



Thailand Internet Exchange (THIX)

By
Internet Services Center
Data Communications Dept.
The Communications Authority of Thailand
(CAT)



CAT Introduction

- Formerly operated as a part of Post and Telegraph Department
- Established under The Communications Authority of Thailand Act 1976
- State- enterprise under Ministry of Transport and Communications



CAT Responsibilities

- Domestic and International Postal Service
- Domestic Data Communications
- International Communications
- **Except** Domestic Telephone Service

For more detail...

www.cat.or.th



THIX Responsibility

Operate

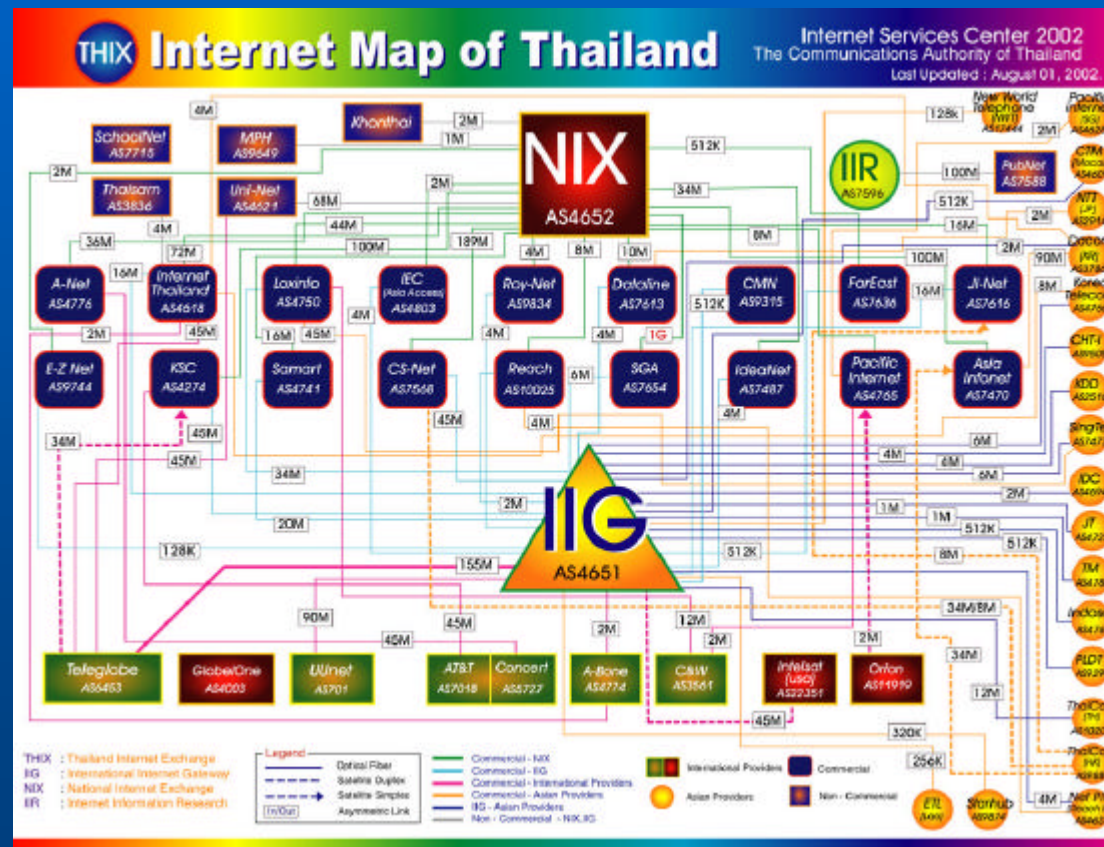
- International Internet Gateway
- National Internet Exchange

IG)

NIX)



Internet Map of Thailand





International Internet Gateway (IIG)



