Introduction to BKNIX

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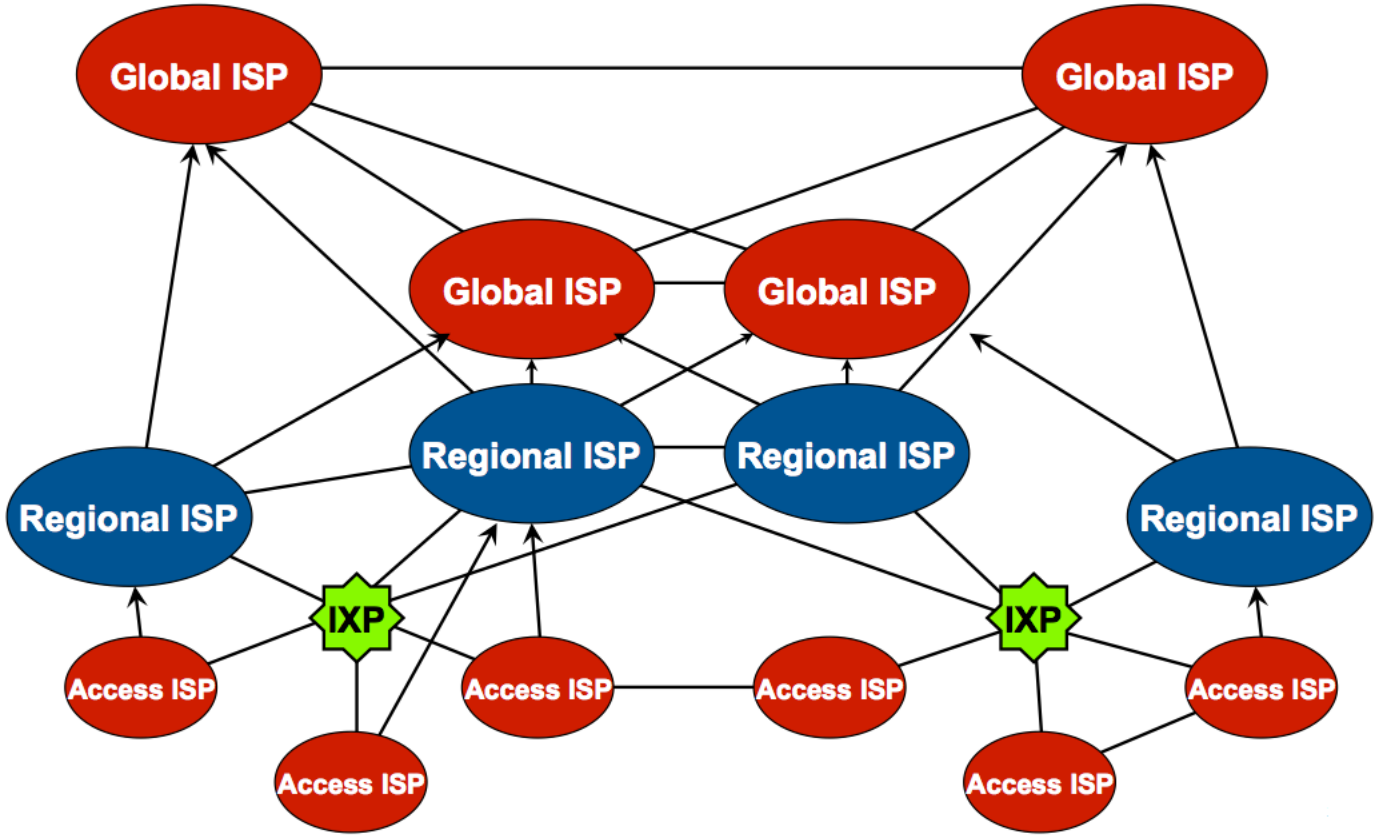
BKNIX Co., Ltd.

