

## PowerDNS Express API

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Version 2.3  
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## Changelog

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Version 2:2

- Fixed an error in the php connection code, which caused the INVALID\_USER error.

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## About this API

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This API can be used to remotely manage your domain names that are listed in your PowerDNS Express Control Panel.

To use this API, an **api-key** is required. This key can be obtained by logging into your PowerDNS Express Control Panel.

Click on "API Access" in the menu on the left.

## Connecting to PowerDNS Express

The API is available in the form of a webservice. This webservice can be reached at:

<https://www.powerdns.net/services/express.asmx>

The WDSL description for this API can be found at:

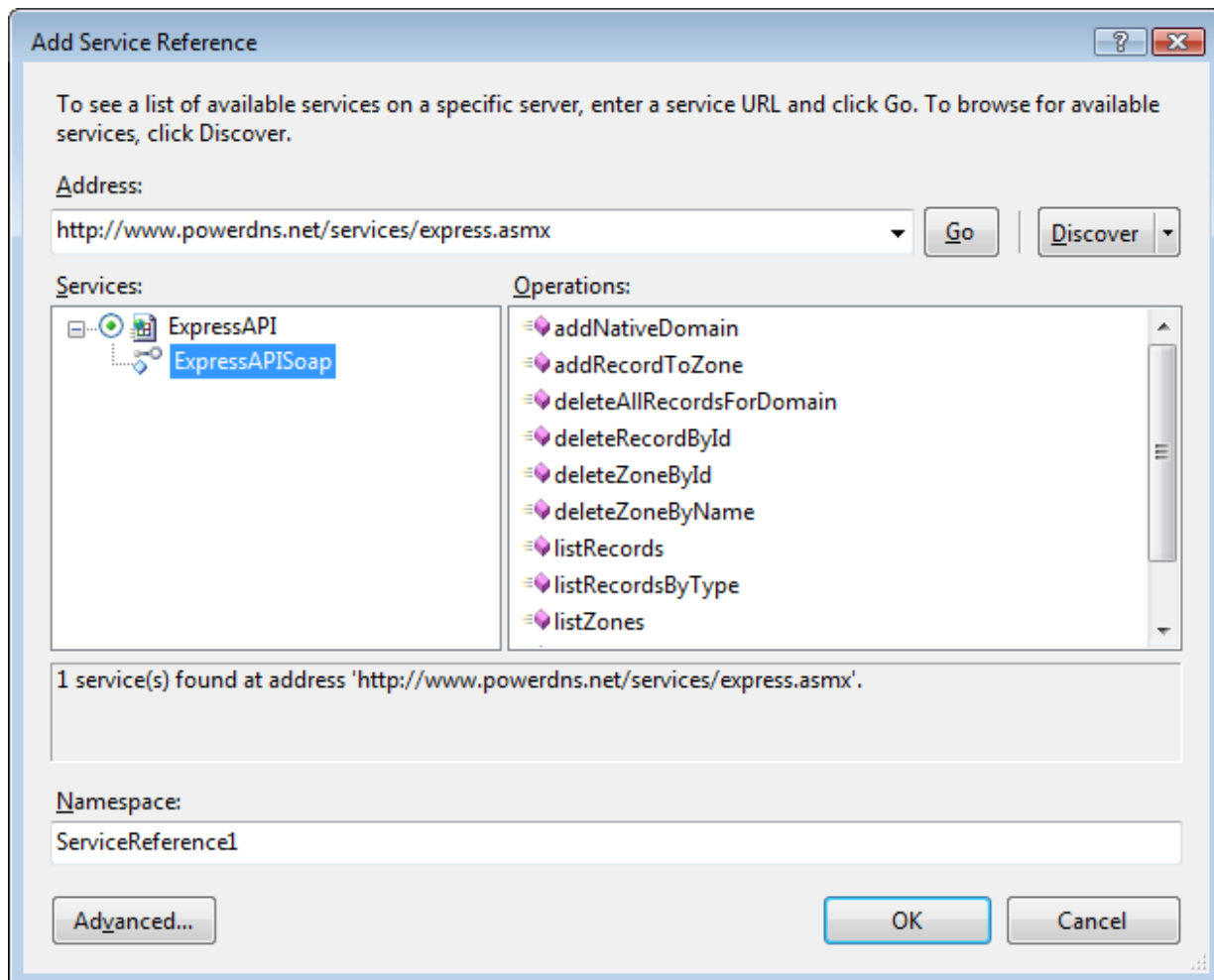
<https://www.powerdns.net/services/express.asmx?wsdl>

The api key is used in the querystring for validating the connecting user.

