

การทำ MULTI-WAN PORT FORWARDING ให้ได้ประสิทธิภาพ

{tondev} พ่อมดไอที

MULTI-WAN PORT FORWARDING

หัวข้อในวันนี้

- การ Forward port แบบ Multi wan
- การทำ DNS round robin load balancing

การ FORWARD PORT แบบ MULTI WAN

ประโยชน์การทำ Forward port แบบ Multi wan

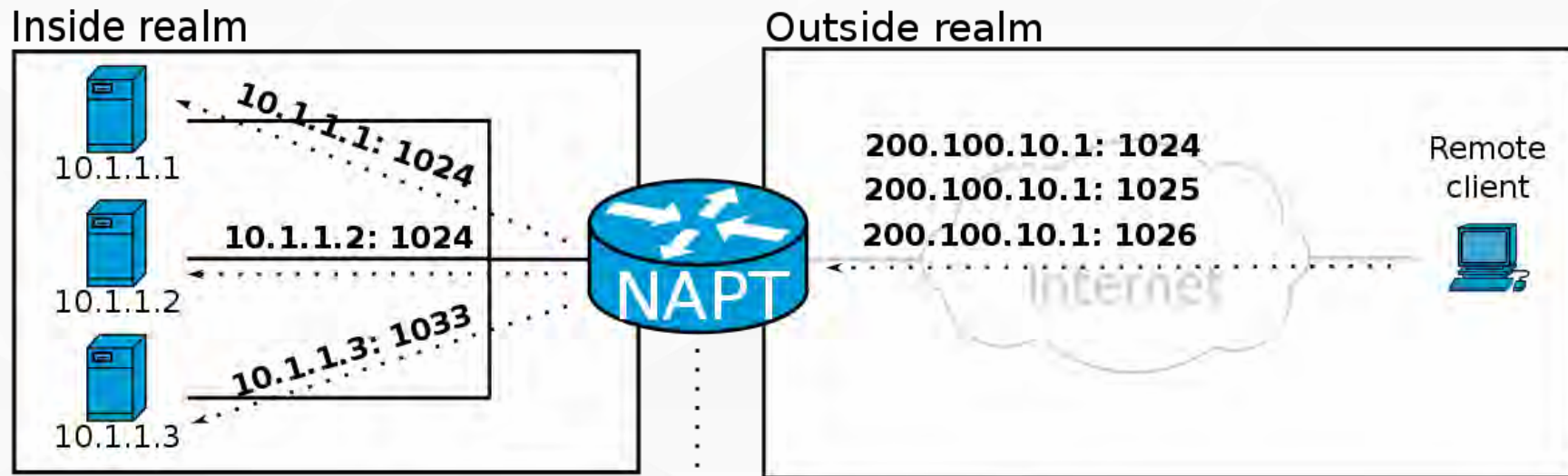
- ช่วยกระจายโหลด(Load balancing)
- กรณีเส้นใดเส้นหนึ่งเสีย ก็ยังสามารถใช้งานได้(Failover)
- Fix port การแยกใช้งานแบบเจาะจง เช่นเว็บเข้า wan1 เมล์เข้า wan2

การ FORWARD PORT แบบ MULTI WAN

▪ Forward Port คืออะไร

Forward port หรือ Port Mapping คือ การทำให้ internet จากภายนอก สามารถเชื่อมต่อเข้ามาหา อุปกรณ์ภายในได้ ซึ่งจะใช้ในกรณีที่มี IP จำกัดแต่มี Server หลายตัวที่มีการแยก Service ให้บริการ แต่หลังๆ มานิยมใช้สำหรับการใช้งานกับอินเทอร์เน็ตบ้าน ใช้งานด้าน กล้องวงจรปิด และ voice over ip (VoIP)

การ FORWARD PORT แบบ MULTI WAN



Inside realm	Outside realm
10.1.1.1: 1024	200.100.10.1: 1024
10.1.1.2: 1024	200.100.10.1: 1025
10.1.1.3: 1033	200.100.10.1: 1026

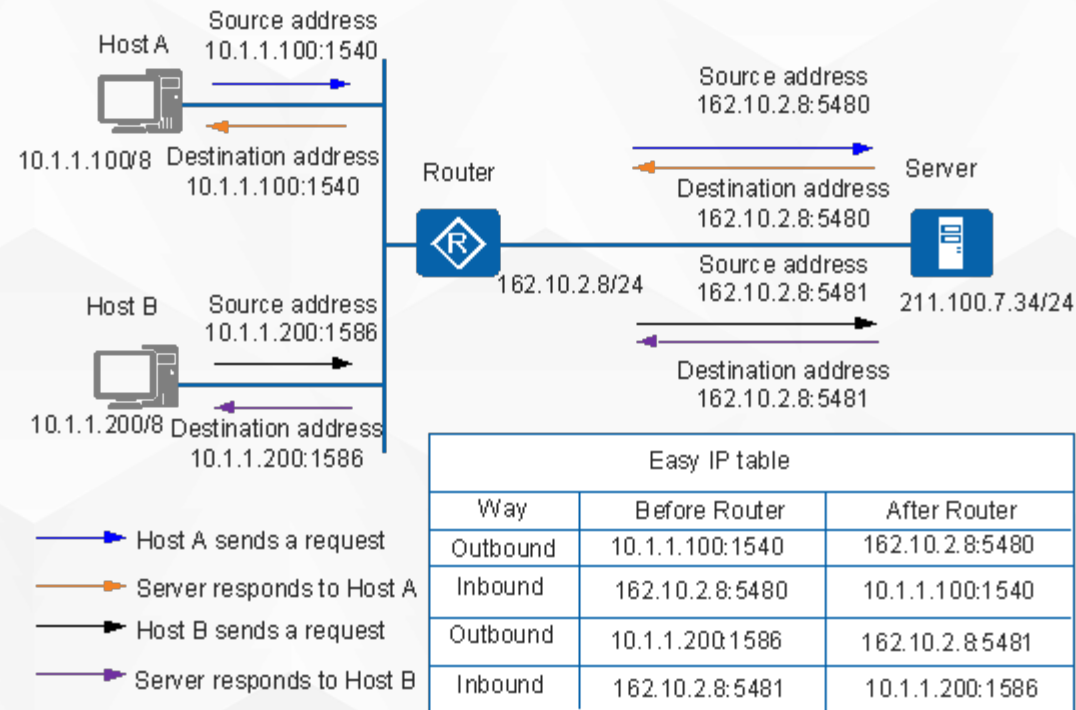
NAPT table

การ FORWARD PORT แบบ MULTI WAN

- Forward Port แบบ Multi wan คืออะไร

คือการทำให้อาจเข้าถึงบริการ Server, VPN, CCTV ที่อยู่หลัง Router ที่มีขา Wan มากกว่าหนึ่งเส้น ทำให้เกิดการกระจายการไหลของข้อมูลไม่ให้อยู่กับเส้นใดเส้นหนึ่ง อีกทั้งสามารถเป็น Backup ในกรณีที่เส้นใดขาดก็ยังสามารถใช้งานได้

