



IPv4 and Ipv6 Address Assignment in Cambodia

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Agenda

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- ▶ IPv4 and IPv6 Address Differentiation
- ▶ Dual Stack
- ▶ IPv4 Address Allocation and Assignment Policies in Cambodia
- ▶ IPv4 and IPv6 Address in Cambodia
- ▶ IPv6 Implementation Status In Cambodia

IPv4 and IPv6 Address Differentiation

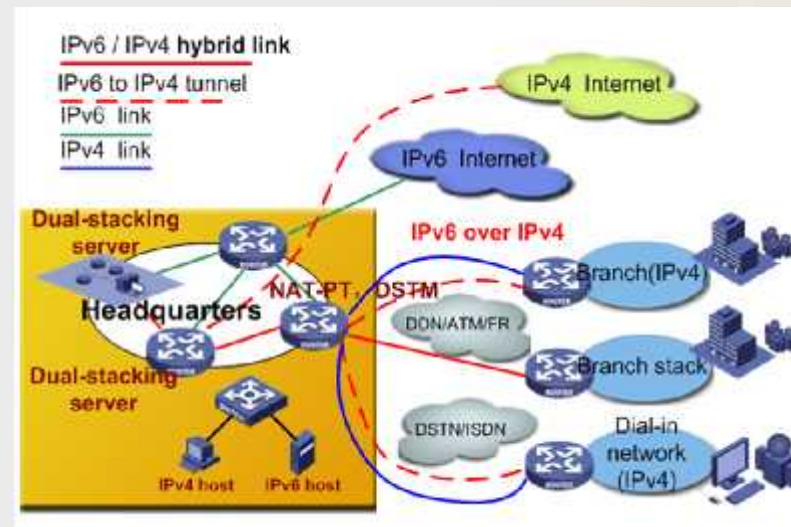
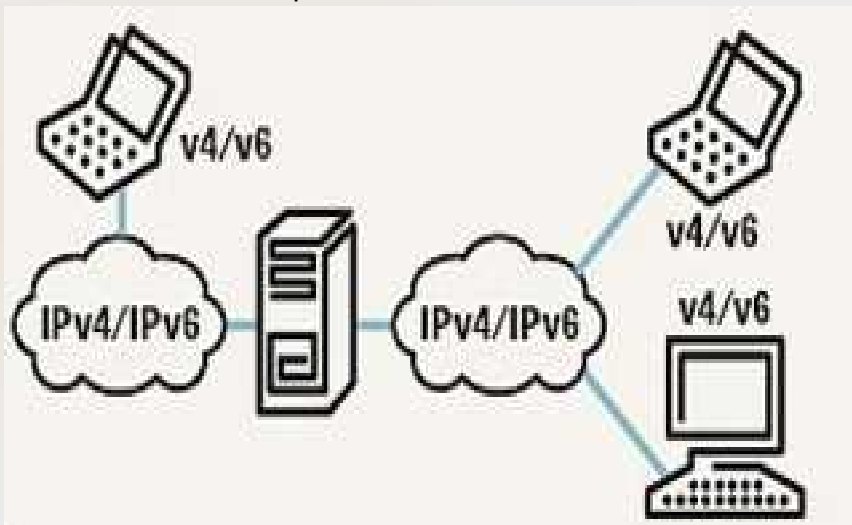
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	Internet Protocol version 4 (IPv4)	Internet Protocol version 6 (IPv6)
Deployed	1981	1999
Address Size	32-bit number	128-bit number
Address Format	Dotted Decimal Notation: 199.43.0.202	Hexadecimal Notation: 2001:500:4:1::80
Number of Addresses	$2^{32} = \sim 4$ billion addresses	$2^{128} = \sim 16$ billion-billion addresses

Dual Stack Network

A **dual stack network** involves nodes that are capable of processing IPv4 and IPv6 traffic simultaneously. When a node within a dual stack network receives traffic, **it is programmed to prefer IPv6 over IPv4 traffic**. In the event that the traffic it receives is solely IPv4, then the dual stack node is capable of processing it as well.

Dual stack networking is one of several solutions for migrating from IPv4 to IPv6, but it is also one of the most expensive.



IPv6 Training

- ▶ There was various workshop and training on IPv6 in Cambodia done by APNIC cooperated with local ISP almost every year.