Agenda

- Internet eXchange Point : IXP
- Development of IXP in Thailand
- BangKok Neutral Internet eXchange (BKNIX)
- Main Infrastructure
- Services

Internet eXchange Point: IXP

Why exchange traffic ?



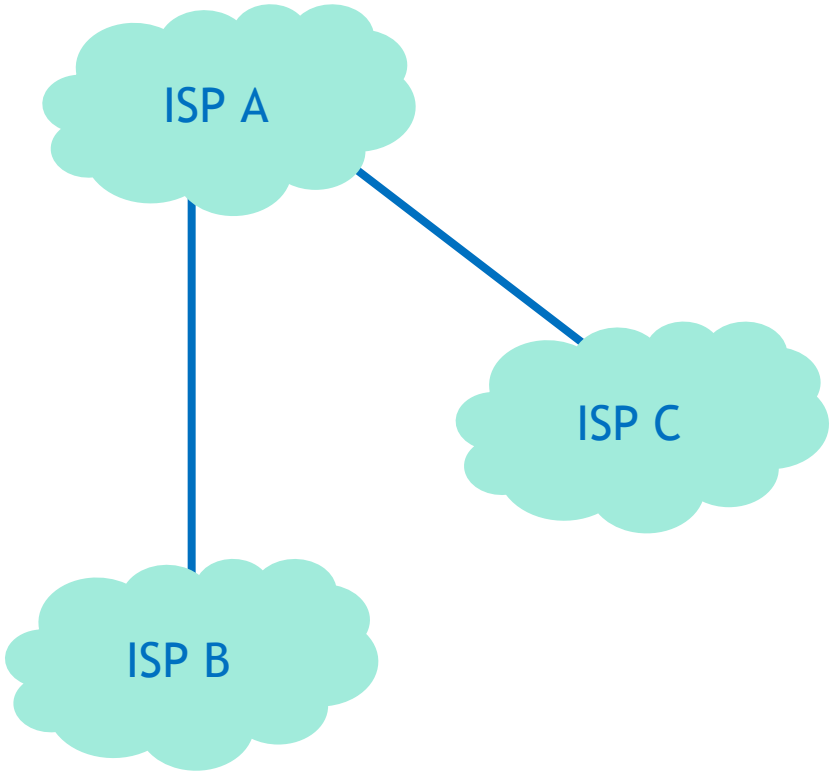
- One provider will never have all customers.
- A provider with a limited network will need to exchange traffic with a provider with a larger or different.

Peering vs. Transit

- Peering is exchange of traffic in both directions for free i.e. no money is exchanged.

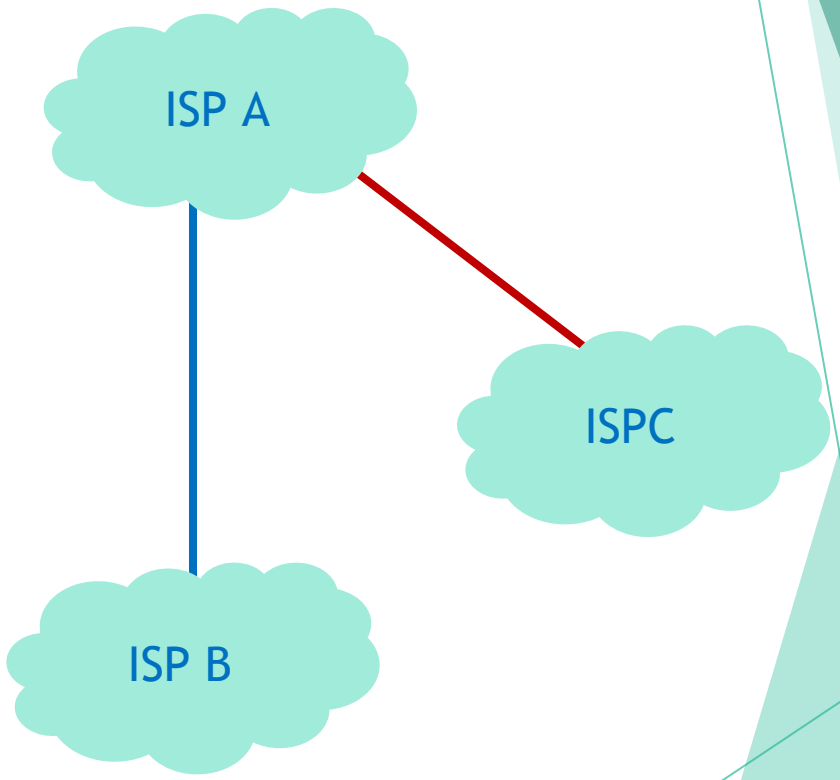
- Transit is exchange of traffic in both directions for a fee, i.e commercial service that costs money charge for transit services.