การ FORWARD PORT แบบ MULTI WAN

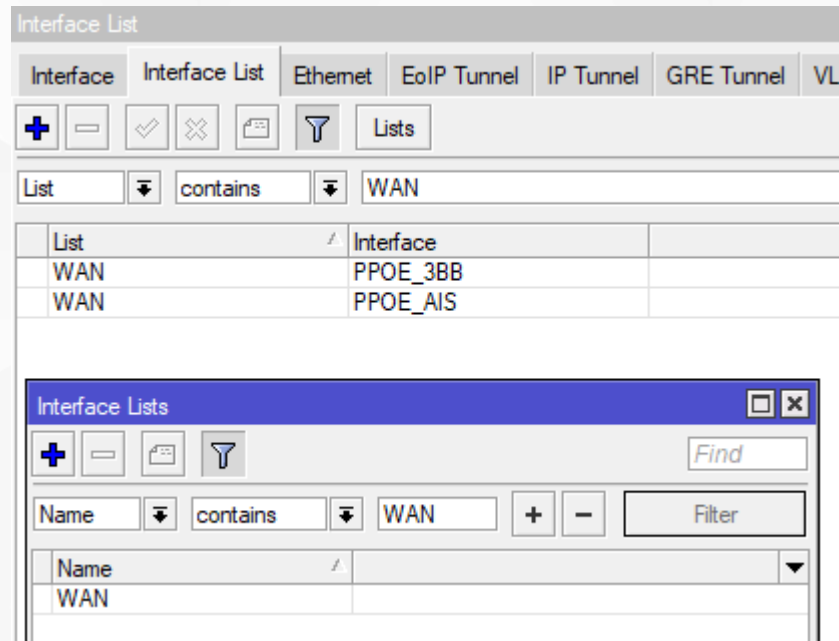


การ FORWARD PORT แบบ MULTI WAN

- เงื่อนไขการทำ Forward Port แบบ Multi wan
 - IP ต้นทางจากภายนอกที่เข้ามาจะถูกทำ Address list
 - นำ IP ต้นทางที่อยู่ใน Address list ว่ามาจาก Wan ใดและทำการ Mask connection
 - เมื่อข้อมูลจะถูกส่งกลับไปยัง IP ต้นทางก็จะดูที่ Mask connection ว่ามาจาก Wan ใด ใดนั้นก็ส่งกลับไปขานั้น

การ FORWARD PORT แบบ MULTI WAN

- การ Config ให้สร้าง Interface list สำหรับ Wan และนำขา Wan เข้าไปเป็นสมาชิกของ Interface list



การ FORWARD PORT แบบ MULTI WAN

▪ ตั้ง Filter Rules

Firewall Rule <80,443>

General | Advanced | Extra | Action | Statistics

Chain: forward

Src. Address: []

Dst. Address: []

Protocol: 6 (tcp)

Src. Port: []

Dst. Port: 80,443

Any. Port: []

In. Interface: []

Out. Interface: []

In. Interface List: WAN

จะกำหนดหรือไม่ก็ได้

Firewall Rule <80,443>

General | Advanced | Extra | Action | Statistics

Action: add src to address list

Log

Log Prefix: []

Address List: ForPort

Timeout: 00:01:00

กำหนดตามความเหมาะสม

การ FORWARD PORT แบบ MULTI WAN

- ตั้ง Mangle ทำ Mark connection ตามจำนวนขา Wan

Mangle Rule <>

General Advanced Extra Action Statistics

Chain: prerouting

Src. Address:

Dst. Address:

Protocol:

Src. Port:

Dst. Port:

Any. Port:

In. Interface: PPOE_3BB

Out. Interface:

Mangle Rule <>

General Advanced Extra Action Statistics

Src. Address List: ForPort

Dst. Address List:

Layer7 Protocol:

Content:

Connection Bytes:

Connection Rate:

Per Connection Classifier:

Mangle Rule <>

General Advanced Extra Action Statistics

Action: mark connection

Log

Log Prefix:

New Connection Mark: 3BB->Srv

Passthrough

#	Action	Chain	Protocol	Dst. Port	In. Interface	Connection Mark	Src. Address List	New Connection ...	New Routing Mark	Bytes	Packets	Comment
7	mark connection	prerouting			PPOE_3BB		ForPort	3BB->Srv		45.6 MiB	143 173	MultiWan
8	mark connection	prerouting			PPOE_AIS		ForPort	AIS->Srv		1987.5 KiB	35 385	MultiWan

การ FORWARD PORT แบบ MULTI WAN

- ตั้ง Mangle ทำ Mark routing ตามจำนวนขา Wan

Mangle Rule <>

General Advanced Extra Action Statistics

Chain: prerouting

Src. Address:

Dst. Address:

Protocol:

Src. Port:

Dst. Port:

Any. Port:

In. Interface: VLAN100

Out. Interface:

In. Interface List:

Out. Interface List:

Packet Mark:

Connection Mark: 3BB->Srv

Mangle Rule <>

General Advanced Extra Action Statistics

Action: mark routing

Log

Log Prefix:

New Routing Mark: PPOE_3BB

Passthrough

#	Action	Chain	Protocol	Dst. Port	In. Interface	Connection Mark	Src. Address List	New Connection ...	New Routing Mark	Bytes	Packets	Comment
9	mark routing	prerouting			VLAN100	3BB->Srv			PPOE_3BB	42.0 MiB	93 025	MultiWan
10	mark routing	prerouting			VLAN100	AIS->Srv			PPOE_AIS	8.4 MiB	8 304	MultiWan

