

How to configure DNS based FortiGuard web filtering with FortiOS v5.4

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Products
FortiGate v5.4
Description

This article provides a sample configuration for DNS based FortiGuard web filtering.

In FortiOS v5.2 the DNS web filtering is one option of 'Web Filter' profile. In FortiOS v5.4 this feature has moved to separate 'DNS Filter' security profile.

The use of this feature is straightforward:

- Create and configure 'DNS Filter' profile
- Create and configure firewall policy
- Assign the profile to the firewall policy

FortiOS intercepts DNS requests from clients to DNS servers and asks FortiGuard servers for rating.

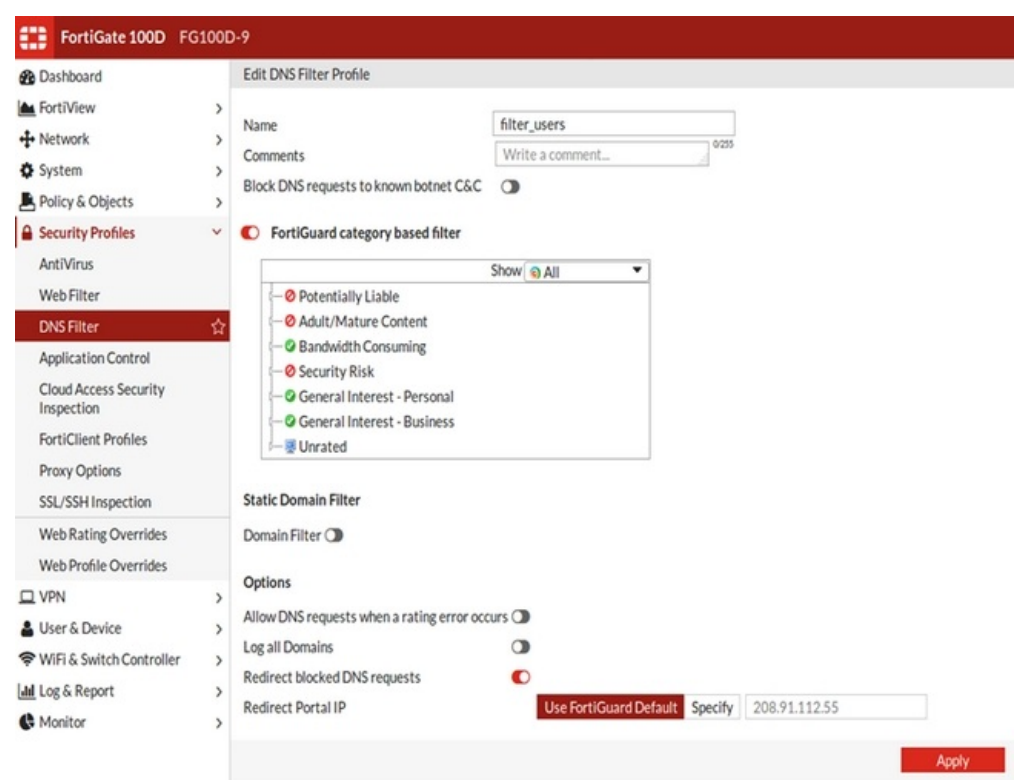
It is recommended to filter client's DNS requests only and not the DNS requests from client internal DNS servers.

Technical Note: How to configure DNS based FortiGuard web filtering with FortiOS v5.4

[Network topology](#)

Internet w/ DNS servers === (wan1)[FG100D](lan) === PCs in LAN

[Configure DNS filter](#)



Technical Note: How to configure DNS based FortiGuard web filtering with FortiOS v5.4

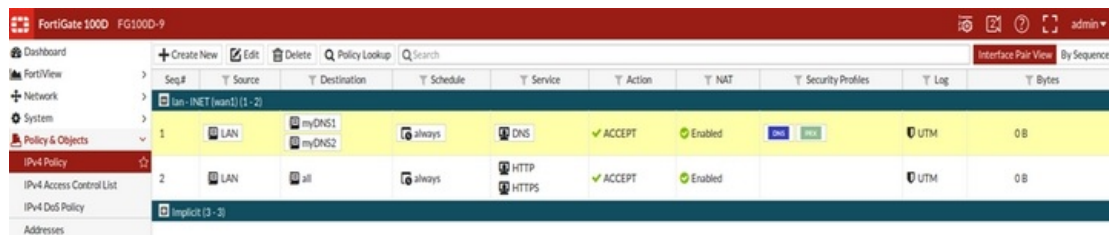
```
config dnsfilter profile
edit "filter_users"
config ftgd-dns
config filters
edit 1
    set category 83
    set action block
next
edit 2
    set category 5
    set action block
next
edit 3
    set category 1
    set action block
next
edit 4
    set category 6
    set action block
next

... truncated ...

edit 29
next
end
next
end
next
end
```

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Configure firewall policies



The screenshot shows the FortiGate 100D FG100D-9 web interface. The left sidebar contains navigation menus: Dashboard, FortiView, Network, System, Policy & Objects, IPv4 Policy, IPv4 Access Control List, IPv4 DoS Policy, and Addresses. The main content area displays a table of firewall policies. The table has columns for Seq.#, Source, Destination, Schedule, Service, Action, NAT, Security Profiles, Log, and Bytes. Two policies are visible: Policy 1 (LAN to myDNS1/myDNS2, always, DNS, ACCEPT, Enabled, UTM, 0 B) and Policy 2 (LAN to all, always, HTTP/HTTPS, ACCEPT, Enabled, UTM, 0 B). The table is sorted by Sequence.

Seq.#	Source	Destination	Schedule	Service	Action	NAT	Security Profiles	Log	Bytes
1	lan - INET (wan1) [1 - 2]	myDNS1 myDNS2	always	DNS	✓ ACCEPT	Enabled	UTM		0 B
2	LAN	all	always	HTTP HTTPS	✓ ACCEPT	Enabled	UTM		0 B

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```
config firewall policy
edit 1
set srcintf "lan"
set dstintf "wan1"
set srcaddr "LAN"
set dstaddr "myDNS1" "myDNS2"
set action accept
set schedule "always"
set service "DNS"
set utm-status enable
set dnsfilter-profile "filter_users"
set profile-protocol-options "default"
set nat enable
next
edit 2
set srcintf "lan"
set dstintf "wan1"
set srcaddr "LAN"
set dstaddr "all"
set action accept
set schedule "always"
set service "HTTP" "HTTPS"
set nat enable
next
end
```

To troubleshoot use the following command:

```
diag debug enable
diag debug application dnspoxy -1
```

When finished, disable debug with:

```
diag debug reset
diag debug disable
```

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