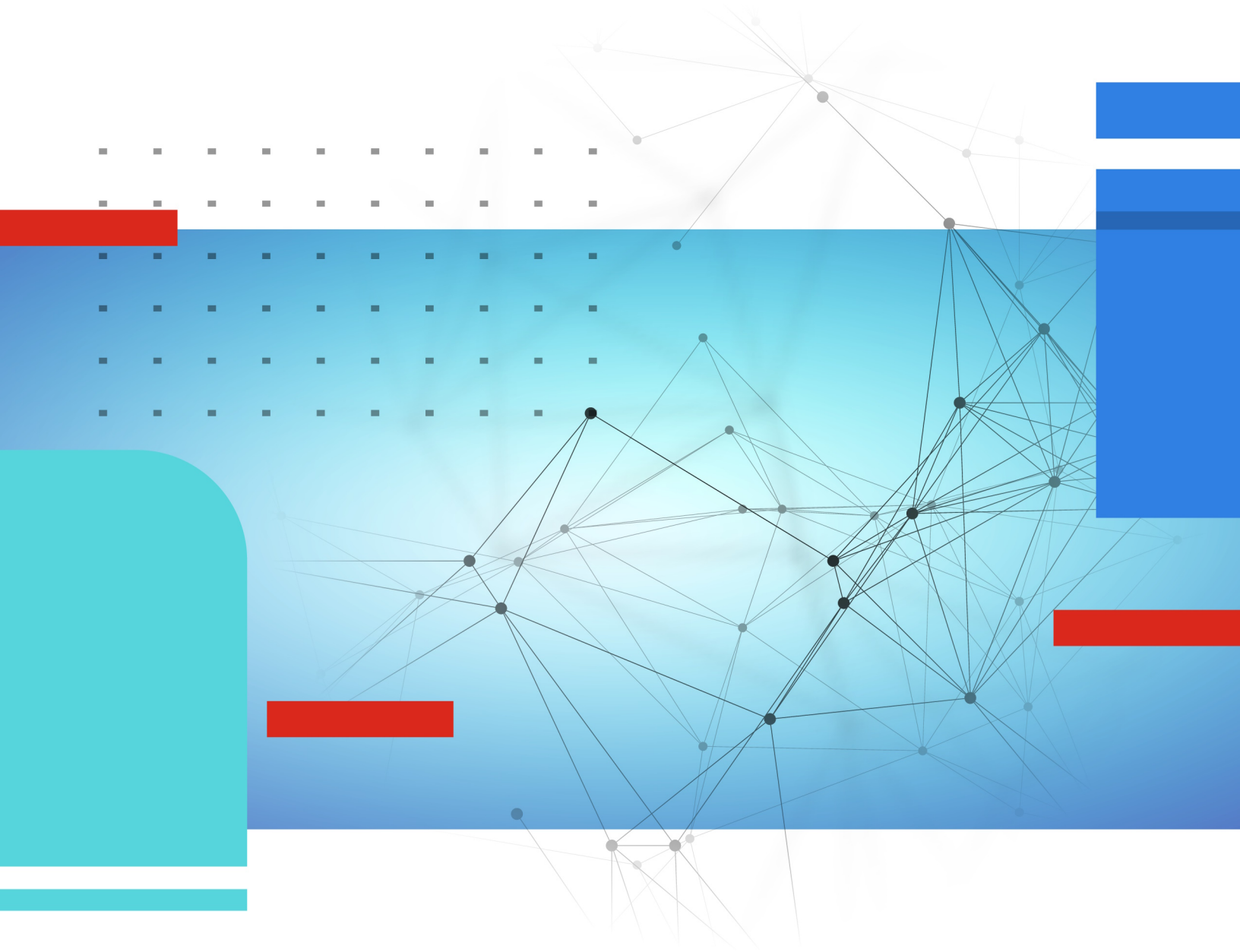
CLI Reference

FortiBranchSASE 7.6.5



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FortiBranchSASE 7.6.5 CLI Reference

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Change Log

Date	Change Description
2026-02-13	Initial release.

Introduction

FortiBranchSASE is a member of the FortiExtender product family. While FortiExtender and FortiBranchSASE share many features, this guide provides information specific to FortiBranchSASE

This *Reference Guide* introduces the syntax of commonly used CLI commands to configure and manage a FortiBranchSASE unit.

CLI commands in this *Reference Guide* are based on FortiBranchSASE-20G-WiFi.

Connect to the CLI

You can connect to the CLI through the FortiBranchSASE or FortiCloud GUI.

To access the FortiBranchSASE CLI via FortiCloud GUI, go to the device page of a deployed FortiBranchSASE device and click the *>_Console* section to open a new instance of the FortiBranchSASE console.

To access the FortiBranchSASE CLI via the FortiBranchSASE GUI, click the >_ tab on the left side of the GUI.

You can open only one console per GUI access.

You can also access the FortiBranchSASE CLI outside of the GUI using:

- Console connection — connect your computer directly to the console port of your FortiBranchSASE.
- SSH or Telnet access — connect your computer through any network interface attached to one of the network ports of your FortiBranchSASE.

Console connection

You can directly connect to the CLI by connecting your management computer or console to the FortiBranchSASE through its RJ-45 console port.

Direct console access to a FortiBranchSASE device may be necessary if:

• You are installing the device for the first time, and it is not configured to connect to your network.

• You are restoring the firmware using a boot interruption. Network access to the CLI will not be available until after the boot process has completed, making direct console access the only option.

To connect to the FortiBranchSASE console, you need a console cable to connect the console port on the FortiBranchSASE to the communications port on a computer. Depending on your device, this may require:

- A USB to RJ-45 cable
- A DB-9 to RJ-45 cable (a DB-9-to-USB adapter may be used)
- A computer with an available communications port
- A terminal emulation software app

To connect to the CLI through a direct console connection:

1. Using the console cable, connect the FortiBranchSASE console port to the serial communications (COM) port on your management computer.
2. Start a terminal emulation program on your management computer, select the COM port, and set the Baud speed to 115200 Bits per second.
3. Press Enter on the keyboard to connect to the CLI.
4. Log into the CLI using your username and password ("admin" by default; you will be prompted to create a new password upon your first login).

You can now enter CLI commands, including configuring access to the CLI via SSH.

SSH access

You can establish SSH access to the CLI by connecting your computer to the FortiBranchSASE using one of its network ports, either directly using a peer connection between the two or through any intermediary network.

SSH must be enabled on the network interface that is associated with the physical network port that is being used.

If your computer is not connected either directly or through a switch to the FortiBranchSASE, you must also configure the FortiBranchSASE using a static route that can forward packets from the FortiBranchSASE to the computer. This can be done using a local console connection or in the GUI.

To connect to the FortiBranchSASE using SSH, you need:

- A computer with an available serial communications (COM) port and an RJ-45 port
- An appropriate console cable
- A network cable
- Terminal emulation software
- Prior configuration of the operating mode, network interface, and static route.

Enable SSH access to the CLI using a local console connection:

1. Using the network cable, connect the FortiBranchSASE network port either directly to the network port on your computer or to a network through which your computer can reach the FortiBranchSASE.
2. Note down the port number of the physical network port.
3. Using the direct console connection, connect and log into the CLI.
4. Enter the following command:

```
config system interface
  edit <interface_str>
    set allowaccess ssh
  next
end
```

   where `<interface_str>` is the name of the network interface associated with the physical network port, such as port4.
5. Confirm the configuration using the following commands to show the interface settings, for example:

```
config system interface
edit port4
    set type physical
    set status up
    set mode static
    set ip
    set gateway
    set mtu-override disable
    set distance 51
    set vrrp-virtual-mac enable
    config vrrp
        set status disable
    end
    set allowaccess ssh
next
```

Access the FortiBranchSASE CLI using SSH

Once the FortiBranchSASE is configured to accept SSH connections, use an SSH client on your management computer to connect to the CLI.

The following instructions use PuTTy. The steps may vary in other terminal emulators.

To connect to the CLI using SSH:

1. On your management computer, start PuTTy.
2. In the Host Name (or IP address) field, enter the IP address of the FortiBranchSASE network interface that you are connected to and has SSH access enabled.

3. Set the port number to 22, if it is not automatically set.
4. Set the connection type to SSH.
5. Click *Open*.
   The SSH client starts to connect to the FortiBranchSASE.

The SSH client may display a warning if this is the first time that you are connecting to the FortiBranchSASE and its SSH key is not yet recognized by the SSH client, or if you previously connected to the FortiBranchSASE using a different IP address or SSH key. This is normal if the management computer is directly connected to the FortiBranchSASE with no network hosts in between.

6. Click *Yes* to accept the FortiBranchSASE's SSH key.
   The CLI will display the login prompt.
7. Enter the administrator account name, such as admin, and press *Enter*.
8. Enter the administrator account password and press *Enter*.
   The CLI console shows the command prompt (the FortiBranchSASE hostname followed by #). You can now enter CLI commands.

Header

This section shows the syntax of the following command:

- config version on page 11

config version

Description: Configure header version settings.

```
config version
   set config {integer}
   set carrier {string}
   unset
   show
   end
```

Sample command:

```
config header
  config version
    set config 10517384
    set certificate 3876258
  end
end
```

Parameter	Description	Type	Size	Default
config	Device configuration version.	integer	-	none
certificate	VPN certificate version.	integer	-	none

Firewall

This section shows the syntax of the following commands:

- config policy on page 12
- config traffic-shaper on page 16
- config shaping-policy on page 16
- config vip on page 18

config policy

Description: Configure firewall policies.

```
config policy
   edit <name>
         set *srcintf <name1>, <name2>, …
         set *dstintf <name1>, <name2>, …
         set *srcaddr <name1>, <name2>, …
         set dnat [enable | disable]
         set *dstaddr <name1>, <name2>, …
         set action [accept | deny]
         set status [enable | disable]
         set *service <name1>, <name2>, …
         set nat [enable | disable]
   next
   delete <name>
   move <name1> [after | before] <name2>
   end
   purge
   show
```

Sample command:

```
config firewall policy
  edit test1
    set srcintf lo
    set dstintf any
    set srcaddr all
    set dnat disable
    set dstaddr all
    set action accept
    set status enable
    set service AH
    set nat enable
  next
```

```
  edit test2
    set srcintf any
    set dstintf lan
    set srcaddr all
    set dnat disable
    set dstaddr all
    set action accept
    set status disable
    set service ALL
    set nat enable
  next
  edit all-pass
    set srcintf any
    set dstintf any
    set srcaddr all
    set dnat disable
    set dstaddr all
    set action accept
    set status enable
    set service ALL
    set nat enable
   next
end
```

Parameter	Description	Type	Size	Default
srcintf	Incoming (ingress) interface.	option	-	none

Option	Description
lan	LAN as the incoming interface.
lo	Loopback as the incoming interface.
port4	Port 4 as the incoming interface.
any	Any port as the incoming interface.

Parameter	Description	Type	Size	Default
dstintf	Outgoing (egress) interface.	option	-	none

Option	Description
lan	LAN as the outgoing interface.
lo	Loopback as the outgoing interface.
port4	Port 4 as the outgoing interface.
any	Any port as the outgoing interface.

Parameter	Description	Type	Size	Default
srcaddr	Source address.	option	-	none

Parameter	Description	Type	Size	Default
	Option / **Description** all — All network addresses. none — None of the network addresses. lan-src — LAN network address. wan-src — WAN network address.			
dnat	Destination NAT.	option	-	disable
	Option / **Description** enable — Enable destination NAT. disable — Disable destination NAT.			
dstaddr	Destination address.	option	-	none
	Option / **Description** all — All network addresses. none — None of the network addresses. lan-src — LAN network address. wan-src — WAN network address.			
action	Policy action.	option	-	accept
	Option / **Description** accept — Accept policy. deny — Deny policy.			
status	Status of the policy.	option	-	enable
	Option / **Decription** enable — Enable this policy. disable — Disable this policy.			
service	Service/service group name.	option	-	none
	Option / **Description** ALL — All services. HTTP — HTTP service. etc — Refer to config network service list.			

Parameter	Description	Type	Size	Default
nat	Source NAT.	option	-	disable

Option	Description
enable	Enable source NAT.
disable	Disable source NAT.

```
(policy) # move test2 after all-pass
(policy) <M> # show
config firewall policy
    edit test1
        set srcintf lo
        set dstintf any
        set srcaddr all
        set dnat disable
        set dstaddr all
        set action accept
        set status enable
        set service AH
        set nat enable
    next
    edit all-pass
        set srcintf any
        set dstintf any
        set srcaddr all
        set dnat disable
        set dstaddr all
        set action accept
        set status enable
        set service ALL
        set nat enable
    next
    edit test2
        set srcintf any
        set dstintf lan
        set srcaddr all
        set dnat disable
        set dstaddr all
        set action accept
        set status disable
        set service ALL
        set nat enable
    next
end
```

config traffic-shaper

Description: Configure firewall shapers.

```
config firewall shaper
  config traffic-shaper
    edit <name>
      set max-bandwidth (1 – 16776000)
      set *bandwidth-unit [kbps | mbps | gbps]
  delete <name>
  purge
  show
end
```

Sample command:

```
config firewall shaper traffic-shaper
  edit 1
    set max-bandwidth 34
    set bandwidth-unit kbps
  next
end
```

Parameter	Description	Type	Size	Default
max-bandwidth	Upper bandwidth limit enforced by the shaper.	integer	1 - 16776000	100
bandwidth-unit	Unit of measurement for guaranteed and maximum bandwidth for the shaper.	option	-	none

Option	Description
kbps	Kilobits per second.
mbps	Megabits per second.
gbps	Gigabits per second.

config shaping-policy

Description: Configure firewall shaping policies.

```
config shaping-policy
      edit <name>
            set status [enable | disable]
```

```
            set *dstintf <name1>, <name2>, …
            set *traffic-shaper <name1>, <name2>, …
        delete <name>
        purge
        show
 end
```

Sample command:

```
config firewall shaping-policy
  edit 1_policy
    set status enable
    set dstintf port1
    set traffic-shaper 1
  next
end
```

Parameter	Description	Type	Size	Default
status	Status of the traffic shaping policy.	option	-	enable

Option	Description
enable	Enable the policy.
disable	Disable the policy.

Parameter	Description	Type	Size	Default
dstintf	Outgoing (egress) interface.	option	-	none

Option	Description
lan	LAN as the outgoing interface.
lo	Loopback as the outgoing interface.
port4	Port 4 as the outgoing interface.
any	Any port as the outgoing interface.

