup.yml]

```

1 ---
2
3 - name: "file-create-backup: Create time-stamp"
4   set_fact:
5     cl_timestamp: "{{ '%Y-%m-%d_%H_%M_%S'|strftime }}"
6
7 - name: "file-create-backup: Stat {{ item.path }}"
8   stat:
9     path: "{{ item.path }}"
10  loop: "{{ cl_files.values() }}"
11  loop_control:
12    label: "{{ item.path }}"
13  register: result
14
15 - name: "file-create-backup: Debug result"
16   debug:
17     var: result
18   when: cl_debug|bool
19
20 - name: "file-create-backup: Create backup files"
21   copy:
22     remote_src: true
23     src: "{{ item.item.path }}"
24     dest: "{{ item.item.path }}_{{ cl_timestamp }}.bak"
25     mode: "preserve"
26     loop: "{{ result.results }}"
27     loop_control:
28       label: "{{ item.item.path }}"
29     when: item.stat.exists
30     changed_when: false
31
32 # EOF
33 ...

```

2.1.13 files-delete-backup.yml

Synopsis: Delete backup files if the files haven't been modified.

Description of the task.

[files-delete-backup.yml]

```

1 ---
2
3 - name: "files-delete-backup: Delete backup files that did not change"
4   when: cl_backup|bool
5   file:
6     state: absent
7     path: "{{ item }}_{{ cl_timestamp }}.bak"
8     loop: "{{ cl_files.values()|json_query('[].path')|

```

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```

9         difference(
10             cl_results_template.results|default([])|
11             json_query('[?changed==`true`].invocation.module_args.path')|
12             difference(
13                 cl_results_lines.results|default([])|
14                 json_query('[?changed==`true`].invocation.module_args.path')|
15                 difference(
16                     cl_results_blocks.results|default([])|
17                     json_query('[?changed==`true`].invocation.module_args.path')|
18                     difference(
19                         cl_results_inifile.results|default([])|
20                         json_query('[?changed==`true`].invocation.module_args.path')
21                     ))
22     changed_when: false
23
24 # EOF
25 ...

```

2.1.14 files-template.yml

Synopsis: Create or modify files by Ansible module `template`.

Description of the task.

[files-template.yml]

```

1 ---
2 # TODO: Complete parameters
3 - name: "files-template: Template"
4   template:
5     dest: "{{ item.path }}"
6     src: "{{ item.template }}"
7     owner: "{{ item.owner|default(omit) }}"
8     group: "{{ item.group|default(omit) }}"
9     mode: "{{ item.mode|default(omit) }}"
10    force: "{{ item.force|default(omit) }}"
11    validate: "{{ item.validate|default(omit) }}"
12    # backup: "{{ cl_backup }}"
13    loop: "{{ cl_files.values()|selectattr('template', 'defined')|list }}"
14    loop_control:
15      label: "{{ item.path }}"
16    notify: "{{ item.handlers|default(omit) }}"
17    register: cl_results_template
18
19 - name: "files-template: Debug"
20   block:
21     - name: Debug cl_results_template
22       debug:
23         var: cl_results_template
24     - name: Debug changed template path
25       debug:
26         msg: "{{ cl_results_template|default([])|
27             json_query('[?changed==`true`].invocation.module_args.path')
28             }}"
29   when: cl_debug|bool
30

```

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```

31 # EOF
32 ...

```

2.1.15 files-lineinfile.yml

Synopsis: Create or modify files by Ansible module lineinfile.

Description of the task.

