

BKNIX Peering and Service



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BKNIX

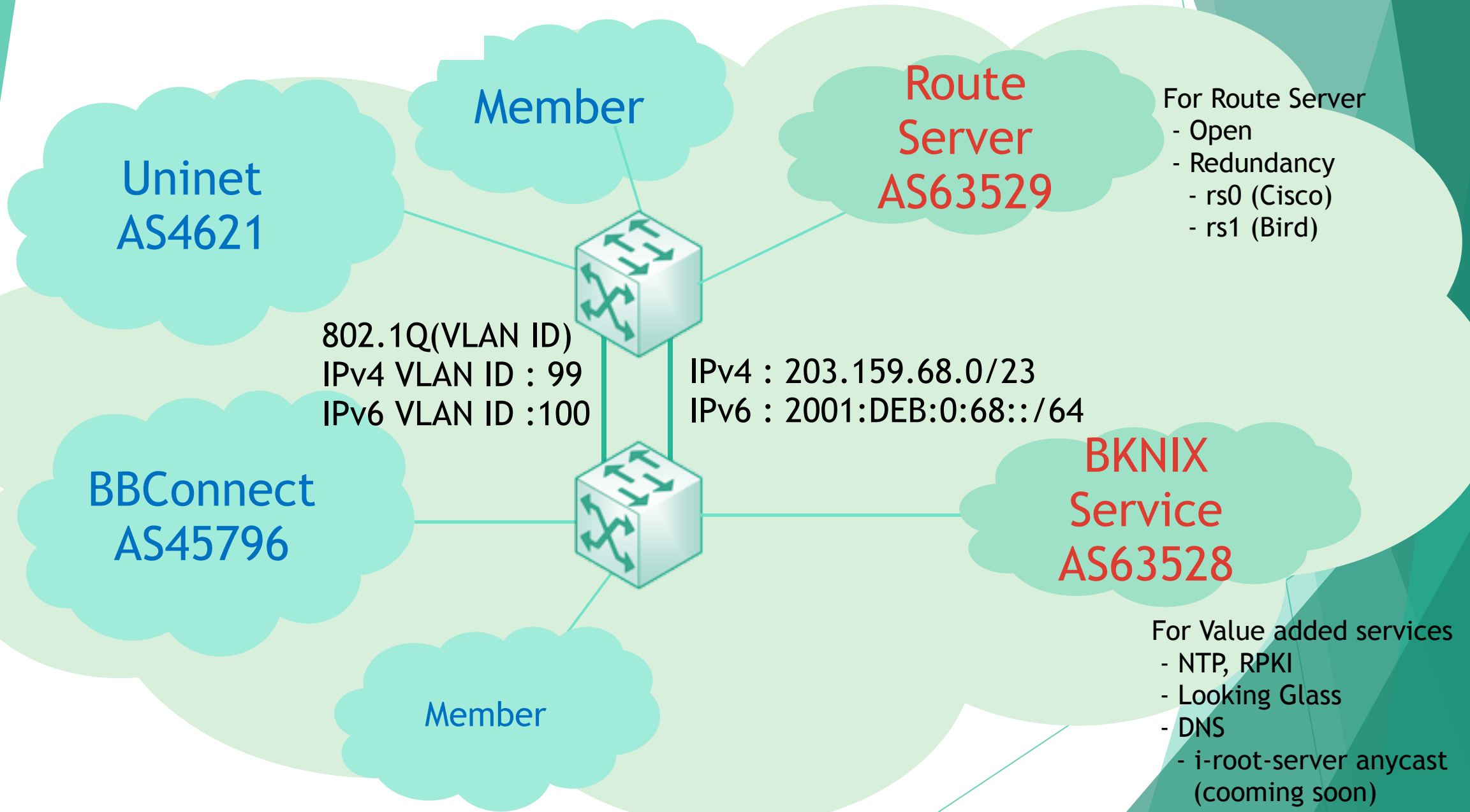
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Agenda

- ▶ BKNIX Peering
- ▶ BKNIX Service

BKNIX Peering

Topology Overview



BKNIX Peering : Requirement

- ▶ Own AS Number
- ▶ Own IPv4 and IPv6 address
- ▶ IEEE 802.1Q
- ▶ BGP Protocol

BKNIX Peering : Route Server

▶ RS0

- ▶ ASN : AS63529
- ▶ VLAN id : 99 for IPv4
100 for IPv6
- ▶ IPv4 address : 203.159.68.68/23
- ▶ IPv6 address : 2001:DFB0:68::68/64
- ▶ Platform : Cisco