Parameter	Description	Type	Size	Default
traffic-shaper	Traffic shaper to apply to traffic forwarded by the firewall policy.	option	-	none

Option	Decription
1	Refer toconfig traffic-shaper on page 16.

config vip

Description: Configure firewall virtual IPs.

```
config vip
   edit <name>
         set comment [255]
         set *extip <name1>
         set *mappedip <name1>
         set *extintf <name1>, <name2>, …
         set portforward [enable | disable]
         set *protocol <name1>, <name2>, … *only accessible when portforward is enabled
         set *extport (1 – 65535) *only accessible when portforward is enabled
         set *mappedport (1 – 65535) *only accessible when portforward is enabled
         unset
         next
         show
         abort
         end
   delete <name >
   purge
   show
   end
```

Sample command:

```
config firewall vip
  edit 1
    set comment this is a test vip
    set extip 10.153.24.44
    set mappedip 10.153.24.36
    set extintf any
    set portforward enable
    set protocol tcp
    set extport 25
    set mappedport 33
  next
end
```

Parameer	Description	Type	Size	Default
comment	Optional comments.	string	Up to 255 characters in length	none
extip	IP address on the external interface to be mapped to an address on the destination network.	IPv4 address	-	none
mappedip	IP address on the destination	IPv4 address	-	none

Parameer	Description	Type	Size	Default
	network to which the external IP address is mapped.			
extintf	Interface connected to the source network that receives packets to be forwarded to the destination network.	option	-	none
	Option / **Description** lan — LAN as the outgoing interface. lo — Loopback as the outgoing interface. port4 — Port 4 as the outgoing interface. any — Any port as the outgoing interface.			
portforward	Port forwarding.	option	-	disable
	Option / **Decription** enable — Enable port forwarding. disable — Disable port forwarding.			
protocol	Protocol to use when forwarding packets.	option	-	tcp
	Option / **Description** tcp — TCP protocol. udp — UDP Protocol. icmp — ICMP protocol.			
extport	Incoming port number to be mapped to a port number on the destination network.	number	1 - 65535	0
mappedport	Port number on the destination network to which the external port number is mapped.	number	1 - 65535	0

Router

This section shows the syntax of the following commands:

- config router policy on page 20
- config static on page 22
- config target on page 23
- config multicast on page 24
- config OSPF on page 26
- config prefix-list on page 31
- config route-map on page 32

config router policy

Description: Configure router policies.

```
config route policy
   edit <name>
         set input-device <name1>
         set srcaddr <name1>
         set dstaddr <name1>
         set service <name1>, <name2>, …
         set *target <name1>
         set status [enable | disable]
         set comment {string}
         unset
         next
         show
         abort
         end
   delete <name>
   purge
   move <name1> [before | after] <name2>
   show
   end
```

Sample command:

```
config router policy
    edit 1
        set input-device lan
        set srcaddr all
        set dstaddr all
        set service ALL
```

```
        set target target.port1
        set status enable
        set comment this is a test policy
    next
end
```

Parameter	Description	Type	Size	Default
input-device	Incoming interface name.	option	-	none

Option	Description
lan	LAN as the input device.
lo	Loopback as the input device.
port4	Port 4 as the input device.
port1	Port 1 as the input device.

srcaddr	Source address.	option	-	none

Option	Description
lan	LAN network address.
all	All the network addresses.
none	None of the network addresses.

dstaddr	destination address.	option	-	none

Option	Description
lan	LAN network address.
all	All the network addresses.
none	None of the network addresses.

service	Service/service group names.	option	-	none

Option	Description
ALL_ICMP	ICMP.
ALL	All.
etc	Refer to the different services in this command.

target	The PBR's out-going interface and next-hop.	option	-	none

Parameter	Description	Type	Size	Default
	Option / **Description** target.lan — LAN as the target. target.lo — Loopback as the target. target.port4 — Port 4 as the target. target.Port1 — Port 1 as the target.			
status	Status of the policy based the routing rule.	option	-	enable
	Option / **Description** enable — Enable the policy. disable — Disable the policy.			
comment	Comment on the policy.	string	1 - 255 characters in length	none

config static

Description: Configure static routes.

```
config static
   edit <name>
         set status [enable | disable]
         set dst {ipv4-address}
         set gateway {ipv4-address}
         set distance [1 – 255]
         set *device <name1>
         set comment {string}
         unset
         next
         show
         abort
         end
   delete <name>
   purge
   show
```

Sample command:

```
config router static
    edit 1
        set status enable
```

```
        set dst 10.124.23.0/24
        set gateway 192.168.200.99
        set distance 1
        set device port1
        set comment this is a sample static route
    next
end
```

Parameter	Description	Type	Size	Default
status	Status of the static route.	option	-	enable
	Option / **Description** enable: Enable static route. disable: Disable static route.			
dst	Destination IP and mask for the route.	Ipv4_address/netmask-	-	none
gateway	Gateway IP for the route.	Ipv4_address	-	none
distance	Administrative distance. (This field is the metric of the route item. Set the value carefully and ensure that this route item matches your application scenario without affecting other route items.)	integer	1 - 255	1
device	Gateway outgoing interface or tunnel.	option	-	none
comment	Comment on the route. (Optional)	string	Up to 255 characters in length	none

config target

Description: Configure router targets.

```
config target
   edit <name>
        set *target <name1>
        set next-hop <name1>
        unset
        next
        show
        abort
        end
   delete <name>
   purge
```

```
show
end
```

Sample command:

```
config router target
    edit target.lo
        set interface lo
        set next-hop
next
```

Parameter	Description	Type	Size	Default
interface	Target interface.	option		none
	Option / **Description** lan — LAN as the target interface. lo — Loopback as the target interface. port4 — Port 4 as the target interface. port1 — Port 1 as the target interface.			
next-hop	Next-hop IP address in x.x.x.x format.	IPv4 address	-	none

config multicast

Description: Configure multicast router.

```
set join-prune-interval [1 - 65535]
set hello-interval [30 - 18724]
unset
```

- config pim-sm-global on page 24
- config rp-address on page 24
- config interface on page 25

config pim-sm-global

Description: Configure PIM sparse-mode interfaces.

config rp-address

Description: Configure static RP addresses.

```
config rp-address
      edit <rpaddressip>
            set *address <name1>
            set group <name1> *specified IPv4 subnet should be within 224.0.0.0/4 but not within
                  232.0.0.0/8
            unset
            next
            show
            abort
            end
      delete <rpaddressip>
      purge
      show
      end
show
end
```

config interface

Description: Configure Protocol Independent Multicast (PIM) interfaces.

Although "set" is an available option, there's no entry for the "set" command.

```
config interface
      edit <name> *must be valid interface id in system interface list
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
show
end
```

Sample command:

```
config router multicast
    config pim-sm-global
        set join-prune-interval 60
        set hello-interval 30
        config rp-address
            edit 1
                set address 192.168.200.23
                set group 224.0.0.0/4
            next
        end
    end
```

```
    config interface
    end
end
```

Parameter	Description	Type	Size	Default
join-prune-interval	Interval (in seconds) between sending PIM join/prune messages.	integer	1 - 65535	60
hello-interval	Interval (in seconds) between sending PIM hello messages.	integer	30 - 18724	30
address	RP router address.	IPv4 address	-	none
group	Groups to use this RP. (Note: The specified IPv4 subnet should be within 224.0.0.0/4, but not within 232.0.0.0/8.)	IPv4 address/netmask	-	224.0.0.0/4
interface	PIM interfaces.	string	-	none

config OSPF

Description: Configure OSPF settings.

```
config ospf
      set status [enable | disable]
      set router-id <name1>
      unset
```

Sample command:

```
config router ospf
  set status enable
  set router-id 192.168.100.127
```

Parameter	Description	Type	Size	Default
status	Set the status of the OSPF:	option	-	disable

Option	Description
enable	Enable OSPF
disable	Disable OSPF

Parameter	Description	Type	Size	Default
set router-id	The router-id is a unique identity to the OSPF router. If no router-id is specified, the system will automatically choose the highest IP address as the router-id.	IPv4 address	-	0.0.0.0

- config area on page 27
- config network on page 28
- config ospf-interface on page 29
- config redistribute on page 30

config area

Description: Configure OSPF area settings.

```
config area
      edit {ipv4-address}
            set
            unset
            next
            show
            abort
            end
      delete {ipv4-address}
      purge
      show
      end
```

Sample command:

```
config router ospf
  config area
    edit 0.0.0.0
```

Parameter	Description	Type	Size	Default
config area	OSPF area configuration. An area is a logical grouping of contiguous networks and routers in the same area with the same link-state database and topology. **Note:** The current release only supports Area 0 called the backbone area, and does not support multiple areas. All routers inside an area must have the same area ID to become OSPF neighbors. You can add Area 0 by editing Area 0.0.0.0	IPv4 address	-	none

config network

Description: Configure OSPF network settings.

```
config network
      edit <name>
            set *prefix {integer}
            set *area <name1>
            unset
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
```

Sample command:

```
config router ospf
  config network
    edit 1
      set prefix 192.168.100.127/32
      set area 0.0.0.0
    next
    edit 2
      set prefix 192.168.100.0/30
      set area 0.0.0.0
    next
end
```

Parameter	Description	Type	Size	Default
config network	OSPF network configuration.	option	-	none

Option	Description
prefix	Prefix used to identify network/subnet address for advertising to the OSPF domain.
area	Attach the network to area.

CLI Command	Description
config network edit [id] set prefix [X.X.X.X/Y] set area 0.0.0. Prefix	• id—string • X.X.X.X—Network prefix • Y—Netmask

config ospf-interface

Description: Configure OSPF interface settings.

```
config ospf-interface
      edit <name>
            set status [enable | disable]
            set *interface <name1>
            set mtu-ignore [enable | disable]
            set cost [0 – 65535]
            unset
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
```

Sample command:

```
config ospf-interface
  edit 1
    set status enable
    set interface opaq
    set mtu-ignore enable
    set cost 5
end
```

Parameter	Description	Type	Size	Default
config ospf-interface	OSPF interface configuration.	option	-	none
status	Enable/Disable OSPF processing on the said interface.	option		-

Option	Description
enable	Enable OSPF processing on the said interface.
disable	Disable OSPF processing on the said interface.

set interface	Must be the VPN tunnel interface as OSPF is built over IPSEC VPN.
set mtu-ignore	Prevents OSPF neighbor adjacency failure caused by mismatched MTUs.

Option	Description
enable	OSPF will stop detecting mismatched MTUs before

Parameter	Description	Type	Size	Default
	Option / **Description** forming OSPF adjacency disable — OSPF will detect mismatched MTUs, and OSPF adjacency is not established if MTU is mismatched.			
set cost	Interface cost used to calculate the best path to reach other routers in the same area. 0 means auto-cost.	integer	0—65535	

config redistribute

Description: Configure redistribute settings.

```
config router ospf
  config redistribute
    config [connected | static]
      set status [enable | disable]
      set metric-type [1 | 2]
      set metric <value>
      set route-map <route-map name>
```

Sample command:

```
config router ospf
  config redistribute
    config connected
      set status enable
      set metric-type 2
      set metric 10
      set routemap redist-local-connected
  end
    config static
      set status enable
      set metric-type 2
      set metric 10
      set routemap redist-static
  end
```

Parameter	Description	Type	Size	Default
status	Enable/disable redistributing routes.			
set metric-type	Specify the external link type to be used for the redistributed routes. The options are E1 and E2 (default).			E2

Parameter	Description	Type	Size	Default
set metric	Used for the redistributed routes.	integer	1 - 16777214	10
set routemap	Route map name.			

config prefix-list

Description: Configure IPv4 prefix lists.

```
edit <name>
      set
      unset
```

The "set" command is available, but there are no settings to "set" or "unset".

- config rule on page 31

config rule

Description: Configure IPv4 prefix list rule.

```
config prefix-list
      config rule
            edit <name>
                  set action [permit | deny]
                  set *prefix {ipv4-subnet}
                  set ge (0 - 32)
                  set le (0 - 32)
                  unset
                  next
                  show
                  abort
                  end
            delete <name>
            purge
            show
            end
      next
      show
      abort
      end
delete <name>
purge
show
end
```

Sample command:

```
config router prefix-list
    edit 1
        config rule
            edit 1
                set action permit
                set prefix 192.168.200.0/24
                set ge 25
                set le 25
            next
        end
    next
end
```

Parameter	Description	Type	Size	Default
action	Action of the rule.	option	-	permit
	Option / **Description** permit — Allow packets that match this rule. deny — Deny packets that match this rule.			
prefix	IPv4 prefix to define the regular filter criteria.	IPv4 address/netmask	-	none
ge	Minimum prefix length to be matched.	integer	0 - 32	none
le	Maximum prefix length to be matched.	integer	0 - 32	none

config route-map

Description: Configure route maps.

```
edit <name>
      set
      unset
```

- config rule on page 32

config rule

Description: Configure route map rule.

```
        config rule
              edit <name>
```

```
                set action [permit | deny]
                set match-ip-address {ipv4-address}
                unset
                next
                show
                abort
                end
            delete <name>
            purge
            show
            end
        delete <name>
        purge
        show
        end
    show
    end
```

Sample command:

```
config router route-map
    edit 1
        config rule
            edit 1
                set action permit
                set match-ip-address 1
            next
        end
    next
end
```

Parameter	Description	Type	Size	Default
action	Action of the rule.	option	-	permit
	Option / **Description**: permit — Allow packets that match this rule.; deny — Deny packets that match this rule.			
match-ip-address	Match IP address permitted by the prefix-list.	string	-	none

System

This section shows the syntax of the following commands:

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- config system accprofile on page 35
- config admin on page 38
- config system bluetooth on page 41
- config management on page 42
- config system interface on page 47
- config dhcpserver on page 60
- config system dhcp6server on page 63
- config dhcprelay on page 66
- config dns on page 68
- config system dns-server on page 69
- config dns-database on page 70
- config dns-entry on page 71
- config vwan-member on page 73
- config syslog on page 75
- config api-user on page 79
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- config settings on page 81
- config system switch-interface on page 81
- config ssh-crypto on page 83
- config system 802-1X-settings on page 86
- config system obm-console on page 87

config system global

Description: Configure FortiBranchSASE global settings.

```
config system global
  set hostname {string}
  set timezone [0 – 87]
  set auto-install-image [enable | disable]
  set default-image-file {string} *available when auto-install-image is enabled
  set mdm-fw-server {string}
  set os-fw-server {string}
  set admin-server-cert {string}
end
```

Sample command:

```
config system global
  set hostname BS20GWS224000007
  set timezone 80
  set auto-install-image disable
  set mdm-fw-server Fortiextender-firmware.forticloud.com
  set os-fw-server Fortiextender-firmware.forticloud.com
  set admin-server-cert my_fex_cert
end
```

Parameter	Description	Type	Size	Default
hostname	Device display name.	string	-	none
timezone	System timezone setting. (Note: Use the 'get timezone list' command to check the timezone ID.)	integer	0 - 87	80
auto-install-image	Automatically install image from USB.	option	-	disable

Option	Description
enable	Enable auto-install-image.
disable	Disable auto-install-image.

Parameter	Description	Type	Size	Default
default-image-file	Image file from USB.	string	-	none
mdm-fw-server	Cloud modem image upgrade URL.	string	-	Fortiextender-firmware.forticloud.com
os-fw-server	Cloud OS image upgrade URL.	string	-	Fortiextender-firmware.forticloud.com
admin-server-cert	Server certificate that the FortiBranchSASE uses for HTTPS administrative connections.	string	-	Fortinet_Factory_Backup

config system accprofile

Description: Configure administration access profiles.

```
config system accprofile
  edit <name>
```

```
    set header [read-write | read | no-access]
    set firewall [read-write | read | no-access]
    set router [read-write | read | no-access]
    set system [read-write | read | no-access]
    set snmp [read-write | read | no-access]
    set hmon [read-write | read | no-access]
    set vpn [read-write | read | no-access]
    set network [read-write | read | no-access]
    set wifi [read-write | read | no-access]
    set user [read-write | read | no-access]
    unset
    next
    show
    abort
    end
  delete <name>
  purge
  show
  end
```

Sample command:

```
config system accprofile
    edit some_access
        set header read-write
        set firewall read
        set router no-access
        set system read-write
        set snmp read
        set hmon read
        set vpn no-access
        set network read
        set wifi read
        set user read-write
    next
```

Parameter	Description	Type	Size	Default
header	Header settings.	option	-	read
	Option / **Description** read-write: Read-write access. read: Read access. no-access: No access.			
firewall	Firewall configuration.	option	-	read

Parameter	Description	Type	Size	Default
	Option / **Description** read-write / Read-write access. read / Read access. no-access / No access.			
router	Router configuration.	option	-	read
	Option / **Description** read-write / Read-write access. read / Read access. no-access / No access.			
system	System configuration.	option	-	read
	Option / **Description** read-write / Read-write access. read / Read access. no-access / No access.			
snmp	SNMP configuration.	option	-	read
	Option / **Description** read-write / Read-write access. read / Read access. no-access / No access.			
hmon	Health monitor configuration.	option	-	read
	Option / **Description** read-write / Read-write access. read / Read access. no-access / No access.			
vpn	VPN configuration.	option	-	read
	Option / **Description** read-write / Read-write access.			