Peering



ISP A and it's customers can reach ISP B and ISP C
ISP B and it's customers can reach ISP A
ISP C and it's customers can reach ISP A

Transit



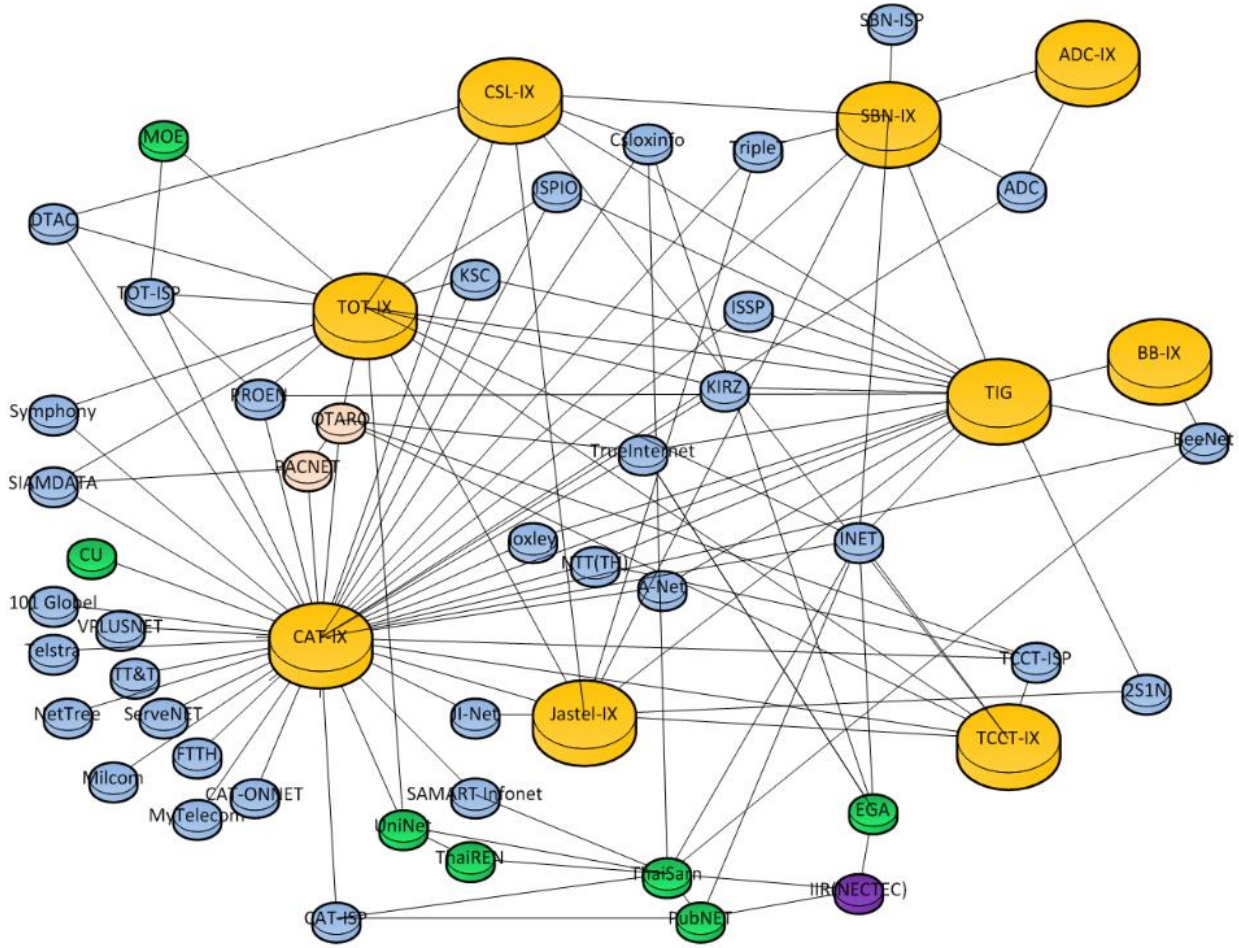
ISP A and it's customers can reach ISP B and ISP C
ISP B and it's customers can reach ISP A and ISP C
ISP C and it's customers can reach ISP A and ISP B