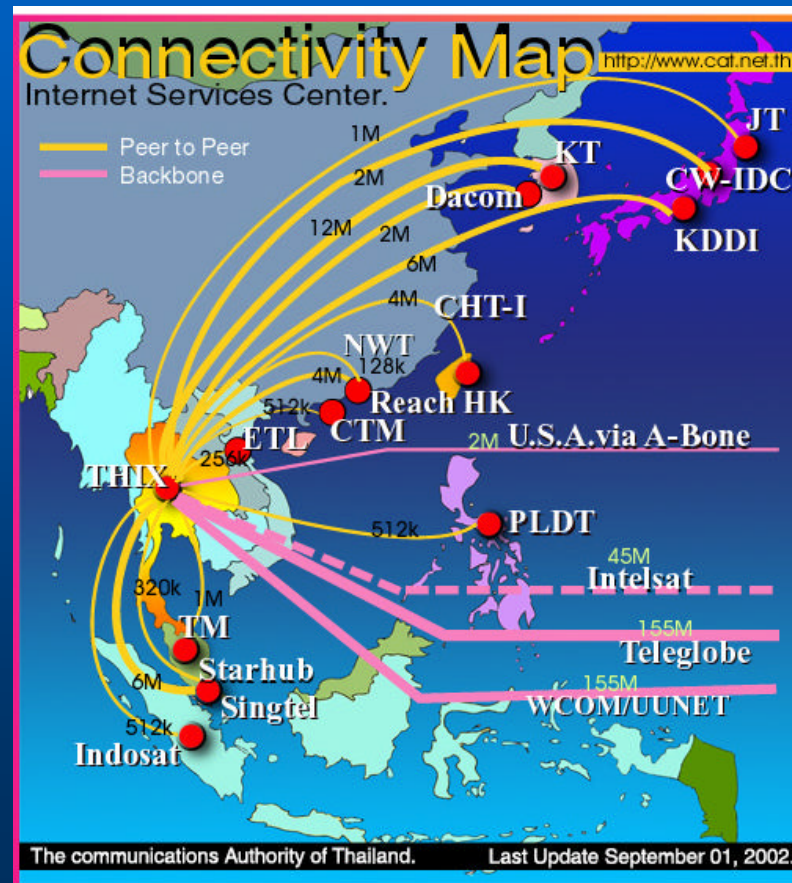


IIG Responsibility

- Serve as a sole Gateway of Thailand connecting to Internet Backbone
- Allow ISP to alternatively connect to the Internet Backbone with the lower cost
- Increase the routing efficiency throughout the country by mean of redundancy and peering



Connectivity Map





Type of IIG Connectivity

- Local ISP (Customers)
- Peering Carriers
- Transit Carriers



Type of Internet Traffic

- Domestic Traffic
- Asian Traffic
- Transit Traffic



Routing in IIG

Assume

- Use BGP as EGP
- Running in Default Free Zone



IIG Routing Arrangement

Group prefix-routes by using community

- Route received from ISP/IIG customers
- Route received from Peering Carrier
- Route received from Transit Carrier



IIIG Routing Arrangement (contd.)

To ISP/IIIG Customers, IIIG advertises

- Domestic routes (route from other ISP) with AS-path prepend
- Route from Peering Carrier
- Route from Transit Carrier

To Peering and Transit Carriers, IIIG advertises

- Domestic routes / routes from IIIG customers



Peering Arrangement

- With some peering parties, we implement as-path filter-list and update each party when new as-path is announced
- The rest, we accept all routes with TRUST
- Prefer peering link as the best path and transit as backup



National Internet Exchange (NIX)