▶ RS1

- ▶ ASN : AS63529
- ▶ VLAN id : 99 for IPv4
100 for IPv6
- ▶ IPv4 address : 203.159.68.69/23
- ▶ IPv6 address : 2001:DFB:0:68::69/64
- ▶ Platform : Bird

BKNIX Peering : Guide Line

- ▶ In the "router bgp <your AS>" configuration section of your router to the BKNIX you should add two peers to the AS63529.

```
neighbor 2001:DEB:0:68::68 remote-as 63529
neighbor 2001:DEB:0:68::68 description BKNIX-v6-RS0-peering
neighbor 203.159.68.68 remote-as 63529
neighbor 203.159.68.68 description BKNIX-v4-RS0-peering

neighbor 2001:DEB:0:68::69 remote-as 63529
neighbor 2001:DEB:0:68::69 description BKNIX-v6-RS1-peering
neighbor 203.159.68.69 remote-as 63529
neighbor 203.159.68.69 description BKNIX-v4-RS1-peering
```

BKNIX Peering : Guide Line

```
address-family ipv4
  neighbor 203.159.68.68 activate
  neighbor 203.159.68.69 activate
!
address-family ipv6
  neighbor 2001:DEB:0:68::68 activate
  neighbor 2001:DEB:0:68::69 activate
```

- ▶ Adding your BGP policy.

Example : Show route

- ▶ Show bgp route of BB Connect from UniNet.

```
#sh ip bgp 115.31.164.0
```

```
45796
```

```
203.159.68.100 from 203.159.68.68 (203.159.68.68)
```

```
Origin IGP, metric 0, localpref 100, valid, external, best, group-best
```

BKNIX Service

BKNIX Service

- ▶ Under AS number : AS63528
- ▶ Network IPv4 and IPv6 Address :
 - 203.159.70.0/24
 - 2001:DEB:4070::33/64
- ▶ Peering with Route Server (AS63529)
- ▶ Policy is announce the service route to Member

Network Time Protocol (NTP)

Network Time Protocol (NTP)

- ▶ Powered by NECTEC.
- ▶ BKNIX NTP Service is Stratum 1.
- ▶ Name : ntp1.bknix.co.th
- ▶ IPv4 address : 203.159.70.33
- ▶ IPv6 address : 2001:DEB:4070::33/64

Network Time Protocol (NTP)

- ▶ Setting up to request NTP updates and synchronise itself from a public NTP server.

For Linux, that would be this command:

```
#ntpdate ntp1.bknix.co.th
```

For the router (Cisco), that would be this command:

```
R1(config)# ntp server ntp1.bknix.co.th
```

IXP Manager

IXP Manager


- ▶ A web application to assist in the management of Internet Exchange Points (IXPs) <https://www.inex.ie/>
- ▶ IXP Manager is written in PHP using the Zend Framework, the Doctrine2 ORM and the Smarty templating engine.
- ▶ The project website and source code can be viewed at <https://github.com/inex/IXP-Manager>.
- ▶ IXP Manager can generate standard configurations for Quagga / IOS / Bird