Development of IXP in Thailand

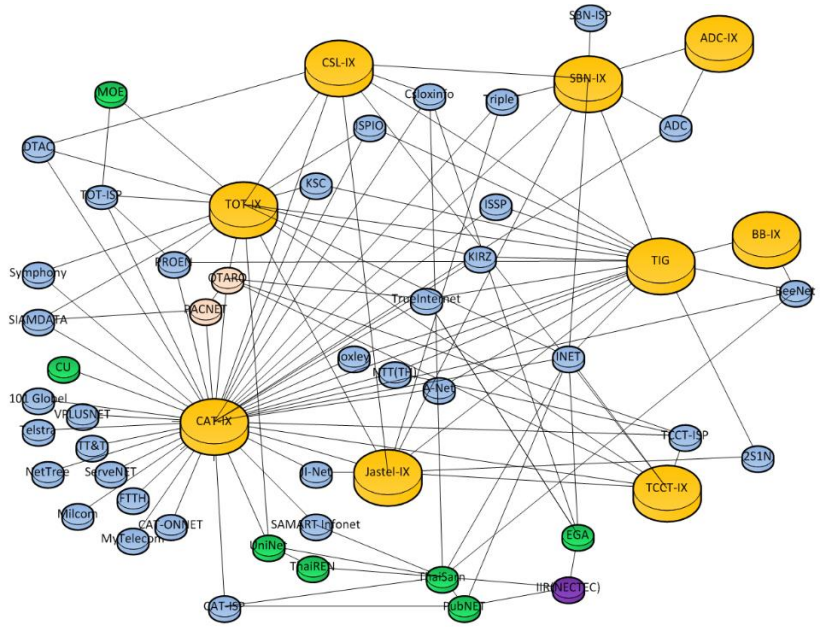
Development of IXP in Thailand

- Layer 3 IXP-transit
  - PIE/IIR (NECTEC)
  - THNIX (CAT) : then NBTC responsible to published a license for an organization that operate IXP
  - 9 Commercial IXPs : Transit
- Layer 2
  -
  - Officially open in Feb 2015
  - VDO Presentation : http://bit.ly/ixp-bknix

