



MINISTRY OF INFORMATION AND COMMUNICATIONS  
VIETNAM INTERNET NETWORK INFORMATION CENTER

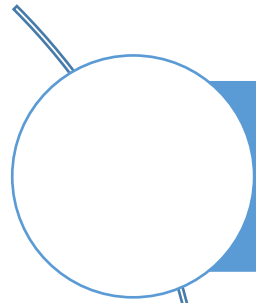
# Internet resources management in Viet Nam

**Nguyen Thi Thu Thuy**

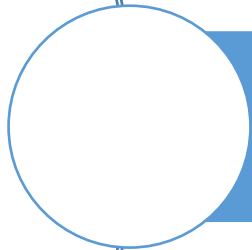
**Chief of Cooperation and Internet Resources Management Department**

**Vietnam Internet Network Information Center (VNNIC)**

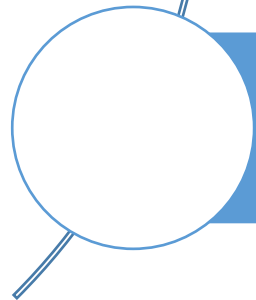
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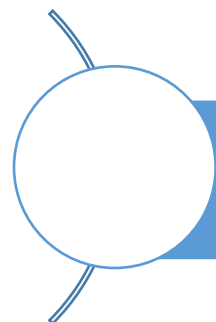


Law making body and legal system



Internet resources management and development in Vietnam





# Growth of Internet in Vietnam



# Growth of Internet in Vietnam

## Statistics from the Ministry of Information and Telecommunication (MIC) at end of 2017

- 50 million Internet users, accounting for 54% of the population, higher than the global average at 46.64%.
- Compared to more than 31 million users in 2012; 17 million in the past 10 years and 205,000 people in the early days of the Internet in Việt Nam, it can be said that Internet in the country has made impressive development
- Việt Nam is listed among countries with the highest number of Internet users in Asia. From 2000 to 2016, the development rate is 15%, ranking 3rd in the top of 20 countries with highest Internet development rate.

Year	Internet Users**	Penetration (% of Pop)	Total Population	Non-Users (Internetless)	1Y User Change	1Y User Change	Population Change
2016*	49,063,762	52 %	94,444,200	45,380,438	3.3 %	1,564,346	1.07 %
2015	47,499,416	50.8 %	93,447,601	45,948,185	6.4 %	2,849,701	1.11 %
2014	44,649,715	48.3 %	92,423,338	47,773,623	11.3 %	4,534,442	1.14 %
2013	40,115,272	43.9 %	91,378,752	51,263,480	12.5 %	4,441,765	1.15 %
2012	35,673,508	39.5 %	90,335,547	54,662,039	13.9 %	4,348,316	1.13 %

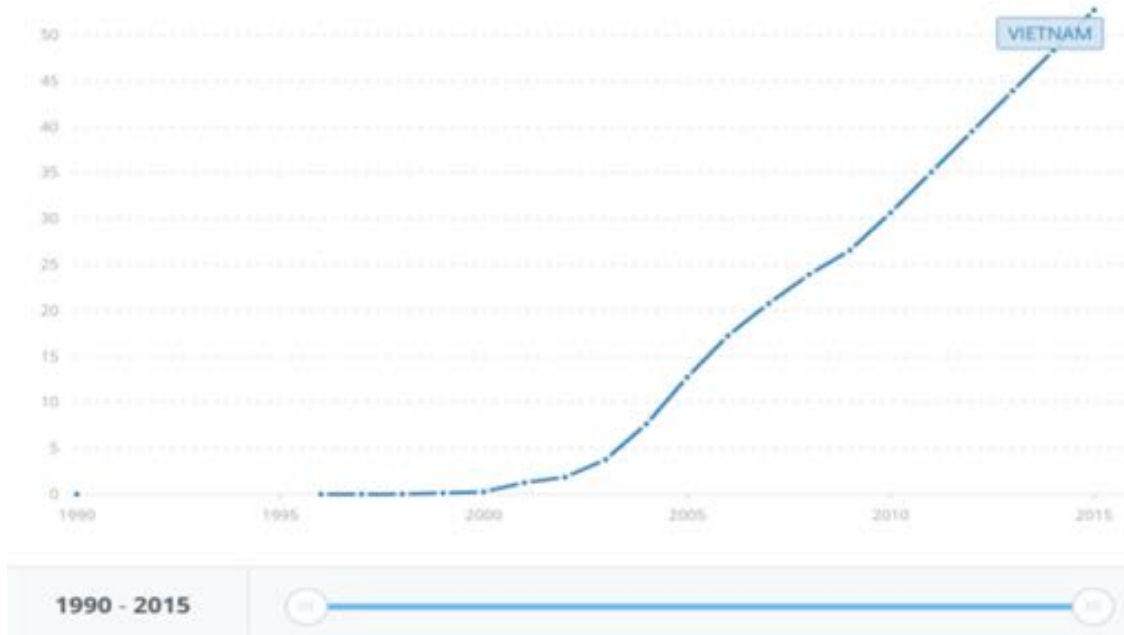
Source: Internet Live Stats ([www.InternetLiveStats.com](http://www.InternetLiveStats.com))

Elaboration of data by International Telecommunication Union (ITU), World Bank, and United Nations Population Division



# Internet user Indicator ?

- #13 in the World. #5 in Asia. #2 in Asean.