[files-lineinfile.yml]

```

1 ---
2 # TODO: Complete parameters
3 - name: "files-lineinfile: Lineinfile"
4   lineinfile:
5     path: "{{ item.0.path }}"
6     regexp: "{{ item.1.regexp }}"
7     line: "{{ item.1.line }}"
8     owner: "{{ item.0.owner|default(omit) }}"
9     group: "{{ item.0.group|default(omit) }}"
10    mode: "{{ item.0.mode|default(omit) }}"
11    create: "{{ item.0.create|default(omit) }}"
12    validate: "{{ item.0.validate|default(omit) }}"
13    # backup: "{{ cl_backup }}"
14    loop: "{{ cl_files.values()|subelements('lines', skip_missing=true) }}"
15    loop_control:
16      label: "{{ item.0.path }}"
17    notify: "{{ item.0.handlers|default(omit) }}"
18    register: cl_results_lines
19
20 - name: "files-lineinfile: Debug"
21   block:
22     - name: Debug cl_results_lines
23       debug:
24         var: cl_results_lines
25     - name: Debug changed lines paths
26       debug:
27         msg: "{{ cl_results_lines.results|default([])|
28               json_query('[?changed==`true`'].invocation.module_args.path')
29               }}"
30   when: cl_debug|bool
31
32 # EOF
33 ...

```

2.1.16 files-blockinfile.yml

Synopsis: Create or modify files by Ansible module `blockinfile`.

Description of the task.

[files-blockinfile.yml]

```

1 ---
2 # TODO: Complete parameters
3 - name: "files-blockinfile: Blockinfile"
4   blockinfile:
5     path: "{{ item.0.path }}"
6     marker: "# {mark} ANSIBLE MANAGED BLOCK {{ item.1.marker }}"
7     block: "{{ item.1.block }}"
8     owner: "{{ item.0.owner|default(omit) }}"
9     group: "{{ item.0.group|default(omit) }}"
10    mode: "{{ item.0.mode|default(omit) }}"
11    create: "{{ item.0.create|default(omit) }}"
12    validate: "{{ item.0.validate|default(omit) }}"
13    # backup: "{{ cl_backup }}"
14    loop: "{{ cl_files.values()|subelements('blocks', skip_missing=true) }}"
15    loop_control:
16      label: "{{ item.0.path }}"
17    notify: "{{ item.0.handlers|default(omit) }}"
18    register: cl_results_blocks
19
20 - name: "files-blockinfile: Debug"
21   block:
22     - name: Debug cl_results_blocks
23       debug:
24         var: cl_results_blocks
25     - name: Debug changed blocks paths
26       debug:
27         msg: "{{ cl_results_blocks.results|default([])|
28              json_query('[?changed==`true`'].invocation.module_args.path')
29              }}"
30   when: cl_debug|bool
31
32 # EOF
33 ...

```

2.1.17 files-inifile.yml

Synopsis: Create or modify files by Ansible module `ini_infile`.

Description of the task.

[files-inifile.yml]

```

1 ---
2 # TODO: Complete parameters
3 - name: "files-inifile: INI files"
4   ini_file:
5     path: "{{ item.0.path }}"
6     section: "{{ item.1.section }}"
7     option: "{{ item.1.option }}"
8     value: "{{ item.1.value }}"

```

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```

9     owner: "{{ item.0.owner|default(omit) }}"
10    group: "{{ item.0.group|default(omit) }}"
11    mode:  "{{ item.0.mode|default(omit) }}"
12    create: "{{ item.0.create|default(omit) }}"
13    # backup: "{{ cl_backup }}"
14    loop:  "{{ cl_files.values()|subelements('ini', skip_missing=true) }}"
15    loop_control:
16        label: "{{ item.0.path }}"
17    notify: "{{ item.0.handlers|default(omit) }}"
18    register: cl_results_ini
19
20 - name: "files-inifile: Debug"
21   block:
22     - name: Debug cl_results_ini
23       debug:
24         var: cl_results_ini
25     - name: Debug changed ini paths
26       debug:
27         msg: "{{ cl_results_ini.results|default([])|
28                json_query('[?changed==`true`'].invocation.module_args.path')
29                }}"
30   when: cl_debug|bool
31
32 # EOF
33 ...

```

2.1.18 services.yml

Synopsis: Configure services.

Description of the task.

[services.yml]