BIG picture IXP in Thailand



Development of IXP in Thailand



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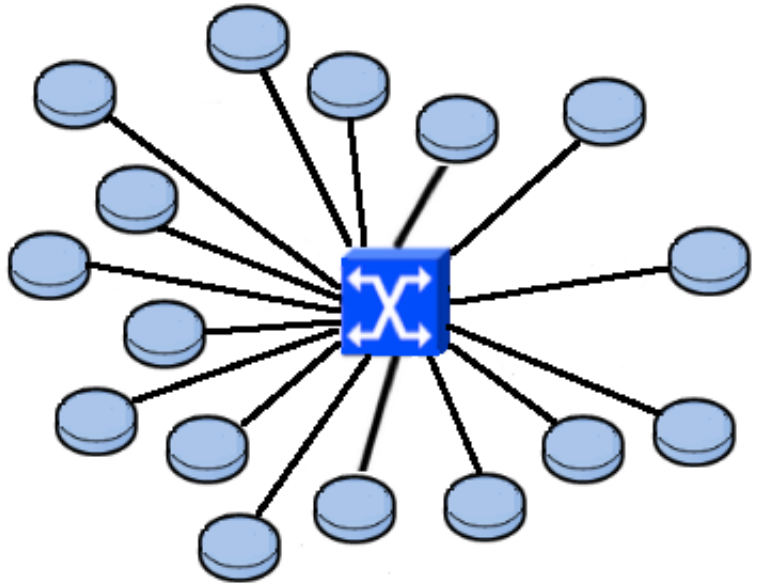


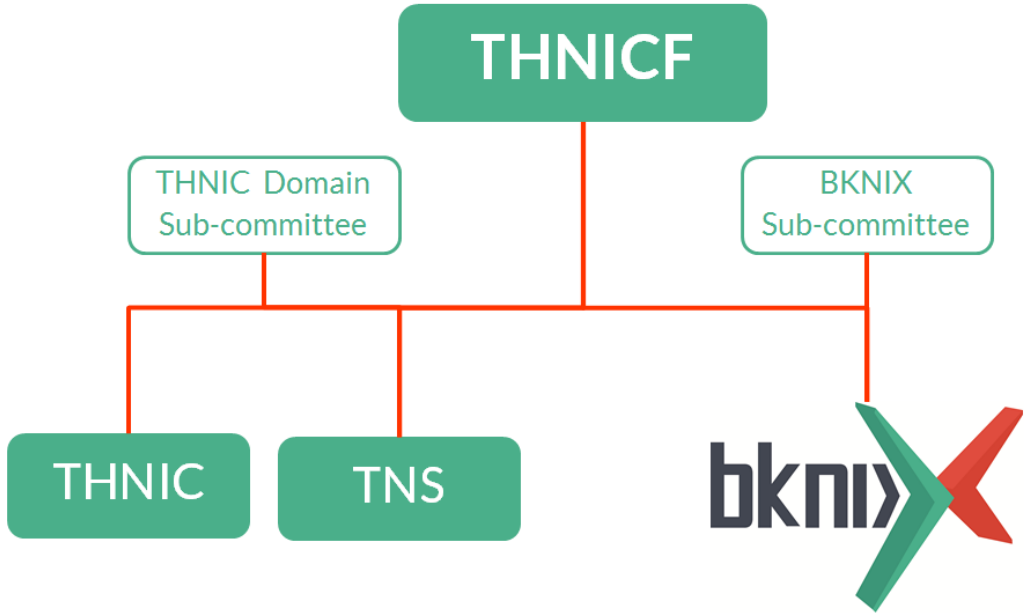
Mesh —> Star

Layer 3 —> Layer 2

BangKok Neutral Internet eXchange

“BKNIX” ?

- BKNIX (Bangkok Neutral Internet Exchange)
- Non-profit, neutral and independent Internet Exchange
- Based in Bangkok, Thailand



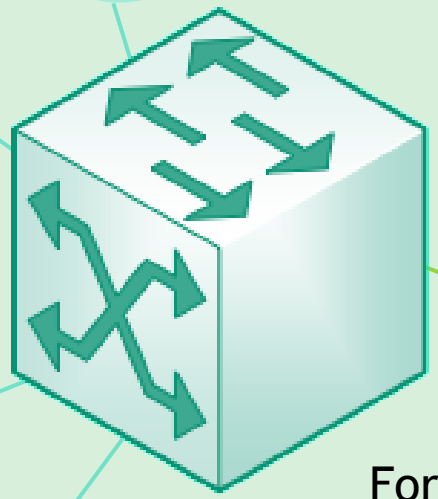
Overview

Uninet
AS4621

Member

AS63529
Peering AS

For Route Server
- Open
- High Performance
- Redundancy
  - rs0 (Cisco)
  - rs1 (Bird)