#	Country	Internet Users (2016)	Penetration (% of Pop)	Population (2016)	Non-Users (internetless)	Users 1 Year Change (%)	Internet Users 1 Year Change	Population 1 Y Change
1	China	721,434,547	52.2 %	1,382,323,332	660,888,785	2.2 %	15,520,515	0.46 %
2	India	462,124,989	34.8 %	1,326,801,576	864,676,587	30.5 %	108,010,242	1.2 %
3	U.S.	286,942,362	88.5 %	324,118,787	37,176,425	1.1 %	3,229,955	0.73 %
4	Brazil	139,111,185	66.4 %	209,567,920	70,456,735	5.1 %	6,753,879	0.83 %
5	Japan	115,111,595	91.1 %	126,323,715	11,212,120	0.1 %	117,385	-0.2 %
6	Russia	102,258,256	71.3 %	143,439,832	41,181,576	0.3 %	330,067	-0.01 %
7	Nigeria	86,219,965	46.1 %	186,987,563	100,767,598	5 %	4,124,967	2.63 %
8	Germany	71,016,605	88 %	80,682,351	9,665,746	0.6 %	447,557	-0.01 %
9	U.K.	60,273,385	92.6 %	65,111,143	4,837,758	0.9 %	555,411	0.61 %
10	Mexico	58,016,997	45.1 %	128,632,004	70,615,007	2.1 %	1,182,988	1.27 %
11	France	55,860,330	86.4 %	64,668,129	8,807,799	1.4 %	758,852	0.42 %
12	Indonesia	53,236,719	20.4 %	260,581,100	207,344,381	6.5 %	3,232,544	1.17 %
13	Viet Nam	49,063,762	52 %	94,444,200	45,380,438	3.3 %	1,564,346	1.07 %
14	Turkey	46,196,720	58 %	79,622,062	33,425,342	5.1 %	2,242,750	1.22 %
15	Philippines	44,478,808	43.5 %	102,250,133	57,771,325	4.4 %	1,855,574	1.54 %
16	South Korea	43,274,132	85.7 %	50,503,933	7,229,801	1.2 %	522,375	0.42 %

<http://data.worldbank.org/>

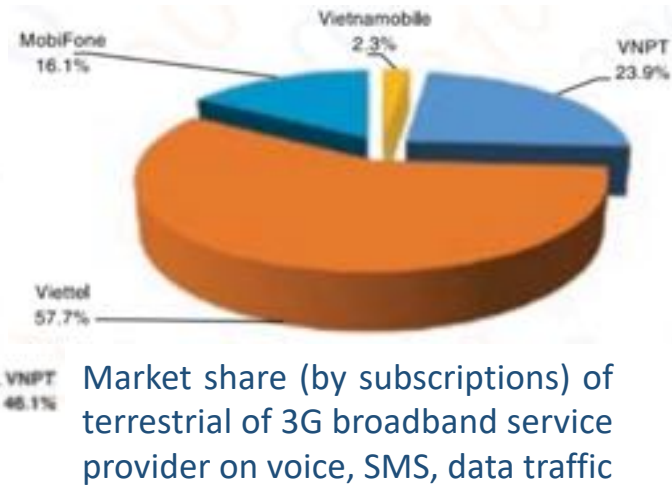
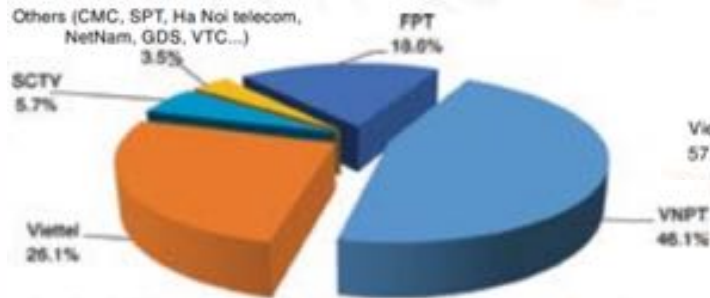
<http://www.internetlivestats.com/internet-users-by-country/>  
July 1 2016 Estimate





# Telecommunication and Internet market in Vietnam

Market share (by subscriptions) of terrestrial of fixed (wired) broadband service provider



Market share (by subscriptions) of terrestrial of 3G broadband service provider on voice, SMS, data traffic

## 3.1. Telecommunication service revenue

Unit: Million USD

No.	Indicator	2015	2016
3.1.1	Terrestrial Fixed Telecommunication Services Revenue	1,176.78	1,142.52
3.1.2	Satellite Fixed Telecommunication Services Revenue	0.084	0.033
3.1.3	Terrestrial Mobile cellular Telecommunication Services Revenue	4,882.4	5,013
3.1.4	Satellite Mobile cellular Telecommunication Services Revenue	2.79	2.35
3.1.5	Coast Mobile cellular Telecommunication Services Revenue	0.178	0.174
3.1.6	Air Mobile cellular Telecommunication Services Revenue	-	-
	Total telecommunication service revenue	6,062.23	6,158.08

## 2. NUMBER OF TELECOMS, INTERNET OPERATOR

Unit: Operator

No.	Indicator	2015	2016
2.1	Number of licensed terrestrial fixed services operators	87	104
2.2	Number of current terrestrial fixed services operators	80	74
2.3	Number of licensed satellite fixed services operators	2	2
2.4	Number of current satellite fixed services operators	1	1
2.5	Number of licensed terrestrial mobile cellular services operators	5	5
2.6	Number of current terrestrial mobile cellular services operators	5	5
2.7	Number of licensed satellite mobile cellular services operators	1	3
2.8	Number of current satellite mobile cellular services operators	1	3
2.9	Number of licensed coast mobile cellular services operators	1	1
2.10	Number of current coast mobile cellular services operators	1	1
2.11	Number of licensed air mobile cellular services operators	1	2
2.12	Number of current air mobile cellular services operators	0	0
2.13	Number of licensed internet services operators	57	65
2.14	Number of current internet services operators	52	51

White book of Vietnam information and communication technology 2017, published by the Ministry of Information and Communications ([www.mic.gov.vn](http://www.mic.gov.vn))

Source: MIC

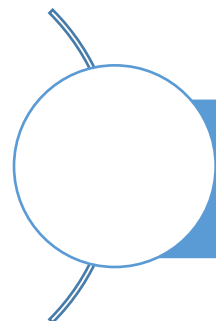


The Internet contribute huge for development of life in Vietnam, in all aspect of society.