```

1  ---
2
3  # FreeBSD -----
4  - name: "services: FreeBSD"
5    block:
6
7      - name: "services: Enable service in rc.conf FreeBSD"
8        lineinfile:
9          dest: "/etc/rc.conf"
10         regexp: "^\\s*{{ item.value.name }}_enable\\s*="
11         line:  "{{ item.value.name }}_enable=\"YES\""
12         backup: "{{ cl_backup }}"
13         loop:  "{{ cl_services|dict2items }}"
14         loop_control:
15             label: "{{ item.key }}"
16         when: "item.value.enabled|default(true)|bool"
17
18     - name: "services: Disable service in rc.conf FreeBSD"
19       lineinfile:
20         dest: "/etc/rc.conf"
21         regexp: "^\\s*{{ item.value.name }}_enable\\s*="
22         line:  "{{ item.value.name }}_enable=\"NO\""

```

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```

23     backup: "{{ cl_backup }}"
24     loop: "{{ cl_services|dict2items }}"
25     loop_control:
26         label: "{{ item.key }}"
27         when: "not item.value.enabled|default(true)|bool"
28
29     when: "ansible_os_family == 'FreeBSD'"
30
31 # All -----
32 - name: "services: Manage services"
33   block:
34
35     - name: "services: Manage services"
36       service:
37         name: "{{ item.value.name }}"
38         state: "{{ item.value.state|default('started') }}"
39         enabled: "{{ item.value.enabled|default(true) }}"
40         loop: "{{ cl_services|dict2items }}"
41         loop_control:
42             label: "{{ item.key }}"
43
44     when: "ansible_os_family == 'RedHat' or
45           ansible_os_family == 'Debian' or
46           ansible_os_family == 'FreeBSD'"
47
48 # EOF
49 ...

```

EXAMPLES

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3.1 FreeBSD Postfix

3.1.1 Handlers

contrib/postfix/conf-light/handlers.d/postfix-freebsd

Synopsis: Create handlers for Postfix.

Use template (2) to create handlers.

[contrib/postfix/conf-light/handlers.d/postfix-freebsd]

```

1 postfix_freebsd:
2   template: handlers-auto1.yml.j2
3   params:
4
5   - handler: 'enable and start postfix'
6     module: service
7     params:
8       - 'name: postfix'
9       - 'state: started'
10      - 'enabled: true'
11
12  - handler: 'disable and stop postfix'
13    module: service
14    params:
15      - 'name: postfix'
16      - 'state: stopped'
17      - 'enabled: false'
18
19  - handler: 'reload postfix'
20    module: service
21    params:
22      - 'name: postfix'
23      - 'state: reloaded'
24    conditions:
25      - '- cl_service_postfix_enable|bool'
26
27  - handler: 'restart postfix'
28    module: service
29    params:
30      - 'name: postfix'
31      - 'state: restarted'
32    conditions:
33      - '- cl_service_postfix_enable|bool'
34
35  - handler: 'postfix check'
36    module: command
37    params:
38      - 'cmd: /usr/local/sbin/postfix check'
39
40  - handler: 'newaliases'
41    module: command
42    params:
43      - 'cmd: /usr/bin/newaliases'
44
45  # - handler: 'postmap smtp sasl passwords'
```

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```

46 #     module: command
47 #     params:
48 #         - 'cmd: /usr/local/sbin/postmap {{ postfix_main_cf_smtp_sasl_password_maps }}'
49 ↪
50 # - handler: 'postmap virtual aliases'
51 #     module: command
52 #     params:
53 #         - cmd: /usr/local/sbin/postmap {{ postfix_virtual }}'

```

See also:

See [setup.yml](#) how the handlers are created.

contrib/postfix/conf-light/handlers.d/sendmail-freebsd

Synopsis: Create handlers for Sendmail.

Use template (2) to create handlers.

[contrib/postfix/conf-light/handlers.d/sendmail-freebsd]

