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.

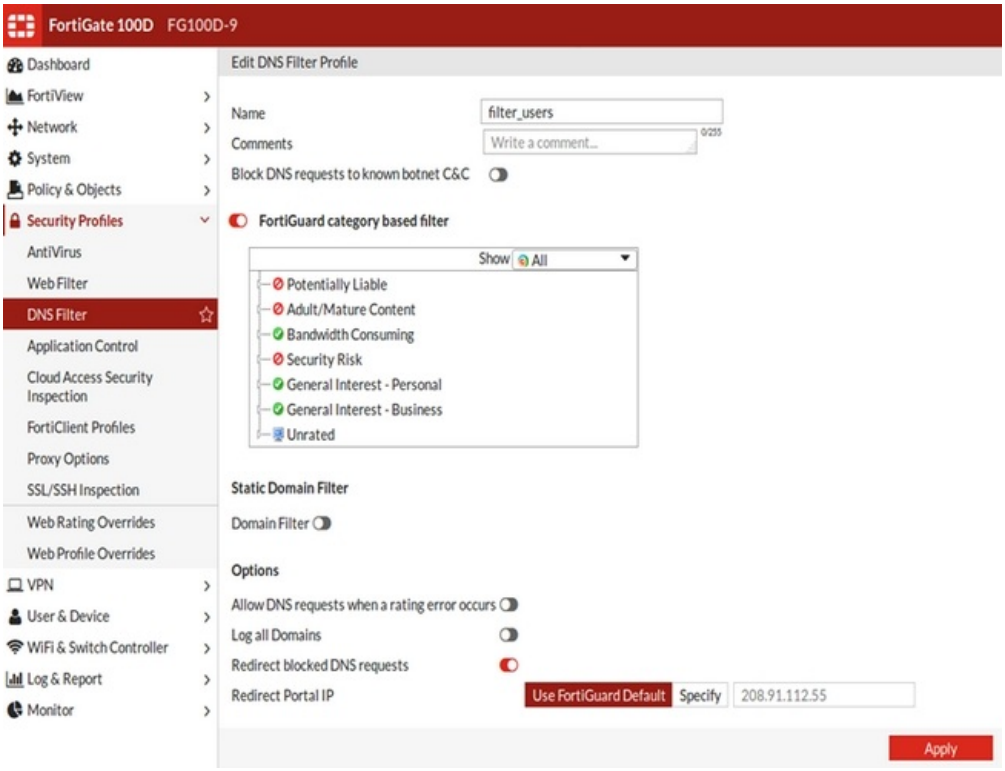
It is recommended to filter client's DNS requests only and not the DNS requests from client internal DNS servers.

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



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CLI

```
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
        end
    next
end
```

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Configure firewall policies

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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 dnsproxy -1
```

When finished, disable debug with:

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