*Digital world 2018 report: [www.wearesocial.com](http://www.wearesocial.com)*



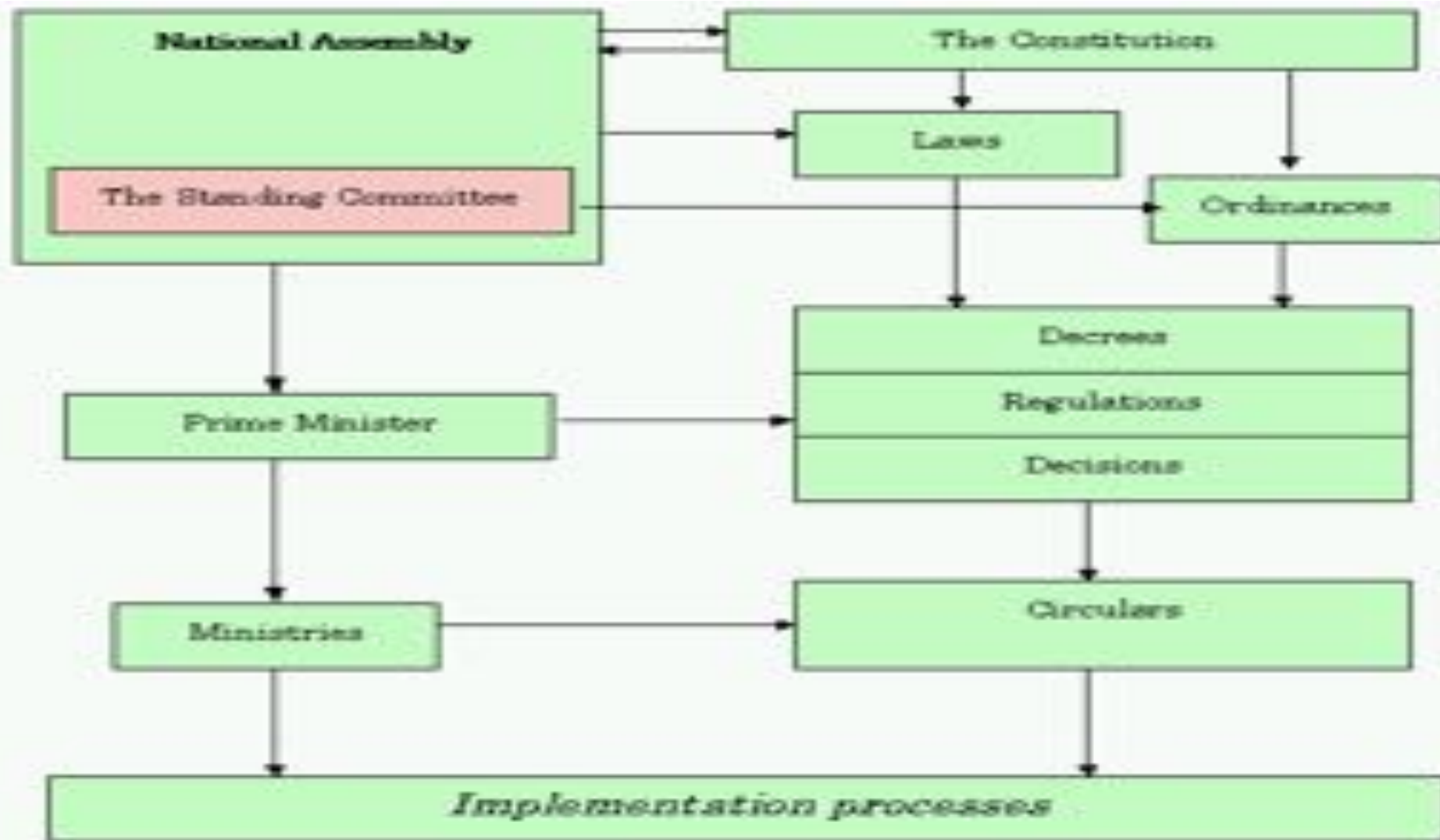


## Law making body and legal system

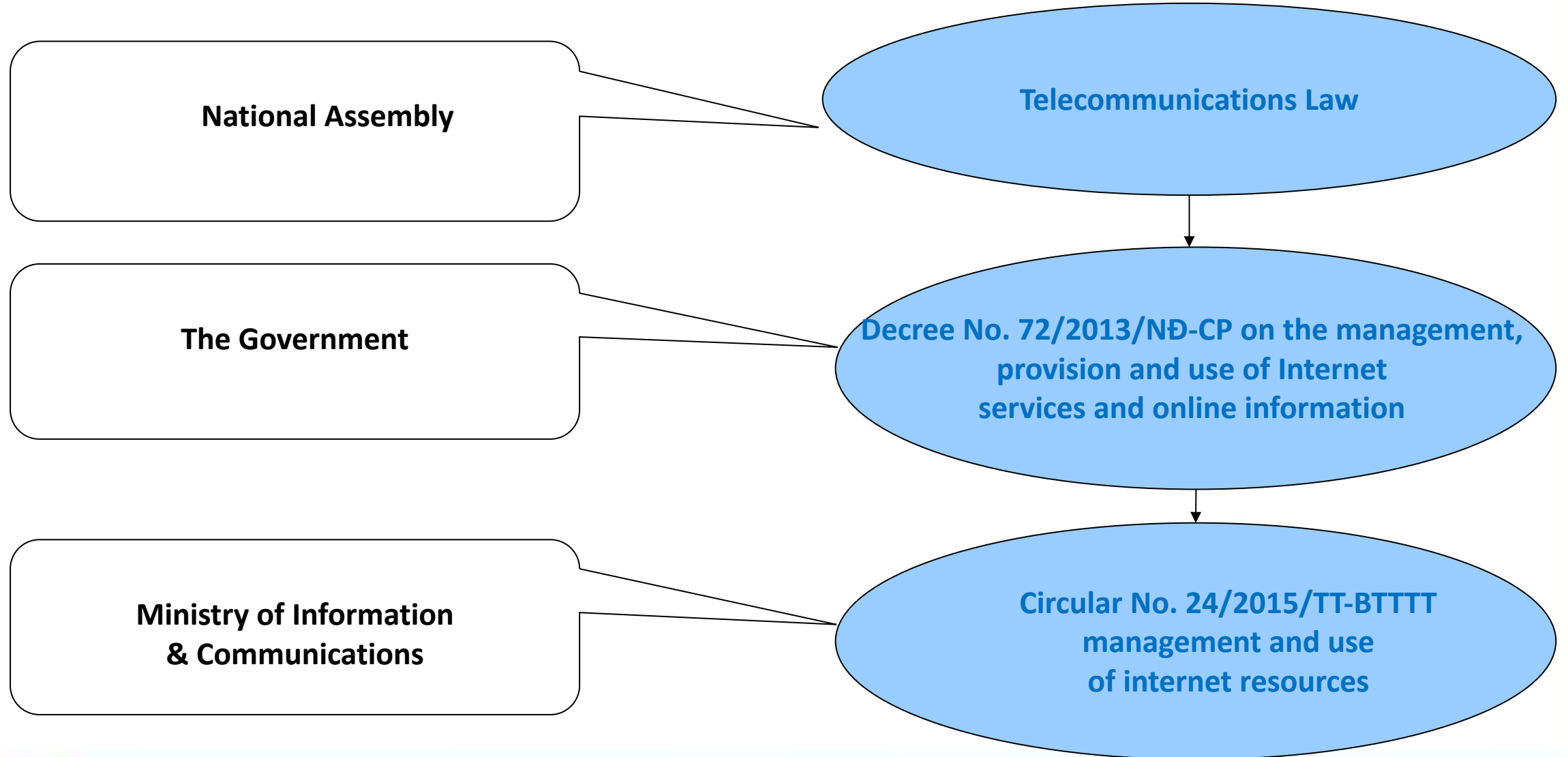




# Law making body and legal system in Viet Nam



# Internet and Legal documents



# Internet and related Government authority

**Ministry of Information and Communications  
(MIC)**  
<http://www.mic.gov.vn>

**Authority of Broadcasting and Electronic Information: For  
Online content management**  
<http://www.abei.gov.vn>

**Authority of Telecommunications: For ISP licensing, pricing,  
QoS management**  
