Network YAML format

- Ethernet and ethernet switches
- Example configuration
  - DSL network
  - Home network
  - Pure IoT bypass network
  - Isolated network config
  - Isolated IPv4 network config
  - Isolated IPv6 network config
  - Setting a hostname "lemon" unmanaged
  - Setting up an ethernet bridge
  - Network config with no gateway addresses

Ethernet and ethernet switches

This section describes the ethernet and ethernet switch configuration.

The top-level keys for ethernet and ethernet switches are combined into a single JSON object, although such a configuration is not valid if both ethernet and ethernet switches are defined in the same file. Ethernet and ethernet switch configuration can be spread across multiple files, and/or be mixed with other network configuration.

General metadata

The top-level version metadata property is optional.

```
network:
  version: "2"
  renderer: networkd|NetworkManager|sriov|ovs|openvswitch
  ovs-ignore: true|false
  ovs-hwol-ignore: true|false
  ovs-hwol-offloaded: true|false
  ovs-hwol-unsupported: true|false
  ovs-hwol-error: "error message"
  ovs-hwol-partial: true|false
  ovs-hwol-partial-ports: "port1 port2"
  ethernets:
    [...]
  switches:
    [...]
```

renderer: Which of the available backends to use for this interface. See the Introduction section of the manpage for details on how this is chosen if not specified.

ovs-ignore: Ignore this interface/port/bond/vlan when generating OpenvSwitch configuration. Defaults to false.

ovs-hwol-ignore: Ignore this interface/port/bond/vlan when generating OpenvSwitch hardware offload configuration. Defaults to false.

ovs-hwol-offloaded: Set to true if hardware offload has been successfully applied to this interface/port/bond/vlan. Defaults to false.

ovs-hwol-unsupported: Set to true if hardware offload is not supported on this interface/port/bond/vlan. Defaults to false.

ovs-hwol-error: Set to a quoted error message if hardware offload failed to be applied to this interface/port/bond/vlan.

ovs-hwol-partial: Set to true if hardware offload is only partially supported on this interface/port/bond/vlan. Defaults to false.

ovs-hwol-partial-ports: Space-separated list of ports that are partially offloaded. Only meaningful when ovs-hwol-partial is true.

Ethernets

Ethernet interfaces are configured in the ethernets section of the top-level network object.

```
network:
  ethernets:
    eth0:
      match:
        macaddress: 00:11:22:33:44:55
        driver: igb e1000 e100
        name: en*
        kernel-bootmac: 22:33:44:55:66:77
      wakeonlan: true
      dhcp4: true|false|"hostname"
      dhcp6: true|false
      dhcp-identifier: duid|lease|mac
      dhcp6-duid: duid|lease|mac
      dhcp-identifier: mac
      dhcp4-overrides:
        hostname: hostname
        send-hostname: false
        dhcp-identifier: mac
        dhcp-client-identifier: mac
        dhcp-send-release: false
        dhcp-send-decline: false
        dhcp-broadcast: true
        dhcp-ttl: 255
        dhcp-mtu-ignore: true
        dhcp-unicast-ignore: true
        dhcp-vendor-class-identifier: "vendor class"
        dhcp-reject-offers: "1.2.3.4 5.6.7.8"
        dhcp-ignore-nak: true
        dhcp-use-domains: true|false|~domain1 domain2
        dhcp-use-dns: true
        dhcp-use-hostname: true
        dhcp-use-mtu: true
        dhcp-use-ntp: true
        dhcp-use-routes: true
        dhcp-use-gateway: true
        dhcp-use-subnet-mask: true
        dhcp-use-timezone: true
        dhcp-use-netbios: true
        dhcp-use-mtu-6rd: true
        dhcp-use-6rd: true
        dhcp-use-capwap: true
        dhcp-use-sip: true
        dhcp-use-lpr-servers: true
        dhcp-use-pop3-servers: true
        dhcp-use-smtp-servers: true
        dhcp-use-nntp-servers: true
        dhcp-use-ldap-servers: true
        dhcp-use-nis-servers: true
        dhcp-use-nis-domain: true
        dhcp-use-root-path: true
        dhcp-use-tftp-server-name: true
        dhcp-use-bootfile-name: true
        dhcp-use-ipv6-pcp: true
        dhcp-use-ipv6-stateless-prefix: true
        dhcp-use-ipv6-stateless-dns: true
        dhcp-use-ipv6-stateless-domain: true
        dhcp-use-ipv6-stateless-ntp: true
        dhcp-use-ipv6-stateless-sip: true
        dhcp-use-ipv6-stateless-lpr: true
        dhcp-use-ipv6-stateless-pop3: true
        dhcp-use-ipv6-stateless-smtp: true
        dhcp-use-ipv6-stateless-nntp: true
        dhcp-use-ipv6-stateless-ldap: true
        dhcp-use-ipv6-stateless-nis: true
        dhcp-use-ipv6-stateless-nis-domain: true
        dhcp-use-ipv6-stateless-root-path: true
        dhcp-use-ipv6-stateless-tftp-server-name: true
        dhcp-use-ipv6-stateless-bootfile-name: true
        dhcp-use-ipv6-stateless-ipv6-pcp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-prefix: true
        dhcp-use-ipv6-stateless-ipv6-stateless-dns: true
        dhcp-use-ipv6-stateless-ipv6-stateless-domain: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ntp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-sip: true
        dhcp-use-ipv6-stateless-ipv6-stateless-lpr: true
        dhcp-use-ipv6-stateless-ipv6-stateless-pop3: true
        dhcp-use-ipv6-stateless-ipv6-stateless-smtp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-nntp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ldap: true
        dhcp-use-ipv6-stateless-ipv6-stateless-nis: true
        dhcp-use-ipv6-stateless-ipv6-stateless-nis-domain: true
        dhcp-use-ipv6-stateless-ipv6-stateless-root-path: true
        dhcp-use-ipv6-stateless-ipv6-stateless-tftp-server-name: true
        dhcp-use-ipv6-stateless-ipv6-stateless-bootfile-name: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-pcp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-prefix: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-dns: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-domain: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ntp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-sip: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-lpr: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-pop3: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-smtp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-nntp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ldap: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-nis: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-nis-domain: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-root-path: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-tftp-server-name: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-bootfile-name: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-pcp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-prefix: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-dns: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-domain: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ntp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-sip: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-lpr: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-pop3: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-smtp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nntp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ldap: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nis: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nis-domain: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-root-path: true
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        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-bootfile-name: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-pcp: true
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        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-domain: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ntp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-sip: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-lpr: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-pop3: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-smtp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nntp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ldap: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nis: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nis-domain: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-root-path: true
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        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-bootfile-name: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-pcp: true
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        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nis-domain: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-root-path: true
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        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-bootfile-name: true
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        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-sip: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-lpr: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-pop3: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-smtp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nntp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ldap: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nis: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nis-domain: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-root-path: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-tftp-server-name: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-bootfile-name: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-pcp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-prefix: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-dns: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-domain: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ntp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-sip: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-lpr: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-pop3: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-smtp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nntp: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ldap: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nis: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-nis-domain: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-root-path: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-tftp-server-name: true
        dhcp-use-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-ipv6-stateless-bootfile-name: true
        dhcp-use-ipv6-stateless
```