การ FORWARD PORT แบบ MULTI WAN

▪ ทดสอบการทำงาน

Connection Mark	contains	->Srv						
Src. Address	Dst. Address	Protocol	Connection Mark	Timeout	TCP State	Orig./Repl. Rate	Orig./Repl. Bytes	
SACd	1.2.215.70:59834	184.82.100.86:443	6 (tcp)	AIS->Srv	23:59:53	established	0 bps/0 bps	5.5 KiB/20.9 KiB
SACd	1.2.215.70:59835	184.82.100.86:443	6 (tcp)	AIS->Srv	23:59:53	established	0 bps/0 bps	2267 B/1666 B
SACd	1.2.215.70:59836	184.82.100.86:443	6 (tcp)	AIS->Srv	23:59:53	established	0 bps/0 bps	2215 B/1548 B
SACd	1.2.215.70:59837	184.82.100.86:443	6 (tcp)	AIS->Srv	23:59:53	established	0 bps/0 bps	2815 B/1755 B
SACd	1.2.215.70:59838	184.82.100.86:443	6 (tcp)	AIS->Srv	23:59:53	established	0 bps/0 bps	2309 B/1918 B
SACd	1.2.215.70:59839	184.82.100.86:443	6 (tcp)	AIS->Srv	23:59:53	established	0 bps/0 bps	2257 B/1549 B
SACs	10.2.2.16:50879	1.2.215.70:5760	6 (tcp)	AIS->Srv	23:59:59	established	896 bps/928 bps	75.8 KiB/68.5 KiB
SACd	71.114.67.62:41068	14.207.80.110:443	6 (tcp)	3BB->Srv	00:00:06	time wait	0 bps/0 bps	4403 B/166.4 KiB
SACd	71.114.67.62:41070	14.207.80.110:443	6 (tcp)	3BB->Srv	00:00:06	time wait	0 bps/0 bps	8.4 KiB/449.3 KiB
SACd	71.114.67.62:41080	14.207.80.110:443	6 (tcp)	3BB->Srv	00:00:06	time wait	0 bps/0 bps	2056 B/35.2 KiB
SACd	71.114.67.62:41082	14.207.80.110:443	6 (tcp)	3BB->Srv	00:00:06	time wait	0 bps/0 bps	5.9 KiB/238.3 KiB
SACd	71.114.67.62:41084	14.207.80.110:443	6 (tcp)	3BB->Srv	00:00:06	time wait	0 bps/0 bps	5.6 KiB/170.8 KiB
SACd	71.114.67.62:41086	14.207.80.110:443	6 (tcp)	3BB->Srv	00:00:06	time wait	0 bps/0 bps	2423 B/31.7 KiB
SACd	71.114.67.62:41122	14.207.80.110:443	6 (tcp)	3BB->Srv	00:04:59	established	0 bps/0 bps	1453 B/9.5 KiB
SACd	71.114.67.62:41124	14.207.80.110:443	6 (tcp)	3BB->Srv	00:04:59	established	0 bps/0 bps	657 B/3771 B
SACd	71.114.67.62:50046	14.207.80.110:80	6 (tcp)	3BB->Srv	00:00:06	time wait	0 bps/0 bps	180 B/132 B
SACd	71.114.67.62:50048	14.207.80.110:80	6 (tcp)	3BB->Srv	00:00:06	time wait	0 bps/0 bps	710 B/559 B
SACd	71.114.67.62:50050	14.207.80.110:80	6 (tcp)	3BB->Srv	00:00:06	time wait	0 bps/0 bps	180 B/132 B
SACd	71.114.67.62:50100	14.207.80.110:80	6 (tcp)	3BB->Srv	23:59:59	established	0 bps/0 bps	100 B/52 B
SACd	71.114.67.62:50102	14.207.80.110:80	6 (tcp)	3BB->Srv	23:59:59	established	0 bps/0 bps	630 B/479 B
SACd	71.114.67.62:50104	14.207.80.110:80	6 (tcp)	3BB->Srv	23:59:59	established	0 bps/0 bps	100 B/52 B

การ FORWARD PORT แบบ MULTI WAN

- กรณีใช้ Mikrotik ทำ VPN การตั้ง Filter Rules จะใช้ Input เนื่องจาก Packet ที่เข้ามาจะไม่ใช่เป็นการส่งต่อ

Firewall Rule <1701,500,4500>

General | Advanced | Extra | Action | Statistics

Chain: input

Src. Address: []

Dst. Address: []

Protocol: 17 (udp)

Src. Port: []

Dst. Port: 1701,500,4500

Any. Port: []

In. Interface: []

Out. Interface: []

In. Interface List: WAN

Out. Interface List: []

จะกำหนดหรือไม่ก็ได้

Firewall Rule <1701,500,4500>

General | Advanced | Extra | Action | Statistics

Action: add src to address list

Log

Log Prefix: []

Address List: MT

Timeout: 00:01:00

กำหนดตามความเหมาะสม

การ FORWARD PORT แบบ MULTI WAN

- ตั้ง Mangle ทำ Mark connection ตามจำนวนขา Wan

Mangle Rule <1701,500,4500>

General Advanced Extra Action Statistics

Chain:

Src. Address:

Dst. Address:

Protocol: 17 (udp)

Src. Port:

Dst. Port: 1701,500,4500

Any. Port:

In. Interface: PPOE_AIS

Out. Interface:

Mangle Rule <1701,500,4500>

General Advanced Extra Action Statistics

Src. Address List: MT

Dst. Address List:

Layer7 Protocol:

Content:

Connection Bytes:

Connection Rate:

Per Connection Classifier:

Mangle Rule <1701,500,4500>

General Advanced Extra Action Statistics

Action: mark connection

Log

Log Prefix:

New Connection Mark: AIS->MT

Passthrough

#	Action	Chain	Protocol	Dst. Port	In. Interface	Connection Mark	Src. Address List	New Connection ...	New Routing Mark	Bytes	Packets	Comment
3	mark connection	input	17 (udp)	1701,500,4500	PPOE_AIS		MT	AIS->MT		646.8 KiB	3 230	MultiWan
4	mark connection	input	17 (udp)	1701,500,4500	PPOE_3BB		MT	3BB->MT		58.6 MiB	609 771	MultiWan

การ FORWARD PORT แบบ MULTI WAN

- ตั้ง Mangle ทำ Mark routing ตามจำนวนขา Wan ตัว Chain ก็จะเป็น Output

Mangle Rule <>

General Advanced Extra Action Statistics

Chain: output

Src. Address: []

Dst. Address: []

Protocol: []

Src. Port: []

Dst. Port: []

Any. Port: []

In. Interface: []

Out. Interface: []

In. Interface List: []

Out. Interface List: []

Packet Mark: []

Connection Mark: 3BB->MT

Routing Mark: []

Mangle Rule <>

General Advanced Extra Action Statistics

Action: mark routing

Log

Log Prefix: []