<http://www.vnta.gov.vn>

**Vietnam Internet Network Information Center (VNNIC) for  
Internet resources management (both name and numbers)**  
<http://www.vnnic.vn>

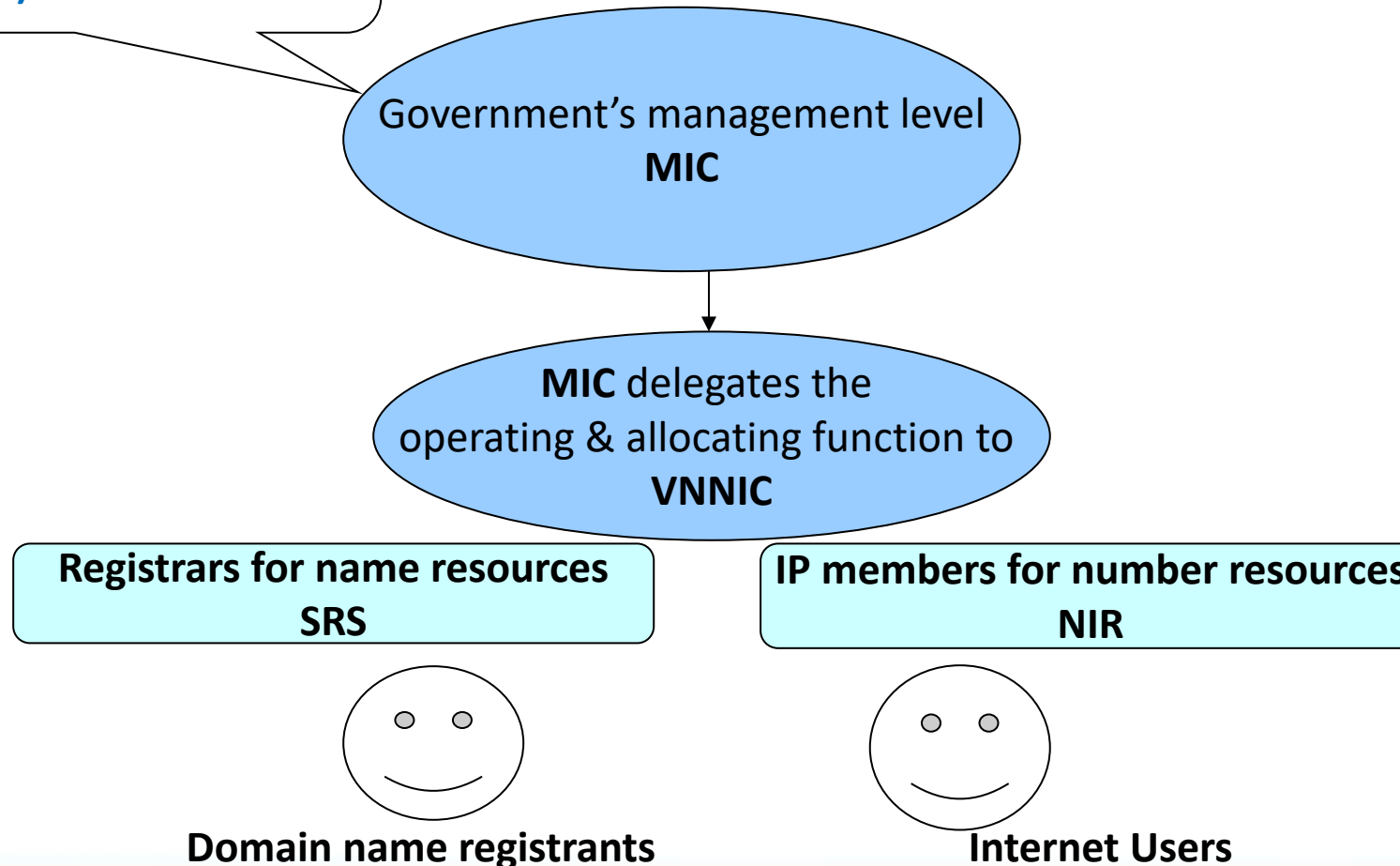
**Authority of Information Security for Internet Security  
issues**

**Vietnam Computer Emergency Response Team for CERT**  
<http://www.vncert.gov.vn>

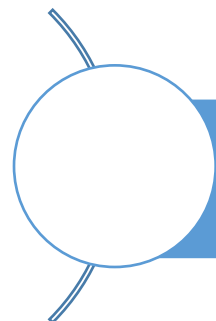


# Internet Resources Management Model in Vietnam

Internet resources are National Telecom resources in Viet Nam (Telecom Law).







