VIET NAM INTERNET NETWORK INFORMATION CENTER

VIET NAM NATIONAL IPv6 TASK FORCE

IPv6

CRITICAL INTERNET RESOURCE FOR 4G/LTE, 5G & IoT

IPv6 support is mandatory in these international guidelines and standards:

IPv6 is a default protocol in 4G/LTE, 5G mobile network

GSMA

- IR.92
- IMS Profile for Voice and SMS

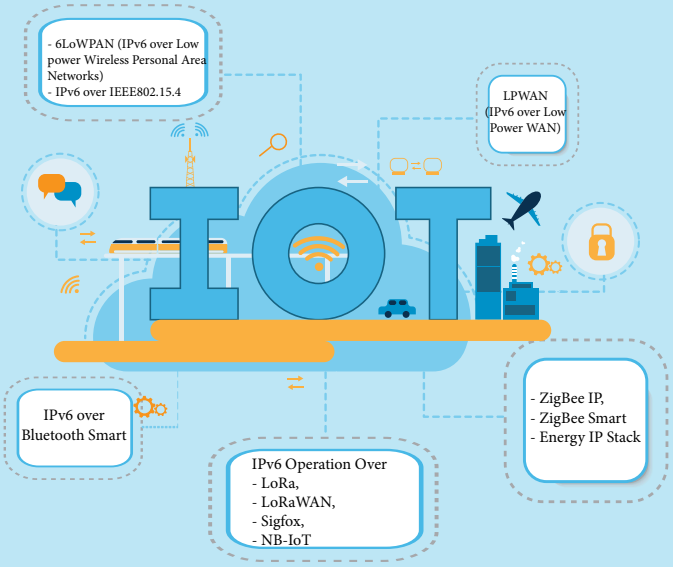
IETF

- RFC 7849
- RFC 6459
- RFC 7445

3GPP

- 3GPP Release 9
- 3GPP TS 23.501 V15.0.0 (2017-12)
- 3GPP TR 29.892 V1.0.0 (2019-03)

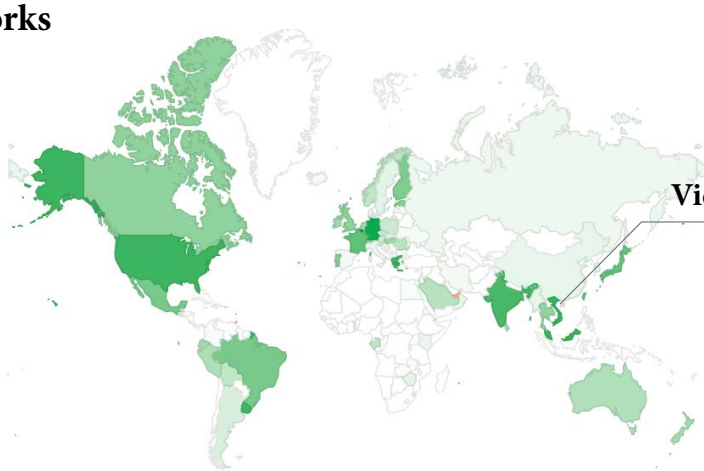
IPv6 standards for IoT



IPv6 for mobile networks

T-MOBILE USA: 93.64%
RELIANCE JIO: 90.79%
British Sky: 88.03%
Verizon Wireless: 85.42%
Sprint Wireless: 77.99%
Chunghwa Telecom: 78.02%
AT&T Wireless: 75.80%
Comcast: 70.73%
Deutsche Telekom AG: 64.87%
ATT: 63.98%
Softbank: 45.24% (5G Segment Routing IPv6)

Source:
http://www.worldipv6launch.org/



Viettel: 7,600,000 IPv6 mobile subscribers

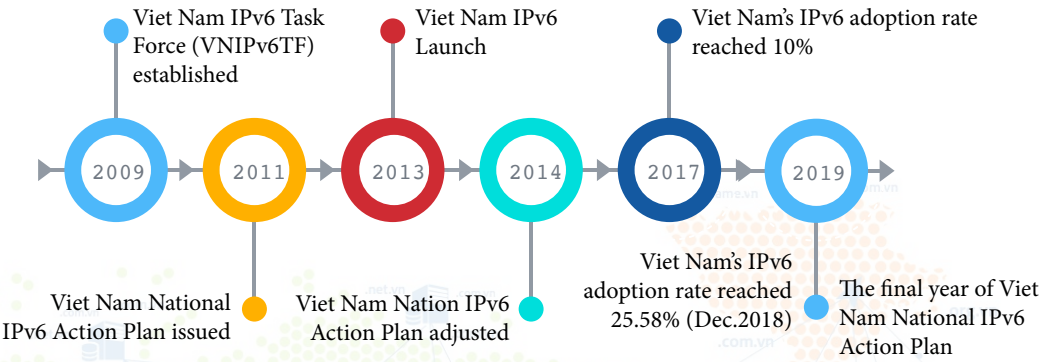
VNPT: 2,500,000 IPv6 mobile subscribers

Mobifone: 5,000,000 IPv6 mobile subscribers

Native IPv6 is solution for mobile broadband of the World largest Mobile Operators

Regions where IPv6 is more widely deployed (the darker the green, the greater the deployment) (Source: Google - June.2019)

IPv6 Deployment in Viet Nam

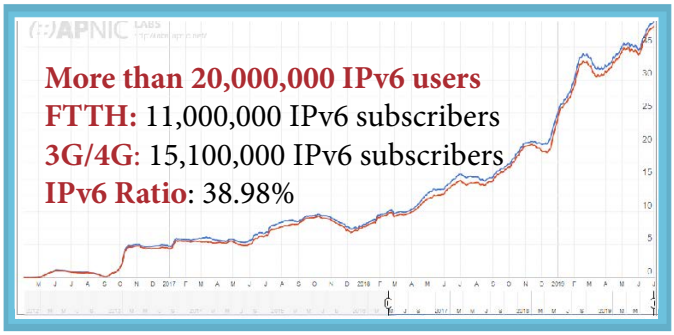


IPv6 adoption in Viet Nam gets ready to develop 4G/LTE, 5G and IoT

01 ASEAN

02 ASIA

05 WORLDWIDE



Top World Countries/Economies on IPv6 Deployment

01	India: 66.02%
02	USA: 57.44%
03	Belgium: 56.83%
04	German: 44.04%
05	**Viet Nam: 38.98%**
06	Malaysia: 36.54%
07	Greece: 36.07%
08	Finland: 35.05%
09	Taiwan: 33.67%
10	Japan: 33.48%

(Source: https://stats.labs.apnic.net/ipv6 June.2019)

IPv6's advantages in 5G networks:

1. Mobility support, complexity reduce and performance improvements;
2. Support of multi-layered secure networking;
3. An enabler of the scalability required by IoT (5G vertical industries application);
4. IPv6 uses 128-bit addresses, an enabler of small cell to work more simply and efficiently, without any need for address translation.

Recommendations:

1. IPv4 address space is exhausted.
2. ASEAN members shall work together to promote IPv6 deployment, especially in mobile networks (4G/LTE, 5G) for a stable, secure and interoperable Internet.

Viet Nam Internet Network Information Center
(Standing Committee for VNIPv6TF)

info@vnnic.vn
http://ipv6.vn
+84-24-35564944