



UX WORLD, INC.

Working with dnsfly API

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Version 1.3

Introduction

dnsfly API enables fine grained, secure control of the domain name space and deliver DNS as a Service. This functionality can be integrated with Customer portals and Cloud Applications so that the end users can manage their own DNS records.

dnsfly API is agnostic to programming languages. The implementation is similar to that of the REST(Representational State Transfer) interface.

You can interact with the API programmatically in a number of ways, including *curl*, *PERL/LWP*, *Python*, *PHP* and *Java*. The API requests use POST or GET method based on the type of call you make. All calls must include the *dnsfly* IP and Port number and additional parameters. The default port number for *dnsfly* is 3333.

Supported Calls

API Call	Method	Purpose	Required Parameters
getDomainList	POST	List all domains which a user has access to	api_user_name api_user_password
parseAllZoneData	GET	Parse zone data and display as XML	api_user_name api_user_password zone_name
addZoneRecord	POST	Add Resource Records to the Zone file (need to apply changes)	api_user_name api_user_password zone_name api_rr_type api_rr_input
deleteZoneRecord	POST	Delete a Resource Record from your zone file	api_user_name api_user_password zone_name api_rr_type api_rr_input
reloadZoneData	POST	Apply and reload zone data following any changes.	api_user_name api_user_password zone_name
dnssecConvert	POST	Convert a normal Zone to DNSSEC Signed Zone	api_user_name api_user_password zone_name
dnssecReSign	POST	Re-sign a DNSSEC zone after RR changes	api_user_name api_user_password zone_name
dnssecRevert	POST	Convert a DNSSEC zone to a normal Zone	api_user_name api_user_password zone_name

taskStatus	POST	Display the status of the task identified by task ID	api_user_name api_user_password zone_name task_id
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getDomainList

Returns a list of zones that the user has access to. Sample output is as given below:

```
<dnsflyAPI>
<ErrorCode></ErrorCode>
<ErrorDesc>No Error</ErrorDesc>
<DomainList>check.local mydomain.com</DomainList>
</dnsflyAPI>
```

addZoneRecord

Adds one or more resource records. On successful completion the following XML output is returned.

```
<dnsflyAPI>
<ErrorCode></ErrorCode>
<ErrorDesc>No Error</ErrorDesc>

</dnsflyAPI>
```

deleteZoneRecord

Deletes one or more resource records from a given zone. The API output is similar to the add-ZoneRecord call.

reloadZoneData

To be run after addition of deletion of records. This makes the name server to reload the zone data. The output of this command is slightly different and provides a TaskID. The task ID can be referred to derive the execution status (successful or failed).

```
<dnsflyAPI>
<ErrorCode></ErrorCode>
<ErrorDesc>No Error</ErrorDesc>
<TaskID>1344974883.202895</TaskID>
</dnsflyAPI>
```

taskStatus

Used for verifying that the tasks you have submitted are successfully completed.

```
<dnsflyAPI>
<ErrorCode></ErrorCode>
<ErrorDesc>No Error</ErrorDesc>
<TaskID>1344981289.616878</TaskID>
<TaskName>Reload Zone Data</TaskName>
<TaskStatus>Successful</TaskStatus>
<OriginAddr>192.168.17.205</OriginAddr>
<UserName>vinod</UserName>
</dnsflyAPI>
```

dnssecConvert

Converts a normal DNS zone to a DNSSEC signed zone. The API call will automatically generate the KSK, ZSK, sign the zone and reload the signed zone.

```
<dnsflyAPI>
<ErrorCode></ErrorCode>
<ErrorDesc>No Error</ErrorDesc>
<TaskID>1344974883.202895</TaskID>
</dnsflyAPI>
```

dnssecReSign

Re-signs a DNSSEC zone after a change of records.

dnssecRevert

Converts a DNSSEC signed zone back to a normal DNS zone.

API Parameters

api_user_name

Name of the user who has an account on the dnsfly appliance

api_user_password

Password for the above user

zone_name

The name of zone to be worked on

api_rr_input

This parameter defines the actual list of records. You can add or remove multiple records at the same time. The record separator is “?” character. The field separator is a “|” character.

api_rr_type

This parameter defines the type of records you are updating. For list of supported record types the record format, refer to the table below:

Supported Resource Records and Formats

Resource Record Type	Resource Record Format
A	hostname IPv4_address ttl
AAAA	hostname IPv6_address ttl
MX	hostname mail_server_name ttl priority
CNAME	alias_name host_name ttl
NS	domain name_server ttl
PTR	IPv4_address host_name ttl
SRV	service_name host_name ttl priority weight port

Example

Open up your Firefox browser and enter the following URL. Based on your installation the parameters (highlighted) here may vary:

https://192.168.110.221:3333/dnsfly/api/parseAllZoneData?api_user_name=nsadmin?api_user_password=Chan6eMe?zone_name=mydomain.local

On successful operation of the above command, the following XML output is returned:

```
<dnsflyAPI>
<ErrorCode></ErrorCode>
<ErrorDesc>No Error</ErrorDesc>
<mydomain.local>
  <A>
    <name>www.mydomain.local</name>
    <ORIGIN>mydomain.local.</ORIGIN>
    <class>IN</class>
    <host>67.219.51.63</host>
    <ttl>86400</ttl>
  </A>
  <A>
    <name>www.mydomain.local</name>
    <ORIGIN>mydomain.local.</ORIGIN>
    <class>IN</class>
    <host>67.219.51.64</host>
    <ttl>86400</ttl>
  </A>
  <AAAA>
    <name>wao</name>
    <ORIGIN>mydomain.local.</ORIGIN>
    <class>IN</class>
    <host>02::21</host>
    <ttl>86400</ttl>
  </AAAA>
  <CNAME>
    <name>docs</name>
    <ORIGIN>mydomain.local.</ORIGIN>
    <class>IN</class>
    <host>www.mydomain.local</host>
    <ttl>86400</ttl>
  </CNAME>
  <MX>
    <name>mydomain.local</name>
    <ORIGIN>mydomain.local.</ORIGIN>
    <class>IN</class>
    <host>mail3.mydomain.local.</host>
    <priority>12</priority>
    <ttl>86400</ttl>
  </MX>
```

On failure of the command, a XML structure similar to the following is returned:

```
<dnsflyAPI>
  <ErrorCode>403</ErrorCode>
  <ErrorDesc>Account Inactive</ErrorDesc>
  <OriginAddr>192.168.17.113</OriginAddr>
  <User>admn</User>
</dnsflyAPI>
```

Where to go from here?

For those want to start using the dnsfly API, we provide sample code in Java, PHP and PERL. Further we can assist you with answering questions on other resources and tools.