# Internet resources management and development



# Vietnam Internet Network Information Center

## Position:

- VNNIC is a public service entity in Vietnam, belongs to Ministry of Information and Communication (MIC).

## Function

- ccTLD registry (.VN).
- National Internet Registry (NIR).
- Internet Exchange Operator.

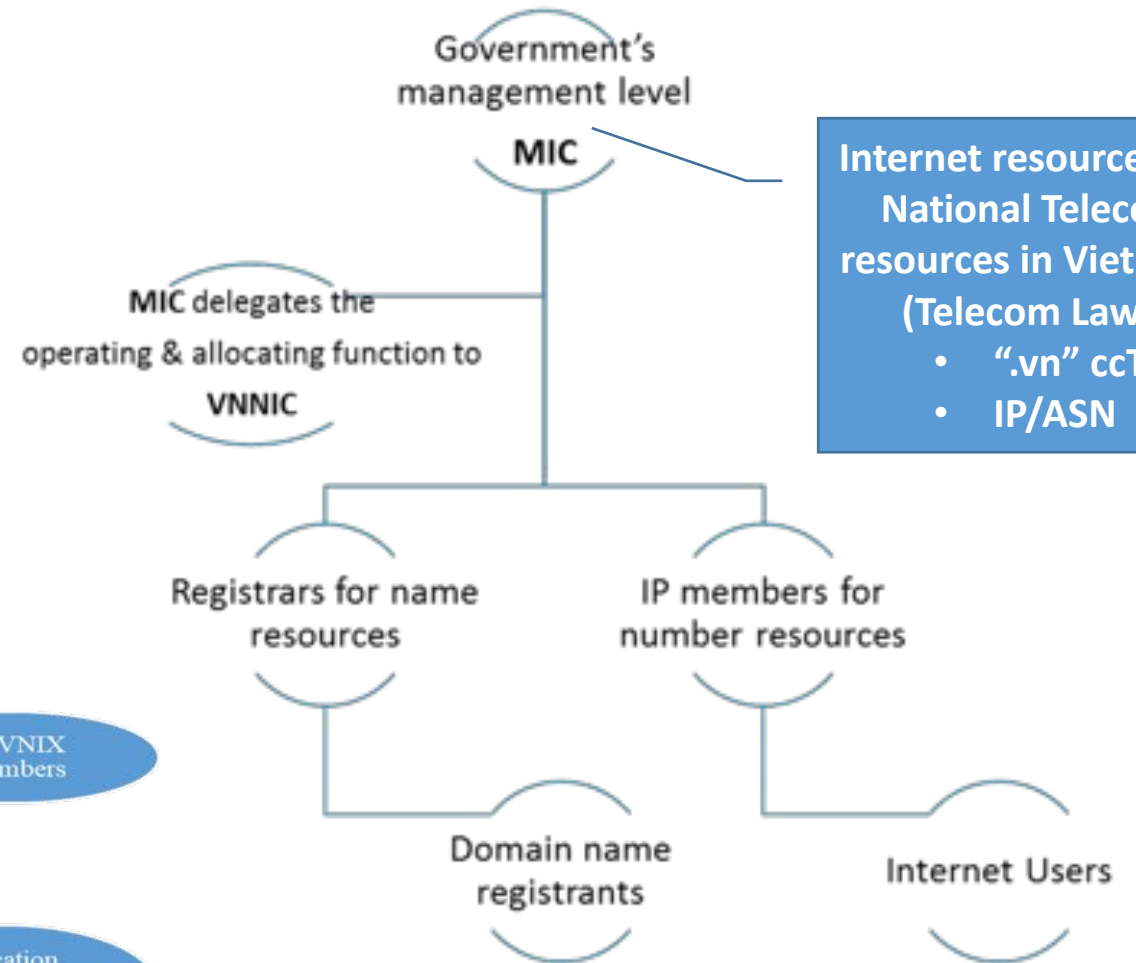
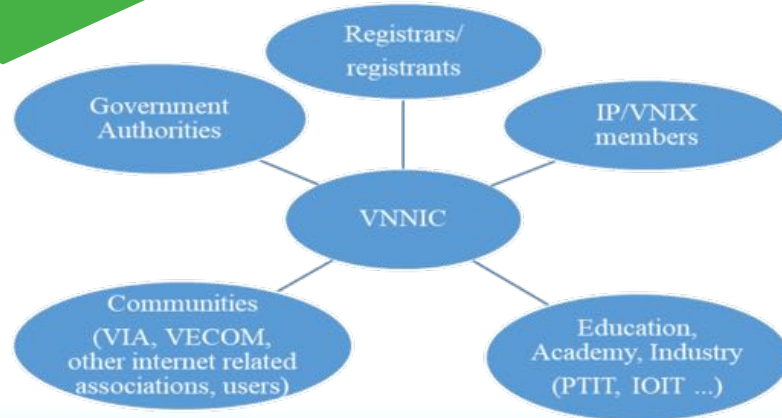
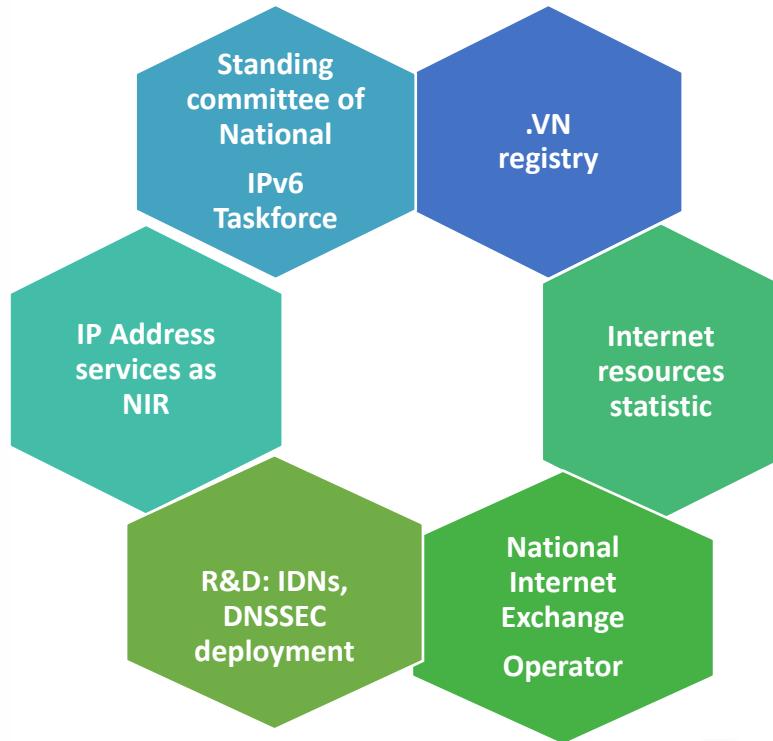
## Office