Code samples for connecting:

### VB.NET

First, add a webreference to the above URL:





```
Dim sApiKey As String = "<your-key-here>"

'Initialize soap client
Dim client As New express.ExpressAPISoapClient()

'Set the url of the soap endpoint to include the api key
client.Endpoint.Address = New
System.ServiceModel.EndpointAddress(String.Format("{0}?apikey={1}",
client.Endpoint.Address.Uri, sApiKey))
```

## PHP

```
<?php

var $apiKey = "<your-key-here>";
var $url =
"https://www.powerdns.net/services/express.asmx?WSDL&apikey=".$apiKey;

var $client = new SoapClient($url,array("trace" => 1,"exceptions" => 0,
"features" => SOAP_USE_XSI_ARRAY_TYPE + SOAP_SINGLE_ELEMENT_ARRAYS));

$client->__setLocation($url);

?>
```

## Operations

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The following operations are supported. For a formal definition, please review the Service Description.

- addNativeDomain
- addRecordToZone
- deleteAllRecordsForDomain
- deleteRecordById
- deleteZoneById
- deleteZoneByName
- editRecord
- listRecords
- listRecordsByType
- listZones
- renewZone

## addNativeDomain

---

### Description

This command adds a “native” zone to your PowerDNS Express control panel. The zone will have the default nameservers already added

### Parameters

Parameter name	Type	Description
domainName	Varchar(255)	The zone name to be added

### Returns

Object name	Description
addNativeZone_Response	Response object, see “ <a href="#">Response Objects</a> ” for more information

### Code sample VB.NET

```
'Example: adding a domain
Dim addDomainResponse As addNativeDomain_response = _
client.addNativeDomain("example2.nl")

If addDomainResponse.code = 100 Then
    Console.WriteLine("active = " & addDomainResponse.Zone.Active)
    Console.WriteLine("renweldate = " & addDomainResponse.Zone.Expired)
    Console.WriteLine("renweldate = " & addDomainResponse.Zone.Id)
End If
```



## addRecordToZone

---

### Description

This command inserts a record into the specified zone

### Parameters

Parameter name	Type	Description
zoneId	Integer	Id of the zone
Name	Varchar(255)	Name of the record (e.g. <a href="http://www.example.com">www.example.com</a> )
Type	Varchar(5)	Type of record: Allowed types are: "URL", "NS", "A", "AAAA", "CNAME", "PTR", "MX" and "TXT"
Content	Varchar(255)	Content of the record (e.g. for an A record: 127.0.0.1)
TimeToLive	Integer	Time to Live in seconds. Everything above 60 is valid
Priority	Integer	Used for MX records. The priority of the mail exchanger

### Returns

Object name	Description
addRecordToZone_response	Response object, see " <a href="#">Response Objects</a> " for more information

### Code sample VB.NET

```
'Example: add a record to the zone
Dim addRecordResponse As addRecordToZone_response =_
client.addRecordToZone(106251, "test.example2.nl", "A", "127.0.0.1", 60, 0)

Console.WriteLine("status code = " & addRecordResponse.code)
Console.WriteLine("status description = " & addRecordResponse.description)
Console.WriteLine("record id = " & addRecordResponse.Record.Id)
```

## deleteAllRecordsForDomain

---

### Description

This command deletes all records which are not read-only for a specified zone. This means the nameserver records will remain.