New Routing Mark: PPOE_3BB

Passthrough

#	Action	Chain	Protocol	Dst. Port	In. Interface	Connection Mark	Src. Address List	New Connection ...	New Routing Mark	Bytes	Packets	Comment
5	mark routing	output				3BB->MT			PPOE_3BB	543.7 MiB	806 810	MultiWan
6	mark routing	output				AIS->MT			PPOE_AIS	549.5 KiB	2 850	MultiWan

การทำ DNS ROUND ROBIN LOAD BALANCING

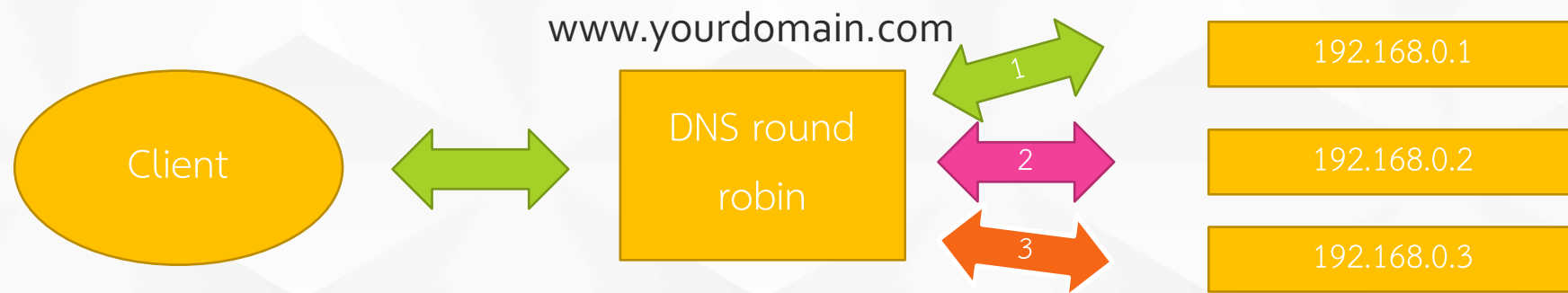
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DNS ROUND ROBIN

- DNS round robin คืออะไร

DNS round robin คือการทำโหลดบาลานซ์โดยใช้ DNS Server วิธีการทำคือการใส่ IP มากกว่าหนึ่ง IP เข้าไปใน DNS record ใช้ Domain ชื่อเดียว จึงทำให้เวลาเรื่องชื่อ Domain นั้นจะมี IP ปรากฏมากกว่าหนึ่ง IP นิยมใช้งานกับเว็บที่มีผู้ใช้งานเป็นจำนวนมาก เพื่อกระจายโหลดไปตาม Server ต่างๆ

DNS ROUND ROBIN



DNS ROUND ROBIN

- ตัวอย่างเว็บที่ทำ DNS round robin

```
Non-authoritative answer:  
Name:    youtube-ui.l.google.com  
Addresses: 2404:6800:4001:801::200e  
          2404:6800:4001:802::200e  
          2404:6800:4001:80f::200e  
          2404:6800:4001:80c::200e  
          172.217.31.110  
          216.58.221.206  
          172.217.174.174  
          172.217.27.238  
          172.217.31.46  
          216.58.196.46  
          172.217.166.142  
          172.217.24.174  
Aliases:  www.youtube.com
```

```
Non-authoritative answer:  
Name:    twitter.com  
Addresses: 104.244.42.1  
          104.244.42.65
```

```
Non-authoritative answer:  
Name:    a2047.r.akamai.net  
Addresses: 203.113.34.24  
          203.113.34.8  
          203.113.34.17  
          203.113.34.10  
          203.113.34.18  
          203.113.34.16  
          203.113.34.9  
          203.113.34.11  
          203.113.34.19  
Aliases:  www.tiktok.com  
          www.tiktok.com.edgesuite.net
```

DNS ROUND ROBIN

- การทำ DNS round robin ด้วย Mikrotik

การทำ DNS round robin ปกติจะทำใน IP ที่เป็น static โดยเพิ่มเข้าไปใน DNS record สำหรับ Dynamic IP ต้องใช้ Scripting language ของ Mikrotik เข้ามาช่วยจัดการในเรื่องนี้ ทำงานร่วมกับ API ตัว DNS Management ของผู้ให้บริการ เช่น Cloudflare, Digitalocean, etc สำหรับตัว Dynamic DNS free ขึ้นอยู่กับผู้ให้บริการ มีทั้งฟรีและเสียเงิน

DNS ROUND ROBIN

ตัวอย่างของ NO-IP(ไม่ฟรี)

Hostname Type

- DNS Hostname (A) ⓘ
- DNS Hostname (Round Robin) ⓘ
- DNS Alias (CNAME) ⓘ

Round Robin records are a No-IP Plus / Enhanced feature. [Upgrade Now!](#)

Why Upgrade?

- Hate confirming your account? With Enhanced, hostnames no longer expire every 30 days
- Use up to 25 host names
- Remove advertisements from masked web redirects
- Less impacted domains to choose from
- Offline settings
- Email and phone support
- And [more](#)

Upgrade to Enhanced Service

Current Package:

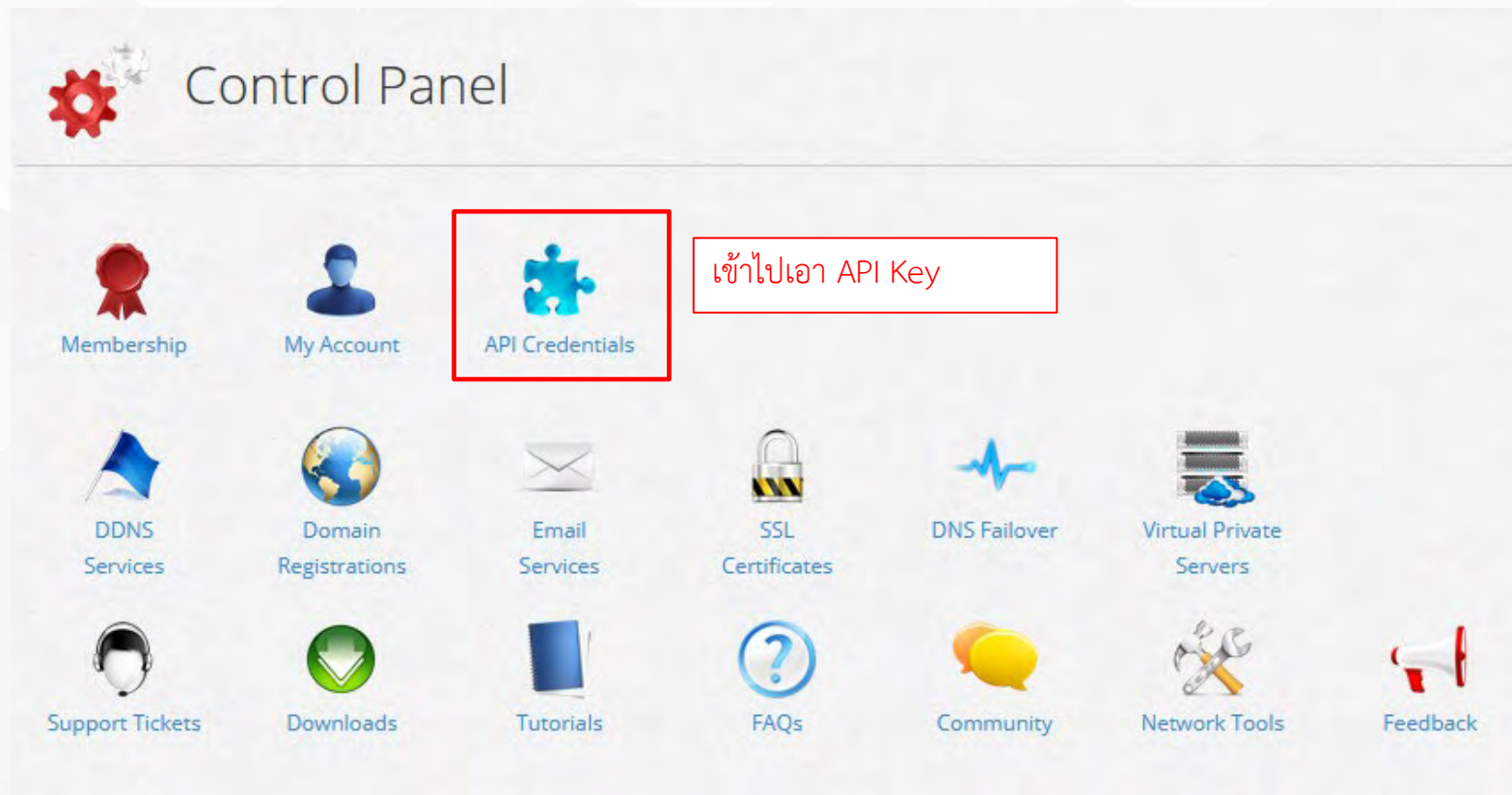
Not currently active Enhanced user

Select Hostnames: *

25 hostnames (\$24.95)

DNS ROUND ROBIN

- ตัวอย่างของ dynamic DNS ของ dynu.com (ฟรี)



DNS ROUND ROBIN

- ตัวอย่างของ dynamic DNS ของ dynu.com (Free)

OAuth And API Key Details

Live Endpoint
https://api.dynu.com/v2/

Credential Type ?
API Key ▼





[Generate API Credentials](#) [Cancel](#)

API
We provide a REST API so you can manage your services with minimal amount of effort. All API access is over HTTPS. In order to maintain compatibility in the future, all requests must specify an API version, which is appended to the URL.

Current Version
The current restful API version is v2. You can authorize using the API Key in the header or through an OAuth token obtained using the /token call. The legacy API (called v1) is no longer available.

Requests
All requests should include the Accept header set to application/json. All data is sent and received as JSON. [Click here](#) to refer to the API documentation.

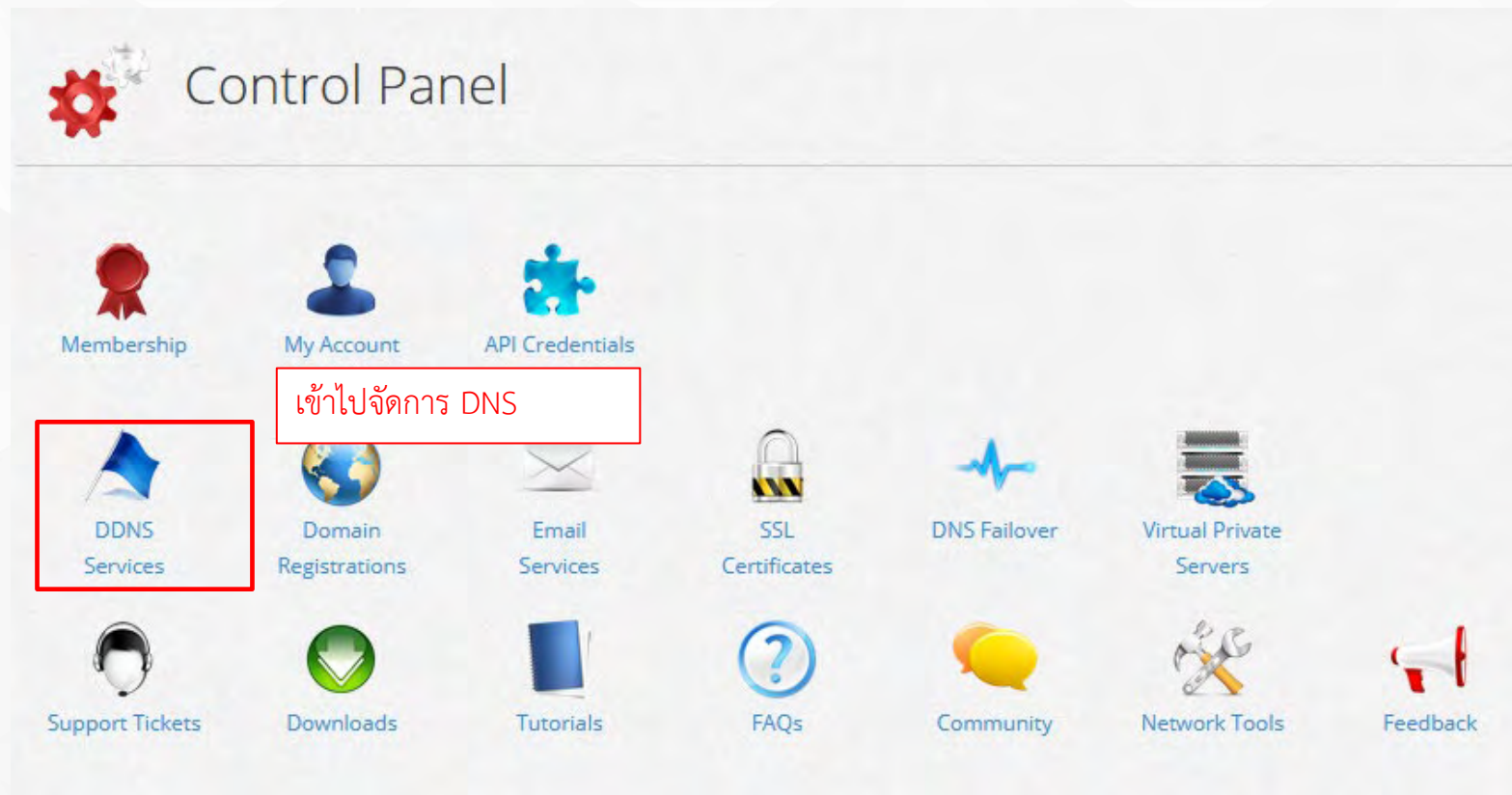
API Credentials

Type ?	Details ?	Actions ?
API Key	API-Key: *****TWV3	 
OAuth2	Client ID: *****b2dd Secret: *****4d3V	 