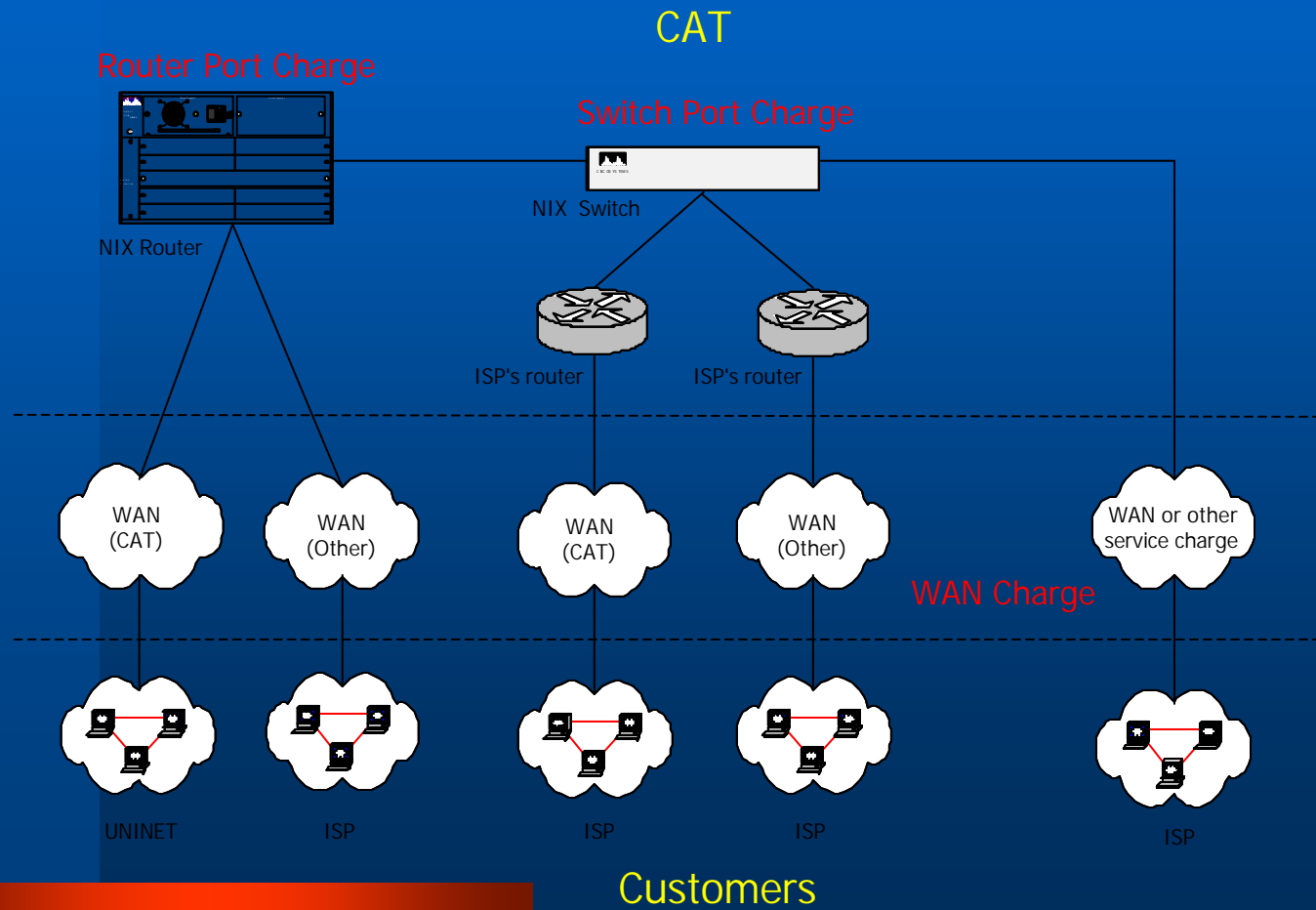
NIX Responsibility

- Serve as the primary domestic exchange in Thailand
- Reduce the need to exchange domestic routing by using international networks
- Increase the efficiency of Internet use in Thailand

Note : Secondary exchange (IIR) operated by NECTEC has been officially terminated since Aug. 1 , 2002



Type of Service





Type of Service (contd.)

- **Router Port Service**

WAN Charge + Router Port Charge

- **Switch Port Charge**

WAN/MAN Charge + Switch Port Charge



NIX Policy

Will be reserved for

- All Local ISPs
- Networks of non-profit organization which will be considered case by case



NIX Policy (contd.)

