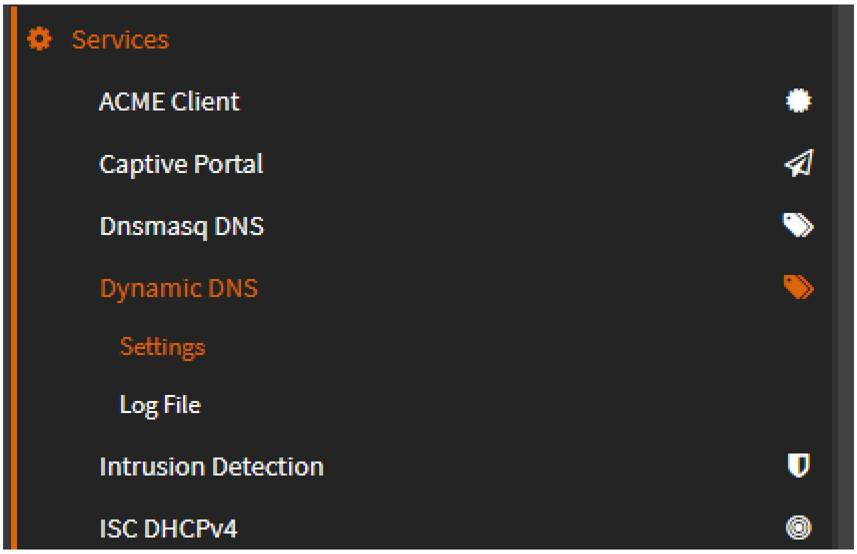
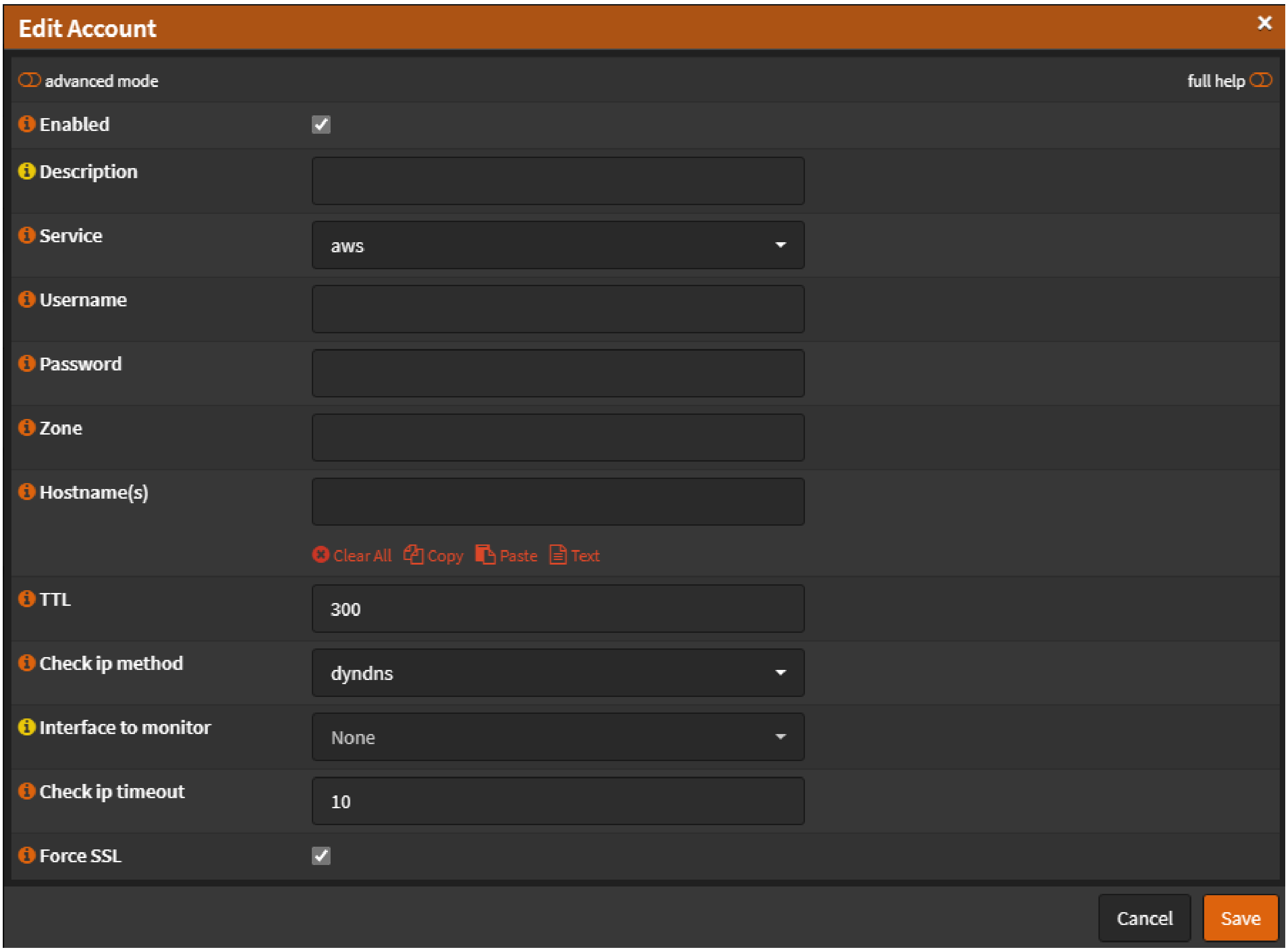
Cloudflare DDNS