```

1 sendmail_freebsd:
2   template: handlers-auto1.yml.j2
3   params:
4
5   - handler: 'enable and start sendmail'
6     module: service
7     params:
8       - 'name: sendmail'
9       - 'state: started'
10      - 'enabled: true'
11
12  - handler: 'disable and stop sendmail'
13    module: service
14    params:
15      - 'name: sendmail'
16      - 'state: stopped'
17      - 'enabled: false'
18
19  - handler: 'reload sendmail'
20    module: service
21    params:
22      - 'name: sendmail'
23      - 'state: reloaded'
24    conditions:
25      - '- cl_service_sendmail_enable|bool'
26
27  - handler: 'restart sendmail'
28    module: service
29    params:
30      - 'name: sendmail'
31      - 'state: restarted'
32    conditions:
33      - '- cl_service_sendmail_enable|bool'
34
35  - handler: 'start sendmail'

```

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```

36     module: service
37     params:
38       - 'name: sendmail'
39       - 'state: started'
40
41   - handler: 'stop sendmail'
42     module: service
43     params:
44       - 'name: sendmail'
45       - 'state: stopped'

```

See also:

See [setup.yml](#) how the handlers are created.

3.1.2 Packages

contrib/postfix/conf-light/packages.d/postfix

Synopsis: Install Postfix.

Use package or port (2) to install Postfix.

[contrib/postfix/conf-light/packages.d/postfix]

```

1 postfix:
2   name: 'mail/postfix'

```

See also:

See [packages.yml](#) how the FreeBSD packages or ports are installed.

3.1.3 Services

contrib/postfix/conf-light/services.d/postfix

Synopsis: Configure Postfix service.

Set service (2) state (3). Run the service on boot (4).

[contrib/postfix/conf-light/services.d/postfix]

```

1 postfix:
2   name: 'postfix'
3   state: '{{ cl_service_postfix_state }}'
4   enabled: '{{ cl_service_postfix_enable }}'

```

See also:

See custom Postfix variables [contrib/postfix/config-light-postfix.yml](#). See [services.yml](#) how the services are configured.

contrib/postfix/conf-light/services.d/sendmail

Synopsis: Configure Sendmail service.

Set service (2) state (3). Do not run the service on boot (4).

[contrib/postfix/conf-light/services.d/sendmail]

```

1 sendmail:
2   name: 'sendmail'
3   state: '{{ cl_service_sendmail_state }}'
4   enabled: '{{ cl_service_sendmail_enable }}'

```

See also:

See custom Postfix variables *contrib/postfix/config-light-postfix.yml*.

3.1.4 Files

contrib/postfix/config-light-postfix.yml

Synopsis: Custom variables for Postfix.

Put the host-specific variables (6) into the `host_vars`. Optionally other variables might be put into the `group_vars`.

[contrib/postfix/config-light-postfix.yml]

```

1 ---
2
3 # 28.4.2. Replace the Default MTA
4 # https://www.freebsd.org/doc/en_US.ISO8859-1/books/handbook/mail-changingmta.html
5
6 cl_myhostname: host99.region9.example.com
7
8 # conf-light/files.d/mailler-conf
9 # Execute the Postfix sendmail program, named /usr/local/sbin/sendmail
10 cl_maillerconf:
11   - 'sendmail      /usr/local/sbin/sendmail'
12   - 'send-mail     /usr/local/sbin/sendmail'
13   - 'mailq         /usr/local/sbin/sendmail'
14   - 'newaliases    /usr/local/sbin/sendmail'
15
16 # conf-light/files.d/rc-rconf
17 cl_rcconf_postfix_enable: 'YES'
18 cl_rcconf_sendmail_enable: 'NO'
19 cl_rcconf_sendmail_submit_enable: 'NO'
20 cl_rcconf_sendmail_outbound_enable: 'NO'
21 cl_rcconf_sendmail_msp_queue_enable: 'NO'
22
23 # conf-light/files.d/periodic-conf
24 cl_periodicconf_daily_clean_hoststat_enable: "NO"
25 cl_periodicconf_daily_status_mail_rejects_enable: "NO"
26 cl_periodicconf_daily_status_include_submit_mailq: "NO"
27 cl_periodicconf_daily_submit_queueerun: "NO"
28
29 # Services
30 cl_service_sendmail_enable: false