Annotations:
- eye icon: ดู key
- refresh icon: สร้าง key ใหม่

DNS ROUND ROBIN

- ตัวอย่างของ dynamic DNS ของ dynu.com (Free)



DNS ROUND ROBIN

- ตัวอย่างของ dynamic DNS ของ dynu.com (Free)

Option 1: Use Our Domain Name

Host	Top Level
<input type="text" value="myhostname"/>	<input type="text" value="accesscam.org"/> ▼

DNS ROUND ROBIN

- ตัวอย่างของ dynamic DNS ของ dynu.com (Free)

[tondev.freeddns.org]

Last Update ⓘ
1/18/2021 10:39:55 AM

IPv4 Address ⓘ
1.2.215.70

IPv6 Address ⓘ
IPv6 Address

Group ⓘ
[Dropdown menu]

TTL (seconds) ⓘ
60

OFF **Wildcard IPv4 Alias** ⓘ

OFF **Wildcard IPv6 Alias** ⓘ

OFF **Enable IPv6 Address** ⓘ

OFF **Email Notification** ⓘ

DNS Records ⓘ

เข้าไปจัดการเพิ่ม DNS

Current Status **Web Redirect** **Groups** **Configuration Backups**

Aliases **Port Check** **DNS Lookup**

Zone Import **Wildcard Settings** **Offline Settings** **IP Update History**

Domain Registration **Email Service** **SSL Certificate** **API Credentials**

To enhance security, you can use [IP Update Password](#) instead of your account password with IP update clients.

DNS ROUND ROBIN

- ตัวอย่างของ dynamic DNS ของ dynu.com (Free)

Node Name [?] Type [?] TTL* [?]

IPv4 Address [?] Group [?]

Show entries

DNS Records

Hostname [?]	Type [?]	Data [?]	TTL [?]	Actions [?]
*.tondev.freedomdns.org	A	1.2.215.70	60	
tondev.freedomdns.org	A	14.207.80.110	120	
tondev.freedomdns.org	A	184.82.109.8	120	

Showing 1 to 3 of 3 entries

DNS ROUND ROBIN

- วิธีหา ID Record ของ DNS ไปที่ <https://www.dynu.com/Support/API>

Authentication

The two available security schemes are API key and OAuth2 token. The API key never expires, while OAuth2 access tokens obtained using client id and secret expire in 8 hours and must be re-obtained by the calling application.

API Key

① Obtain API key

The API key uniquely identifies your account and you can create, reset or clear the key in the [API Credentials](#) area of the control panel.

② Make an API call

With a valid API key in hand, you're ready to make a request to a REST interface. Below is a call to obtain a list of domain names which have DNS service. The simple request uses only the required input fields.

The API key is included in the header of your requests with the following syntax: `API-Key: <api-key>`.

Example /v2/dns request

```
curl -X GET https://api.dynu.com/v2/dns \
-H "accept: application/json" \
-H "API-Key: <api-key>"
```

If the call is successful, Dynu returns a list of domain names along with their basic details. You can find the same list of domain names in the control panel.

dns

GET	/dns	Get a list of domains for DNS service.	🔒
POST	/dns	Add a new DNS service.	🔒
GET	/dns/getroot/{hostname}	Get the root domain name based on a hostname.	🔒
GET	/dns/record/{hostname}	Get DNS records based on a hostname and resource record type.	🔒
GET	/dns/{id}	Get details of a domain for DNS service.	🔒
POST	/dns/{id}	Update an existing DNS service.	🔒
DELETE	/dns/{id}	Remove domain from DNS service.	🔒
GET	/dns/{id}/dnssec	DS record of DNSSEC for DNS Service.	🔒
GET	/dns/{id}/dnssec/enable	Enable DNSSEC for DNS service.	🔒
GET	/dns/{id}/dnssec/disable	Disable DNSSEC for DNS service.	🔒
GET	/dns/{id}/record	Get a list of DNS records for DNS service.	🔒
POST	/dns/{id}/record	Add a new DNS record for DNS service.	🔒
GET	/dns/{id}/record/{dnsRecordId}	Get details of a DNS record for DNS service.	🔒

DNS ROUND ROBIN

- ตัวอย่างใน <https://www.dynu.com/en-US/Resources/API>

EXAMPLE
or refer to [full API documentation](#)

① Get the domain with {id} **365321**

```
curl -v https://api.dynu.com/v2/dns/365321 \  
-H "accept: application/json" \  
-H "API-Key: <api-key>"
```

Response

Responds with status code 200 if successful, returns the details of the domain.

```
{  
  "statusCode": 200,  
  "id": 365321,  
  "name": "example.com",  
  "unicodeName": "example.com",  
  "token": "domain-token",  
  "state": "complete",  
  "location": "somename",  
  "ipv4_address": 174.23.124.56,  
  "ipv6_address": 2001:cdba::3257:9652,  
  "ttl": "1800",  
  "ipv4": "true",  
  "ipv6": "true",  
  "ipv4WildcardAlias": "true",  
  "ipv6WildcardAlias": "true",  
  "allowZoneTransfer": "false",  
  "dnssec": "true",  
  "created_at": "2018-07-28T15:01:13",  
  "updated_at": "2018-09-10T13:03:15"  
}
```