Parameter	Description	Type	Size	Default
	Option **Description** read Read access. no-access No access.			
network	Network configuration.	option	-	read
	Option **Description** read-write Read-write access. read Read access. no-access No access.			
wifi	Wi-Fi configuration	option	-	read
	Option **Description** read-write Read-write access. read Read access. no-access No access.			
user	User configuration	option	-	read
	Option **Description** read-write Read-write access. read Read access. no-access No access.			

config admin

Description: Configure user access.

```
config admin
  edit <name>
    set *accprofile <name1>
    set remote-auth {enable | disable}
    set wildcard {enable | disable}
    set *password {string}
    set remote-group {group name}
    set trusthost1 {ipv4-address}
    set trusthost2 {ipv4-address}
    set trusthost3 {ipv4-address}
```

```
    set trusthost4 {ipv4-address}
    set trusthost5 {ipv4-address}
    set trusthost6 {ipv4-address}
    set trusthost7 {ipv4-address}
    set trusthost8 {ipv4-address}
    set trusthost9 {ipv4-address}
    set trusthost10 {ipv4-address}
  next
end
```

Sample command:

```
config system admin
  edit remote1
    set accprofile super_admin
    set remote-auth enable
    set wildcard enable
    set password ENC *
    set remote-group group1
    set trusthost1 192.168.200.110/24
    set trusthost2
    set trusthost3
    set trusthost4
    set trusthost5
    set trusthost6
    set trusthost7
    set trusthost8
    set trusthost9
    set trusthost10
  next
end
```

Parameter	Description	Typy	Size	Default
accprofile	Access profile.	string	-	none
remote-auth	Enable/disable authentication using a remote RADIUS server	option	-	disable
wildcard	Enable/disable wildcard RADIUS authentication **Note:** If `wildcard` is enabled, the remote user can share the account and log in without needing to create multiple user accounts. That means, you can use the user and password pair stored in the remote server without needing to match the table name.	option	-	disable

Parameter	Description	Typy	Size	Default
	Only one wildcard remote account is allowed to exist under `system admin`.			
password	Admin user password **Note:** If `wildcard` is enabled, you cannot set a password.	string	-	none
remote-group	Enter the FortiBranchSASE user group name you want to use for remote authentication. **Note:** If `remote-auth` is enabled, `remote-group` becomes mandatory. Otherwise `remote-group` is hidden. If `remote-auth` is enabled but `wildcard` is disabled, you must set a local `password`. If the RADIUS server is unreachable, FortiBranchSASE uses the local password. For other situations, such as if FortiBranchSASE receives a RADIUS reject message, the local password is omitted.	option	-	none
trusthost1	Address or subnet address and netmask from which the administrator can connect to the device.	IPv4 address	-	none
Trusthost2	Address or subnet address and netmask from which the administrator can connect to the device.	IPv4 address	-	none
Trusthost3	Address or subnet address and netmask from which the administrator can connect to the device.	IPv4 address	-	none
Trusthost4	Address or subnet address and netmask from which the administrator can connect to the device.	IPv4 address	-	none
Trusthost5	Address or subnet address and netmask from which the administrator can connect to the device.	IPv4 address	-	none
Trusthost6	Address or subnet address and	IPv4 address	-	none

Parameter	Description	Typy	Size	Default
	netmask from which the administrator can connect to the device.			
Trusthost7	Address or subnet address and netmask from which the administrator can connect to the device.	IPv4 address	-	none
Trusthost8	Address or subnet address and netmask from which the administrator can connect to the device.	IPv4 address	-	none
Trusthost9	Address or subnet address and netmask from which the administrator can connect to the device.	IPv4 address	-	none
Trusthost10	Address or subnet address and netmask from which the administrator can connect to the device.	IPv4 address	-	none

config system bluetooth

Description: Configure Bluetooth settings on BLE capable models.

```
config system bluetooth
  set status {enable | disable}
end
```

Sample command:

```
config system bluetooth
  set status enable
end
```

Parameter	Description	Type	Size	Default
status	Enable or disable the Bluetooth button on applicable models.	option	-	enable

Parameter	Description	Type	Size	Default

Option	Description
enable	Enable the Bluetooth button. The Bluetooth button can be triggered to provide Bluetooth functionality.
disable	Disable the Bluetooth button. Pressing the Bluetooth button will not trigger anything.

config management

Description: Configure Extender management settings.

```
config management
   set discovery-type [auto | fortigate | cloud | local]
unset
```

Sample command

```
set discovery-type fortigate
```

Parameter	Description	Type	Size	Default
discovery-type	AC discovery type.	option	-	auto

Option	Description
auto	Automatic.
fortigate	FortiGate.
cloud	FortiEdge Cloud.
local	Local.

- config fortigate on page 42
- config cloud on page 43
- config system management local on page 44
- config local-access on page 45
- config fortigate-backup on page 45

config fortigate

Description: Configure FortiGate settings.

```
set ac-discovery-type [static | broadcast]
  config static-ac-addr *only accessible when ac-discovery-type is static
     edit <name>
         set server <name>
      next
  end
set ac-ctl-port [1024 – 49150]
set ac-data-port [1024 – 49150]
set discovery-intf <name1>
set ingress-intf <name1>
unset
show
end
```

Parameter	Description	Type	Size	Default
ac-discovery-type	The method that the device uses to discover the AC, i.e., FortiGate.	option	-	broadcast
	Option / **Description** broadcast: Broadcast. static: Static IP address.			
server	IP address or hostname of the AC server.	string	-	none
ac-ctl-port	CAPWAP control port of the AC server.	integer	1024 - 49150	5246
ac-data-port	CAPWAP data port of the AC server.	integer	1024 - 49150	5246
discovery-intf	The physical port from which FortiBranchSASE sends broadcast packets in search for FortiGate.	option	-	none
	Option / **Description** lan: LAN as the discovery interface. Port1: Port 1 as the discovery interface. port2: Port 2 as the discovery interface.			

config cloud

Description: Configure Cloud settings.

```
config cloud
      set dispatcher {string}
      set dispatcher-port {integer}
      set mode [ip-passthrough | nat]
      set proxy [enable | disable]
```

```
set proxy-server {ipv4-address} *available when proxy is enabled
set proxy-port [1 - 65535] *available when proxy is enabled
unset
show
end
```

Parameter	Description	Type	Size	Default
dispatcher	Cloud dispatch URL.	string	-	Fortiextender-dispatch.forticloud.com
dispatcher-port	Cloud dispatch port.	integer	0 - 9223372036854775807	443
mode	Networking mode.	option	-	nat

Option	Description
nat	NAT.
ip-passthrough	IP-passthrough.

proxy	Status of proxy connection.	option	-	disable

Option	Description
enable	Enable proxy.
disable	Disable proxy.

proxy-server	Proxy server IP address.	IPv4 address	-	none
proxy-port	Socks5 proxy port.	integer	1 - 65535	1080

config system management local

Description: Configure local settings.

```
config system management local
  set mode [ip-passthrough | nat]
  set modem-offload [disable | enable]
  unset
  show
  end
```

Parameter	Description	Type	Size	Default
mode	Networking mode.	option	-	nat

Parameter	Description	Type	Size	Default
	Option / **Decription** nat / NAT. ip-passthrough / IP-passthrough.			
modem-offload	Enable/disable LTE/5G traffic offload This feature takes effect when FortiExtender is working in local mode with NAT enabled.	option	-	enable
	Option / **Decription** enable / Enable LTE/5G traffic offload. disable / Disable LTE/5G traffic offload.			

config local-access

Description: Configure administrative access settings.

```
config local-access
  set http [1 - 65535]
  set https [1 - 65535]
  set ssh [1 - 65535]
  set telnet [1 - 65535]
  set idle-timeout [1 - 480]
unset
show
end
```

Parameter	Description	Type	Size	Default
http	HTTP port number.	integer	1 - 65535	80
https	HTTPS port number.	integer	1 - 65535	443
ssh	SSH port number.	integer	1 - 65535	22
telnet	Telnet port number.	integer	1 - 65535	23
idle-timeout	The number of minutes before an idle administrator session times out.	integer	1 - 480	5

config fortigate-backup

Description: Configure backup feature.

```
config fortigate-backup
  set vrrp-interface <name1>
  set status [enable | disable]
  unset
  show
  end
show
end
```

Parameter	Description	Type	Size	Default
vrrp-interface	VRRP interface.	option	-	none

Option	Description
lan	LAN as vrrp-interface.
lo	Loopback as vrrp-interface.
Port1	Port 1 as vrrp-interface.

Parameter	Description	Type	Size	Default
status	Status of the VRRP interface.	option	-	disable

Option	Description
enable	Enable the VRRP interface.
disable	Disable the VRRP interface.

Sample command:

```
config system management
  set discovery-type auto
    config fortigate
      set ac-discovery-type static
           edit 1
           set server 10.107.41.66
        next
      set ac-ctl-port 5246
      set ac-data-port 25246
      set discovery-intf lan
      set ingress-intf
end

config cloud
  set dispatcher fortiextender-dispatch.forticloud.com
  set dispatcher-port 443
  set mode nat
  set proxy enable
  set proxy-server 10.107.34.22
  set proxy-port 3453
end
```

```
config local
  set mode nat
end

config local-access
  set http 80
  set https 443
  set ssh 22
  set telnet 23
  set idle-timeout 5
end

config fortigate-backup
  set vrrp-interface port1
  set status enable
end
end
```

config system interface

Description: Configure system interface settings.

```
config system interface
  edit <name>
    set *type [loopback | virtual-wan | vlan | capwap | dummy]
    set status [up| down]
    set mode [static | dhcp]
    set ip {ipv4-address}
    set gateway {ipv4-address}
    set mtu-override [enable | disable]
    set mtu [512-1500] *available when mtu-override is set to enable
    set distance [1 – 512]
    set vrrp-virtual-mac [enable | disable]
    set allowaccess {option1}, {option2}, ...
    set security-mode [none|captive-portal]
    set security-external-web {string}
    set security-groups <name1>, <name2>, ...
    set security-exempt-list {string}
    set security-exempt-list6 {string}
    set security-redirect-url {string}
    set defaultgw [enable | disable] *available when mode is set to dhcp
    set dns-server-override [enable | disable] *available when mode is set to dhcp
    set redundant-by [priority | cost] *available when type is set to virtual-wan
    set algorithm [redundant | WRR] *available when type is set to virtual-wan
    set FEC [source_ip | dest_ip | source_dest_ip_pair | connection] *available when type is set
to virtual-wan
    set session-timeout [0 – 86400] *available when type is set to virtual-wan
    set grace-period [0 – 10000000] *available when type is set to virtual-wan
```

```
    set members <name1>, <name2>, …*available when type is set to virtual-wan
    set rid [1 | 2] *available when type is set to capwap
    set *vid [1 – 4089] *available when type is set to vlan
    set *ingress-intf <name1>
unset
```

Parameter	Description	Type	Size	Default
type	Interface type.	option	-	none
	Option / **Description** loopback: Loopback interface. virtual-wan: Virtual-WAN interface. vlan: VLAN interface. capwap: CAPWAP interface. dummy: Dummy interface.			
status	Interface status.	option	-	up
	Option / **Description** up: Bring the interface up. down: Bring the interface down.			
mode	Addressing mode.	option	-	static
	Option / **Description** static: Static mode. dhcp: DHCP mode.			
ip	Interface IP address and subnet mask (in x.x.x.x/24 format).	IPv4 address	-	none
gateway	Interface's connected gateway.	string	-	none
mtu-override	Status of MTU override.	option	-	disable
	Option / **Description** enable: Enable MTU override. disable: Disable MTU override.			
mtu	MTU value for the interface.	integer	512 - 1500	1500
distance	Route metric of the interface gateway.	integer	1 - 512	5
vrrp-virtual-mac	Use of virtual MAC for VRRP.	option	-	disable

Parameter	Description	Type	Size	Default
	Option / **Description** enable — Enable VRRP virtual MAC. disable — Disable VRRP virtual MAC.			
allowaccess	Types of management access allowed to this interface.	option	-	none
security-mode	Turn on captive portal authentication for this interface.	option	-	none
	Option / **Description** none — No security option. captive-portal — Captive portal authentication.			
security-external-web	URL of external authentication web server.	string	Maximum length: 255	-
security-groups	Names of user groups that can authenticate with the captive portal.	option	-	-
security-exempt-list	Name of security-exempt-list.	option	-	-
security-exempt-list6	Name of security-exempt-list6.	option	-	-
security-redirect-url	URL redirection after disclaimer/authentication.	string	Maximum length: 255	-
defaultgw	Ability to get the gateway IP from the DHCP server.	option	-	enable
	Option / **Description** enable — Enable getting the gateway IP from the DHCP server. disable — Disable getting the gateway IP from the DHCP server.			
dns-server-override	Use DNS acquired by DHCP.	option	-	enable
	Option / **Description** enable — Enable DNS server override. disable — Disable DNS server override.			
redundant-by	Use of the benchmark for redundant algorithm.	option	-	priority

Parameter	Description	Type	Size	Default
	Option / **Description** priority — Redundant by priority. cost — Redundant by cost.			
algorithm	LLB algorithm.	option	-	redundant
	Option / **Description** redundant — Redundant as algorithm. WRR — WRR as algorithm.			
FEC	Forward equivalence class.	option	-	source_ip
	Option / **Description** source_ip — Forward equivalence class by source IP. dest_ip — Forward equivalence class by destination IP. source_dest_ip_pair — Forward equivalence class by source and destination IP pair. connection — Forward equivalence class by connection.			
session-timeout	FEC session timeout in seconds.	integer	0 - 86400	60
grace-period	Grace period measured in seconds before failback.	integer	0 - 10000000	0
members	Link members of virtual WAN.	option	-	none
rid	CAPWAP virtual interface ID.	integer	1, 2	1
vid	VLAN ID.	integer	1 - 4089	0
ingress-intf	CAPWAP or VLAN interface's parent interface.	option	-	none
	Option / **Description** lan — LAN as the ingress interface. lo — Loopback as the ingress interface. lte1 — LTE 1 as the ingress interface. wan — WAN as the ingress interface. port4 — Port 4 as the ingress interface.			
Sfp-dsl	sfp-dsl status	option	-	disable

Parameter	Description	Type	Size	Default
	Option / **Description** enable / Enable sfp-dsl. disable / Disable sfp-dsl.			
Autodect	Enable/disable sfp-dsl auto-detect.	option	-	enable
Phy-mode	DSL physical mode.	option	-	vdsl
	Option / **Description** Vdsl Adsl			

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- config ipv6 on page 53

config VRRP

Description: Configure the VRRP settings.

```
        config vrrp
              set status [enable | disable]
              set version [2]
              set *ip {ipv4-address}
              set *id [1 - 255]
              set priority [1 - 255]
              set adv-interval [1 - 255]
              set start-time [1 - 255[
              set preempt [enable | disable]
              unset
              show
              end
        next
        show
        abort
        end
  delete <name>
  purge
  show
  end
```

Sample command:

```
config system interface
    edit lan
        set type physical
        set status up
```

```
        set mode dhcp
        set mtu-override enable
        set mtu 1500
        set distance 5
        set vrrp-virtual-mac disable
        config vrrp
            set status enable
            set version 2
            set ip 192.168.100.25
            set id 5
            set priority 1
            set adv-interval 23
            set start-time 33
            set preempt enable
        end
        set allowaccess http https ping snmp ssh telnet
        set defaultgw enable
        set dns-server-override enable
    next
end
```

Parameter	Description	Type	Size	Default
status	Status of the VRRP configuration.	option	-	disable
	Option / **Description** enable: Enable the VRRP configuration. disable: Disable VRRP configuration.			
version	VRRP version.	integer	2	2
ip	IP address of the virtual router.	IPv4 address	-	none
id	ID of the virtual router.	integer	1 - 255	0
priority	Priority of the virtual router.	integer	1 - 255	100
adv-interval	Advertisement interval.	integer	1 - 255	1
start-time	Start-up time.	integer	1 - 255	1
preempt	Preempt mode.	option	-	disable
	Option / **Description** enable: Enable preempt mode. disable: Disable preempt mode.			

config ipv6

Description: Configure the IPv6 interface settings.

```
config system interface
  edit <name>
    config ipv6
      set status [enable | disable]
      set ip6-mode [static | dhcp | pppoe | delegated]
      set autoconf [enable | disable]
      set ip6-send-adv [enable | disable]
      set ip6-manage-flag [enable | disable]
      set ip6-other-flag [enable | disable]
      set ip6-max-interval <4-1800>
      set ip6-min-interval <3-1350>
      set ip6-address {ipv6-address}
      set ip6-adv-rio [enable | disable]
      set ip6-route-pref [low | medium | high]
      set ip6-gw {ipv6-address}
      set ip6-upstream-interface [option1 | ...]
      set ip6-allowaccess [http | https | ping | snmp | ssh]
      set distance {number}
      config ip6-prefix-list
        edit <name>
          set ip6-prefix {ipv6-address}
        next
      end
      config ip6-rdnss-list
        edit <name>
          set ip6-rdnss {ipv6-address}
        next
      end
    end
  next
end
```

Sample command:

```
config system interface
  edit lan
    config ipv6
      set status enable
      set ip6-mode static
      set autoconf disable
      set ip6-send-adv enable
      set ip6-manage-flag disable
      set ip6-other-flag disable
      set ip6-max-interval 600
      set ip6-min-interval 198
      set ip6-adv-rio disable
```

```
      set ip6-address 2001:3:6:7::/64
      set ip6-gw ::
      set ip6-allowaccess http https ping snmp ssh
      set distance 10
      config ip6-prefix-list
        edit 1
          set ip6-prefix 2001:2:3::/64
        next
      end
      config ip6-rdnss-list
        edit 1
          set ip6-rdnss 3:5a:78::
        next
      end
    end
  next
end
```

Parameter	Description	Type	Size	Default
status	Status of the interface.	option	-	

Option	Description
enable	Enable the
disable	Disable

Parameter	Description	Type	Size	Default
ip6-mode	Addressing mode (static, DHCP, delegated).	option	-	

Option	Description
static	Static setting.
dhcp	DHCPv6 client mode.
pppoe	IPv6 over PPPoE mode.
delegated	IPv6 address with delegated prefix.