If you have a Dynamic WAN IP, you'll need to set up some sort of DDNS client. Most ISPs use Dynamic IPs with residential customers, so this is pretty common and there are multiple options for working around this. I currently manage my domains with Cloudflare, so I'll be using their DDNS so I can have all my management under 1 provider. Setting this up is fairly simple!

First, make sure the os-ddclient plugin is installed on your OPNsense firewall. Once installed, navigate to Services ---> Dynamic DNS ---> Settings:



Next, select the "+" icon to add an account.

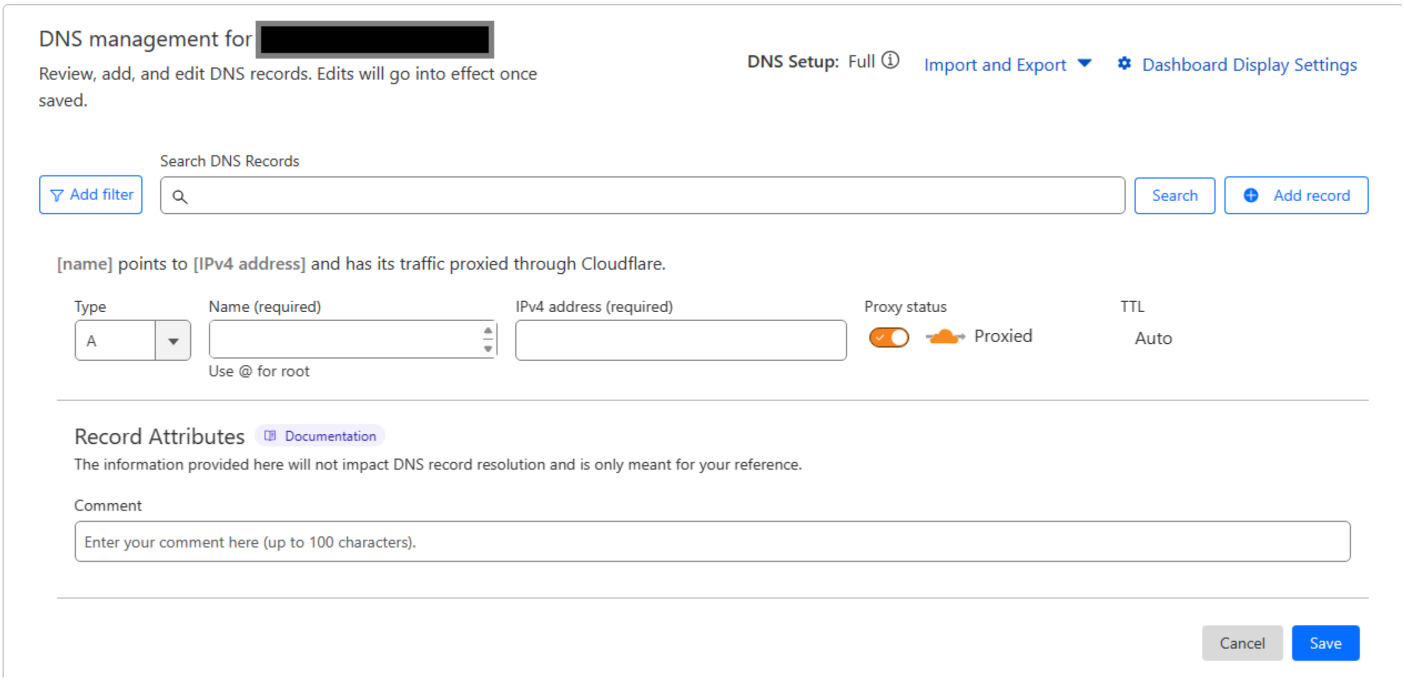


Edit Account ×

○ advanced mode — full help ○

Enabled	☑
Description	
Service	aws
Username	
Password	
Zone	
Hostname(s)	