IP Address Allocation and Assignment Policies in Cambodia

- ▶ ALL ISP/Service providers request IP address directly to APNIC



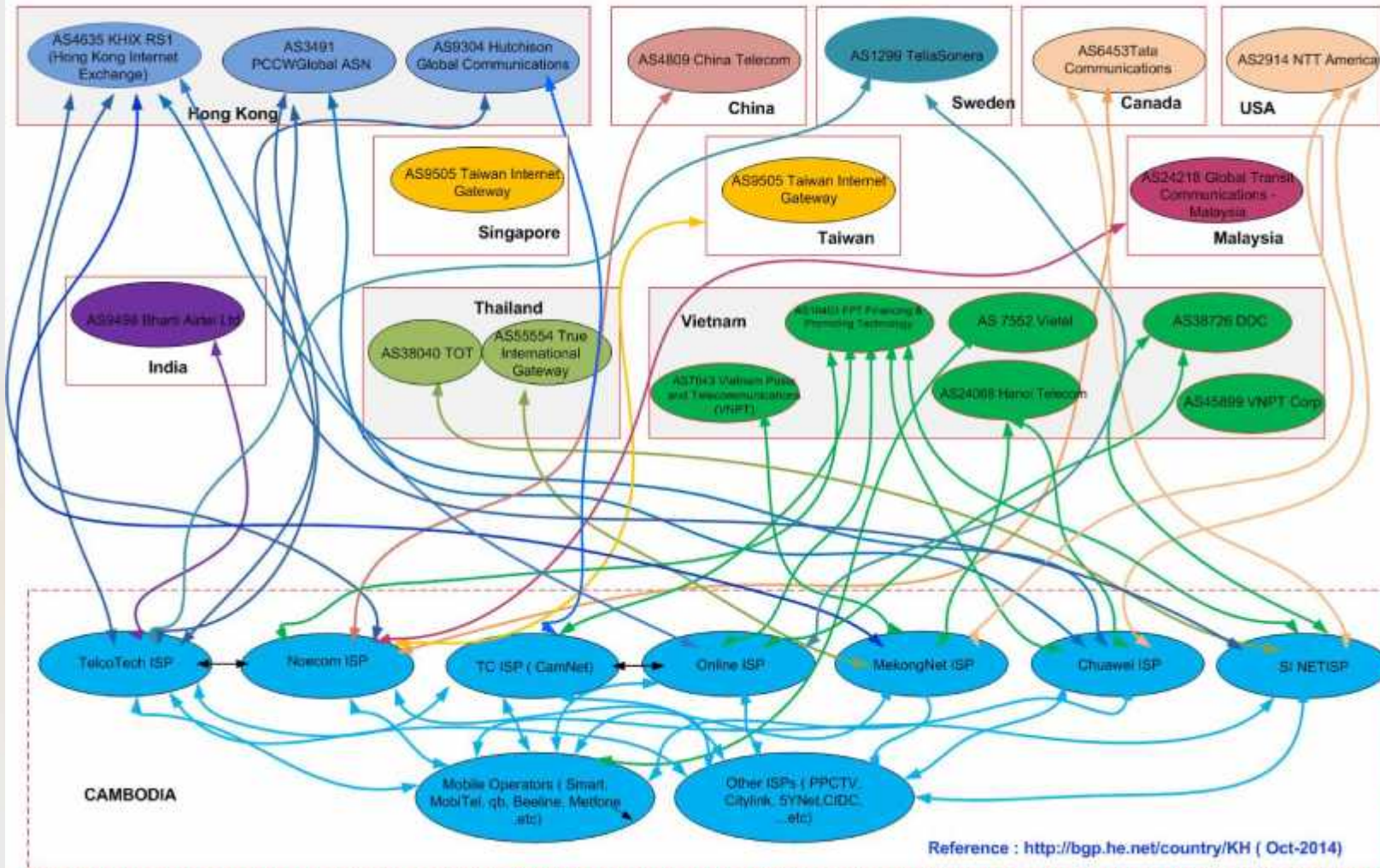
IPv4 and IPv6 Address in Cambodia

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Based on APNIC IP Address Assignment to Cambodia are as the below:

- ▶ IPv4 Address 971 /24 ~ (248,576 IP Address)
- ▶ IPv6 Address 29 /32

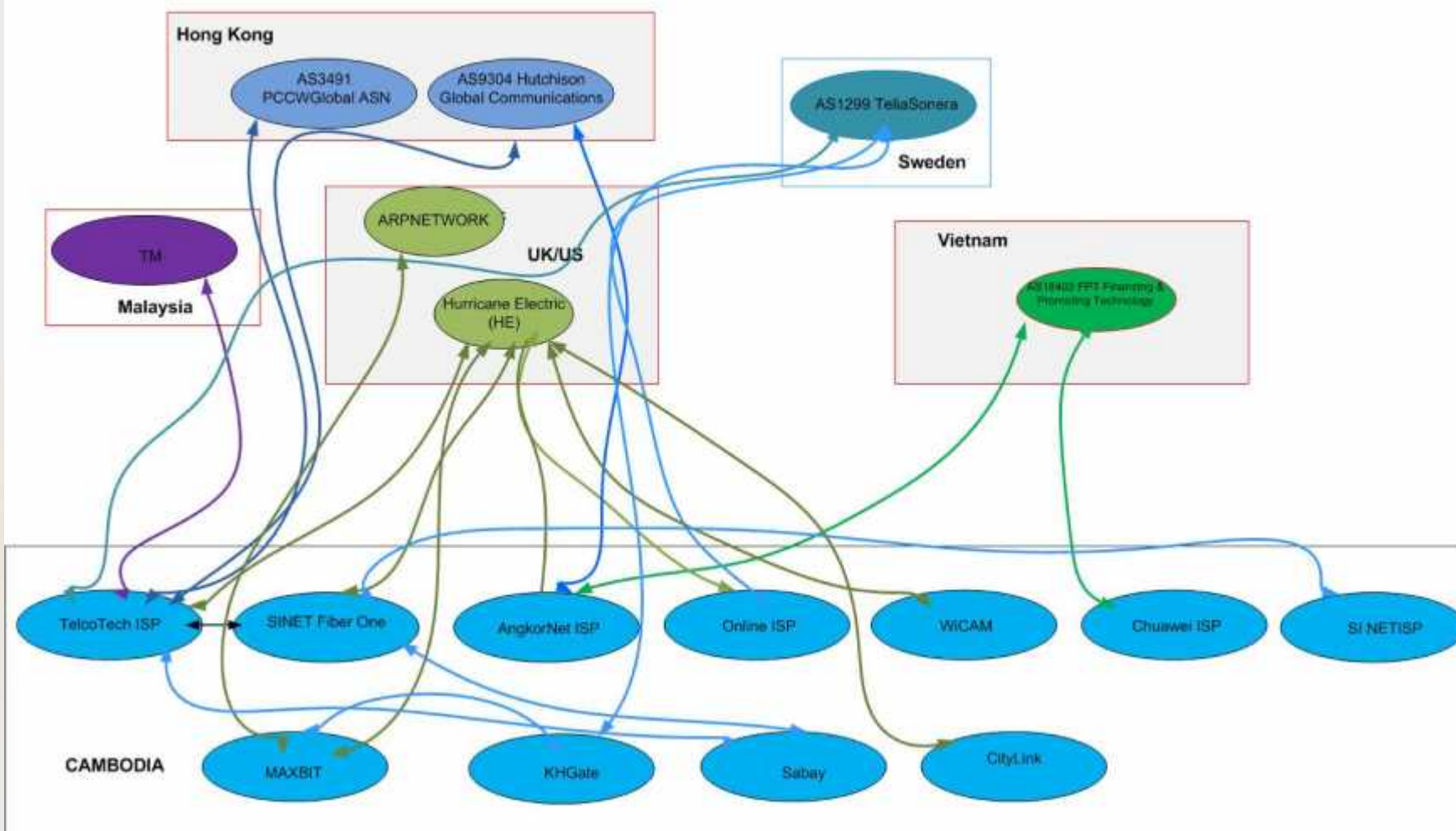
CAMBODIA ISP's UPSTREAM SERVICE PROVIDERS



IPv6 Address implementation in Cambodia by ISP

N	ASN	Name	Adjacencies	Routes v4	Adjacencies v6	Routes v6
1	AS59318	SINET Fiber One, Cambodia's Fastest Broadband Service.	74	49	11	5
2	AS55329	Telcotech Ltd.	29	153	8	2
3	AS38235	ANGKOR DATA COMMUNICATION	18	86	3	5
4	AS23673	Cogetel Online, Cambodia, ISP	12	106	4	6
5	AS24492	WiCAM Corporation, LTD	10	110	2	6
6	AS132730	Maximum Business Information Technology (MAXBIT ISP)	9	17	3	7
7	AS24441	CityLink Corporation, LTD	7	39	2	1
8	AS45348	Regency Square, Complex B (CHUANWEI ISP)	5	26	1	1
9	AS59372	Cambodia Internet Gateway (KHGate)	4	5	3	1
10	AS7712	Sabay Digital (Cambodia)	2	1	2	1
11	AS131207	SINET, Cambodia's specialist Internet and Telecom Service Provider.	2	49	1	4

CAMBODIA ISP's IPv6 Peering



Thank you!