```

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```

31 cl_service_sendmail_state: 'stopped'
32 cl_service_postfix_enable: true
33 cl_service_postfix_state: 'started'
34
35 # If you are using SASL, you need to make sure that postfix has access
36 # to read the sasldb file. This is accomplished by adding postfix to
37 # group mail and making the /usr/local/etc/sasldb* file(s) readable by
38 # group mail (this should be the default for new installs).
39
40 # EOF
41 ...

```

contrib/postfix/conf-light/files.d/mailer-conf

Synopsis: Create file.

Create file (2) from the template (7).

[contrib/postfix/conf-light/files.d/mailer-conf]

```

1 mailerconf:
2   path: '/etc/mail/mailer.conf'
3   force: true
4   owner: 'root'
5   group: 'wheel'
6   mode: '0644'
7   template: 'mailer.conf.j2'

```

contrib/postfix/conf-light/files.d/periodic-conf

Synopsis: Modify file.

Modify file (2) with the lines (7).

[contrib/postfix/conf-light/files.d/periodic-conf]

```

1 periodic_conf:
2   path: '/etc/periodic.conf'
3   create: true
4   owner: 'root'
5   group: 'wheel'
6   mode: '0644'
7   lines:
8     - regexp: '^daily_clean_hoststat_enable(.*)$'
9       line: 'daily_clean_hoststat_enable="{{ cl_periodicconf_daily_clean_hoststat_
    ↪enable }}"'
10    - regexp: '^daily_status_mail_rejects_enable(.*)$'
11      line: 'daily_status_mail_rejects_enable="{{ cl_periodicconf_daily_status_mail_
    ↪rejects_enable }}"'
12    - regexp: '^daily_status_include_submit_mailq(.*)$'
13      line: 'daily_status_include_submit_mailq="{{ cl_periodicconf_daily_status_
    ↪include_submit_mailq }}"'
14    - regexp: '^daily_submit_queuerun(.*)$'
15      line: 'daily_submit_queuerun="{{ cl_periodicconf_daily_submit_queuerun }}"'

```

contrib/postfix/conf-light/files.d/postfix-main-cf

Synopsis: Modify file and notify handlers.

Modify file (2) with the lines (9) and notify handlers (7).

[contrib/postfix/conf-light/files.d/postfix-main-cf]

```

1 postfix_main_cf:
2   path: '/usr/local/etc/postfix/main.cf'
3   create: true
4   owner: 'root'
5   group: 'wheel'
6   mode: '0644'
7   handlers:
8     - 'postfix_freebsd reload postfix'
9   lines:
10    - regexp: '^myhostname\s*=\s*(.*)$'
11      line: 'myhostname = {{ cl_myhostname }}'

```

contrib/postfix/conf-light/files.d/rc-conf

Synopsis: Modify file.

Modify file (2) with the lines (7).

[contrib/postfix/conf-light/files.d/rc-conf]