Parameter	Description	Type	Size	Default
autoconf	Enable/disable address auto config.	option	-	disable

Option	Description
enable	Enable auto-configuration.
disable	Disable auto-configuration.

Parameter	Description	Type	Size	Default
ip6-send-adv	Enable/disable sending router advertisement (RA) messages about the interface.	option	-	disable

Parameter	Description	Type	Size	Default
	Option / **Description** enable — Enable sending RA messages about this interface. disable — Disable sending RA messages about this interface.			
ip6-manage-flag	Specify whether to set an M-flag	option		disable
	Option / **Description** enable — Enable the M-flag. disable — Disable the M-flag.			
ip6-other-flag	Specify whether to set an O-flag.	option	-	disable
	Option / **Description** enable — Enable the O-flag. disable — Disable the O-flag.			
ip6-max-interval	Specify maximum RA sending interval.	integer	4-1800	600
ip6-min-interval	Specify minimum RA sending interval.	integer	3-1350	600
ip6-address	Primary IPv6 address prefix.	IPv6-prefix	-	::/0
ip6-adv-rio	Specify whether to enable router information option	option	-	disable
	Option / **Description** enable — Enable router information option. disable — Disable router information option.			
ip6-route-pref	Specify router preference level. This option is hidden when `ip6-adv-rio disabled`.	option	-	medium
	Option / **Description** low — Set the router preference level to low. medium — Set the router preference level to medium. high — Set the router preference level to high.			
ip6-upstream-interface	Specify the IPv6 interface name providing delegated information.	option	-	-

Parameter	Description	Type	Size	Default
	This option is available when `ip6-mode` is set to `delegate`.			
ip6-gw	IPv6 Gateway. Syntax: xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx.	string	ipv6-address	::
ip6-allowaccess	Allow management access to the interface.	option	-	

Option	Description
http	HTTP access.
https	HTTPS access.
ping	PING access.
snmp	SNMP access.
ssh	SSH access.

Parameter	Description	Type	Size	Default
distance	Route metric of the interface gateway.	number	1-255	10
ip6-prefix-list	Specify the RA prefix info. You can create multiple prefixs.	table	-	null
ip6-rdnss-list	Specify the RA DNS service info. You can create multiple DNS entries.	table	-	null

config system vxlan

Description: Configure VXLAN devices

```
config system vxlan
      edit <name>
        set *vni [1 - 16777215]
        set *remote-ip {ipv4-address}
        set *local-ip {ipv4-address}
        set dstport [1 - 65535]
unset
next
show
abort
end
delete <name>
purge
show
end
```

Sample command:

```
config system vxlan
    edit 1
        set vni 500
        set remote-ip 192.168.201.1
        set local-ip 192.168.200.1
        set dstport 4789
    next
end
```

Parameter	Descripton	Type	Size	Default
vni	VXLAN network ID.	integer	1 - 1677721	0
remote-ip	IPv4 address of the VXLAN interface on the device at the remote end of the VXLAN.	IPv4 address	-	none
local-ip	IPv4 address of the VXLAN interface on the device at the local end of the VXLAN.	IPv4 address	-	none
dstport	VXLAN destination port.	integer	1 - 65535	4789

config system aggregate-interface

Description: Configure the aggregate interface. Each table entry indicates an aggregate interface to be created and one or more interfaces can be aggregated under this aggregate interface.

```
config system aggregate-interface
  edit <name>
    set mode [activebackup | loadbalance]
    config members
    next
    set mapping-timeout [0 – 86400] *available when mode is set to load balance
unset
```

Sample command:

```
config system aggregate-interface
    edit agg1
        set mode loadbalance
        set mapping-timeout 60
        config members
```

```
    end
  next
```

- config members on page 58

config members

Description: Configure interfaces to be aggregated.

```
config system aggregate-interface
  edit <name>
    config members
      edit <name>
        set *interface <name1>
        set weight [1 - 256]
        set health-check-event
        set health-check-fail-cnt [1 - 10]
        set health-check-recovery-cnt [1 - 10]
unset
next
show
abort
end
delete <name>
purge
show
end
next
show
abort
end
delete <name>
purge
show
end
```

Sample command:

```
config system aggregate-interface
    edit agg1
        set mode loadbalance
        set mapping-timeout 244
        config members
            edit 23
                set interface port4
                set weight 1
                set health-check-event
                set health-check-fail-cnt 5
                set health-check-recovery-cnt 5
```

```
            next
        end
    next
end
```

Parameter	Description	Type	Size	Default
mode	Aggregate interface mode.	option	-	activebackup
	Option / **Description** activebackup — Active backup. loadbalance — Load balance.			
mapping-timeout	source-mac-to-member mapping timeout in seconds.	integer	0 - 86400	60
interface	Member interface.	option	-	none
weight	Member weight in load balancing.	integer	1 - 256	1
health-check-event	Member monitor.	option	-	none
health-check-fail-cnt	Number of failures before the member is considered dead.	integer	1 - 10	5
health-check-recovery-cnt	Number of successes before the member is considered alive.	integer	1 - 10	5

config pppoe-interface

Description: Configure the aggregate interface.

```
config pppoe-interface
  edit <name>
    set status [up | down]
    set device <name1>
    set username {string}
    set password {string}
    unset
```

Sample command:

```
config system pppoe-interface
  edit pppoe1
    set status up
    set device port1
    set username test
    set password ******
  next
end
```

Parameter	Description	Type	Size	Default
status	Bring the PPPoE up or down	option	-	up
	Option / **Description** up — Set interface status up. down — Set interface status down.			
device	Name of the physical interface	option	-	none
username	The ISP provided username of the PPPoE account.	string	-	none
password	The PPPoE account's password.	string	-	none

config dhcpserver

Description: Configure DHCP servers.

```
config dhcpserver
      edit <name>
            set status [enable | disable]
            set lease-time [300 – 8640000]
            set dns-service [default | specify | wan-dns]
            set dns-server1 {ipv4-address} *available when dns-service is set to specify
            set dns-server2 {ipv4-address} *available when dns-service is set to specify
            set dns-server3 {ipv4-address} *available when dns-service is set to specify
            set ntp-service [specify]
            set ntp-server1 {ipv4-address}
            set ntp-server2 {ipv4-address}
            set ntp-server3 {ipv4-address}
            set *default-gateway {ipv4-address}
            set *netmask {netmask}
            set *interface <name1>
            set *start-ip {ipv4-address}
```

```
                set *end-ip {ipv4-address}
                set mtu [512 – 9000]
                set reserved-address [enable | disable]
                unset
```

config reserved-addresses

Description: Configure options for the DHCP server to assign IP settings to specific MAC addresses.

```
Config reserved-addresses
                edit <name>
                      set *ip {ipv4-address}
                      set *mac {mac-address}
                      set *action [block | reserved]
                      unset
                      next
                      show
                      abort
                      end
                delete <name>
                purge
                show
                end
   next
   show
   end
delete <name>
purge
show
end
```

Sample command:

```
config system dhcpserver
    edit 1
        set status enable
        set lease-time 86400
        set dns-service default
        set ntp-service specify
        set ntp-server1
        set ntp-server2
        set ntp-server3
        set default-gateway 192.168.200.99
        set netmask 255.255.255.0
        set interface port4
        set start-ip 192.168.200.110
        set end-ip 192.168.200.210
        set mtu 1500
        set reserved-address disable
    next
end
```

Parameter	Description	Type	Size	Default
status	Status of the DHCP configuration.	option	-	enable
	Option / **Decripton** enable: Enable the DHCP server. disable: Disable the DHCP server.			
lease-time	Lease time in seconds. 0 means unlimited.	integer	300 - 8640000	86400
dns-service	Options for assigning DNS servers to DHCP clients.	Option	-	default
	Option / **Description** default: Use the default DNS server. specify: Specify the DNS server to be used. wan-dns: Use the WAN port DNS server.			
dns-server1	DNS server 1.	IPv4 address	-	none
dns-server2	DNS server 2.	IPv4 address	-	none
dns-server3	DNS server 3.	IPv4 address	-	none
ntp-service	Options for assigning Network Time Protocol (NTP) servers to DHCP clients.	option	-	specify
ntp-server1	NTP server 1.	string	-	none
ntp-server2	NTP server 2.	string	-	none
ntp-server3	NTP server 3.	string	-	none
default-gateway	Default gateway IP address assigned by the DHCP server.	IPv4 address	-	none
netmask	Network mask assigned by the DHCP server.	string	-	none
interface	DHCP server can assign IP configurations to clients connected to this interface.	option	-	none
	Option / **Description** lan: LAN as the DHCP server interface. lo: Loopback as the DHCP server interface.			

Parameter	Description	Type	Size	Default
	Option / **Description** port1 — Port 1 as the DHCP server interface. port4 — Port 4 as the DHCP server interface.			
start-ip	The first IP address in the IP range.	IPv4 address	-	none
end-ip	The last IP address in the IP range.	IPv4 address	-	none
mtu	Client's MTU.	integer	512 - 9000	1500
reserved-address	Status of reserved address and MAC mapping.	Option	-	disable
	Option / **Description** enable — Enable reserved-address. disable — Disable reserved-address.			
ip	IP address to be reserved for the MAC address.	IPv4 address	-	none
mac	MAC address of the client that will get the reserved IP address.	string	-	none
action	Options for the DHCP server to configure the client with the reserved MAC address.	option	-	reserved
	Option / **Description** block — Block the address. reserved — Reserve the address.			

config system dhcp6server

Description: Configure DHCP6 servers.

```
config system dhcp6server
  edit <name>
    set status [enable | disable]
    set lease-time [300 - 8640000]
    set dns-service [default | specify]
    set subnet {ipv6-address}
    set interface [option1 | ...]
    set ip-mode [range]
    config ip-range
```

```
      edit <name>
        set start-ip {ipv6-address}
        set end-ip {ipv6-address}
      next
    end
    config prefix-range
      edit <name>
        set start-ip {ipv6-address}
        set end-ip {ipv6-address}
        set prefix-length <integer>
      next
    end
  next
end
```

Sample command:

```
config system dhcp6server
  edit 1
    set status enable
    set lease-time 604800
    set dns-service specify
    set dns-server1
    set dns-server2
    set dns-server3
    set dns-server4
    set subnet 2001:1:3::/64
    set interface lan
    set ip-mode range
    config ip-range
      edit 1
        set start-ip 2001:1:3::2
        set end-ip 2001:1:3::5
      next
    end
    config prefix-range
      edit 1
        set start-ip 2001:1:3:0000:1000::
        set end-ip 2001:1:3:0000:1001::
        set prefix-length 80
      next
    end
  next
end
```

Parameter	Description	Type	Size	Default
status	Status of the DHCP6 configuration.	option	-	enable

Parameter	Description	Type	Size	Default
	Option / **Description** enable — Enable the DHCP6 server. disable — Disable the DHCP6 server.			
lease-time	Lease time in seconds. 0 means unlimited.	integer	300 - 8640000	604800
dns-service	Options for assigning IPv6 DNS servers to DHCP6 clients	Option	-	specify
	Option / **Description** default — Clients are assigned the FortiExtender configured DNS server. specify — Specify DNS servers in the DHCP server configuration.			
dns-server1	Specify the IP address of DNS Server 1. Available when `dns-service` is set to `specify`.	IPv6 address	-	none
dns-server2	Specify the IP address of DNS Server 2. Available when `dns-service` is set to `specify`.	IPv6 address	-	none
dns-server3	Specify the IP address of DNS Server 3. Available when `dns-service` is set to `specify`.	IPv6 address	-	none
dns-server4	Specify the IP address of DNS Server 4. Available when `dns-service` is set to `specify`.	IPv6 address	-	none
subnet	Defines a managed IPv6 prefix and its associated pools and options.	IPv6 subnet	-	none
interface	DHCP6 server can assign IP configurations to clients connected to this interface. Options vary depending on the interface type.	option	-	none
ip-mode	Method used to assign client IP	option	-	range
	Option / **Description** range — Assign by IP range.			
ip-range	Configure IPv6 address list. See config ip-range on page 66.	array	-	none

Parameter	Description	Type	Size	Default
prefix-range	Configure IPv6 prefix list. See config prefix-range on page 66.	array	-	none

config ip-range

Parameter	Description	Type	Size	Default
start-ip	Start of IP range.	IPv6 address	-	none
end-ip	End of IP range.	IPv6 address	-	none

config prefix-range

Parameter	Description	Type	Size	Default
start-ip	Start of prefix range.	IPv6 address	-	none
end-ip	End of prefix range.	IPv6 address	-	none
prefix-length	Prefix length.	integer	-	

config dhcprelay

Description: Configure DHCP relay.

```
config dhcprelay
      edit <name>
            set status [enable | disable]
            set *client-interfaces <name1>, <name2>, …
            set *server-interface <name1>
            set *server-ip {ipv4-address}
            unset
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
```

Sample command:

```
config system dhcprelay
    edit 1
        set status enable
        set client-interfaces lan
        set server-interface port4
        set server-ip 192.168.200.124
    next
end
```

Parameter	Description	Type	Size	Default
status	Status of the DHCP relay configuration.	option	-	enable
	Option / **Description** enable: Enable DHCP relay. disable: Disable DHCP relay			
client-interfaces	The interfaces connected to DHCP clients.	option	-	none
	Option / **Description** lan: LAN as client interfaces. lo: Loopback as client interfaces. port1: Port 1 as client interfaces. port4: Port 4 as client interfaces.			
server-interface	The interface used to reach out to the DHCP server.	option	-	none
	Option / **Description** lan: LAN as client interfaces. lo: Loopback as client interfaces. port1: Port1 as client interfaces. port4: Port 4 as client interfaces.			
server-ip	IP address of the DHCP server.	IPv4 address	-	none

config dns

Description: Configure DNS settings used to resolve domain names to IP addresses.

```
config dns
      set primary {ipv4-address}
      set secondary {ipv4-address}
      set timeout [1 – 10]
      set retry [0 – 5]
      set dns-cache-limit [0 – 4294967295]
      set dns-cache-ttl [60 – 86400]
      set cache-notfound-response [enable | disable]
      set source-ip {ipv4-address}
      set server-select-method [least-rtt | failover]
      unset
      show
end
```

Sample command:

```
config system dns
    set primary 208.91.112.53
    set secondary 208.91.112.52
    set timeout 5
    set retry 3
    set dns-cache-limit 5000
    set dns-cache-ttl 1800
    set cache-notfound-responses disable
    set source-ip 0.0.0.0
    set server-select-method least-rtt
end
```

Parameter	Description	Type	Size	Default
primary	Primary DNS server IP address. The default is the FortiGuard primary DNS server IP.	IPv4 address	-	208.91.112.53
secondary	Secondary DNS server IP address. The default is the FortiGuard secondary DNS server.	IPv4 address	-	208.91.112.52
timeout	DNS query timeout interval in seconds.	integer	1 - 10	5
retry	Number of times to retry.	integer	0 - 5	3
dns-cache-limit	Maximum number of records in DNS cache.	integer	0 - 4294967295	5000
dns-cache-ttl	Duration in seconds that DNS	integer	60 - 86400	1800

Parameter	Description	Type	Size	Default
	cache retains information.			
cache-notfound-responses	Status of response from the DNS server when a record is not in cache.	option	-	disable

Option	Description
enable	Enable cache-notfound-responses.
disable	Disable cache-notfound-responses.