### Parameters

Parameter name	Type	Description
zoneId	Integer	Id of the zone to delete from

### Returns

Object name	Description
addRecordToZone_response	Response object, see " <a href="#">Response Objects</a> " for more information

### Code sample VB.NET

```
'Example: add a record to the zone
Dim addRecordResponse As addRecordToZone_response =_
client.addRecordToZone(106251, "test.example2.nl", "A", "127.0.0.1", 60, 0)

Console.WriteLine("status code = " & addRecordResponse.code)
Console.WriteLine("status description = " & addRecordResponse.description)
Console.WriteLine("record id = " & addRecordResponse.Record.Id)
```

## deleteRecordById

### Description

This command deletes a specific record

### Parameters

Parameter name	Type	Description
recordId	Integer	Id of the record

### Returns

Object name	Description
baseResponse	Response object, see " <a href="#">Response Objects</a> " for more information

### Code sample VB.NET

```
'Example: delete a specific record
Dim deleteRecordResponse As baseResponse = client.deleteRecordById(1028442)

Console.WriteLine("status code = " & deleteRecordResponse.code)
Console.WriteLine("status description = " & deleteRecordResponse.description)
```

## deleteZoneById

---

### Description

This command deletes a zone from your control panel

### Parameters

Parameter name	Type	Description
zoneId	Integer	Id of the zone to be deleted

### Returns

Object name	Description
baseResponse	Response object, see " <a href="#">Response Objects</a> " for more information

### Code sample VB.NET

```
'Example: delete the domain
Dim deleteDomainResponse As baseResponse =_
client.deleteZoneById("example2.nl")

Console.WriteLine("status code = " & deleteDomainResponse.code)
Console.WriteLine("status description = " & deleteDomainResponse.description)
```

## deleteZoneByName

---

### Description

This command deletes a zone from your control panel

### Parameters

Parameter name	Type	Description
zoneName	Varchar(255)	Name of the zone to be deleted

### Returns

Object name	Description
baseResponse	Response object, see " <a href="#">Response Objects</a> " for more information

### Code sample VB.NET

```
'Example: delete the domain again
Dim deleteDomainResponse As baseResponse = _
client.deleteZoneByName("example2.nl")

Console.WriteLine("status code = " & deleteDomainResponse.code)
Console.WriteLine("status description = " & deleteDomainResponse.description)
```

## updateRecord

---

### Description

This command updates a record in a zone.

### Parameters

Parameter name	Type	Description
recordId	Integer	Id of the record to be edited
Name	Varchar(255)	Name of the record (e.g. <a href="http://www.example.com">www.example.com</a> )
Type	Varchar(5)	Type of record: Allowed types are: "URL", "NS", "A", "AAAA", "CNAME", "PTR", "MX" and "TXT"
Content	Varchar(255)	Content of the record (e.g. for an A record: 127.0.0.1)
TimeToLive	Integer	Time to Live in seconds. Everything above 60 is valid
Priority	Integer	Used for MX records. The priority of the mail exchanger

### Returns

Object name	Description
updateRecord_response	Response object, see " <a href="#">Response Objects</a> " for more information

### Code sample VB.NET

```
'Example: update the record
Dim updateRecordResponse As updateRecord_response = _
client.updateRecord(10356567, "test2.example2.nl", "A", "192.168.0.2", 60, 0)

Console.WriteLine("status code = " & updateRecordResponse.code)
Console.WriteLine("status description = " & updateRecordResponse.description)
Console.WriteLine("record id = " & updateRecordResponse.Record.Id)
```

## listRecords

---

### Description

This command list all records from a zone in your control panel

### Parameters

Parameter name	Type	Description
zoneId	Integer	Id of the zone

### Returns

Object name	Description
listRecords_response	Response object, see " <a href="#">Response Objects</a> " for more information

### Code sample VB.NET

```
'Example: list all records
Dim listRecordResponse As listRecords_response = client.listRecords(25612)

Console.WriteLine(String.Format("status code = {0}", listRecordResponse.code))
Console.WriteLine(String.Format("status description = {0}",
    listRecordResponse.description))

For Each r As Record In listRecordResponse.Records
    Console.WriteLine(String.Format("recordlist, record = {0}, content =
        {1}", r.Name, r.Content))
Next
```

## listRecordsByType

---

### Description

This command list all records from a zone in your control panel, with a specified type

### Parameters

Parameter name	Type	Description
zoneId	Integer	Id of the zone
Type	Varchar(5)	Type of record: Allowed types are: "URL", "NS", "A", "AAAA", "CNAME", "PTR", "MX" and "TXT"