```

1 rcconf:
2   path: '/etc/rc.conf'
3   create: true
4   owner: 'root'
5   group: 'wheel'
6   mode: '0644'
7   lines:
8     - regexp: '^sendmail_enable(.*)$'
9       line: 'sendmail_enable="{{ cl_rcconf_sendmail_enable }}"'
10    - regexp: '^sendmail_submit_enable(.*)$'
11       line: 'sendmail_submit_enable="{{ cl_rcconf_sendmail_submit_enable }}"'
12    - regexp: '^sendmail_outbound_enable(.*)$'
13       line: 'sendmail_outbound_enable="{{ cl_rcconf_sendmail_outbound_enable }}"'
14    - regexp: '^sendmail_msp_queue_enable(.*)$'
15       line: 'sendmail_msp_queue_enable="{{ cl_rcconf_sendmail_msp_queue_enable }}"'
16    - regexp: '^postfix_enable(.*)$'
17       line: 'postfix_enable="{{ cl_rcconf_postfix_enable }}"'

```

3.2 Armbian Simple SMTP

3.2.1 Packages

contrib/ssmtp/conf-light/packages.d/ssmtp

Synopsis: Install Simple SMTP.

Use package (2) to install sSMTP.

[contrib/ssmtp/conf-light/packages.d/ssmtp]

```
1 ssmtp:
2   name: 'ssmtp'
```

See also:

See *packages.yml* how the Linux packages are installed.

3.2.2 Files

contrib/ssmtp/config-light-ssmtp.yml

Synopsis: Custom variables for sSMTP.

Put the host-specific variables (7) into the `host_vars`. Optionally other variables might be put into the `group_vars`.

[contrib/ssmtp/config-light-ssmtp.yml]

```
1 ---
2
3 # sSMTP - Simple SMTP
4 # https://wiki.debian.org/sSMTP
5
6 # linux-postinstall FQDN
7 lp_fqdn: "host99.region9.example.com"
8
9 # NEVER USE PLAINTEXT PASSWORD. USE VAULT INSTEAD
10 smtp_client_password_mail_example_com: "PASSWORD"
11
12 # conf-light/files.d/ssmtp-conf
13 cl_ssmtp_srv: "mail.example.com"
14 cl_ssmtp_srv_domain: "example.com"
15
16 cl_ssmtp_postmaster_address: "postmaster@{{ lp_fqdn }}"
17 cl_ssmtp_mailhub: "{{ cl_ssmtp_srv }}:587"
18 cl_ssmtp_rewriteDomain: "{{ cl_ssmtp_srv_domain }}"
19
20 cl_ssmtp_UseTLS: "Yes"
21 cl_ssmtp_UseSTARTTLS: "Yes"
22
23 cl_ssmtp_AuthUser: "smtp_client"
24 cl_ssmtp_AuthPass: "{{ smtp_client_password_mail_example_com }}"
25 cl_ssmtp_AuthMethod: "LOGIN"
26
27 cl_ssmtp_FromLineOverride: "yes"
28
29 # conf-light/files.d/revaliases
30 cl_ssmtp_revaliases:
31   - "root:root@{{ cl_ssmtp_srv_domain }}:{{ cl_ssmtp_srv }}:587"
32   - "admin:admin@{{ cl_ssmtp_srv_domain }}:{{ cl_ssmtp_srv }}:587"
33   - "user1:user1@{{ cl_ssmtp_srv_domain }}:{{ cl_ssmtp_srv }}:587"
34
35 # EOF
36 ...
```

contrib/ssmtp/conf-light/files.d/revaliases

Synopsis: Create file.

Create file (2) from the template (7).

[contrib/ssmtp/conf-light/files.d/revaliases]

```
1 revaliases:
2   path: '/etc/ssmtp/revaliases'
3   force: true
4   owner: 'root'
5   group: 'mail'
6   mode: 'u=rw,g=r'
7   template: 'revaliases.j2'
```

See also:

See template `revaliases.j2`. See how files are created from template *files-template.yml*.

contrib/ssmtp/conf-light/files.d/ssmtp-conf

Synopsis: Create file.

Create file (2) from the template (7).

[contrib/ssmtp/conf-light/files.d/ssmtp-conf]

```
1 ssmtp_conf:
2   path: '/etc/ssmtp/ssmtp.conf'
3   force: true
4   owner: 'root'
5   group: 'mail'
6   mode: 'u=rw,g=r'
7   template: 'ssmtp.conf.j2'
```

See also:

See template `ssmtp.conf.j2`. See how files are created from template *files-template.yml*.

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