Parameter	Description	Type	Size	Default
source-ip	IP address used by the DNS server as its source IP.	IPv4 address	-	0.0.0.0
server-select-method	The way in which configured servers are prioritized.	option	-	least-rtt

Option	Descrption
least-rtt	least-rtt as server-select-method.
failover	failover as server-select-method.

config system dns-server

Description: Configure DNS servers.

```
config system dns-server
  edit <name>
    set interface <name1>
    set mode [recursive | non-recursive | forward-only]
    set dns-filter <name>
  next
end
```

Parameter	Description	Type	Size	Default
Name	Name of the DNS server.	string	1 - 35 characters in length	none
interface	A system interface enabled for DNS service.	option	-	none
mode	DNS server mode.	option	-	none

Parameter	Description	Type	Size	Default
	Option **Description** recursive Shadow the DNS database and forward. non-recursive Public DNS database only. forward-only Forward only.			
dns-filter	Enter a previously created DNS filter profile.	string	-	none

config dns-database

Description: Configure DNS databases.

```
config dns-database
      edit <name>
            set status [enable | disable]
            set *domain {string}
            set type [primary]
            set view [shadow | public]
            set primary-name {string}
            set contact {string}
            set ttl [1 – 2147483647]
            set authoritative [enable | disable]
            set forwarder {ipv4-address}, {ipv4-address}, …
            set source-ip {ipv4-address}
            config dns-entry {{{ see next for more info }}}
            unset
```

Parameter	Description	Type	Size	Default
name	Name of the DNS database.	string	-	none
status	Status of the DNS zone.	option	-	enable
	Option **Description** enable Enable the DNS zone. disable Disable the DNS zone.			
domain	Domain zone name.	string	-	none
type	Zone type.	option	-	primary
view	Zone view to serve internal or public DNS clients.	option	-	shadow

Parameter	Description	Type	Size	Default
	Option / **Description** shadow — Shadow the DNS zone to serve internal clients. public — Public DNS zone to serve public clients.			
primary-name	Domain name of the default DNS server for the zone.	string	-	none
contact	Email address of the administrator of the zone. It could be a simple username or full email address.	string	-	host
ttl	Default time-to-live value (in seconds) for the entries of the DNS zone.	integer	1 - 2147483647	86400
authoritative	Status of the authoritative zone.	option	-	disable
	Option / **Description** enable — Enable authoritative zone. disable — Disable authoritative zone.			
forwarder	The list of DNS zone forwarder IP addresses, separate by white space.	IPv4 address	-	none
source-ip	Source IP for forwarding to the DNS server.	IPv4 address	-	none

config dns-entry

Description: Configure DNS entries.

```
config dns-entry
        edit <name>
            set status [enable | disable]
            set type [A | NS | CNAME | MX | PTR]
            set *hostname {string}
            set *ip {ipv4-address} *available when type is set to A or PTR
            set *canonical-name {string} *available when type is set to CNAME
            set preference [0 – 65535] *available when type is set to MX
            unset
            next
            show
            abort
            end
        delete <name>
        purge
```

```
        show
        end
        next
```

Sample command:

```
config system dns-database
    edit 1
        set status enable
        set domain example.com
        set type primary
        set view public
        set primary-name dns
        set contact host
        set ttl 86400
        set authoritative enable
        set forwarder 1.2.4.8 8.8.4.4
        set source-ip
        config dns-entry
            edit 1
                set status enable
                set type A
                set ttl 0
                set hostname host1
                set ip 172.30.145.225
            next
        end
    next
end
```

Parameter	Description	Type	Size	Default
name	The DNS entry ID number.	integer	1 - 4294967295	none
status	The resource record status.	option	-	enable

Option	Description
enable	Enable resource record.
disable	Disable resource record.

Parameter	Description	Type	Size	Default
type	Resource record type.	option	-	A

Option	Description
A	Address record.
NS	Name server record.
CNAME	Canonical name record.
MX	Mail exchange record.
PTR	PTR resource record.

Parameter	Description	Type	Size	Default
ttl	The time-to-live value (in seconds) for the entry.	integer	0 - 2147483647	0
hostname	Name of the host.	string	-	none
ip	IP address of the host.	IPv4 address	-	none

config vwan-member

Description: Configure virtual VWAN interface members.

```
config vwan-member
      edit <name>
            set target <name1>
            set priority [1 – 7]
            set weight [1 – 256]
            set in-bandwidth-threshold [0 – 2147483647]
            set out-bandwidth-threshold [0 – 2147483647]
            set total-bandwidth-threshold [0 – 2147483647]
            set health-check <name1>
            set health-check-fail-threshold [1 – 10]
            set health-check-success-threshold [1 – 10]
            set link-cost-factor [latency | jitter | packet-loss]
            set latency-threshold [0 – 10000000, default = 5]
            set jitter-threshold [0 - 10000000, default = 5]
            set packetloss--threshold [0 - 100, default = 100]
            unset
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
```

Sample command:

```
config system vwan-member
   edit mb1
      set target target.port1
      set priority 1
      set weight 1
      set in-bandwidth-threshold 0
      set out-bandwidth-threshold 0
      set total-bandwidth-threshold 0
      set health-check vw_mb1_hc
      set health-check-fail-threshold 5
      set health-check-success-threshold 5
      set link-cost-factor packet-loss latency jitter
      set latency-threshold 5
```

```
        set jitter-threshold 5
        set packetloss-threshold 100
    next
    edit mb2
        set target target.port2
        set priority 10
        set weight 1
        set in-bandwidth-threshold 0
        set out-bandwidth-threshold 0
        set total-bandwidth-threshold 0
        set health-check vw_mb2_hc
        set health-check-fail-threshold 5
        set link-cost-factor packet-loss latency jitter
        set latency-threshold 5
        set jitter-threshold 5
        set packetloss-threshold 100
```

Parameter	Decsription	Type	Size	Default
target	Forwarding target.	string	-	none
priority	Priority of the member. The lower the value, the higher the priority.	integer	1 - 7	1
weight	Weight of the member.	integer	1 - 256	1
in-bandwidth-threshold	Bandwidth threshold in MB for input traffic. 0 indicates infinity.	integer	0 - 2147483647	0
out-bandwidth-threshold	Bandwidth threshold in MB for output traffic. 0 indicates infinity.	integer	0 - 2147483647	0
health-check	Link health check of the virtual-wan member.	string	-	none
health-check-fail-threshold	The number of consecutive failed probes	integer	1 – 10	5

Parameter	Decsription	Type	Size	Default
	before the member is considered dead.			
health-check-success-threshold	The number of consecutive successful probes before the member is considered alive.	integer	1 – 10	5
link-cost-factor	Criteria by which link selection is made.	option	-	none
	Option: latency — link-cost-factor based on latency. Option: jitter — link-cost-factor based on jitter. Option: packetloss — link-cost-factor based on packet-loss.			
latency-threshold	Latency in milliseconds for SLA to make decisions.	integer	0 - 10000000	5
jitter-threshold	Jitter in milliseconds for SLA to make decisions.	integer	0 - 10000000	5
packetloss-threshold	Packet loss in percentage for SLA to make decisions.	integer	0 - 100	100

config syslog

Description: Configure syslog server settings.

```
config system syslog
```

```
        config remote-servers {string}
        edit <name>
           set ip* {ipv4-address}
           set port [1 – 65535]
        unset
        delete <name>
        purge
        show
        end
        config statistic-report
           set status [disable | enable]
           set interval [1 – 3600]
           config cpu-usage
              set threshold [0 – 100]
              thrset variance [0 – 100]
           end
           config memory-usage
              set threshold [0 – 100]
              set variance [0 – 100]
           end
           config cpu-temperature
              set threshold [0 – 120]
              set variance [0 – 120]
           end
        end
show
end
```

config remote-servers

Description: Configure syslog remote servers settings.

```
   config remote-servers
        edit <name>
             set ip* {ipv4-address}
             set port [1 – 65535]
             unset
             end
             next
             show
             abort
        delete
        purge
        end
        show
```

Parameter	Description	Type	Size	Default
ip	The IP address of the remote server.	IPv4 address	-	none
port	The remote syslog server port.	integer	1 - 65535	514

config statistic-report

Description: Configure syslog statistic report settings.

```
config statistic-report
      set status [enable | disable]
      set interval [1 - 3600]
      unset
```

Parameter	Description	Type	Size	Default
status	Status syslog statistic report.	option	-	disable
	Option / **Description** enable: Enable syslog statistic report. disable: Disable Enable syslog statistic report.			
interval	The time interval (in seconds) of system status reports.	integer	1 - 3600	30

config cpu-usage

```
Description: Configures CPU usage rate statistic report settings.
config cpu-usage
      set threshold [0 - 100]
      set variance [0 - 100]
unset
show
end
```

Parameter	Description	Type	Size	Default
threshold	The percentage of CPU usage threshold for system abnormal event report. 0 means disabled.	integer	0 - 100	70
variance	The variance of the CPU usage report when it exceeds the threshold. 0 means report all the time.	integer	0 - 100	5

config memory-usage

Description: Configures memory usage statistic report settings.

```
config memory-usage
      set threshold [0 - 100]
      set variance [0 - 100]
unset
show
```

```
end
```

Parameter	Size	Type	Size	Default
threshold	The percentage of memory usage threshold for system abnormal event report. 0 means disabled.	integer	0 -1 00	50
variance	The variance of the memory usage report when it exceeds the threshold. 0 means report all the time.	integer	0 - 100	5

config cpu-temperature

Description: Configures CPU temperature statistic report settings.

```
config cpu-temperature
      set threshold [0 – 120]
      set variance [0 – 120]
unset
show
end
```

Parameter	Description	Type	Size	Default
threshold	The CPU temperature threshold for system abnormal event report. 0 means disabled.	integer	0 - 120	80
variance	The variance of the CPU temperature report when it exceeds the threshold. 0 means report all the time.	integer	0 - 120	5

Sample command:

```
config system syslog
    config remote-servers
        edit serv1
            set ip 192.148.200.193
            set port 514
        next
    end
    config statistic-report
        set status enable
        set interval 30
        config cpu-usage
            set threshold 70
            set variance 5
```

```
        end
        config memory-usage
            set threshold 50
            set variance 5
        end
        config cpu-temperature
            set threshold 80
            set variance 5
        end
    end
end
```

config api-user

Description: Configure API user settings.

```
config api-user
      edit <name>
            set comment {string}
            unset
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
```

Sample command:

```
config system api-user
    edit 1
        set comment this is a test api user
    next
end
```

Parameter	Descripton	Type	Size	Default
name	The name of the API user.	string	-	none
comment	A brief comment of the API user.	string	-	none

config ntp

Description: Configure NTP synchronization in local management mode.

```
config ntp
      set type [fortiguard | custom]
      unset
      config ntpserver
            edit <name>
            set *server {ipv4-address} OR {string}
            unset
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
show
end
```

Parameter	Decription	Type	Size	Default
type	Type of NTP server.	option	-	fortiguard

Option	Description
fortiguard	The FortiGuard NTP server.
custom	A custom NTP server.

- config ntpserver on page 80

config ntpserver

Description: Configure available third-party NTP servers (up to 4 servers).

```
config ntpserver
      edit <name>
            set *server {ipv4-address} OR {string}
            unset
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
show
end
```

Parameter	Description	Type	Size	Default
server	IP address or hostname of the NTP server.	string	-	none

Sample command:

```
config system ntp
    set type custom
    config ntpserver
        edit 1
            set server 10.139.20.54
        next
    end
end
```

config settings

Description: Configure system settings.

```
config settings
      set ike-port [1024 – 65535]
      unset
      show
      end
```

Sample command:

```
config system settings
    set ike-port 500
end
```

Parameter	Description	Type	Size	Default
ike-port	IKE phase 1 port number.	integer	1024 - 65535	500

config system switch-interface

Description: View LAN extension settings synced from the FortiGate. You cannot configure these settings directly on the FortiBranchSASE; you must make them through the FortiGate LAN extension profile first.

```
config system switch-interface
  edit <name>
    set vlan-support [enable | disable]
    config member
      edit <name1>
        set type [ aggregate | physical | vap]
        set port
        set vids {1-4089}
        set pvid {1-4089}
        set security-8021x-member-mode [enable | disable]
      next
    end
    set stp [enable | disable]
    set td-mode [disable | include]
    set wired-security-mode [802.1X]
    set wired-security-group <security group ID>
  next
end
```

Sample syntax:

```
config system switch-interface
  edit lan
    set vlan-support disable
    config member
      edit port4
        set type physical
        set port port4
        set vids
        set pvid 1
        set security-8021x-member-mode enable
      next
    end
    set stp disable
    set ts-mode disable
    set wired-security-mode 802.1X
    set wired-security-group test
  next
end
```

Parametrer	Description	Type	Size	Default
vlan-support	Enable/disable VLAN support.	option	-	
stp	Spanning Tree Protocol.	option	-	disable

Option	Description
enable	Enable Spanning Tree Protocol.
disable	Disable Spanning Tree Protocol.

Parametrer	Description	Type	Size	Default
ts-mode	Read-only: Split tunnel mode.	option	-	disable
	Option / **Description** include / Enable Split tunnel mode disable / Disable Split tunnel mode.			
wired-security-mode	Turn on 802.1x authentication for this interface.	option	-	
wired-security-group	Names of user groups that can authenticate with the 802.1X.	option	-	
dst-mac	Read-only: MAC address of the remote gateway pushed from FortiOS.	string	-	none
dst-addr	Read-only: Destination IP addresses	string	-	none
services	Read-only: Internet services.	options	-	none

config members

Parameter	Description	Type	Size	Default
config member	Interfaces within the virtual switch.	option	-	none
name	The LAN port ID.	string	-	none
type	Interface type.	option	-	
port	Interface within the virtual switch.	option	-	
vap	Virtual Access Point, which must NOT be configured as a WLAN bridge, will be added as a member of the switch-interface.	option	-	
vids	VLAN ID list.	integer	1 to 4089	
pvid	Port VLAN ID.	integer	1 to 4089	
security-8021x-member-mode	Enable/disable 802.1x authentication on a port.	option	-	

config ssh-crypto

Description: Configure system SSH crpyto.

```
config system ssh-crpyto
  set strong-crypto [enable | disable]
end
```

Sample command:

```
config system ssh-crypto
  set strong-crypto enable
  set ssh-enc-algo aes256-ctr aes256-gcm@openssh.com
  set ssh-hsk-algo ecdsa-sha2-nistp256 ecdsa-sha2-nistp384 ecdsa-sha2-nistp521 rsa-sha2-256 rsa-
sha2-512 ssh-ed25519
  set ssh-kex-algo curve25519-sha256@libssh.org diffie-hellman-group-exchange-sha256 diffie-
hellman-group14-sha256 diffie-hellman-group16-sha512 diffie-hellman-group18-sha512
  set ssh-mac-algo hmac-sha2-256 hmac-sha2-256-etm@openssh.com hmac-sha2-512 hmac-sha2-512-
etm@openssh.com
end
```

Parameter	Description	Type	Size	Default
strong-crypto	Enable/disable strong encryption for SSH	option	-	disable

Option	Description
enable	Enable strong encryption for SSH
disable	Disable strong encryption for SSH

Parameter	Description	Type	Size	Default
set ssh-enc-algo	Set supported ciphers for ssh-enc-algo.	option	-	aes256-ctr aes256-gcm@openssh.com

Option	Description
aes256-ctr	aes256-ctr
aes256-gcm@openssh.com	aes256-gcm@openssh.com

Parameter	Description	Type	Size	Default
set ssh-hsk-algo	Set supported ciphers for ssh-hsk-algo.	option	-	ecdsa-sha2-nistp521 ecdsa-sha2-nistp384 ecdsa-sha2-nistp256 rsa-sha2-256 rsa-sha2-512 ssh-ed25519

Option	Description
ecdsa-sha2-nistp256	ecdsa-sha2-nistp256

Parameter	Description	Type	Size	Default
	Option / **Description** *ecdsa-sha2-nistp384* / ecdsa-sha2-nistp384 *ecdsa-sha2-nistp521* / ecdsa-sha2-nistp521 *rsa-sha2-256* / rsa-sha2-256 *rsa-sha2-512* / rsa-sha2-512 *ssh-ed25519* / ssh-ed25519			
set ssh-kex-algo	Set supported ciphers for ssh-kex-algo.	option	-	diffie-hellman-group14-sha256 diffie-hellman-group16-sha512 diffie-hellman-group18-sha512 diffie-hellman-group-exchange-sha256 curve25519-sha256@libssh.org ecdh-sha2-nistp256 ecdh-sha2-nistp384 ecdh-sha2-nistp521
	Option / **Description** *curve25519-sha256@libssh.org* / curve25519-sha256@libssh.org *diffie-hellman-group-exchange-sha256* / diffie-hellman-group-exchange-sha256 *diffie-hellman-group14-sha256* / diffie-hellman-group14-sha256 *diffie-hellman-group16-sha512* / diffie-hellman-group16-sha512 *diffie-hellman-group18-sha512* / diffie-hellman-group18-sha512			
set ssh-mac-algo	Set supported ciphers for ssh-mac-algo.	option	-	hmac-sha2-256 hmac-sha2-256-etm@openssh.com hmac-sha2-512 hmac-sha2-512-etm@openssh.com

Parameter	Description	Type	Size	Default

Option	Description
hmac-sha2-256	hmac-sha2-256
hmac-sha2-256-etm@openssh.com	hmac-sha2-256-etm@openssh.com
hmac-sha2-512	hmac-sha2-512
hmac-sha2-512-etm@openssh.com	hmac-sha2-512-etm@openssh.com

config system 802-1X-settings

Description: Configure global 802.1X settings.

