```
pyang ietf-system@2013-11-07.yang ietf-interfaces@2013-07-04.yang \
      ietf-ip@2013-10-18.yang <u>opencpe@2013-12-19.yang</u> \
      opencpe-system@2014-01-09.yang opencpe-firmware-mgmt@2014-01-12.yang \
      opencpe-firmware-download-ftp@2014-01-12.yang \
      opencpe-firmware-download-https@2014-01-12.yang \
      opencpe-firmware-download-scp@2014-01-12.yang \
      --features \
ietf-system:authentication,local-users,timezone-location,crypt-hash-md5,crypt-hash
-sha-256,crypt-hash-sha-512,ntp \
      --features opencpe-firmware-mgmt:firmware-slots \
      --deviation-module opencpe-deviations@2014-01-12.yang \
      -f tree > ../opencpe-tree-1.4.txt
module: ietf-system
   +--rw system
      +--rw contact?
                              string
      +--rw hostname?
                             inet:domain-name
      +--rw location?
                             strina
      +--rw clock
        +--rw (timezone)?
            +--:(timezone-location) {timezone-location}?
            +--rw timezone-location?
                                            ianatz:iana-timezone
            +--:(timezone-utc-offset)
                                            int16
               +--rw timezone-utc-offset?
      +--rw ntp! {ntp}?
        +--rw enabled?
                          boolean
         +--rw server* [name]
            +--rw name
                          string
            +--rw (transport)
               +--: (udp)
                  +--rw udp
                     +--rw address
                                      inet:host
      +--rw dns-resolver
         +--rw search*
                          inet:domain-name
         +--rw server* [name]
           +--rw name
                                 string
           +--rw (transport)
              +--:(udp-and-tcp)
                  +--rw udp-and-tcp
                     +--rw address
                                      inet:ip-address
         +--rw options
            +--rw timeout?
                              uint8
            +--rw attempts?
                              uint8
      +--rw authentication {authentication}?
         +--rw user-authentication-order* identityref
         +--rw user* [name] {local-users}?
            +--rw name
                              string
            +--rw password?
                              crypt-hash
            +--rw ssh-key* [name]
               +--rw name
                                  string
               +--rw algorithm
                                  string
               +--rw key-data
                                  binary
   +--ro system-state
      +--ro platform
        +--ro os-name?
                                                string
        +--ro os-release?
                                                string
         +--ro os-version?
                                                string
         +--ro machine?
                                                string
```

```
+--ro ocpes:serial-number?
                                                 string
         +--ro ocpe-fw-mgmt:firmware-version?
                                                 string
      +--ro clock
         +--ro current-datetime?
                                   vang:date-and-time
         +--ro boot-datetime?
                                   yang:date-and-time
      +--ro ocpe-fw-mgmt:firmware-slots* {firmware-slots}?
         +--ro ocpe-fw-mgmt:name?
                                       string
         +--ro ocpe-fw-mgmt:version?
                                       string
         +--ro ocpe-fw-mgmt:status
          +--ro ocpe-fw-mgmt:status?
                                          enumeration
            +--ro ocpe-fw-mgmt:percent?
                                          int32
         +--ro ocpe-fw-mgmt:active?
                                       boolean
         +--ro ocpe-fw-mgmt:path?
                                       string
rpcs:
   +---x set-current-datetime
      +--ro input
         +--ro current-datetime
                                   vang:date-and-time
   +---x system-restart
   +---x system-shutdown
module: ietf-interfaces
   +--rw interfaces
      +--rw interface* [name]
                                            string
         +--rw name
         +--rw description?
                                            string
                                            identityref
         +--rw type
         +--rw enabled?
                                           boolean
         +--rw link-up-down-trap-enable?
                                           enumeration {if-mib}?
         +--rw ip:ipv4!
            +--rw ip:enabled?
                                   boolean
            +--rw ip:forwarding?
                                   boolean
            +--rw ip:mtu?
                                   uint16
            +--rw ip:address* [ip]
                                         inet:ipv4-address-no-zone
              +--rw ip:ip
               +--rw (subnet)
                  +--:(prefix-length)
                  | +--rw ip:prefix-length?
                                               uint8
                  +--:(netmask)
                     +--rw ip:netmask?
                                               yang:dotted-quad
{ipv4-non-contiguous-netmasks}?
            +--rw ip:neighbor* [ip]
               +--rw ip:ip
                                               inet:ipv4-address-no-zone
                                              yang:phys-address
               +--rw ip:link-layer-address
         +--rw ip:ipv6!
            +--rw ip:enabled?
                                                   boolean
            +--rw ip:forwarding?
                                                   boolean
            +--rw ip:mtu?
                                                   uint32
            +--rw ip:address* [ip]
                                         inet:ipv6-address-no-zone
              +--rw ip:ip
                                         uint8
              +--rw ip:prefix-length
            +--rw ip:neighbor* [ip]
              +--rw ip:ip
                                              inet:ipv6-address-no-zone
               +--rw ip:link-layer-address
                                              vang:phys-address
            +--rw ip:dup-addr-detect-transmits?
                                                  uint32
            +--rw ip:autoconf
               +--rw ip:create-global-addresses?