TTL	300
Check ip method	dyndns
Interface to monitor	None
Check ip timeout	10
Force SSL	☑

Open up a web browser and create an A Record with your domain registrar for a subdomain. On Clouflare its fairly simple. Navigate to your DNS records, and create a new record:



DNS management for [redacted]

Review, add, and edit DNS records. Edits will go into effect once saved.

DNS Setup: Full

[name] points to [IPv4 address] and has its traffic proxied through Cloudflare.

Type	Name (required)	IPv4 address (required)	Proxy status	TTL
A			Proxied	Auto

Use @ for root

Record Attributes

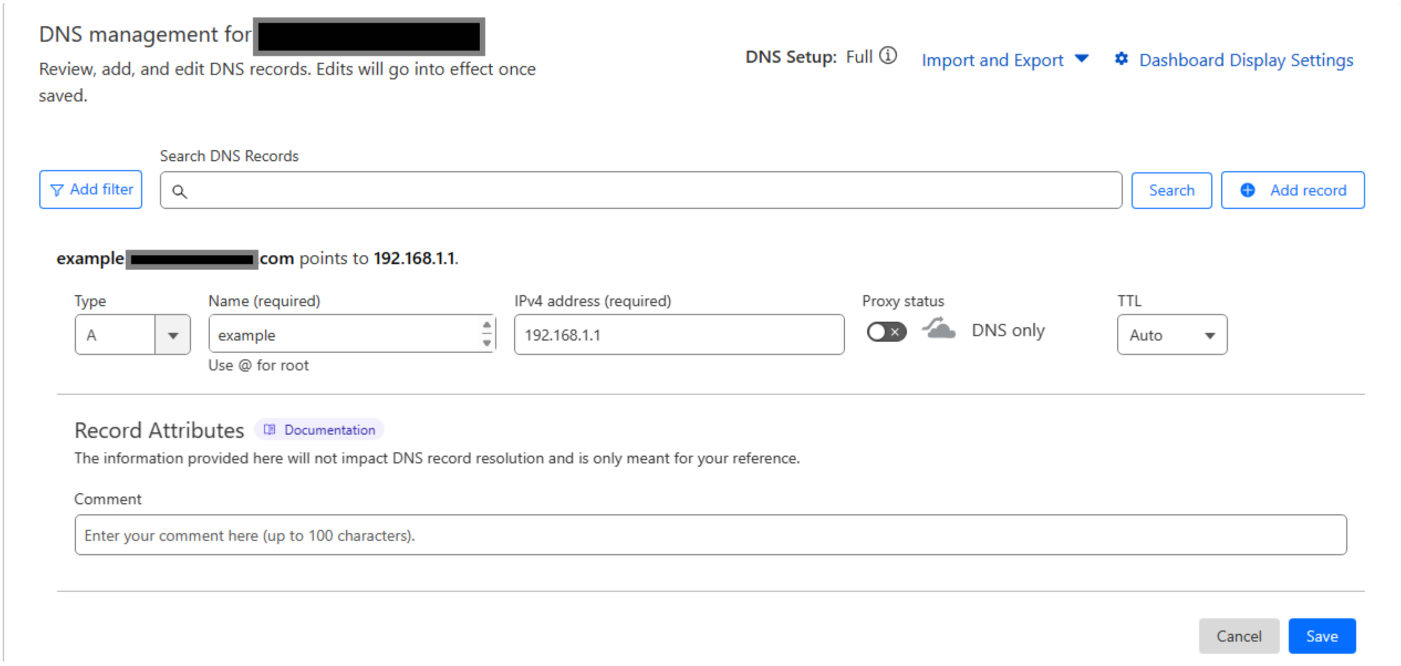
The information provided here will not impact DNS record resolution and is only meant for your reference.

