

Development Manual

Note:

1. Developed on Ubuntu 14.04 LTS.
2. I have created PATCH for you of modified networkings module of webmin. I will share it with you in the email.

Network module code hierarchy of webmin is shown below.

Webmin root directory (Webmin-1.70)

net (networking module)

list_ifcs.cgi (for active and boot tabs)

***_aifc.cgi**
(run time changes in networks) | ***_bifc.cgi** (boot related)

linux-lib.pl file is for all distribution of linuxs and **debian-linux-lib.pl** file is only for debian based linux distribution.

Added code in Webmin networking module

Following line added in [webmin-1.760_naveed/net/acl_security.pl](#) . This piece of code to add promisc feature in user access.

```
#-----1-----#
print "<tr> <td><b>"Can set Promisc"</b></td>\n";
```

```
print "<td>",&ui_radio("ON", $_[0]->{'ON'},
    [ [ 1, "ON" ], [ 0, "OFF" ] ]), "</td>\n";
```

```
#-----2-----#
$_[0]->{'ON'} = $in{'ON'}; ##promiscc access
#-----END-----#
#
```

Changes in the following debian/ubuntu specific file is in
[webmin-1.760_naveed/net/debian-linux-lib.pl](#)

```
#-----1-----#

#####SSID

if ($param eq 'wpa-ssid')
{
    $cfg->{'ssid'} = $value;
}

if ($param eq 'wpa-psk')
{

    $cfg->{'wpa_passphrase'} = $value;

}

#####

if ($param eq 'noauto') {
    $cfg->{'up'} = 0;
}

elseif($param eq 'up')  ### to check for promisc line in interfaces file
{

if ( ($value =~ m/(promisc)/ ))  # if line has ifconfig eth0/wlan0 promisc
```

```
{  
    my ($ifcon,$interface,$promisc_value) = split (/,,$value); ## ifconfig  
eth0 promic or -promisc  
  
    $value=$promisc_value;  
    push(@iface_options, [$ifcon, $value]);  
  
    if ($value eq "promisc")  
    {  
        $cfg->{'promisc'} = 1;  
    }  
    else  
    {  
        $cfg->{'promisc'} = 0;  
    }  
  
}  
  
#####end promisc
```

#####how web min handle parameters .. for promisc

(name, addrfam, method, options) with

name the interface name (e.g. eth0)

addrfam the address family (e.g. inet, inet6)

method the address activation method (e.g. static, dhcp, loopback)

options is a list of (param, value) pairs

#####

#-----2-----#

save_interface(&details)

Create or update a boot-time interface

sub save_interface

{

my \$cfg = \$_[0];

#####saving in file

if (\$cfg->{'promisc'})

{

```
push(@options, ["up", "ifconfig $name promisc"]);          #    Saving in file
```

```
}
```

```
else    #replaced promisc with ifconfig due to wrong line in interfaces files
```

```
{
```

```
push(@options, ["up", "ifconfig $name -promisc"]);        #    Saving in file
```

```
##disable promisc
```

```
}
```

```
#####SSID and WPA passphrase ###
```

```
if ($name =~ /^(wlan)/)
```

```
{
```

```
if ($cfg->{'ssid'} && $cfg->{'wpa_passphrase'})
{

    push(@options, ['wpa-ssid', $cfg->{'ssid'}]);          #    Saving in file
    push(@options, ['wpa-psk', $cfg->{'wpa_passphrase'}]);

}

}

#-----3-----#
#####for ssid and passphrase

#####SSID/WPA#####
#####

    if ( ($line =~ m/(wpa-ssid)/ )) { ##if wpa-psk matched, get it
        my ($p,$v) = split (/ /,$line);
        push(@iface_options, [$p, $v]);

    }

    if ( ($line =~ m/(wpa-psk)/ )) { ##if wpa-psk matched, get it
```

```
my ($p1,$v1) = split (/,,$line);
push(@iface_options, [$p1, $v1]);
```

```
}
```

```
#####SSID/WPA#####
```

```
if ( ($param, $value) = ($line =~ /^s*(\S)s*(.*)s*$/) ) { #here is the issue for ifconfig
eth0/wlan0 promisc
```

```
push(@iface_options, [$param, $value]);
```

```
}
```

```
elsif ( ($param) = ($line =~ /^s*(\S)s*$/) ) {
```

```
push(@iface_options, [$param, "]);
```

```
}
```

```
#-----END-----
#
```