                                                         boolean
                                                         boolean
               +--rw ip:create-temporary-addresses?
{ipv6-privacy-autoconf}?
               +--rw ip:temporary-valid-lifetime?
                                                         uint32
```

```
{ipv6-privacy-autoconf}?
               +--rw ip:temporary-preferred-lifetime?
                                                         uint32
{ipv6-privacy-autoconf}?
  +--ro interfaces-state
      +--ro interface* [name]
         +--ro name
                                  string
         +--ro type
                                  identityref
                                  enumeration {if-mib}?
         +--ro admin-status
         +--ro oper-status
                                  enumeration
         +--ro last-change?
                                  yang:date-and-time
         +--ro if-index
                                  int32 {if-mib}?
         +--ro phys-address?
                                  yang:phys-address
         +--ro higher-layer-if*
                                  interface-state-ref
                                  interface-state-ref
         +--ro lower-layer-if*
         +--ro speed?
                                  yang:gauge64
         +--ro statistics
            +--ro discontinuity-time
                                        yang:date-and-time
            +--ro in-octets?
                                         yang:counter64
            +--ro in-unicast-pkts?
                                        yang:counter64
            +--ro in-broadcast-pkts?
                                         yang:counter64
            +--ro in-multicast-pkts?
                                        yang:counter64
            +--ro in-discards?
                                        yang:counter32
            +--ro in-errors?
                                        yang:counter32
            +--ro in-unknown-protos?
                                        yang:counter32
            +--ro out-octets?
                                         yang:counter64
            +--ro out-unicast-pkts?
                                         yang:counter64
            +--ro out-broadcast-pkts?
                                        yang:counter64
            +--ro out-multicast-pkts?
                                        yang:counter64
            +--ro out-discards?
                                        yang:counter32
            +--ro out-errors?
                                        yang:counter32
         +--ro ip:ipv4!
            +--ro ip:forwarding?
                                   boolean
            +--ro ip:mtu?
                                   uint16
            +--ro ip:address* [ip]
               +--ro ip:ip
                                          inet:ipv4-address-no-zone
               +--ro (subnet)?
                 +--:(prefix-length)
                  +--ro ip:prefix-length?
                                                uint8
                  +--:(netmask)
                     +--ro ip:netmask?
                                                yang:dotted-quad
{ipv4-non-contiguous-netmasks}?
                                          ip-address-origin
            | +--ro ip:origin?
            +--ro ip:neighbor* [ip]
                                               inet:ipv4-address-no-zone
               +--ro ip:ip
               +--ro ip:link-layer-address?
                                               vang:phys-address
               +--ro ip:origin?
                                               neighbor-origin
         +--ro ip:ipv6!
                                   boolean
            +--ro ip:forwarding?
            +--ro ip:mtu?
                                   uint32
            +--ro ip:address* [ip]
                                          inet:ipv6-address-no-zone
              +--ro ip:ip
               +--ro ip:prefix-length
                                          uint8
                                          ip-address-origin
              +--ro ip:origin?
              +--ro ip:status?
                                          enumeration
            +--ro ip:neighbor* [ip]
                                               inet:ipv6-address-no-zone
               +--ro ip:ip
               +--ro ip:link-layer-address?
                                               yang:phys-address
               +--ro ip:origin?
                                               neighbor-origin
```

```
+--ro ip:is-router?
                                              empty
module: opencpe-firmware-mgmt
rpcs:
   +---x system-reset
   +---x firmware-commit
      +--ro input
         +--ro job-id
                         int32
   +---x set-active-firmware-slot
      +--ro input
         +--ro firmware-slot-name
                                     string
module: opencpe-firmware-download-ftp
rpcs:
   +---x firmware-download-ftp
      +--ro input
                                  inet:uri
         +--ro address
         +--ro (credentials)?
           +--:(user-pass)
              +--ro user-pass!
                 +--ro username?
                                    string
                  +--ro password?
                                    string
            +--:(certificate)
               +--ro certificate!
                  +--ro path?
                                string
         +--ro download-target? string {ocpe-fw-mgmt:firmware-slots}?
      +--ro output
         +--ro job-id
                         int32
module: opencpe-firmware-download-https
rpcs:
   +---x firmware-download-https
      +--ro input
        +--ro address
                                  inet:uri
         +--ro (credentials)?
           +--:(user-pass)
             +--ro user-pass!
                  +--ro username?
                                    string
                 +--ro password? string
            +--:(certificate)
               +--ro certificate!
                  +--ro path? string
         +--ro download-target? string {ocpe-fw-mgmt:firmware-slots}?
      +--ro output
         +--ro job-id
                         int32
module: opencpe-firmware-download-scp
rpcs:
   +---x firmware-download-scp
      +--ro input
        +--ro address
                                  inet:uri
         +--ro (credentials)?
            +--:(user-pass)
               +--ro user-pass!
                  +--ro username?
                                    string
                 +--ro password?
                                    string
            +--:(ssh-key)
               +--ro ssh-key!
                  +--ro path? string
         +--ro download-target? string {ocpe-fw-mgmt:firmware-slots}?
      +--ro output
         +--ro job-id
                         int32
```