Comment

Enter your comment here (up to 100 characters).

- Enter a name for your subdomain, and any IP address. The IP you enter doesn't matter as this record will be updated with your WAN IP automatically.
- Make sure you turn Proxy off

Your final settings should look like this:



DNS management for [redacted]

Review, add, and edit DNS records. Edits will go into effect once saved.

DNS Setup: Full

example[redacted]com points to 192.168.1.1.

Type: A

Name (required): example

Use @ for root

IPv4 address (required): 192.168.1.1

Proxy status: DNS only

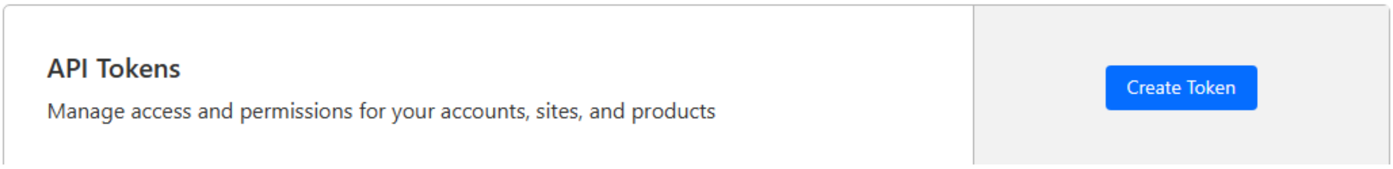
TTL: Auto

Record Attributes

The information provided here will not impact DNS record resolution and is only meant for your reference.

Comment: Enter your comment here (up to 100 characters).

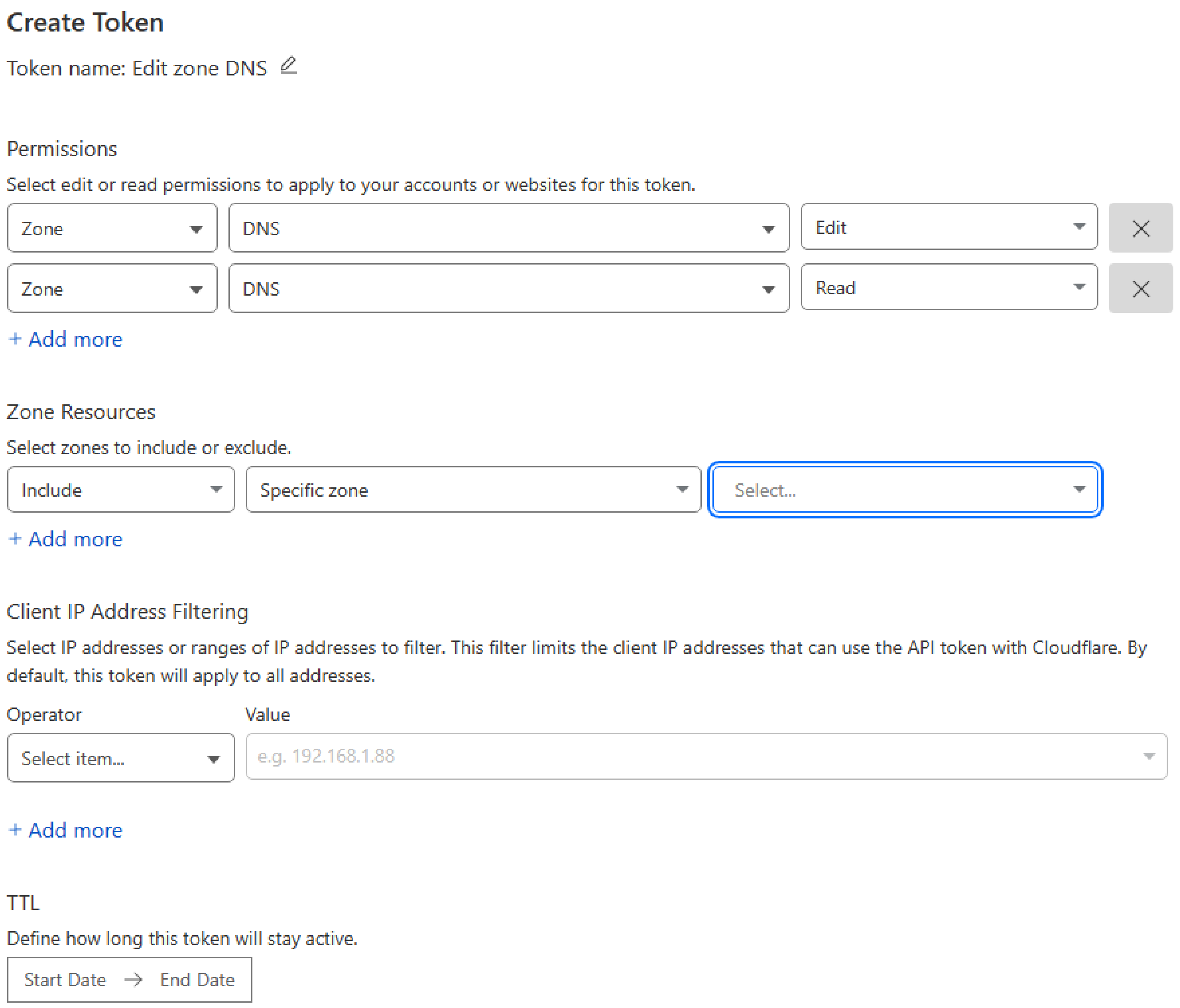
With this record saved, navigate to your API tokens and generate a new API token. Navigate to Overview in Cloudflare, then scroll down and select "Get API token". On the next page, select create token:



API Tokens

Manage access and permissions for your accounts, sites, and products

Use the "Edit zone DNS" template and configure the following:



Create Token

Token name: Edit zone DNS

Permissions

Select edit or read permissions to apply to your accounts or websites for this token.

Zone | DNS | Edit

Zone | DNS | Read

Zone Resources

Select zones to include or exclude.

Include | Specific zone | Select...

Client IP Address Filtering

Select IP addresses or ranges of IP addresses to filter. This filter limits the client IP addresses that can use the API token with Cloudflare. By default, this token will apply to all addresses.

Operator: Select item...

Value: e.g. 192.168.1.88

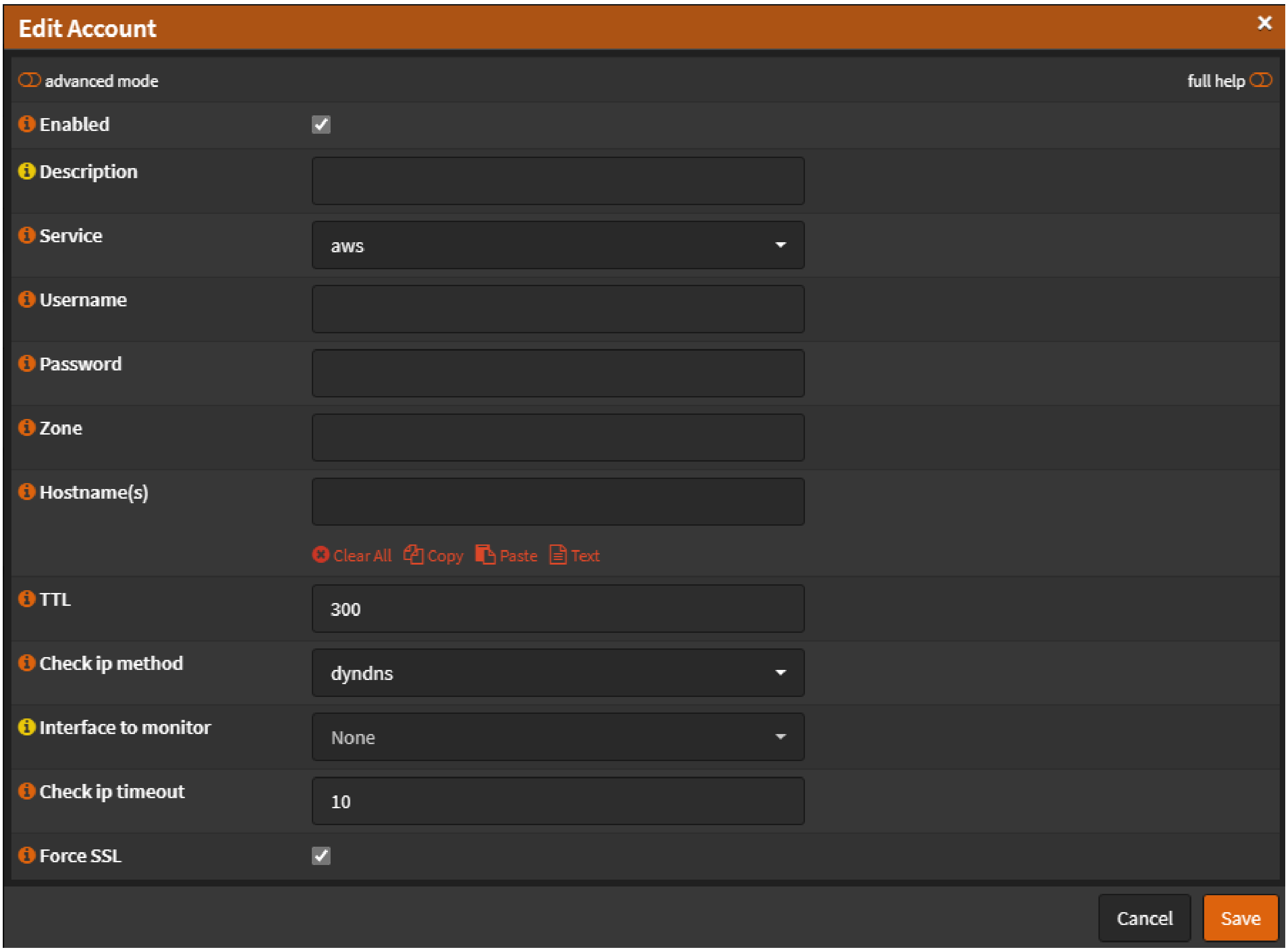
TTL

Define how long this token will stay active.

Start Date → End Date

- Enter a name for the token
- Add another permission as Zone - DNS - Read
- Under zone resrouces configure Include - Specific Zone - Select the domain you have the A Record configured with
- After creating the token, save it somewhere! You will not be able to view this token again!

With your A Record configured, and API token in hand, you can now go back to the OPNsense Page:



Edit Account

Enabled ☑

Description

Service: aws

Username

Password

Zone

Hostname(s)