Any change to the 802.1X setting may cause the supplicant to reauthenticate if wired security with 802.1x is enabled.

```
config system 802-1X-settings
  set reauth-period {integer}
  set retry-primary-interval {integer}
  set radius-client-failover-wait {integer}
end
```

Parametrer	Description	Type	Size	Default
reauth-period	Period of time to allow for reauthentication in seconds (0 = disable reauthentication).	integer	1 - 1440	60
retry-primary-interval	Retry interval for attempting to switch back to the primary RADIUS server, specified in seconds. The default value is 0, which disables switching back to the primary server.	integer	-	0
radius-client-failover-wait	RADIUS force failover timeout (seconds). Time to wait for a response before triggering failover (15, 30, and 45 seconds, default 45 seconds).	integer	-	45

config system obm-console

Description: Redirect the out-of-band management (OBM) console output to a local USB, FTP, SFTP, SMB, or NFS server.

```
config system obm-console
    config log-storage
        edit <name>
            set protocal [local_usb | ftp | sftp | smb | nfs]
            set folder <string>
            set server <IP address>
            set port <integer>
            set username <string>
            set password <string>
            set share video
            set export <string>
        next
    end
end
```

Parameter	Description	Type	Size	Default
protocol	Select which protocol to use to transfer the OOB console output.	option	-	

Option	Description
local_usb	Local USB
ftp	FTP
sftp	SFTP
smb	SMB
nfs	NFS

folder	Enter the folder where the log file should be saved on the server.	string	-	
server	Enter the IP address of the server.	string	-	
share	If `protocol` is set to `smb`, enter which folder to share the output to.	string	-	
port	Enter the remote server listening port. When the port is set to 0, FortiExtender uses the default port for each protocol.	option	-	
username	Enter the username of the server.	string	-	
password	Enter the password of the server.	string	-	

Parameter	Description	Type	Size	Default
export	If `protocol` is set to `nfs`, enter which folder to export the output to.	string	-	

SNMP

This section shows the syntax of the following commands:

- config sysinfo on page 89
- config community on page 89
- config user on page 92
- config hosts on page 93

config sysinfo

Description: Configure SNMP system info settings.

```
config sysinfo
      set status [enable | disable]
      set description {string}
      set contact-info {string}
      set location {string}
      unset
      show
      end
```

Parameter	Description	Type	Size	Default
status	The status of sysinfo configuration.	option	-	disable
	Option / **Description** enable: Enable the sysinfo configuration. disable: Disable the sysinfo configuration.			
description	A brief description of the system.	string	1 - 127 characters in length	none
contact-info	Contact information.	string	1 - 127 characters in length	none
location	System location.	string	1 - 127 characters in length	none

config community

Description: Configure SNMP v1/v2 community settings.

```
config community
      edit <name>
            set *name {string}
            set status [enable | disable]
            set hosts <name1>, <name2>, …
            set query-v1-status [enable | disable]
            set query-v1-port [1 – 65535]
            set query-v2-status [enable | disable]
            set query-v2-port [1 – 65535]
            set trap-v1-status [enable | disable]
            set trap-v1-lport [1 – 65535]
            set trap-v1-rport [1 – 65535]
            set trap-v2c-status [enable | disable]
            set trap-v2c-lport [1 – 65535]
            set trap-v2c-rport [1 – 65535]
            set events <name1>, <name2>, …
            unset
            next
            show
            end
      delete <name>
      purge
      show
      end
```

Parameter	Description	Type	Size	Default
name	Name of the SNMP community.	string	-	none
status	The status of the SNMP community configuration.	option	-	disable

Option	Description
enable	Enable the SNMP community configuration.
disable	Disable the SNMP community configuration.

hosts	SNMP community host names.	option	-	none
query-v1-status	Status of SNMP v1 queries.	option	-	disable

Option	Description
enable	Enable SNMP v1 queries.
disable	Disable SNMP v1 queries.

query-v1-port	SNMP v1 query port number.	integer	1 - 65535	161
query-v2-status	Status of SNMP v2 queries.	option	-	disable

Parameter	Description	Type	Size	Default
	Option / **Description** enable — Enable SNMP v2 queries. disable — Disable SNMP v2 queries.			
query-v2-port	SNMP v2 query port number.	integer	1 - 65535	161
trap-v1-status	Status of SNMP v1 traps.	option	-	disable
	Option / **Description** enable — Enable SNMP v1 traps. disable — Disable SNMP v1 traps.			
trap-v1-lport	SNMP v1 trap local port.	integer	1 - 65535	162
trap-v1-rport	SNMP v1 trap remote port.	integer	1 - 65535	162
trap-v2-status	Status of SNMP v2 traps.	option	-	disable
	Option / **Description** enable — Enable SNMP v2 traps. disable — Disable SNMP v2 traps.			
trap-v2-lport	SNMP v2 trap local port.	integer	1 - 65535	162
trap-v2-rport	SNMP v2 trap remote port.	integer	1 - 65535	162
events	SNMP trap events.	option	-	none
	Option / **Description** system-reboot — System reboot events. data-exhausted — Data usage exhaustion events. session-disconnect — Modem data session disconnect events. low-signal-strength — Modem low signal strength events. os-image-fallback — System OS image fallback events. mode-switch — System mode switch events. fgt-backup-mode-switch — System FGT VRRP backup mode switch events.			

config user

Description: Configure SNMP v3 user settings.

```
config user
      edit <name>
            set *name {string}
            set status [enable | disable]
            set notify-hosts <name1>, <name2>, …
            set trap-status [enable | disable]
            set trap-lport [1 – 65535]
            set trap-rport [1 – 65535]
            set queries [enable | disable]
            set query-port [1 – 65535]
            set events <name1>, <name2>, …
            set security-level [no-auth-no-priv | auth-no-priv | auth-priv]
            set auth-proto [md5 | sha1] *available when security level includes auth
            set *auth-pwd {string} *available when security level includes auth
            set priv-proto [aes | des] *available when security level includes priv
            set *priv-pwd {string}*available when security level includes priv
            unset
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
```

Parameter	Description	Type	Size	Default
name	Username of the SNMP user.	string	-	none
status	Status of the SNMP user configuration.	option	-	disable

Option	Description
enable	Enable the SNMP user.
disable	Disable the SNMP user.

Parameter	Description	Type	Size	Default
notify-hosts	SNMP managers to which notifications (traps) are sent.	option	-	none
trap-status	Status of the traps for the SNMP user.	option	-	disable

Option	Description
enable	Enable the traps for the SNMP user.
disable	Disable the traps for the SNMP user.

Parameter	Description	Type	Size	Default
trap-lport	SNMPv3 trap local port.	integer	1 - 65535	162
trap-rport	SNMPv3 trap remote port.	integer	1 - 65535	162
queries	Status of SNMP queries for the user.	option	-	disable
query-port	SNMPv3 query port.	integer	1 - 65535	161
events	SNMP trap events.	option	-	none

Option	Description
system-reboot	System reboot events.
data-exhausted	Data usage is exhaustion events.
session-disconnect	Modem data session disconnect events.
low-signal-strength	Modem low signal strength events.
os-image-fallback	System OS image fall back events.
mode-switch	System mode switch events.
fgt-backup-mode-switch	System FGT VRRP backup mode switch events.

Security-level	Security level for message authentication and encryption.	option	-	no-auth-no-priv

Option	Description
no-auth-no-priv	No authentication and no encryption.
auth-no-priv	Authentication and no encryption.
auth-priv	Authentication and encryption.

config hosts

Description: Configure SNMP hosts settings.

```
config hosts
      edit <name>
            set *host-ip {ipv4 or ipv6 address}
            set host-type [any | query | trap]
            unset
            next
            show
            abort
            end
            delete <name>
            purge
```

```
            show
        end
show
end
```

Parameter	Description	Type	Size	Default
host-ip	IPv4 or IPv6 address of the SNMP manager (host), syntax: X.X.X.X/prefix or h:h:h:h:h:h:h:h/prefix.	IPv4 or IPv6 address	-	none
host-type	Whether the SNMP manager sends SNMP queries, or receives SNMP traps, or both.	option	-	none

Option	Description
any	Any type.
query	SNMP queries only.
trap	SNMP traps only.

HMON

This section shows the syntax of the following commands:

- config interface-monitoring on page 95
- config hchk on page 95

config interface-monitoring

Description: Configure monitoring interfaces.

```
config interface-monitoring
      edit <name>
            set interval [1 - 3600]
            set *interface <name1>, <name2>, …
            set filter <name1>, <name2>, …
            unset
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
```

config hchk

Description: Configure measuring latency/loss/jitter.

```
config hchk
```

```
edit <name>
               set protocol [ping | http | dns]
               set interval [1 - 3600]
               set probe-cnt [1 - 10]
               set probe-tm [1 - 10]
               set *probe-target {ipv4-address}
               set port [1 - 65535] *available when protocol is set to http
               set http-get {string} *available when protocol is set to http
               set interface <name1>
               set src-type [none | interface | ip]
               set *stc-iface <name1> *available when src-type is set to interval
```

```
                set *src-ip {ipv4-address} *available when src-type is set to ip
                set filter <name1>, <name2>, …
                unset
                next
                show
                abort
                end
        delete <name>
        purge
        show
        end
show
end
```

Sample command:

```
config hmon
    config interface-monitoring
        edit 1
            set interval 30
            set interface port1
            set filter rx-bps rx-bytes rx-dropped rx-packets
        next
    end
    config hchk
        edit 1
            set protocol ping
            set interval 5
            set probe-cnt 1
            set probe-tm 2
            set probe-target 8.8.8.8
            set interface port1
            set src-type interface
            set src-iface port1
            set filter rtt loss
        next
    end
end
```

Parameter	Description	Type	Size	Default
interval	Monitoring interval in seconds.	integer	1 - 3600	30
interface	Interface to be monitored.	option	-	none

Option	Description
lan	LAN as the outgoing interface.
lo	Loopback as the outgoing interface.

Parameter	Description	Type	Size	Default
	Option / **Description** port1 — Port 1 as the outgoing interface. port4 — Port 4 as the outgoing interface.			
filter	Filter types.	option	-	none
	Option / **Description** tx-bytes — Transmitter bytes. rx-bytes — Receiver bytes. tx-packets — Transmitter packets. rx-packets — Receiver packets. tx-dropped — Transmitter dropped bytes. rx-dropped — Receiver dropped bytes. tx-bps — Transmitter bytes per second. rx-bps — Receiver bytes per second. tx-pps — Transmitter packets per second. rx-pps — Receiver packets per second.			
protocol	The protocol to use for status checks.	option	-	ping
	Option / **Description** ping — Use PING to test the link with the probe-target. http — Use HTTP-GET to test the link with the probe-target. dns — Use DNS-Query to test the link with the probe-target.			
interval	Monitoring Interval in seconds.	integer	1 - 3600	5
probe-cnt	Number of probes sent within an interval.	integer	1 - 10	1
probe-tm	Timeout for a probe in seconds.	integer	1 - 10	2
interface	The outbound interface of probe packets.	option	-	none
	Option / **Description** lan — LAN as the outgoing interface.			

Parameter	Description	Type	Size	Default
	Option / **Description** lo — Loopback as the outgoing interface. port1 — Port 1 as the outgoing interface. port4 — Port 4 as the outgoing interface.			
src-type	The way to set the source address for probes.	option	-	none
	Option / **Description** none — Do not set the source address. interface — Set the source address as the address derived from a specific interface. ip — Set the source address as a specific IP.			
filter	Filter type.	option	-	rtt loss
	Option / **Description** rtt — Round trip time. loss — Packet loss.			

VPN

This section shows the syntax of the following commands:

- config ipsec on page 99
- config vpn certificate on page 109

config ipsec

Description: Configure IPsec VPN settings.

- config phase1-interface on page 99
- config phase2-interface on page 104

config phase1-interface

Description: Configure the VPN remote gateway.

```
config vpn ipsec phase1-interface
  edit <name>
    set ip-version [4 | 6]
    set ike-version [1 | 2]
    set keylife [120 – 172800]
    set proposal [des-md5 | des-sha1 | des-sha256 | 3des-md5 | 3des-sha1 | 3dessha256 | aes128-md5
| aes128-sha1 | aes128-sha256 | aes256-md5 | aes256-sha1 | aes256-sha256]
    set dhgrp [1 | 2 | 5 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 27 | 28| 29 | 30 | 31 | 32 ]
    set *interface <name1>
    set type [static | ddns]
    set *remote-gw {ipv4-address}
    set *remote-gw6 {ipv6-address}
    set *remotegw-ddns {string} *available when type is set to ddns
    set authmethod [psk | signature]
    set *psksecret {string}
    set *certificate <local-cert-name>
    set *peer <ca-cert-name>
    set localid {string}
    set peerid {string}
    set add-gw-route [enable | disable]
    set dev-id-notification [enable | disable]
    set dev-id <name1> *available when dev-id-notification is enabled
    set monitor <name>
  next
end
```

Sample command:

```
config vpn ipsec phase1-interface
  edit phase1_1
    set ike-version 2
    set keylife 86400
    set proposal aes128-sha256 aes256-sha256 3des-sha256 aes128-sha1 aes256-sha1 3dessha1
    set dhgrp 14 5 31 20
    set interface port1
    set type static
    set remote-gw 207.102.148.196
    set authmethod psk
    set psksecret ******
    set localid 92
    set peerid 22
    set add-gw-route disable
    set dev-id-notification disable
    set monitor pri
  next
end
```

<table>
<tr><th>Parameter</th><th>Description</th><th>Type</th><th>Size</th><th>Default</th></tr>
<tr><td>ip-version</td><td>Specify the IP version for the VPN interface.</td><td>option</td><td>-</td><td></td></tr>
<tr><td></td><td><table><tr><th>Option</th><th>Description</th></tr><tr><td>4</td><td>IPv4</td></tr><tr><td>6</td><td>IPv6</td></tr></table></td><td></td><td></td><td></td></tr>
<tr><td>ike-version</td><td>Specify the IKE protocol version.</td><td>option</td><td>-</td><td>2</td></tr>
<tr><td></td><td><table><tr><th>Option</th><th>Description</th></tr><tr><td>1</td><td>Version 1</td></tr><tr><td>2</td><td>Version 2</td></tr></table></td><td></td><td></td><td></td></tr>
<tr><td>keylife</td><td>Time to wait in seconds before the phase 1 encryption key expires.</td><td>integer</td><td>120 - 172800</td><td>86400</td></tr>
<tr><td>proposal</td><td>Specify Phase-1 proposal.</td><td>option</td><td>-</td><td>aes128-sha256
aes256-sha256
3des-sha256
aes128-sha1
aes256-sha1
3des-sha1</td></tr>
</table>