- Head Quarter in Hanoi.
- Branch in Ho Chi Minh City & Danang city.

**Established in 2000**



# What do we do?



Internet resources are National Telecom resources in Viet Nam (Telecom Law):

- “.vn” ccTLD.
- IP/ASN



# Internet resources in Vietnam

- Internet resources:
  - “.vn” domain name.
  - Internet addresses (IPv4, IPv6); Autonomous number (ASN).
- Internet resources is national information resources.
  - Be set under the Government's management to ensure the stability of Internet in Vietnam.
  - Internet resources (.vn ccTLD, IP/ASN) management as a method to manage and supervise Internet operations.
- Appropriate authority: Ministry of Information and Communications (MIC).
  - Vietnam Internet Network Information Center (VNNIC) was delegated by MIC to carry out the functions of managing, allocating, supervising and promoting the use of Internet resources in Vietnam.





- Telecommunication Law
- Information Technology
- Decree No. 72/2013/ND-CP of July 15, 2013, on the management, provision and use of Internet services and online information.
- Decree No. 27/2018/ND-CP amending and supplementing Decree No. 72/2013/ND-CP on Internet Services and Online Information.
- Circular No. 24/2015/TT-BTTTT of August 18, 2015 on the management and use of internet resources.



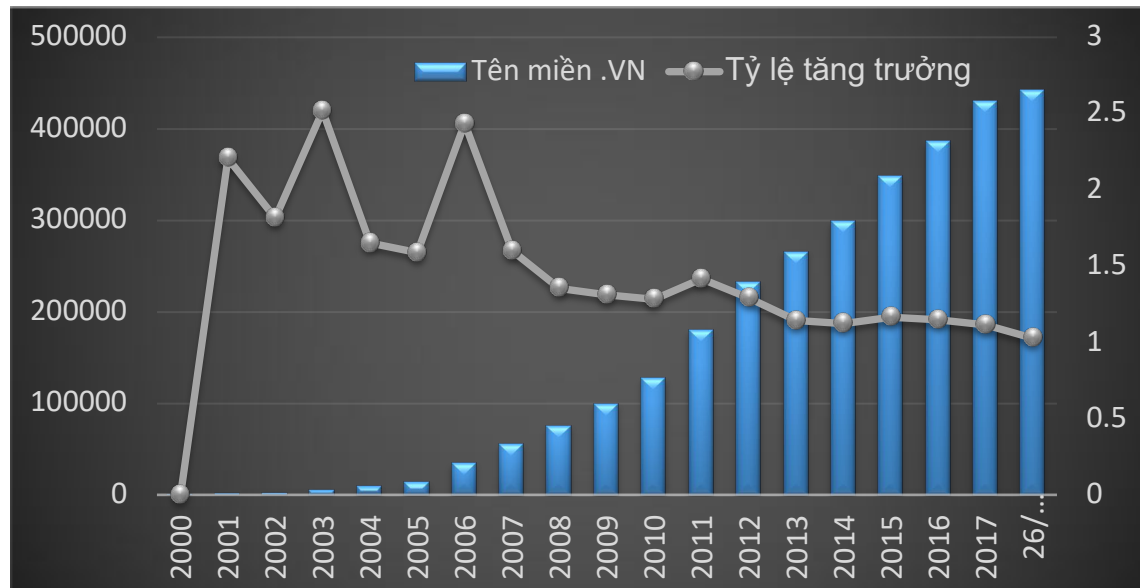
# Some Principles

- It is strictly prohibited to use Internet resources for purposes of opposing the State of the Socialist Republic of Vietnam, disturbing security, economy, social order and safety, undermining the nation's fine tradition and custom, infringing upon the legitimate rights and interests of organizations and individual.
- It's the obligation of resource registrants to provide exact registration information and keep it updated.
- Internet Resources that are related to Government agencies, the Party must be protected.
  - Inappropriate entities do not have right to register.
- Some policies for Internet resources using in governmental entities such as:
  - Main website of governmental entities must use “.vn” domain and be hosted in domestic servers.

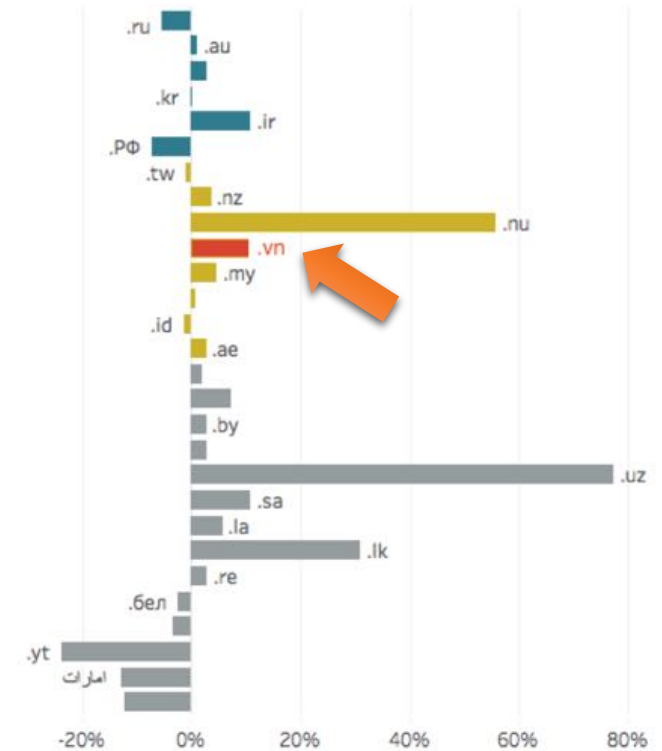


# Internet Identification Indicator – Domain .VN

Total number “.vn” and growth rate over years



- #1 ASEAN;
- #8 ASIA.
- 442,000 .vn domains (at May 2018) ; website: 61.85% ;
- Growth rate > 11%
- Registry-Registrar model