Change in the main file of netwokring module of webmin-1.760_naveed/net/linux-lib.pl

```
#-----1-----#
if ($I =~ /P-t-P:(\S)/) { $ifc{'ptp'} = $1; }
elsif ($I =~ /ptp (\S)/) { $ifc{'ptp'} = $1; }
$ifc{'up'} if ($I =~ /\sUP\s|<\S*UP\S*>/);
$ifc{'promisc'} if ($I =~ /\sPROMISC\s/); ##status get from this point .. for active
interface
```

```
#-----2-----#
    if ($a->{'up'})

    {

    $cmd .= " up";

    }

    else

    {

    $cmd .= " down";

    }

#####for promisc

    if ($a->{'promisc'}) {

    my @a= `ifconfig -a | grep PROMISC | awk '{print $4}'`;

    my $length= @a;

        if($length>=1){
```



```

        &error("<font color=#000fff>Only One Inteface(wired/wireless) can be in
Promisc Mode</font>");

```

```

    }

```

```

else {

```

```

    $cmd .= " promisc";

```

```

}

```

```

}

```

```

#####ELSE
for -promisc

```

```

    else{

```

```

        $cmd .= " -promisc";

```

```

    }

```

```

#-----3-----#
    ($iface->{'name'}) !~ /^(eth|wlan|em|eno|ens|enp|enx|lo|br)/ ||
#-----END-----#
#

```

Changes for active interfaces (promisc mode setting)

Changes for promisc mode for active interfaces in webmin-1.760_naveed/net/edit_aifc.cgi

```

#-----1-----#

```

```

##promisc# Current status

```

```

if ($a->{'fullname'} =~ /^(lo)/) #dont show promisc option for lo interface
{

}

else
{

    $promfield = &ui_radio("promisc", $in{'new'} || $a->{'promisc'} ? 1 : 0,
        [ [ 1, "Promisc ON" ], [ 0, "Promisc OFF" ] ]);

#    }

print &ui_table_row("Promisc Mode", $promfield);

}

#-----END-----
#

```

Code added in the following list interfaces file of networking module
[webmin-1.760_naveed/net/list_ifcs.cgi](#)

```

#-----1-----#

##for promisc

    push(@tds, "width=5% valign=top");

#-----2-----#

-                $text{'ifcs_status'} ], 100, 0, \@tds);

                $text{'ifcs_status'},

                "Promisc"], 100, 0, \@tds);

#-----3-----#

```

```
##for promisc
```

```
if ($a->{'fullname'} =~ /^(lo)/) #dont show promisc option for lo interface
```

```
{
```

```
    push(@cols, $a->{'promisc'} ? "<font color=#000fff>loopback</font>":
```

```
    "<font color=#ff0000>loopback</font>");
```

```
}
```

```
else
```

```
{
```

```
    push(@cols, $a->{'promisc'} ? "<font color=#000fff>ON</font>":
```

```
    "<font color=#ff0000>OFF</font>");
```

```
}
```

```
#-----END-----#
```

Code added in the following list interfaces file of networking module

[webmin-1.760_naveed/net/save_aifc.cgi](#)

```
#-----1-----#
```

```
    # Save active flag---promisc
```

```
    #if (!$access{'ON'}) {
```

```
        $a->{'promisc'} = $in{'promisc'};
```

```
#        $a->{'promisc'} = $in{'new'} ? 1 : $olda->{'promisc'};
```

```
#-----END-----#
```

#-----# **Changes in networking module for boot time setting of Promisc and SSID/Passphrase**

Changes for promisc mode and ssid/passphrase for boot time in
webmin-1.760_naveed/net/edit_bifc.cgi

#-----1-----#

#####PROMISC

if (\$a->{'fullname'} =~ /^(lo)/) #dont show promisc option not for lo interface

{

}

else

{

 \$promfield = &ui_radio("promisc", \$in{'new'} || \$b->{'promisc'} ? 1 : 0,

 [[1, "Promisc ON"], [0, "Promisc OFF"]]);

}

print &ui_table_row("Promisc Mode", \$promfield);

#####PROMISC

#-----2-----#

####retrieved value of SSID and Passphrase to show at edit time

print &ui_table_start('Wireless Interface Configuration');

```
print &ui_table_row('SSID', ui_textbox("ssid", $b->{'ssid'}), 32);
```

```
print &ui_table_row('WPA/WPA2 Passphrase', ui_password("wpa_passphrase",
$b->{'wpa_passphrase'}), 40);
```

```
print &ui_columns_end();
```

```
#####
```

```
#-----END-----#
```