Parameter	Description	Type	Size	Default
	Option **Description** des-md5 des-sha1 des-sha256 3des-md5 3des-sha1 3des-sha256 aes128-md5 aes128-sha1 aes128-sha256 aes256-md5 aes256-sha1 aes256-sha256			
dhgrp	Diffie-Hellman (DH) key exchange in phase1 is used to negotiate and exchange private keys for phase2. **Note:** Any DH groups less than 15 are not recommended due to their low security levels. Elliptic Curve Groups (19, 20, 21, 27, 28, 29, 30, 31, 32) offer better security compared to the MODP groups (1, 2, 5, 14, 15, 16, 17, 18).	option	-	14, 5
	Option **Description** 1 2 5 14 15 16 17 18 19			

Parameter	Description	Type	Size	Default
	Option **Description** 20 21 27 28 29 30 31 32			
interface	The outgoing interface.	option	-	none
	Option **Description** lan LAN as the outgoing interface. lo Loopback as the outgoing interface. lte1 LTE 1 as the outgoing interface. wan WAN as the outgoing interface. port4 Port 4 as the outgoing interface.			
type	Select a remote gateway type.			none
	Option **Description** static Static gateway. ddns Dynamic DNS gateway.			
remote-gw	The IPv4 address of the remote gateway's external interface.	IPv4 address	-	none
remote-gw6	The IPv6 address of the remote gateway's external interface.	IPv6 address	-	none
remotegw-ddns	Specify the domain name of the remote gateway, for example, `name.DDNS.com`. Available when `type` is set to `ddns`.	string	-	none
authmethod	Authentication method.	option	-	psk

Parameter	Description	Type	Size	Default
	Option / **Description** psk — Preshared key. signature — Signature certificate.			
certificate	Specify the name of up to four local signed personal certificates. **Note:** This entry is only available when `authmethod` is set to `signature`. The certificates must have already been installed on the FortiExtender before you are trying to enter them here.			none
peer	The name of the CA certificate used to authenticate that the peer certificate is issued by it or its sub-CA. This entry is available only when `authmethod` is set to `signature`. The certificates must have already been installed on the FortiExtender before you are trying to enter them here. **Note:** If no peer is set, the peer certificate can still be accepted as long as a CA certificate that can verify the peer certificate exists.			none
psksecret	Specify the pre-shared secret created when configuring the VPN client for PSK authentication (ASCII string or hexadecimal encoded with a leading 0x).	string	-	none
localid	Local ID.	string	-	none
peerid	Peer identity to accept.	string	-	none
add-gw-route	Whether to automatically add a route to the remote gateway.	option	-	disable
	Option / **Description** enable — Enable automatically adding a route to the remote gateway. disable — Disable automatically adding a route to the remote gateway.			
dev-id-notification	Whether to enable device ID notification for the first IKE message.	option	-	disable

Parameter	Description	Type	Size	Default
	Option / **Description** enable / Enable device ID notification. disable / Disable device ID notification.			
dev-id	The Device ID carried by the device ID notification. Available when dev-id-notification is enabled.	string	-	none
monitor	Specify the IPsec phase1 interface as primary.	string	-	none

config phase2-interface

Description: Configure VPN autokey tunnel.

```
config phase2-interface
  edit <name>
    set *phase1name
    set proposal {option1}, {option2}, ...
    set pfs [enable | disable]
    set dhgrp [1 | 2 | 5 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 27 | 28| 29 | 30 | 31 | 32 ]
    set keylife-type [seconds | kbs]
    set keylifeseconds [120 – 172800]
    set keylifekbs [5120 - 4294967295]
    set encapsulation [tunnel-mode | transport-mode]
    set protocol [0 – 255]
    set src-addr-type [subnet | range | ip | name | subnet6 | range6 | ip6 | name6]
    set src-subnet {ipv4-subnet}
    set *src-start-ip {ipv4-address} *available when src-addr-type is range and ip
    set *src-end-ip {ipv4-address} *available when src-addr-type is range
    set *src-name {string} *available when src-addr-type is name
    set src-subnet6 {ipv6-subnet}
    set *src-start-ip6 {ipv6-address} *available when src-addr-type is range6 and ip6
    set *src-end-ip6 {ipv6-address} *available when src-addr-type is range6
    set *src-name6 {string} *available when src-addr-type is name6
    set src-port [0 – 65535]
    set dst-addr-type [subnet | range | ip | name | subnet6 | range6 | ip6 | name6]
    set dst-subnet {ipv4-subnet}
    set *dst-start-ip {ipv4-address} *available when dst-addr-type is range and ip
    set *dst-end-ip {ipv4-address} *available when dst-addr-type is range
    set *dst-name {string} *available when dst-addr-type is name
    set dst-subnet6 {ipv6-subnet}
    set *dst-start-ip6 {ipv6-address} *available when dst-addr-type is range6 and ip6
    set *dst-end-ip6 {ipv6-address} *available when dst-addr-type is range6
    set *dst-name6 {string} *available when dst-addr-type is name6
```

```
    set dst-port [0 - 65535]
unset
next
show
abort
end
delete <name>
purge
show
end
show
end
```

Sample command:

```
config vpn ipsec phase2-interface
edit phase2_1
set phase1name phase1_1
set proposal aes128-sha1 aes256-sha1 3des-sha1 aes128-sha256 aes256-sha256 3dessha256
set pfs enable
set dhgrp 14 5 31 20
set keylife-type seconds
set keylifeseconds 43200
set encapsulation tunnel-mode
set protocol 0
set src-addr-type subnet
set src-subnet 0.0.0.0/0
set src-port 0
set dst-addr-type subnet
set dst-subnet 107.204.148.0/24
set dst-port 234
next
end
```

Parameter	Description	Type	Size	Default
phase1name	Phase 1 name (which determines the options required for phase 2).	string	-	none
proposal	Phase 2 proposal.	option	-	aes128-sha1 aes256-sha1 3des-sha1 aes128-sha256 aes256-sha256 3des-sha256

Parameter	Description	Type	Size	Default
	Option / **Description**			
	des-md5 / des-md5			
	des-sha1 / des-sha1			
	des-sha256 / des-sha256			
	3des-md5 / 3des-md5			
	3des-sha1 / 3des-sha1			
	3des-sha256 / 3des-sha256			
	aes128-md5 / aes128-md5			
	aes128-sha1 / aes128-sha1			
	aes128-sha256 / aes128-sha256			
	aes256-md5 / aes256-md5			
	aes256-sha1 / aes256-sha1			
	aes256-sha256 / aes256-sha256			
	null-sha1 / null-sha1			
	null-sha256 / null-sha256			
pfs	Status of the PFS feature.	option	-	enable
	Option / **Description**			
	enable / Enable PFS.			
	disable / Disable PFS.			
dhgrp	Phase 2 DH group.	option	-	14, 5
	Option / **Description**			
	1 / DH Group 1.			
	2 / DH Group 2.			
	5 / DH Group 5.			
	14 / DH Group 14.			
	15 / DH Group 15.			
	16 / DH Group 16.			
	17 / DH Group 17.			
	18 / DH Group 18.			

Parameter	Description	Type	Size	Default
	Option / **Description** 19 / DH Group 19. 20 / DH Group 20. 21 / DH Group 21. 27 / DH Group 27. 28 / DH Group 28. 29 / DH Group 29. 30 / DH Group 30. 31 / DH Group 31. 32 / DH Group 32.			
keylife-type	Keylife type	option	-	seconds
	Option / **Description** seconds / Seconds. kbs / Kbs.			
keylifeseconds	Phase 2 key life in seconds.	integer	120 – 172800	43200
keylifekbs	Phase 2 key life in the number of bytes of traffic.	integer	5120 - 4294967295	5120
encapsulation	ESP encapsulation mode.	option	-	tunnel-mode
	Option / **Description** tunnel-mode / Tunnel mode. transport-mode / Transport mode.			
protocol	Quick mode protocol selector.	integer	1 - 255	0
src-addr-type	Local proxy ID type.	option	-	subnet
	Option / **Description** subnet / IPv4 subnet. range / IPv4 range. ip / IPv4 address. name / IPv4 address object name.			

Parameter	Description	Type	Size	Default
	Option / **Description** subnet6 / IPv6 subnet. range6 / IPv6 range. ip6 / IPv6 address. name6 / IPv6 address object name.			
src-subnet	Local proxy ID subnet.	IPv4 address	-	0.0.0.0/0
src-port	Quick mode source port.	integer	1 - 65535, or 0 for all	0
src-start-ip	Local proxy ID start when `src-addr-type` is `range` and `ip`.	IPv4 address	-	none
src-end-ip	Local proxy ID end when `src-addr-type` is `range`.	IPv4 address	-	none
src-name	Local proxy ID name when `src-addr-type` is `name`.	string	-	none
src-subnet6	Local proxy ID IPv6 subnet when `src-addr-type` is `subnet6`.	IPv6 address	-	0::0/0
src-start-ip6	Local proxy ID IPv6 start when `src-addr-type` is `range6` and `ip6`.	IPv6 address	-	none
src-end-ip6	Local proxy ID IPv6 end when `src-addr-type` is `range6`.	IPv6 address	-	none
src-name6	Local proxy ID IPv6 name when `src-addr-type` is `name6`.	string	-	none
dst-addr-type	Remote proxy ID type.	option	-	subnet
	Option / **Description** subnet / IPv4 subnet. range / IPv4 range. ip / IPv4 address. name / IPv4 address object name. subnet6 / IPv6 subnet. range6 / IPv6 range. ip6 / IPv6 address. name6 / IPv6 address object name.			

Parameter	Description	Type	Size	Default
dst-subnet	Remote proxy ID subnet.	IPv4 address	-	0.0.0.0/0
dst-port	Quick mode source port.	integer	1 - 65535, or 0 for all	0
dst-start-ip	Remote proxy ID start when `dst-addr-type` is `range` and `ip`.	IPv4 address	-	none
dst-end-ip	Remote proxy ID end when `dst-addr-type` is `range`.	IPv4 address	-	none
dst-name	Remote proxy ID name when `dst-addr-type` is `name`.	string	-	none
dst-subnet6	Remote proxy ID IPv6 subnet when `dst-addr-type` is `subnet6`.	IPv6 address	-	0::0/0
dst-start-ip6	Remote proxy ID IPv6 start when `dst-addr-type` is `range6` and `ip6`.	IPv6 address	-	none
dst-end-ip6	Remote proxy ID IPv6 end when `dst-addr-type` is `range6`.	IPv6 address	-	none
dst-name6	Remote proxy ID IPv6 name when `dst-addr-type` is `name6`.	string	-	none

config vpn certificate

Description: Configure VPN certificates.

- config vpn certificate ca on page 109
- config vpn certificate local on page 110

config vpn certificate ca

Description: Configure CA certificates.

```
config ca
      edit <name>
            set comment {string}
            set *source [factory | user]
            unset
            next
            abort
            show
            end
      delete <name>
      purge
      show
```

```
        end
```

Sample command:

```
config vpn certificate ca
  edit Fortinet_CA
    set comment
    set source factory
  next
end
```

config vpn certificate local

Description: Configure local keys and certificates.

```
config vpn certificate local
      edit <name>
            set comment {string}
            set source [factory | user]
            set enroll-protocol [none | scep]
            unset
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
```

Sample command:

```
config vpn certificate local
  edit Fortinet_Factory
    set comment
    set source factory
    set enroll-protocol scep
  next
end
```

Parameter	Description	Type	Size	Default
comment	Optional comments.	string	Up to 255 characters in length.	none
source	Source of CA certificate.	option	-	factory

Parameter	Description	Type	Size	Default
	Option / **Description** factory — From the manufacturer. user — From the user.			
enroll-protocol	Certificate enrollment protocol.	option	-	
	Option / **Description** None — None. scep — Use SCEP.			

Network

This section shows the syntax of the following commands:

- config address on page 112
- config service-custom on page 113

config address

Description: Configure IPv4 addresses.

```
config address
      edit <name>
            set type [ipmask | iprange]
            set subnet {ipv4-address}
            set start-ip {ipv4-address} *available when type is set to iprange
            set end-ip {ipv4-address} *available when type is set to iprange
            unset
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
```

Sample command:

```
config network address
    edit lan
        set type ipmask
        set subnet 192.168.200.0/24
    next
```

Parameter	Description	Type	Size	Default
type	Type of address.	option	-	ipmask

Option	Description
ipmask	IP address and subnet mask.
iprange	IP range.

Parameter	Description	Type	Size	Default
subnet	IP address and subnet mask.	IPv4 address	-	none
start-ip	The first IP address (inclusive) in the range of IP addresses.	IPv4 address	-	none
end-ip	The last IP address (inclusive) in the range of IP addresses.	IPv4 address	-	none

config service

Description: Configure firewall service.

config service-custom

Description: Configure custom services.

```
config service-custom
      edit <name>
            set protocol [TCP | UDP | ICMP | IP]
            set protocol number (0 – 254)
            set tcp-portrange <dstport_low>[-<dstport_high>:<srcport_low>-<srcport_high>] *available
                  when protocol is set to TCP
            set udp-portrange <dstport_low>[-<dstport_high>:<srcport_low>-<srcport_high>] *available
                  when protocol is set to UDP
            unset
            next
            show
            abort
            end
      delete <name>
      purge
      show
      end
show
end
```

Sample command:

```
config network service
    config service-custom
        edit ALL
            set protocol IP
            set protocol-number 0
        next
```

Parameter	Size	Type	Size	Default
protocol	Protocol type based on IANA numbers.	option	-	ip

Option	Description
tcp	TCP protocol.
udp	UDP protocol.
icmp	ICMP protocol.
ip	IP protocol.

protocol-number	IP protocol number.	integer	0 - 254	0

Execute

This section shows the syntax of the following command:

- execute SSH username serverip on page 115
- execute vpn certificate local generate rsa on page 115

execute SSH username serverip

Description: Configure SSH client log into other devices from FortiBranchSASE.

```
#execute ssh username serverip
```

Sample command:

```
execute ssh admin 192.168.1.115
```

execute vpn certificate local generate rsa

Description: Generate a Certificate Signing Request.

```
# execute vpn certificate local generate rsa <cert_name> <key_size> <subject> <country name>
<state> <city> <org> <Units> <email> <subject_alter_name> <URL> <challenge>
```

Sample command:

```
# execute vpn certificate local generate rsa test1 1024 cert US CA Sunnyvale Fortinet
102,203,303 test@fortinet.com null http://192.168.100.99/app/cert/scep/ fortinet
```

Field	Description	Mandatory	Type	Value Range
cert_name	Specify the certificate name.	Yes	String	
key_size	Specify the key size.	Yes	Number	1024, 1536, 2048, 4096

Field	Description	Mandatory	Type	Value Range
subject	Specify the subject(Host-IP/Domain Name/E-Mail).	Yes	String	
country name	Specify the country name.	No	String	
state	Specify the state name.	No	String	
city	Specify the city name.	No	String	
org	Specify the organization name.	No	String	
Units	Specify the unit name. If there are multiple units, use ',' as a delimiter.	No	String	
email	Specify the email address.	No	String	
subject_ alter_name	Specify the subject alternative name.	No	String	
URL	Specify the URL.	Yes	String	
challenge	Specify the challenge password.	No	String	

WiFi

This section presents the CLI commands for configuring Wi-Fi network settings on Wi-Fi enabled platforms.