Login Interface

BKNIX IXP Manager

SupportAboutLogin

Login to IXP Manager



Username

Password

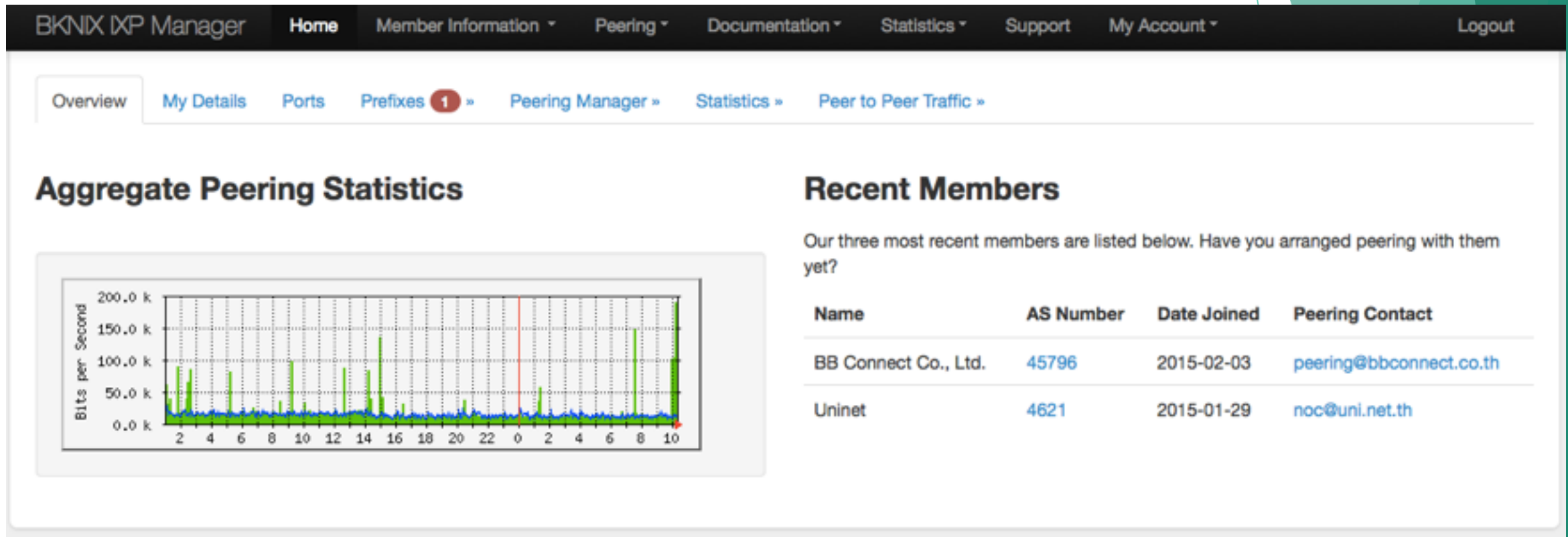
Login

Lost Password

Lost Username

For help, please contact [BKNIX Operations](#).

Overviews Interface



My details / Member details Interface

BKNIX XP Manager

[Home](#) [Member Information](#) [Peering](#) [Documentation](#) [Statistics](#) [Support](#) [My Account](#) [Logout](#)

[Overview](#) [My Details](#) [Ports](#) [Prefixes](#) [Peering Manager](#) [Statistics](#) [Peer to Peer Traffic](#)

NOC Details

Phone

(+66) 2107 1538

24h Phone

(+66) 2107 1538

Fax

(+66) 2107 1539

E-Mail

noc@bknix.co.th

Hours

24x7

Website

http://www.bknix.co.th/

Update

Billing Details

Contact

Chayanon Triphat

Address

BKNIX Co., Ltd.

159 Pichai Rd. Nakornchais

City

Bangkok

Postcode

10300

Country

Thailand

E-Mail

acc@bknix.co.th

Telephone

(+66) 2244 8261

Invoice E-Mail

acc@bknix.co.th

My details / Member details Interface

BKNIX XP Manager Home Member Information ▾ Peering ▾ Documentation ▾ Statistics ▾ Support My Account ▾ Logout

Member Details

Show entries Search:

| Member | Peering Email | ASN | NOC Phone | NOC Hours | |
|---|--|-----------------------|-----------------|-----------|----------------------|
| Bangkok Neutral Internet Exchange Point | peering@bknix.co.th | 63528 | (+66) 2107 1538 | 24x7 | view |
| BB Connect Co., Ltd. | peering@bbconnect.co.th | 45796 | +6628314888 | 24x7 | view |
| Uninet | noc@uni.net.th | 4621 | | 8x5 | view |

Showing 1 to 3 of 3 entries ← Previous 1 Next →

Ports

BKNIX IXP ManagerHomeMember InformationPeeringDocumentationStatisticsSupportMy AccountLogout

OverviewMy DetailsPortsPrefixes1Peering ManagerStatisticsPeer to Peer Traffic

Connection 1

BangnaLAG Port

Port 1 of 2 in LAG

| | | | |
|-----------|------------------|------------------|--|
| Switch: | ix0.bknix.co.th | Switch Port: | 7/1/1, 10/100/Gig Ethernet SFP, "To-rs0-gig0/0/0-(in-MC-LAG2)" |
| Speed: | 1000 Mbps | Duplex: | full |
| Location: | T.C.C Technology | Colo Cabinet ID: | Rack 1 |