TTL: 300

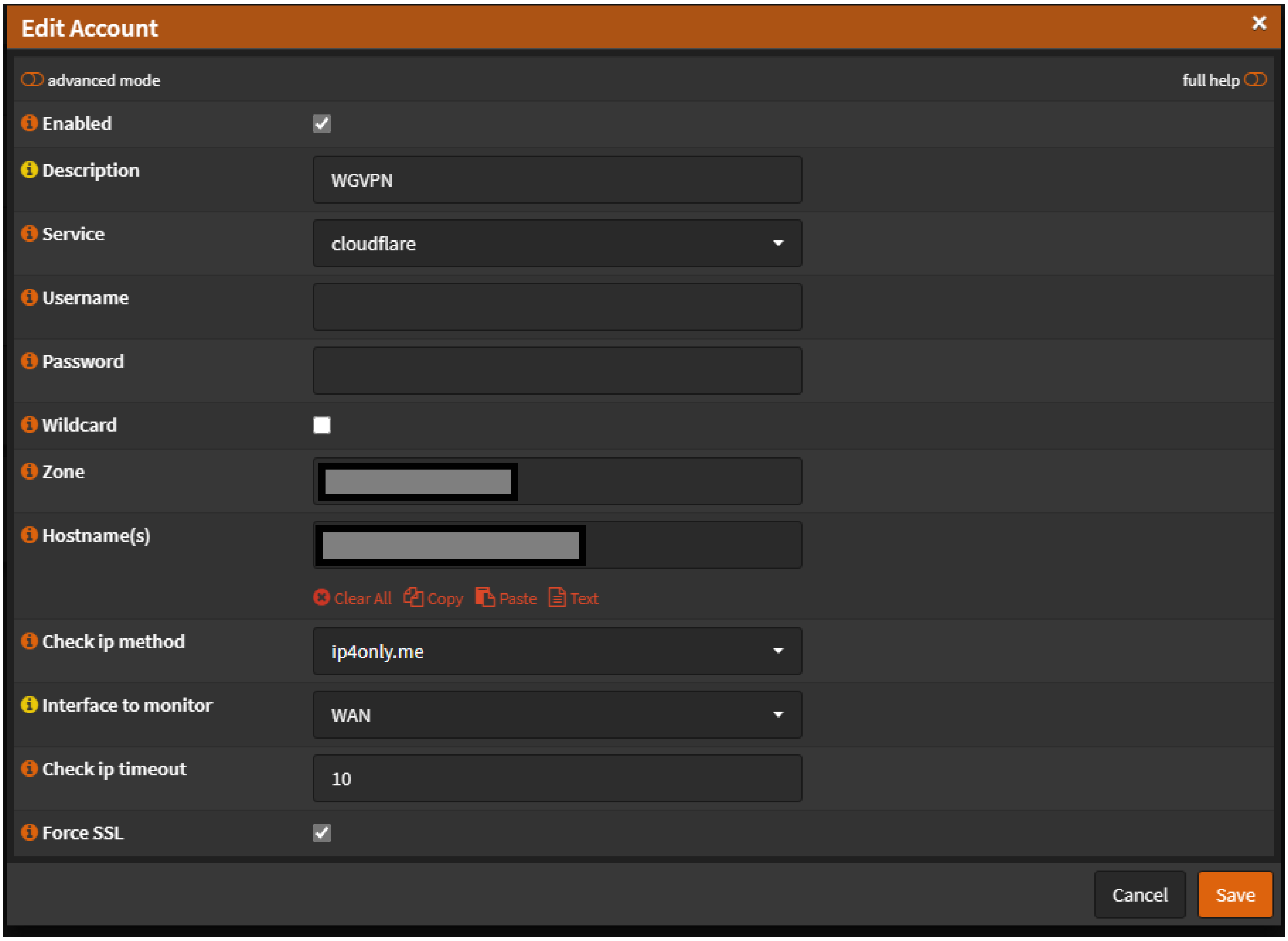
Check ip method: dyndns

Interface to monitor: None

Check ip timeout: 10

Force SSL ☑

- Enable the account
- Give it a Description or name
- Select Cloudflare under Service
- Keep username blank
- Enter your API token as the password
- For zone, enter your domain name
  - example.com
- For Hostname, enter your FQDN
  - vpn.example.com
- For Check IP method, select ip4only.me
- Force SSL, then save configurations

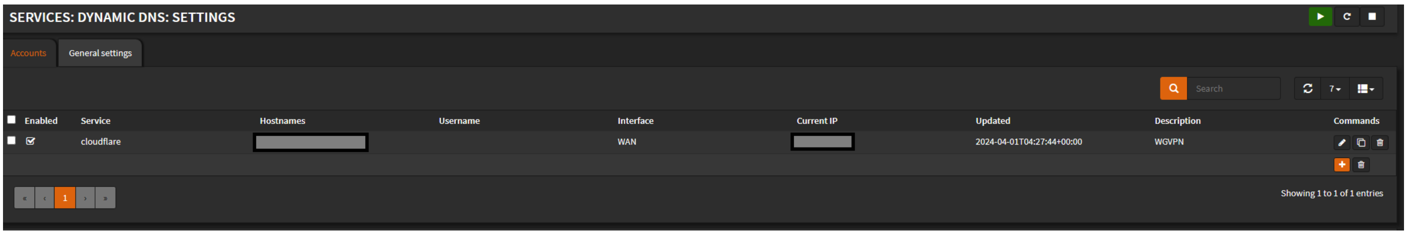


Edit Account

advanced mode — full help

Enabled	☑
Description	WGVPN
Service	cloudflare
Username	
Password	
Wildcard	□
Zone	[redacted]
Hostname(s)	[redacted]
Check ip method	ip4only.me
Interface to monitor	WAN
Check ip timeout	10
Force SSL	☑

Save your settings and apply the new configurations. Select the refresh icon and your WAN IP should now be updated!



SERVICES: DYNAMIC DNS: SETTINGS

Accounts | General settings

□	Enabled	Service	Hostnames	Username	Interface	Current IP	Updated	Description	Commands
□	☑	cloudflare	[redacted]		WAN	[redacted]	2024-04-01T04:27:44+00:00	WGVPN	

Showing 1 to 1 of 1 entries

Check your DNS A Record to see if your WAN IP has updated. It should automatically update. You can now get your WAN IP from this subdomain, as it'll automatically update. To ensure it automatically updates, I've created a cron job in my router to check for changes in my IP every 6 hours and update if necessary.

Revision #3
Created 1 April 2024 19:47:46 by Austin
Updated 1 April 2024 20:13:33 by Austin