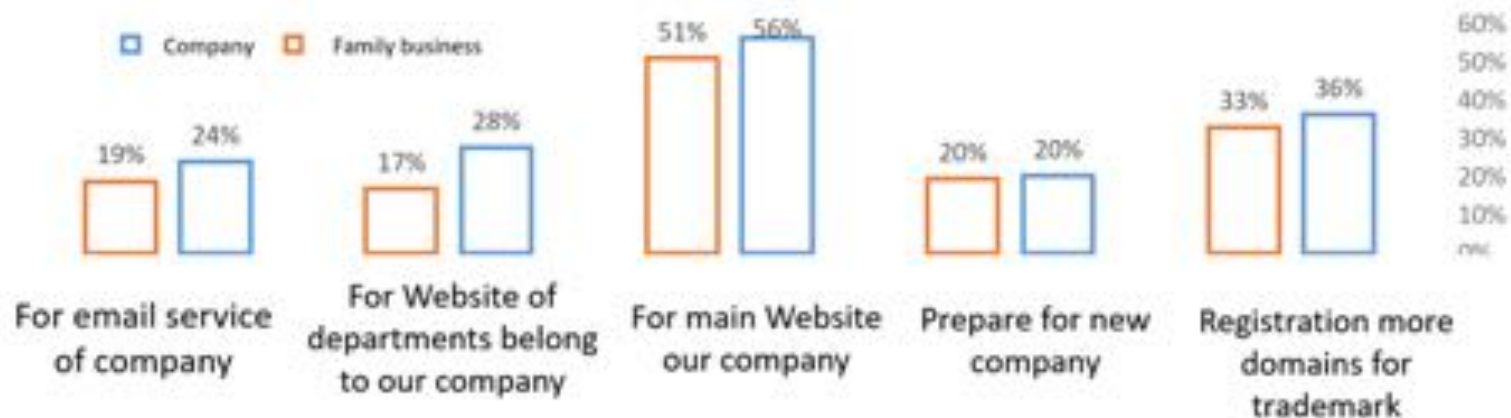


ccTLDs in AP (Source APTLD: 5/2018)

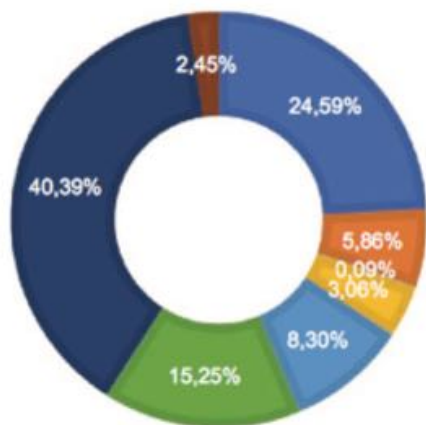


# Domain registration and usage in Vietnam

## Purpose of domain registration in Vietnam (at end of 2017)

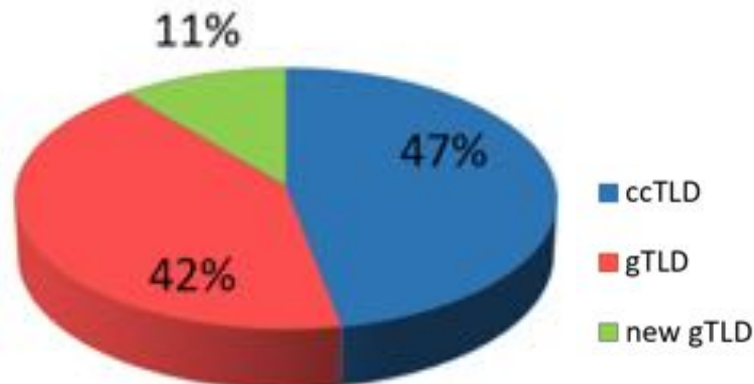


- No IP address
- Web site
- Web Redirect
- Parking domain
- Web Error
- Not connection
- Undefined
- Web under construction



Usage of “.vn” domain in 2017

Source: VNNIC



Market share for domain in Viet Nam

ccTLD « .vn »: 442,000 domains (at 26/5/2018).

gTLDs: 395,304 domains (at 26/5/2018).  
Source: webhosting.info)

New gTLDs: 101,829 domains (at 26/5/2018).  
Source: ntlidstats.com)



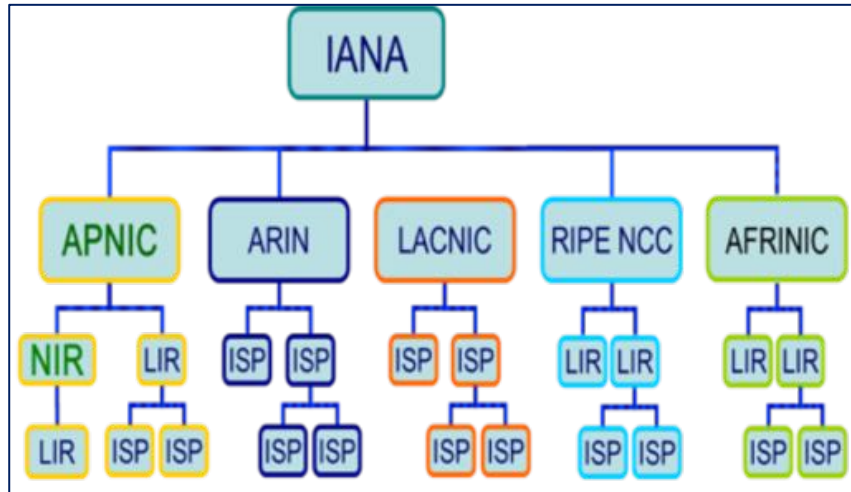


# Domain name usage issues

- ❑ Invalid and incorrect registration data (especially for gLTD and New gTLD domains)
  - ❑ Registry should take proper action (revoke, suspend) if domain is utilized for bad purposes as complaint from government.
- ❑ Release of Country Codes and Country/Territory Names:
  - ❑ As new gTLD.
  - ❑ As second level domain under new gTLD.