Port 2 of 2 in LAG

| | | | |
|-----------|------------------|------------------|--|
| Switch: | ix1.bknix.co.th | Switch Port: | 7/1/1, 10/100/Gig Ethernet SFP, "To-rs0-gig0/0/1-(in-MC-LAG2)" |
| Speed: | 1000 Mbps | Duplex: | full |
| Location: | T.C.C Technology | Colo Cabinet ID: | Rack 2 |

ixp-ipv4-peers:

| | | | |
|----------------------|-------------------|---------------|---------------|
| IPv6 Address: | IPv6 not enabled. | IPv4 Address: | 203.159.68.68 |
| Multicast Enabled: | No | | |
| Route Server Client: | No | AS112 Client: | No |

ixp-ipv6-peers:

| | | | |
|---------------|-------------------|---------------|-------------------|
| IPv6 Address: | 2001:deb:0:68::68 | IPv4 Address: | IPv4 not enabled. |
|---------------|-------------------|---------------|-------------------|

Aggregate Day Graph for LAG

Day Graph for ix0.bknix.co.th / 7/1/1, 10/100/Gig Ethernet SFP, "To-rs0-gig0/0/0-(in-MC-LAG2)"

Route Server Prefix

BKNIX XP Manager Home Member Information ▾ Peering ▾ Documentation ▾ Statistics ▾ Support My Account ▾ Logout

Route Server Prefix Analysis

Limit to Protocol...

Advertised but Not Accepted (1)

Advertised & Accepted (1)

Not Advertised but Acceptable (3)

Help

Show 10 ▾ entries Search:

| Prefix | Protocol | First Seen | Origin AS |
|-----------------|----------|---------------------|-----------|
| 203.159.70.0/24 | IPv4 | 2015-03-05 17:56:24 | 63528 |

Showing 1 to 1 of 1 entries

← Previous 1 Next →

Peering Manager

BKNIX IXP Manager Home Member Information ▾ **Peering ▾** Documentation ▾ Statistics ▾ Support My Account ▾ Logout

Test mode enabled. All peering requests (with the exception of any BCC entries you add) will be sent to `tech@bknix.co.th`. The CC recipient will be ignored. This can be changed in `application.ini`.

Potential Peers Potential Bilateral Peers Peers Rejected / Ignored Peers

You currently do not exchange any routes in any way with the following members of the exchange **over the highlighted - in red - protocol(s) and LAN(s)** because:

- either you, they or both of you are not route server clients; and
- you do not have a bilateral (direct) peering session that we have detected with them.

| Member | ASN | Policy | ixp-ipv4-peers | |
|----------------------|-------|--------|----------------|---|
| BB Connect Co., Ltd. | 45796 | open | IPv4 | Request Peering Notes ▾ |
| Uninet | 4621 | open | IPv4 | Request Peering Notes ▾ |

Peering Manager

Subject:[BKNIX] Peering Request from DTAC (ASN24378)
Date:Thu, 26 Mar 2015 14:25:51 +0700
From:DTAC Peering Team <do-not-reply@bknix.co.th>
To:tech@bknix.co.th

Dear Uninet Peering Team,

We are DTAC (<https://www.dtac.co.th>) and we are fellow members of INEX, Ireland's IXP.

We would like to arrange peering session(s) with you on the following interface(s):

ixp-ipv4-peers

Our IPv4 Address: 203.159.68.101
Our AS Number: 24378

Your IPv4 Address: 203.159.68.10
Your AS Number: 4621

NOC Details for DTAC

The following are our NOC details for your reference:

NOC Hours: 0
NOC Phone:
NOC Email:

Kind regards,
The DTAC Peering Team

Peering Manager

Test mode enabled. All peering requests (with the exception of any BCC entries you add) will be sent to `tech@bknix.co.th`. The CC recipient will be ignored. This can be changed in `application.ini`.

[Potential Peers](#) [Potential Bilateral Peers](#) [Peers](#) [Rejected / Ignored Peers](#)

Using redundant route servers means that you do not need to goto the effort of establishing bilateral peering sessions with every member of the exchange.

Should you wish to not use the route servers or prefer direct peerings also, then the following table shows the members that we have failed to detect a bilateral peering session with you.

Any members shown with a green badge indicates that you exchange routes with that member via the route servers.

| Member | ASN | Policy | ixp-ipv4-peers | ixp-ipv6-peers | |
|----------------------|-------|--------|----------------|----------------|--|
| BB Connect Co., Ltd. | 45796 | open | IPv4 | IPv6 | ✉ Request Peering ★ Notes ▼ |

Peering Manager

Test mode enabled. All peering requests (with the exception of any BCC entries you add) will be sent to `tech@bknix.co.th`. The CC recipient will be ignored. This can be changed in `application.ini`.

