

Enabling Radius in PicOS OVS Mode

Perform the following steps to enable Radius in PicOS OVS mode:

1. Enable user map

```
admin@PicOS-OVS$sudo /pica/bin/usermap_disable.sh false
```

2. Enable Radius on the PicOS switch.

```
admin@PicOS-OVS$sudo /pica/bin/radius_disable.sh false
```

3. Configure the IP address of the external Radius server on the PicOS switch. In the following example, IP address of the Radius server is 1.1.5.41 and the shared key is *abc*.

```
admin@XorPlus$cat /etc/pam_radius_auth.conf
1.1.5.41:1812 abc 1
```

4. Users on the Radius server must be super users. The following example shows the Radius record for user *test8*.

```
test8 Cleartext-Password := "pica8"
Service-Type = Framed-User,
Framed-Protocol = PPP,
Framed-IP-Address = 172.16.3.33,
Framed-IP-Netmask = 255.255.255.0,
Framed-Routing = Broadcast-Listen,
Framed-Filter-Id = "std.ppp",
Framed-MTU = 1500,
Framed-Compression = Van-Jacobsen-TCP-IP,
Class = "super-user"
```

5. Login to the switch via SSH and execute Linux shell commands.

```
build@dev-18:$ ssh 10.10.51.145 -l test8
test8@10.10.51.145's password:
test8@PicOS-OVS:~$ version
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=====
Hardware Model           : P-3290
Linux System Version/Revision : 1.1/20809
Linux System Released Date  : 03/21/2015
L2/L3 Version/Revision     : 1.1/20809
L2/L3 Released Date        : 03/21/2015
OVS/OF Version/Revision    : 1.1/20809
OVS/OF Released Date       : 03/21/2015
test8@PicOS-OVS:~$ pwd
/home/test8
test8@PicOS-OVS:~$
```

6. The Radius user must use the full path to execute OVS commands, as shown below:

```

test8@PicOS-OVS$sudo /ovs/bin/ovs-ofctl show br0
OFPT_FEATURES_REPLY (OF1.4) (xid=0x2): dpid:5e3ee89a8f503d30
n_tables:254, n_buffers:256
capabilities: FLOW_STATS TABLE_STATS PORT_STATS GROUP_STATS
OFPST_PORT_DESC reply (OF1.4) (xid=0x3):
  1(ge-1/1/1): addr:e8:9a:8f:50:3d:30
    config:      0
    state:       LINK_DOWN
    current:     COPPER AUTO_NEG
    advertised:  10MB-HD 10MB-FD 100MB-HD 100MB-FD 1GB-FD COPPER AUTO_NEG
    supported:   10MB-HD 10MB-FD 100MB-HD 100MB-FD 1GB-FD COPPER AUTO_NEG
    speed:       0 Mbps now, 1000 Mbps max
LOCAL(br0): addr:e8:9a:8f:50:3d:30
  config:      0
  state:       LINK_UP
  current:     10MB-FD COPPER
  supported:   10MB-FD COPPER
  speed:       10 Mbps now, 10 Mbps max
OFPT_GET_CONFIG_REPLY (OF1.4) (xid=0x5): frags=normal miss_send_len=0

test8@PicOS-OVS:~$ sudo ovs-vsctl show
395575df-5939-45af-8e4c-d99da4c442dc
  Bridge "br0"
    Port "ge-1/1/1"
      tag: 1
      Interface "ge-1/1/1"
        type: "pica8"
    Port "br0"
      Interface "br0"
        type: internal

```

7. User can also modify the path by editing the `/etc/sudoers` file, so that Radius users can execute OVS commands directly. Change the value of **Defaults secure_path** from `"/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/ovs/bin:/ovs/sbin"` to another desired value.

```

test8@PicOS-OVS:~$ sudo cat /etc/sudoers
#
# This file MUST be edited with the 'visudo' command as root.
#
# Please consider adding local content in /etc/sudoers.d/ instead of
# directly modifying this file.
#
# See the man page for details on how to write a sudoers file.
#
Defaults                env_reset
Defaults                mail_badpass
Defaults                secure_path="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/ovs/bin:/ovs
/sbin"
# Host alias specification
# User alias specification
# Cmnd alias specification
# User privilege specification
root    ALL=(ALL:ALL) ALL
# Allow members of group sudo to execute any command
%sudo  ALL=(ALL:ALL) ALL
%xorp  ALL=(ALL) NOPASSWD: NOPASSWD: ALL
%root  ALL=(ALL) NOPASSWD: NOPASSWD: ALL
# See sudoers(5) for more information on "#include" directives:
#includedir /etc/sudoers.d

```