Code added in the following list interfaces file of networking module
[webmin-1.760_naveed/net/list_ifcs.cgi](#)

```
#-----1-----#
```

```
push(@tds, "width=5% valign=top"); ##promisc at boot
```

```
#-----2-----#
```

```
-          $text{'ifcs_act'} ], 100, 0, \@tds);
```

```
# $text{'ifcs_act'} ], 100, 0, \@tds);
```

```
$text{'ifcs_act'},
```

```
#          $text{'ifcs_status'},
```

```
"Promisc"], 100, 0, \@tds);
```

```
#-----3-----#
```

```
###for promisc show on list_ifcs.cgi for boot time
```

```

if ($a->{'fullname'} =~ /^(lo)/) #dont show promisc option for lo interface
{
    push(@cols, $a->{'promisc'} ? "<font color=#000fff>loopback</font>":
    "<font color=#ff0000>loopback</font>");

}

else
{

#    push(@cols, $a->{'promisc'} ? "1": "0");

    push(@cols, $a->{'promisc'} ? "<font color=#000fff>ON</font>":
    "<font color=#ff0000>OFF</font>");

}

#-----END-----#

Code added in the following list interfaces file of networking module
webmin-1.760_naveed/net/save_bifc.cgi

#-----1-----#

$b->{'promisc'} = $in{'promisc'}; ##promisc old Instead of old use in value here

```

```
#-----2-----#
```

```
# Save boot time---promisc
```

```
#if (!$access{'ON'}) {
```

```
    $b->{'promisc'} = $in{'promisc'};
```

```
#    $a->{'promisc'} = $in{'new'} ? 1 : $olda->{'promisc'};
```

```
    }
```

```
#-----3-----#
```

```
#####checks for SSID and WPA  
phrase
```

```
# validate input
```

```
# my $ssid_len = length($in{'ssid'});
```

```
# if (($ssid_len <= 0) || (32 < $ssid_len))
```

```
# {
```

```
# &error("<font color=#000fff>SSID lenght is not valid</font>");
```

```
#    error($text{'ssid_wrong_length'});
```

```
# }
```

```
#elsif ($in{'ssid'} =~ /[w ]/ )
```

```
# {
```

```
#    error($text{'ssid_bad_characters'});
```

```
# &error("<font color=#000fff>The SSID you specified had invalid characters.</font>");
```

```
#}

#   else

#   {

#       $changes{'ssid'} = $in{'ssid'};

#       $b->{'ssid'} = $in{'ssid'};

#   }

#   if ( $in{'wpa_passphrase'} =~ /[\\w ]/ )

#   {

#       # error($text{'passphrase_bad_characters'});

#       &error("<font color=#000fff>The passphrase you specified had invalid
characters.</font>");

#   }

#   else

#   {

#       $changes{'wpa_passphrase'} = $in{'wpa_passphrase'};

#       $b->{'wpa_passphrase'} = $in{'wpa_passphrase'};

#   }

#-----4-----#
```



```
#####check for more than 2 promisc interfaces
```

```
#####testing
```

```
open (FILE, '/etc/network/interfaces');
```

```
chomp (@lines = (<FILE>));
```

```
close(FILE);
```

```
$count = 0;
```

```
foreach $line (@lines) {
```

```
    if ($line =~ m/ (-promisc)/){##do nothing
```

```
    }
```

```
    elsif ($line =~ m/ (promisc)/){
```

```
        $count;
```

```
    }
```

```
}
```

```
if ($count >=1 && $in{'promisc'} eq "1"){
```

```
    #&error("<pre>$err</pre>");
```

```
    &error("<font color=#000fff>Only One Inteface(wired/wireless) can be in Promisc  
Mode</font>");
```

```
}

else{

#####check for more than 2 promisc interfaces

&save_interface($b);

}

#-----5-----#

#check for only one interface in promisc

if ($count >=1 && $in{'promisc'} eq "1"){

    &error("<font color=#000fff>Only One Inteface(wired/wireless) can be in Promisc
Mode</font>");

    # &error("Not allowed two interfaces in Promisc");

}

else{

#####check for more than 2 promisc interfaces

#&save_interface($b);

&activate_interface($b);

}

}

#-----END-----
```

#