DNS ROUND ROBIN

- ตัวเครื่องมือสำหรับทดสอบดึงข้อมูล API ใช้ Extension ของ Browser

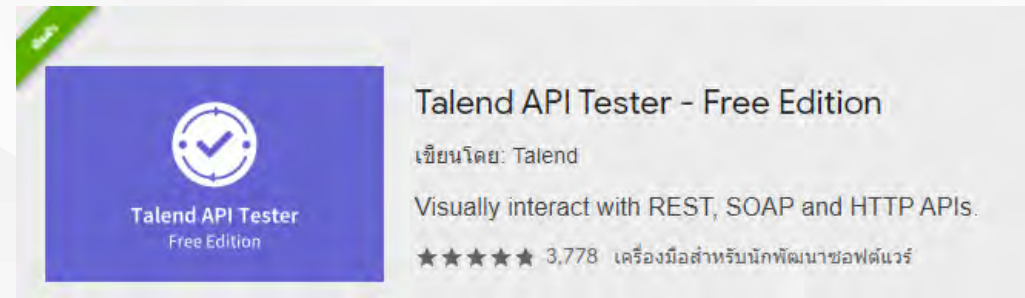
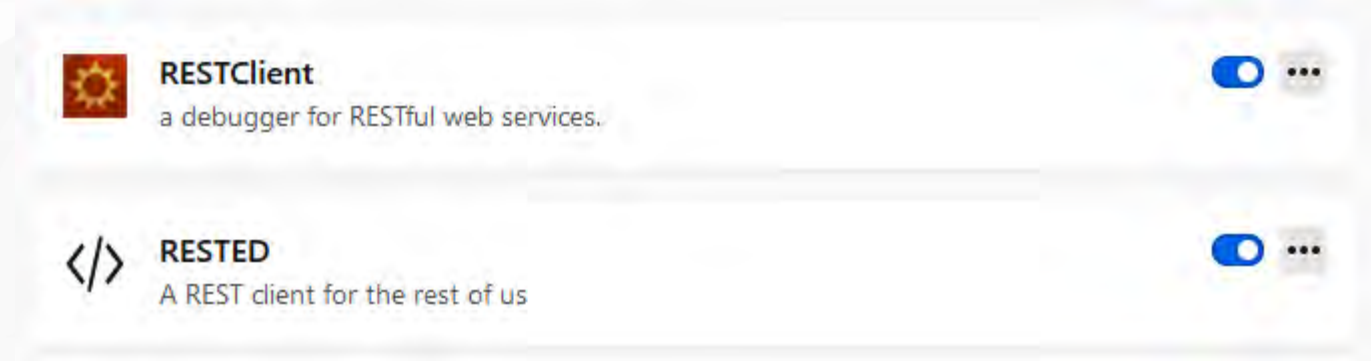
- Firefox

 - RESTClient

 - RESTED

- Chrome

 - Talend API Tester



DNS ROUND ROBIN

- ตัวอย่างนี้ใช้ Browser Firefox extension RESTED

The image displays two screenshots from the RESTED browser extension. The left screenshot shows a 'Request' configuration window with the following details:

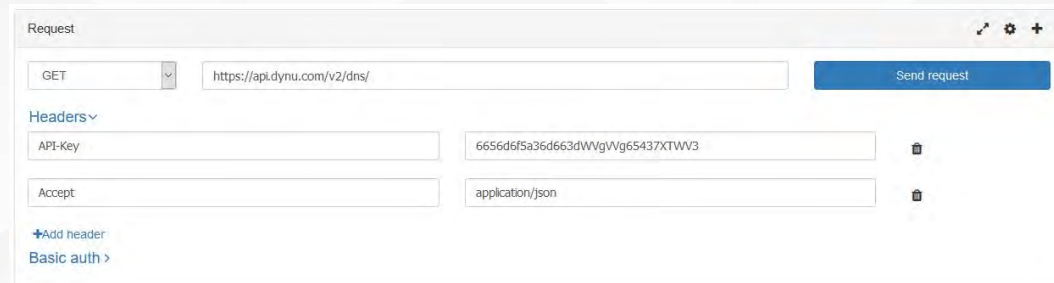
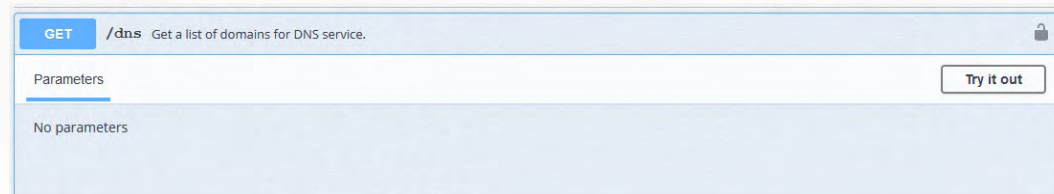
- Method: GET
- URL: `https://api.dynu.com/v2/dns/`
- Headers:
 - API-Key: `6656d6f5a36d663dWVgVg65437XTWV3`
 - Accept: `application/json`

The right screenshot shows a list of API endpoints for the 'dns' resource:

Method	Endpoint	Description
GET	<code>dns</code>	Get a list of domains for DNS service.
POST	<code>dns</code>	Add a new DNS service.
GET	<code>dns/getroot/{hostname}</code>	Get the root domain name based on a hostname.
GET	<code>dns/record/{hostname}</code>	Get DNS records based on a hostname and resource record type.
GET	<code>dns/{id}</code>	Get details of a domain for DNS service.
POST	<code>dns/{id}</code>	Update an existing DNS service.
DELETE	<code>dns/{id}</code>	Remove domain from DNS service.
GET	<code>dns/{id}/dnssec</code>	DS record of DNSSEC for DNS service.
GET	<code>dns/{id}/dnssec/enable</code>	Enable DNSSEC for DNS service.
GET	<code>dns/{id}/dnssec/disable</code>	Disable DNSSEC for DNS service.
GET	<code>dns/{id}/record</code>	Get a list of DNS records for DNS service.
POST	<code>dns/{id}/record</code>	Add a new DNS record for DNS service.
GET	<code>dns/{id}/record/{dnsRecordId}</code>	Get details of a DNS record for DNS service.