- config vap on page 117
- config ap-security on page 120
- config wifi-networks on page 122
- config radio-profile on page 123
- config wifi-general on page 124

config vap

Description: Configure WiFi virtual access point.

```
config wifi
  config vap
    edit <WiFi Access Point Name>
      set ssid <string>
      set broadcast-ssid [enable | disable]
      set dtim {integer}
      set rts-threshold {integer}
      set max-clients {integer}
      set target-wake-time [enable | disable]
      set bss-color-partial [enable | disable]
      set mu-mimo [enable | disable]
      set wlan-bridge [yes |no ]
      set wlan-members
      config ap-security
        set security-mode <encryption mode>
      end
    next
  end
end
```

Sample command:

```
config wifi
  config vap
    edit fbs-home-2g-1
      set ssid fbs-home-2g-1
      set broadcast-ssid enable
      set dtim 1
      set rts-threshold 2347
      set max-clients 9
```

```
      set target-wake-time enable
      set bss-color-partial enable
      set mu-mimo enable
      set wlan-bridge no
      set wlan-members
      config ap-security
        set security-mode WPA2-Enterprise
        set auth-server-addr 192.168.11.99
        set auth-server-port 1812
        set auth-server-secret ******
        set pmf optional
      end
    next
    edit fbs-home-5g-1
      set ssid fbs-home-5g-1
      set broadcast-ssid enable
      set dtim 1
      set rts-threshold 2347
      set max-clients 9
      set target-wake-time enable
      set bss-color-partial enable
      set mu-mimo enable
      set wlan-bridge yes
      set wlan-members
      config ap-security
          set security-mode WPA2-Personal
          set pmf required
          set passphrase ******
      end
    next
  end
end
```

Parameter	Description	Type	Size	Default
ssid	IEEE 802.11 service set identifier (SSID) for the wireless interface. Users who wish to use the wireless network must configure their computers to access this SSID name.	string	-	
broadcast-ssid	Enable/disable broadcasting the SSID	option	-	

Option	Description
enable	Enable broadcasting the SSID.
disable	Disable broadcasting the SSID.

dtim	Wi-Fi Delivery Traffic Indication	integer	1-255	

Parameter	Description	Type	Size	Default
	Map (DTIM)			
rts-threshold	Maximum packet size for RTS transmissions.	integer	256-2347	
max-clients	Maximum number of clients that can connect simultaneously to the VAP.	integer	0-512	
target-wake-time	Enable/disable 802.11ax target wake time.	option		
	Option / **Description** enable / Enable 802.11ax target wake time. disable / Disable 802.11ax target wake time.			
bss-color-partial	Enable/disable 802.11ax partial BSS color.	option		
	Option / **Description** enable / Enable 802.11ax partial BSS color. disable / Disable 802.11ax partial BSS color.			
mu-mimo	Enable/disable Multi-user MIMO.	option		
	Option / **Description** enable / Enable Multi-user MIMO. disable / Disable Multi-user MIMO.			
wlan-bridge	Select if you want the SSID to act as a bridge between wireless and wired networks, integrating wireless devices into the same network.	option		
	Option / **Description** yes / Allow the SSID to act as a WLAN bridge. no / Do not allow the SSID to act as a WLAN bridge.			
wlan-members	When WLAN Bridge is enabled, you can add WLAN members to the SSID configuration.			

- config ap-security on page 120

config ap-security

Description: Configure security mode for WiFi access point.

```
config wifi
  config vap
    edit <WiFi Access Point Name>
      config ap-security
        set security-mode <encryption mode>
        set pmf <option>
        set source-ip <ipv4 or ipv6 address>
        set passphrase <password>
        set auth-server-addr <ipv4 or ipv6 address>
        set auth-server-port <port number>
        set auth-server-secret <password>
      end
    next
  end
end
```

Sample command

```
config wifi vap
    edit fbs-home-2g-1
        set ssid fbs-home-2g-1
        set broadcast-ssid enable
        set wlan-members
        config ap-security
            set security-mode WPA2-Enterprise
            set auth-server-addr 192.168.11.99
            set auth-server-port 1812
            set auth-server-secret ******
            set pmf optional
        end
    next
    edit fbs-home-5g-1
      set ssid fbs-home-5g-1
      set broadcast-ssid enable
      set wlan-members
      config ap-security
        set security-mode WPA2-Personal
        set pmf disabled
        set passphrase ******
      end
  next
end
```

Parameter	Description	Type	Size	Default
security-	Select which security mode to use.	option	-	

Parameter	Description	Type	Size	Default
mode				

Option	Description
OPEN	Wi-Fi security OPEN
WPA2-Personal	Wi-Fi security WPA2 Personal
WPA-WPA2-Personal	Wi-Fi security WPA-WPA2 Personal
WPA3-SAE	Wi-Fi security WPA3 SAE
WPA3-SAE-Transition	Wi-Fi security WPA3 SAE Transition
WPA2-Enterprise	Wi-Fi security WPA2 Enterprise
WPA3-Enterprise-Only	Wi-Fi security WPA3 Enterprise only
WPA3-Enterprise-Transition	Wi-Fi security WPA3 Enterprise Transition
WPA3-Enterprise-192-bit	Wi-Fi security WPA3 Enterprise 192-bit

pmf	Protected Management Frames (PMF) support. This option is available if `security-mode` is set to OPEN, WPA2-Personal, WPA-WPA2-Personal, WPA3-SAE, or WPA3-SAE-Transition.	option	-	

Option	Description
disabled	Disable PMF completely.
required	Enable PMF and deny clients without PMF.
optional	Enable PMF and allow clients without PMF.

passphrase	WPA pre-shared key (PSK) to be used to authenticate WiFi users. This option is available if `security-mode` is set to WPA2-Personal, WPA-WPA2-Personal, WPA3-SAE, or or WPA3-SAE-Transition.	password		
source-ip	Source IP address for communications to the RADIUS server (IPv4 and IPv6 format).	string		
auth-server-addr	RADIUS authentication server (IPv4 and IPv6 format).	string		

Parameter	Description	Type	Size	Default
	This option is available if `security-mode` is set to WPA2-Enterprise, WPA3-Enterprise-Only, WPA3-Enterprise-Transition, or WPA3-Enterprise-192-bit.			
auth-server-port	Wi-Fi Authentication Server Port. This option is available if `security-mode` is set to WPA2-Enterprise, WPA3-Enterprise-Only, WPA3-Enterprise-Transition, or WPA3-Enterprise-192-bit.	integer		1812
auth-server-secret	Wi-Fi Authentication Server Secret. This option is available if `security-mode` is set to WPA2-Enterprise, WPA3-Enterprise-Only, WPA3-Enterprise-Transition, or WPA3-Enterprise-192-bit.	string		

config wifi-networks

Description: Configure WiFi networks for Station Mode.

```
edit <name>
      set ssid <id>
      set security-mode <encryption mode>
      # the security mode has the following options:
            OPEN
            WPA-Personal
            WPA2-Personal
            WPA-WPA2-Personal
            WPA3-SAE
            WPA3-SAE-Transition
            WPA-Enterprise
            WPA2-Enterprise
            WPA-WPA2-Enterprise
            WPA3-Enterprise-Only
            WPA3-Enterprise-Transition
      set pmf <option>
      # pmf option includes the options:
            disabled
            optional
            required
```

Sample command:

```
config wifi wifi-networks
    edit 2g-ArloNetwork
        set ssid ArloNetwork
```

```
        set security-mode WPA3-Enterprise-Only
        set pmf required
        set identity ******
        set password ******
    next
    edit 5g-Dream
        set ssid Dream
        set security-mode WPA3-SAE
        set pmf
        set sae-password ******
    next
    edit 5g-Hope
        set ssid Hope
        set security-mode WPA2-Enterprise
        set pmf
        set identity ******
        set password ******
    next
end
```

config radio-profile

Description: Configure WiFi Radio profile.

```
config wifi radio-profile
edit <radio profile name>
set band <2GHz/5GHz>
set status <enable/disable>
set role <lan/wan> # two options for role, as lan and wan
If role is set as lan, configure the following parameters for the WiFi lan interface:
set operating-standards auto
set beacon-interval {100-3500}
set 80211d [ enable | disable]
set max-clients {0-512}
set power-mode auto
    set channel
set bandwidth auto
set extension-channel auto
set guard-interval auto
set vap <ap names> #maximum 4 APs for the vap configure
```

Sample command:

```
config wifi radio-profile
    edit 2g-profile
        set band 2GHz
        set enable enable
        set role lan
```

```
        set operating-standards auto
        set power-mode auto
        set channel
        set bandwidth auto
        set extension-channel auto
        set guard-interval auto
        set vap fbs-home-2g-1 fbs-home-2g-3 fbs-home-2g-4
    next

edit 5g-profile
        set band 5GHz
        set enable enable
        set role wan
        set wifi-networks 5g-Dream
    next
end
```

config wifi-general

Description: Configure general WiFi settings.

```
set country-code
AS    AMERICAN SAMOA
AR    ARGENTINA
BS    BAHAMAS
BM    BERMUDA
KY    CAYMAN ISLANDS
DM    DOMINICA
GU    GUAM
HT    HAITI
MH    MARSHALL ISLANDS
AW    ARUBA
NI    NICARAGUA
MP    NORTHERN MARIANA ISLANDS
PW    PALAU
PR    PUERTO RICO
KN    SAINT KITTS AND NEVIS
LC    SAINT LUCIA
VC    SAINT VINCENT AND GRENADIENS
US    UNITED STATES
VI    VIRGIN ISLANDS
CA    CANADA
```

The list of county codes varies with the region code of the devices in use. The list of country codes shown above applies to devices with the region code "A" only.

User

This section shows the syntax of the following commands:

- config user radius on page 125
- config user group on page 126
- config user security-exempt-list on page 127
- config user security-exempt-list6 on page 128

config user radius

Configure the FortiBranchSASE to access a RADIUS server.

```
config user radius
  edit <name>
    set server {string}
    set secret {password}
    set auth-type [auto||ms_chap_v2|...]
    set timeout {integer}
    set transport-protocol [udp]
    set nas-ip {string}
    set nas-identifier {string}
    set port {integer}
    set source-ip {ipv4-address}
  next
end
```

Sample command:

```
config user radius
  edit example_radius
    set server fortinet.com
    set secret ********
    set auth-type auto
    set timeout 5
    set transport-protocol udp
    set nas-ip 0.0.0.0
    set nas-identifier
    set port 1812
    set source-ip 1.1.1.4
  next
end
```

Parameter	Description	Type	Size	Default
name	Name of the RADIUS server table.	string	-	none
server	Primary RADIUS FQDN or IP address.	string	-	none
secret	Pre-shared secret key used to access the primary RADIUS server.	password	1-128	none
auth-type	Authentication protocols permitted for this RADIUS server. You can select the following options: • auto • ms_chap_v2 • ms_chap • chap • pap If the authentication type is set to auto, FortiBranchSASE uses the following protocols in sequence: PAP → MSCHAP_v2 → CHAP FortiBranchSASE will only try the next protocol once it receives a RADIUS-reject message	option	-	auto
timeout	Time in seconds to retry connecting to the RADIUS server.	integer	-	5
transport-protocol	Transport protocol to be used. • udp	option	-	udp
nas-ip	IPv4 address used for the FortiBranchSASE to communicate with the RADIUS server. It is also used as the NAS-IP-Address and Called-Station-ID attributes.	string	-	none
nas-identifier	Optional NAS-Identifier string for RADIUS messages	string	-	none
port	Primary RADIUS server port number	integer	-	none
source-ip	Source IP address for communications to the RADIUS server.	IPv4 address	-	0.0.0.0

config user group

Apply a RADIUS server table to a user group.

```
config user group
  edit group1
    set member [RADIUS server name1] [RADIUS server name2]
  next
end
```

Parameter	Description
name	Name of the FortiBranchSASE user group.
member	Names of users and RADIUS server tables you want to add to the user group. You can apply multiple RADIUS server tables to a user group.

config user security-exempt-list

Configure security exemption list.

```
config user security-exempt-list
  edit <name>
    set description {string}
    config rule
      edit <id>
        set dstaddr <name1>, <name2>, ...
        set service <name1>, <name2>, ...
        set srcaddr <name1>, <name2>, ...
      next
    end
  next
end
```

Parameter	Description	Type	Size	Default
name	Name of the exempt list.	string	Maximum length: 30	none
description	Description.	string	Maximum length: 127	none

config rule

Parameter	Description	Type	Size	Default
id	Security exempt rule name.	string	Maximum length: 30	none
dstaddr	The network address IDs of the exempt destination.	string	-	none
service	The IDs of the exempt destination service.	string	-	none
srcaddr	The network address IDs of the exempt source.	string	-	none

config user security-exempt-list6

Configure IPv6 security exemption list.

```
config user security-exempt-list6
  edit <name>
    set description {string}
    config rule
      edit <id>
        set srcaddr6 <name1>, <name2>, ...
        set dstaddr6 <name1>, <name2>, ...
        set service <name1>, <name2>, ...
      next
    end
  next
end
```

Parameter	Description	Type	Size	Default
name	Name of the exempt list.	string	Maximum length: 30	none
description	Description.	string	Maximum length: 127	none

config rule

Parameter	Description	Type	Size	Default
id	Security exempt rule name.	string	Maximum length: 30	none
srcaddr6	The IPv6 network address IDs of the exempt source.	string	-	none
dstaddr6	The IPv6 network address IDs of the exempt destination.	string	-	none
service	The IDs of the exempt destination service.	string	-	none

DNS Filter

This section includes syntax for the following commands:

- config dnsfilter domain-filter on page 129
- config dnsfilter profile on page 130

config dnsfilter domain-filter

Description: Configure a set of domain filter entries.

```
config dnsfilter domain-filter
  edit <name>
    set comments <string>
    config entries
      edit <name>
        set domain <string>
        set type [simple | wildcard | regex]
        set action [block | allow]
        set status [enable | disable]
      next
    end
  next
end
```

Parametrer	Description	Type	Size	Default
comments	Comments for this set of domain filter entries	string	-	

config entries

Parameter	Description	Type	Size	Default
entries	A set of DNS filter entries.	table	-	
domain	A string for domain name, or wildcard, or regression expression.	string	-	
type	Select an entry type	option	-	

Option	Description
simple	Matches an exact string.

Parameter	Description	Type	Size	Default
	Option / **Description** wildcard: Matches using regex rules for advanced pattern matching. **Note:** If the domain string contains the character ?, it can only be configured through the GUI. regex: Matches patterns using wildcards (e.g., *.example.com). **Note:** Only the * wildcard is supported.			
action	Select if you want to Block or Allow this entry.	option	-	
	Option / **Description** block: If the local domain filter action is set to block and an entry matches, then that DNS query is blocked or redirected. allow: If the local domain filter action is set to allow and an entry matches, it will directly return to the client DNS resolver.			
status	Enable/Disable this domain filter entry.	option	-	
	Option / **Description** enable: Enable this domain filter to take effect. disable: Disable this domain filter.			

config dnsfilter profile

Description: Configure the DNS filter profile.

```
config dnsfilter profile
  edit <name>
    config domain-filter
      set domain-filter-table <name>
    end
    set block-action [block| redirect | block-servfail]
    set block-botnet [enable | disable]
    set safe-search [enable | disable]
    set youtube-restrict [strict | moderate]
    set redirect-portal {ipv4-address}
    set redirect-portal6 {ipv6-address}
```

```
  next
end
```

Parametrer	Description	Type	Size	Default
block-action	Action to take for blocked domains.	option	-	

Option	Description
block	The DNS request is blocked and a DNS response with NXDOMAIN is returned.
redirect	A DNS response containing the portal IP address is returned, redirecting blocked domains to the SDNS portal.
block-sevrfail	The DNS request is blocked, and a DNS response with SERVFAIL is returned.

block-botnet	Enable/disable blocking botnet C&C DNS lookups.	option		disabled

Option	Description
disable	Disable blocking botnet C&C DNS lookups.
enable	Enable blocking botnet C&C DNS lookups.

safe-search	Enable/disable Google, Bing, YouTube, Qwant, DuckDuckGo safe search.	option		disabled

Option	Description
disable	Disable Google, Bing, YouTube, Qwant, DuckDuckGo safe search.
enable	Enable to avoid explicit and inappropriate results in the Google, Bing, and YouTube search engines.

youtube-restrict	When `safe-search` is enabled, you can set safe search for YouTube restriction level.	option		disabled

Option	Description
strict	Enable strict safe search for YouTube. This restricts YouTube access by responding to DNS resolutions with CNAME restrict.youtube.com.
moderate	Enable moderate safe search for YouTube. This restricts YouTube access by responding to DNS resolutions with CNAME restrictmoderate.youtube.com.

redirect-portal	Enter the IPv4 address of the SDNS redirect portal	IPv4 address		0.0.0.0
redirect-portal6	Enter the IPv6 address of the SDNS redirect portal	IPv6 address		::

config domain filter

Parameter	Description	Type	Size	Default
domain-filter	Configure the domain-filter-table parameter to apply a previously created domain filter to this profile.	table	-	
domain-filter-table	Enter the domain filter name.	string	-	

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