BKNIX
AS63528

BBConnect
AS45796

Member

For Value added services
- NTP, RPKI
- DNS
  - .th (Thailand TLD)
  - i-root-server anycast
    (cooming soon)

netnod

Main Infrastructure

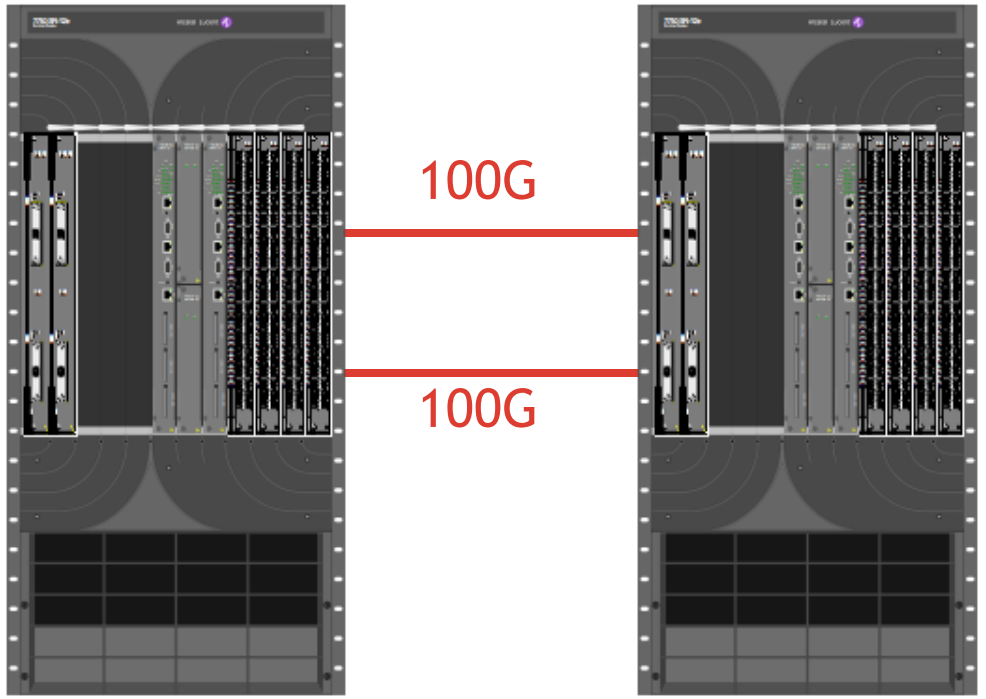
Main Infrastructure

Port Available

- Up to 160 Ports for 1 GE
- Up to 80 Ports for 10 GE
- Up to 4 Ports for 100 GE

Features

- High-Availability
- High Performance, Low Latency
- VPLS
- Port-security, QOS



7750 SR-12e 7750 SR-12e

Internet Society™

Alcatel·Lucent

Services

Services

- 1 Gbit/s “GE” (1000BaseLX/LH, 1000BaseZX*)
- 10 Gbit/s “10GE” (10GE-LR, 10GE-ER*, 10GE-ZR*)
- 100Gbit/s "100GE" (100GE-LR4)
- Link aggregation of the above
- IPv4 and/or IPv6 (native)
- Route Servers, we have both Bird (IP Routing Daemons on UNIX systems) and Cisco Router that support both 2-byte & 4-byte AS number.
- Private account to Manage your connections, initiate peering agreement, Traffic monitoring etc. (IXP-Manager)
- NTP (Network Time Protocol)
- RPKI (Resource Public Key Infrastructure)