DNS ROUND ROBIN

- ตัวอย่างนี้ใช้ Browser Firefox extension RESTED

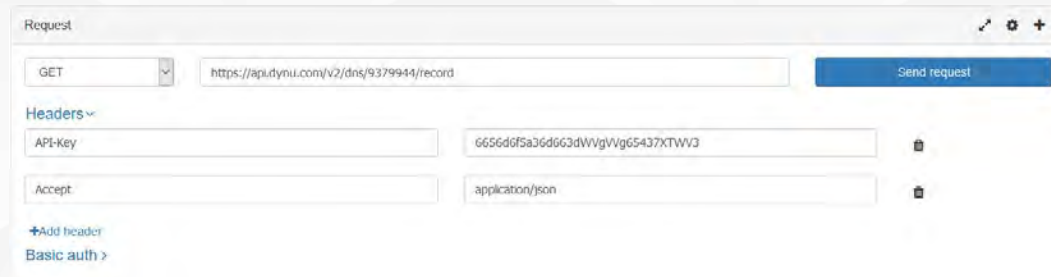
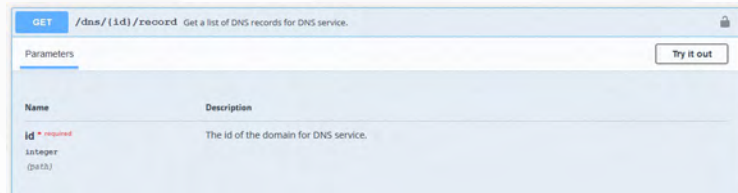


```
{
  "statusCode": 200,
  "domains": [
    {
      "id": 9379944,
      "name": "tondev.freaddns.org",
      "unicodeName": "tondev.freaddns.org",
      "token": "LGZCAFLCGHGQPVOQEDHG",
      "state": "Complete",
      "location": "",
      "group": "",
      "ipv4Address": "1.2.215.70",
      "ipv6Address": null,
      "ttl": 60,
      "ipv4": true,
      "ipv6": false,
      "ipv4WildcardAlias": false,
      "ipv6WildcardAlias": false,
      "createdOn": "2021-01-17T16:26:03",
      "updatedOn": "2021-01-18T03:39:55.69"
    },
    {
      "id": 9379977,
      "name": "tondev.ddnsfree.com",
      "unicodeName": "tondev.ddnsfree.com",
      "token": "WVGUKSLXAFUBNVYOCDD8",
      "state": "Complete",
      "location": "",
      "group": "",
      "ipv4Address": "1.2.215.70",
      "ipv6Address": null,
      "ttl": 120,
      "ipv4": true,
      "ipv6": false,
      "ipv4WildcardAlias": false,
      "ipv6WildcardAlias": false,
      "createdOn": "2021-01-17T16:49:56",
      "updatedOn": "2021-01-17T18:15:31.083"
    }
  ]
}
```

Domain id

DNS ROUND ROBIN

- นำ Domain ID มาค้นหา Record ID



```
{
  "statusCode": 200,
  "dnsRecords": [
    {
      "id": 7203433,
      "domainId": 9379944,
      "domainName": "tondev.freedomns.org",
      "nodeName": "",
      "hostname": "tondev.freedomns.org",
      "recordType": "SOA",
      "ttl": 60,
      "state": true,
      "content": "tondev.freedomns.org. 60 IN SOA ns1.dynu.com. administrator.dynu.com. 0 3600 900 604800 300",
      "updatedAt": "2021-01-17T16:26:04",
      "masterName": "ns1.dynu.com",
      "responsibleName": "administrator.dynu.com",
      "refresh": 3600,
      "retry": 900,
      "expire": 604800,
      "negativeTTL": 300
    },
    {
      "id": 7203438,
      "domainId": 9379944,
      "domainName": "tondev.freedomns.org",
      "nodeName": "",
      "hostname": "tondev.freedomns.org",
      "recordType": "A",
      "ttl": 120,
      "state": true,
      "content": "tondev.freedomns.org. 120 IN A 14.207.80.110",
      "updatedAt": "2021-01-18T03:35:21",
      "location": "",
      "ipv4Address": "14.207.80.110"
    },
    {
      "id": 7203440,
      "domainId": 9379944,
      "domainName": "tondev.freedomns.org",
      "nodeName": "",
      "hostname": "tondev.freedomns.org",
      "recordType": "A",
      "ttl": 120,
      "state": true,
      "content": "tondev.freedomns.org. 120 IN A 184.82.109.8",
      "updatedAt": "2021-01-18T03:39:49",
      "location": "",
      "ipv4Address": "184.82.109.8"
    }
  ]
}
```

DNS ROUND ROBIN

- นำ Record ID ใส่ใน Scripting กับระบุ Domain ID

```
{
  "statusCode": 200,
  "dnsRecords": [
    {
      "id": 7203433,
      "domainId": 9379944,
      "domainName": "tondev.freedomns.org",
      "nodeName": "",
      "hostname": "tondev.freedomns.org",
      "recordType": "SOA",
      "ttl": 60,
      "state": true,
      "content": "tondev.freedomns.org. 60 IN SOA ns1.dynu.com. administrator.dynu.com. 0 3600 900 604800 300",
      "updatedOn": "2021-01-17T16:26:04",
      "masterName": "ns1.dynu.com",
      "responsibleName": "administrator.dynu.com",
      "refresh": 3600,
      "retry": 900,
      "expire": 604800,
      "negativeTTL": 300
    },
    {
      "id": 7203438,
      "domainId": 9379944,
      "domainName": "tondev.freedomns.org",
      "nodeName": "",
      "hostname": "tondev.freedomns.org",
      "recordType": "A",
      "ttl": 120,
      "state": true,
      "content": "tondev.freedomns.org. 120 IN A 14.207.80.110",
      "updatedOn": "2021-01-18T03:35:21",
      "location": "",
      "ipv4Address": "14.207.80.110"
    },
    {
      "id": 7203440,
      "domainId": 9379944,
      "domainName": "tondev.freedomns.org",
      "nodeName": "",
      "hostname": "tondev.freedomns.org",
      "recordType": "A",
      "ttl": 120,
      "state": true,
      "content": "tondev.freedomns.org. 120 IN A 184.82.109.8",
      "updatedOn": "2021-01-18T03:39:49",
      "location": "",
      "ipv4Address": "184.82.109.8"
    }
  ]
}
```

Record ID

```
:local domains {
  {
    "nodeName"="";
    "records_id"={
      "7203438";
      "7203440";
    };
    "zone_id"="9379944";
    "group"="";
    "state"=true;
  }
}
```

DNS ROUND ROBIN

▪ ทดสอบรัน Script และ lookup

```
[admin@MikroTik] > /system script run dynDNSroundRobinDynu
status: finished
downloaded: 0KiB[-z pause]
total: 0KiB
duration: 0s

status: finished
downloaded: 0KiB[-z pause]
total: 0KiB
duration: 0s
```

	Address	Network	Interface
D	📍 14.207.80.110	14.207.80.1	PPOE_3BB
D	📍 184.82.109.8	184.82.96.1	PPOE_AIS

```
Non-authoritative answer:
Name:   tondev.freedomdns.org
Addresses: 14.207.80.110
           184.82.109.8
```



Q&A