### Returns

Object name	Description
listRecords_response	Response object, see " <a href="#">Response Objects</a> " for more information

### Code sample VB.NET

```
'Example: list all records
Dim listRecordResponse As listRecords_response = _
    client.listRecordsByType(106251, "A")

Console.WriteLine(String.Format("status code = {0}", listRecordResponse.code))
Console.WriteLine(String.Format("status description = {0}", _
    listRecordResponse.description))

For Each r As Record In listRecordResponse.Records
    Console.WriteLine(String.Format("recordlist, record = {0}, content =
    {1}", r.Name, r.Content))
Next
```



## listZones

---

### Description

This command will retrieve all zones currently in your control panel.

### Parameters

Parameter name	Type	Description
None		

### Returns

Object name	Description
listZones_response	Response object, see " <a href="#">Response Objects</a> " for more information

### Code sample VB.NET

```
'Example: list all domains
Dim listZonesResponse As listZones_response = client.listZones()

Console.WriteLine(String.Format("status code = {0}", listZonesResponse.code))
Console.WriteLine(String.Format("status description = {0}", _
    listZonesResponse.description))

For Each z As Zone In listZonesResponse.Zones
    Console.writeline(String.Format("zonelist, zone = {0}" , z.Name)
Next
```

## renewZone

---

### Description

This command will renew and re-activate a zone which has been disabled. A zone will be disabled when it cannot be renewed. This can happen when there is not enough balance in your account.

**NOTE: Renewing your zone will add 1 year to the renewal date. Your account will be charged with the amount required for renewing. Already active zones can be renewed as well.**

### Parameters

Parameter name	Type	Description
zoneId	Integer	Id of the zone

### Returns

Object name	Description
renewZone_Response	Response object, see " <a href="#">Response Objects</a> " for more information

### Code sample VB.NET

```
'Example: renew the domain
Dim renewZoneResponse As renewZone_Response = client.renewZone(106251)

Console.WriteLine(String.Format("status code = {0}", renewResponse.code))

Console.WriteLine(String.Format("status description = {0}", _
    renewResponse.description))

Console.WriteLine(String.Format("zone expiry date = {0}", _
    renewResponse.Zone.Expired))

Console.WriteLine(String.Format("remaining balance = {0}", _
    renewResponse.RemainingBalance))
```

## Response objects

---

### Record

---

#### Description

This object represents a basic DNS record. It is always part of a zone. If the zone does not exist, neither does the record.

#### Properties

Property name	Type	Description
Id	Integer	Id of the record
ZoneId	Integer	Id of the zone this record belongs to
Name	Varchar(255)	Name of the record (e.g. <a href="http://www.example.com">www.example.com</a> )
Type	Varchar(5)	Type of record: Allowed types are: "URL", "NS", "A", "AAAA", "CNAME", "PTR", "MX" and "TXT"
Content	Varchar(255)	Content of the record (e.g. for an A record: 127.0.0.1)
TimeToLive	Integer	Time to Live in seconds. Everything above 60 is valid
Priority	Integer	Used for MX records. The priority of the mail exchanger
Flags	Integer	See "Flags"
Active	Bit	Defines if the record is active or not. If it is inactive, it will not resolve

## Zone

---

### Description

This object represents a basic DNS record. It is always part of a zone. If the zone does not exist, neither does the record.

### Properties

Property name	Type	Description
Id	Integer	Id of the zone
Name	Varchar(255)	Name of the record (e.g. <a href="http://www.example.com">www.example.com</a> )
Hostmaster	Varchar(255)	Used to generate the SOA record
Serial	Integer	Serial of this domain
Flags	Integer	See "Flags"
Active	Bit	Defines if the zone is active or not. If it is inactive, records in this zone will not resolve
TimeToLive	Integer	Default TTL for this zone
OwnerId	Integer	UserID of the user that owns this zone
Master	Varchar(255)	This describes the master nameserver from which this domain should be slaved.
Expired	Datetime	ExpiryDate of this domain. At this date, the domain will be auto-renewed if there is enough balance in your account.
Created	Datetime	Date this zone was created

## baseResponse

---

### Description

This object is the base response object for all Express API calls. It has a status code and a description to indicate if the requested operation was successful.  
All response objects inherit from this object.