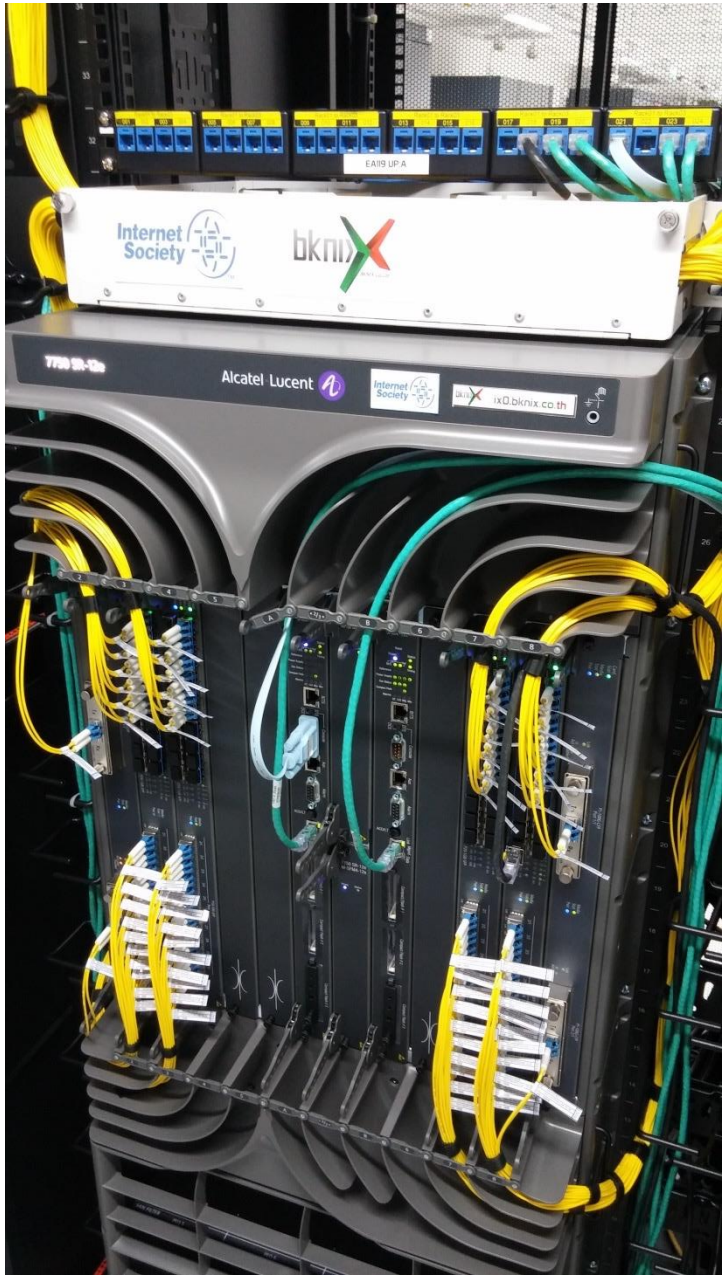
*for this option, required negotiation before connection.

EA119 FP:A
EA119 FP:C

bknix r0.bknix.co.th
bknix rs0.bknix.co.th
NetTimes

NECTEC
a member of NSTDA
bknix ntp1.bknix.co.th
NetTimes
GPS : 1
GPS : 2
status
selected
error
bypass
connect
power
PPS
10 MHz

NSRC
Network Startup Resource Center
bknix vm0.bknix.co.th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Internet Society

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NSRC
Network Startup Resource Center

Internet Society
TM

IIJ
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CISCO
TM

Google

netnod

THNIC
มูลนิธิศูนย์สารสนเทศเครือข่ายไทย
THAI NETWORK INFORMATION CENTER FOUNDATION

Powered by (2)

AIT
Asian Institute of Technology

APNIC

กสทช.
สำนักงานคณะกรรมการกิจการกระจายเสียง
กิจการโทรทัศน์และกิจการโทรคมนาคมแห่งชาติ

NECTEC
a member of NSTDA

inex

More information

- www.bknix.co.th
- Wiki Stuff
- https://www.bknix.co.th/trac/wiki
- Intro VDO
- http://bit.ly/ixp-bknix

Question ?