[Potential Peers](#) [Potential Bilateral Peers](#) **Peers** [Rejected / Ignored Peers](#)

You exchange routes by some mechanism (router server and / or bilateral peerings) with the following members.

Any members shown with a red badge indicates that you can potentially improve your peering with that member on the shown LAN and protocol.

| Member | ASN | Policy | ixp-ipv4-peers | ixp-ipv6-peers | |
|----------------------|-------|--------|----------------|----------------|---|
| BB Connect Co., Ltd. | 45796 | open | IPv4 | IPv6 | Request Peering Notes ▼ |

Public Peering Matrix

BKNIX IXP Manager Home Member Information Peering Documentation Statistics Support My Account Logout

Home / Peering Matrices for the ixp-ipv4-peers using IPv4

Peering ManagerRoute Server PrefixesPublic Peering Matrix

All Peeringsixp-ipv4-peersIPv4

| | | 4 | 5 |
|----------------------|-------|---|---|
| | | 6 | 7 |
| | | 2 | 9 |
| | | 1 | 6 |
| Uninet | 4621 | | |
| BB Connect Co., Ltd. | 45796 | | |

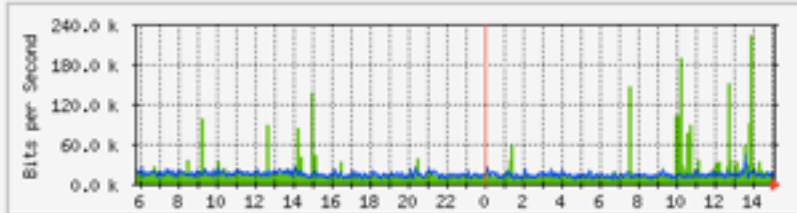
Notes on the Peering Matrix

- Clicking the AS number in the table header will isolate that column. Clicking individual cells in the body will freeze the dynamic highlighting.
- Where a BKNIX member is not listed on this peering matrix, it is because they are currently not actively peering at BKNIX, or because they have opted out of presenting their peering information in this database.
- This peering matrix is based on Netflow traffic accounting data from the BKNIX peering LANs and route server BGP peerings.
- This peering matrix only detects if there is bidirectional TCP flow between routers at BKNIX. It cannot detect whether there are actually prefixes swapped between routers.

Statistics

IXP Interface Statistics :: Bangkok Neutral Internet Exchange Point

Aggregate Peering Traffic



Graph Options

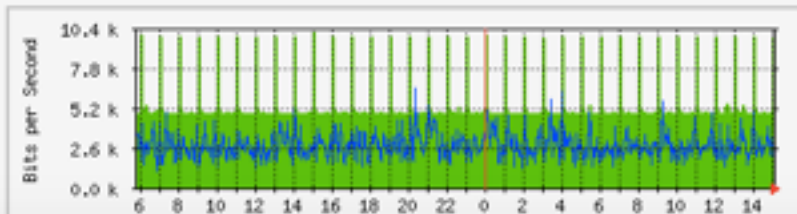
See Peer to Peer Graphs

Click on a graph for longer term statistics (daily, weekly, monthly and yearly). Change the graph type in the drop down below.

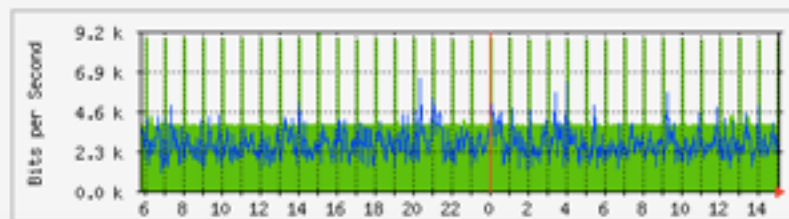
Graph Type: Bits

LAG on T.C.C Technology / ix0.bknix.co.th

Ports: 7/1/1, 10/100/Gig Ethernet SFP, "To-rs0-gig0/0/0-(in-MC-LAG2)" 7/1/1, 10/100/Gig Ethernet SFP, "To-rs0-gig0/0/1-(in-MC-LAG2)"



T.C.C Technology / ix0.bknix.co.th / 7/1/1, 10/100/Gig Ethernet SFP, "To-rs0-gig0/0/0-(in-MC-LAG2)" (1000Mbps)



Question ?