### Properties

Property name	Type	Description
code	Integer	Response code. See " <a href="#">Response codes</a> " for more information
description	Varchar(128)	Description corresponding the code. see " <a href="#">Response codes</a> " for more information

## addNativeDomain\_response

---

### Description

Response object for the "[addNativeDomain](#)" call.

### Properties

Property name	Type	Description
code	Integer	Response code. See " <a href="#">Response codes</a> " for more information
description	Varchar(128)	Description corresponding the code. see " <a href="#">Response codes</a> " for more information
Zone	Zone	The <a href="#">zone</a> object of the added domain

## addRecordToZone\_response

---

### Description

Response object for the "[addRecordToZone](#)" call.

### Properties

Property name	Type	Description
code	Integer	Response code. See " <a href="#">Response codes</a> " for more information
description	Varchar(128)	Description corresponding the code. see " <a href="#">Response codes</a> " for more information
Record	Record	The <a href="#">record</a> object of the added record

## listRecords\_response

---

### Description

Response object for the "[listRecords](#)" and "[listRecordsByType](#)" call.

### Properties

Property name	Type	Description
code	Integer	Response code. See " <a href="#">Response codes</a> " for more information
description	Varchar(128)	Description corresponding the code. see " <a href="#">Response codes</a> " for more information
Records	Array of Record	Array of <a href="#">record</a> objects



## listZones\_response

---

### Description

Response object for the "[listZones](#)" call.

### Properties

Property name	Type	Description
code	Integer	Response code. See " <a href="#">Response codes</a> " for more information
description	Varchar(128)	Description corresponding the code. see " <a href="#">Response codes</a> " for more information
Zones	Array of Zone	Array of <a href="#">zone</a> objects

## renewZone\_Response

---

### Description

Reponse object for the "[renewZone](#)" call.

### Properties

Property name	Type	Description
code	Integer	Response code. See " <a href="#">Response codes</a> " for more information
description	Varchar(128)	Description corresponding the code. see " <a href="#">Response codes</a> " for more information
Zone	Zone	A <a href="#">zone</a> object of the renewed zone
RemainingBalance	Double	Remaining balance of your account in dollars

## updateRecord\_response

---

### Description

Reponse object for the "[updateRecord](#)" call.

### Properties

Property name	Type	Description
code	Integer	Response code. See " <a href="#">Response codes</a> " for more information
description	Varchar(128)	Description corresponding the code. see " <a href="#">Response codes</a> " for more information
Record	Record	The <a href="#">record</a> object of the updated record

## Response codes

---

100	SUCCESS	Operation completed successfully
200	INVALID_USER	Invalid user, API key is incorrect
210	NOT_ENOUGH_BALANCE	Not enough balance to renew domain
300	DOMAIN_NAME_INVALID	Not a valid domain name. All names must be in the form of <name>.<tld>
301	DOMAIN_ALREADY_EXISTS	Domain could not be added because it already exists in PowerDNS
302	DOMAIN_IS_RESERVED	Domain is reserved and could not be added
310	NO_SUCH_DOMAIN	Domain could not be found in your control panel
320	ADDING_DOMAIN_FAILED	Domain could not be added to your control panel
330	DELETING_DOMAIN_FAILED	Domain could not be deleted from your control panel
400	RECORD_NOT_VALID_FOR_THIS_DOMAIN	Record is not valid. Record must belong to the domain you are adding it to.
401	RECORD_INVALID_TTL	TTL is invalid. It must be higher than 60.
402	RECORD_INVALID_TYPE	Invalid type of record. Allowed types are: "URL", "NS", "A", "AAAA", "CNAME", "PTR", "MX" and "TXT"
403	RECORD_INVALID_PRIORITY	Invalid priority. It must be higher than 0.
404	RECORD_INVALID_NAME	Invalid record name. Record must be in the form of <sub>.<domain>.<tld>.
410	NO_SUCH_RECORD	Record was not found
420	ADDING_RECORD_FAILED	Record could not be added to the zone
430	DELETING_RECORD_FAILED	Record could not be deleted from the zone
440	EDITING_RECORD_FAILED	Record could not be updated