- NIX serves inter-ISP domestic traffic but not transited international traffic
- NIX serves as domestic route reflector among all users



Current Status of NIX (August 2002)

- 17 ISPs connect to NIX with total bandwidth 1638.5 Mbps
- 3 non-profit networks connect to NIX with total bandwidth 71 Mbps



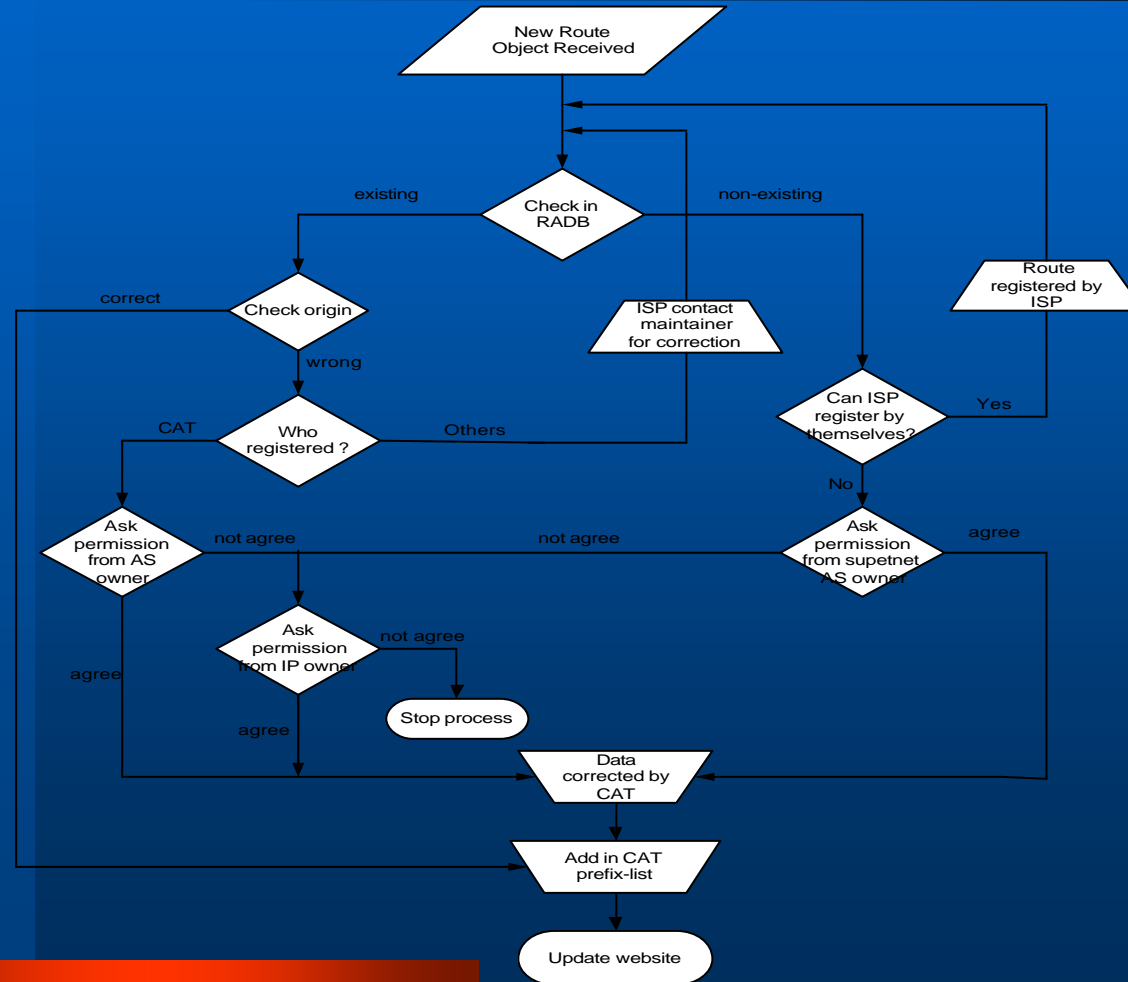
THIX Routing Policy

Will be applied for both IIG and NIX

- Advertised prefixes must be not more specific than /24
- One prefix must be registered only for one AS Number by referring to RADB
- Prefix-list and As-path list are implemented
- IP registration procedure is applied as follows:



IP Registration Procedure





More Information

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