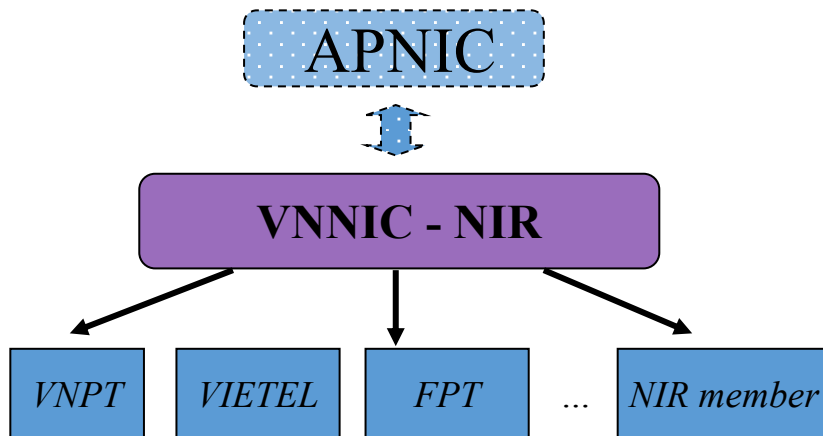
# IP Management model



- IANA.
- RIR as APNIC, RIPE NCC, ARIN ...
- APNIC – Regional Internet Registry for Asia Pacific region.

## In Vietnam :

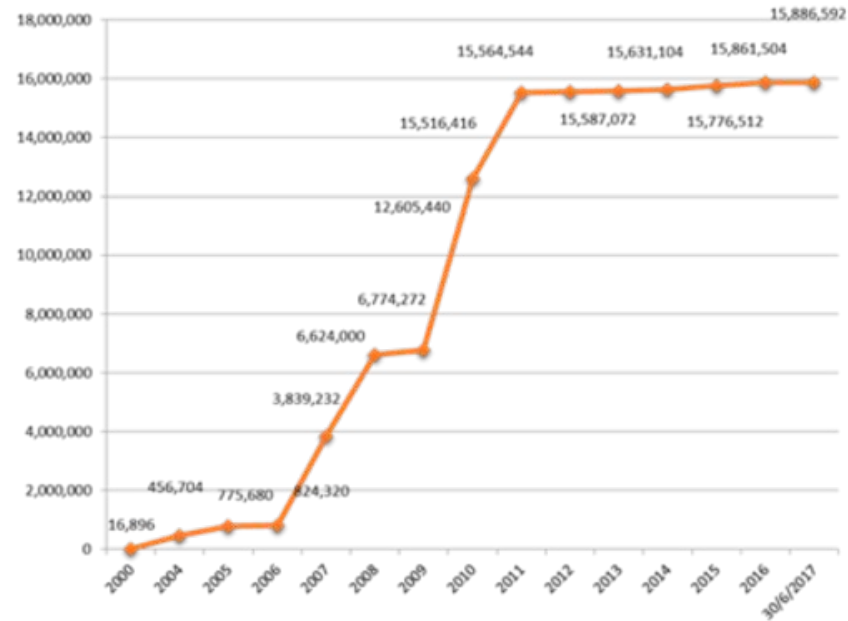
- VNNIC is governmental body who take responsibility for IP/ASN in Vietnam.
- All ISPs and organizations in Vietnam must apply for IP from VNNIC.



# IP registration and usage in Vietnam

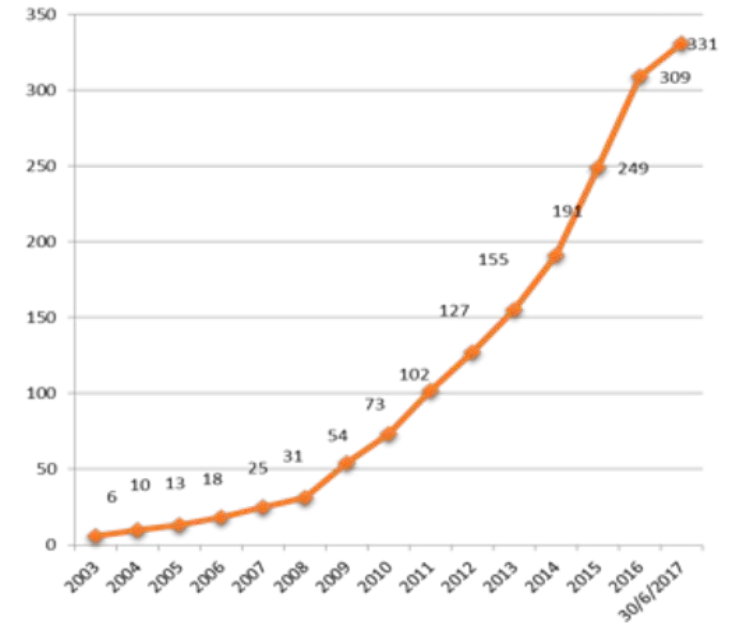
## July 2018:

- IPv4 : 15.931.904 ranking 2<sup>th</sup> in Asean, 8<sup>th</sup> in Asia – Pacific, 29<sup>th</sup> in the world.
- IPv6:
  - /32 : 48
  - /48 : 72
  - ASN: 218
- IP Members : 360, members with IPv6: 113

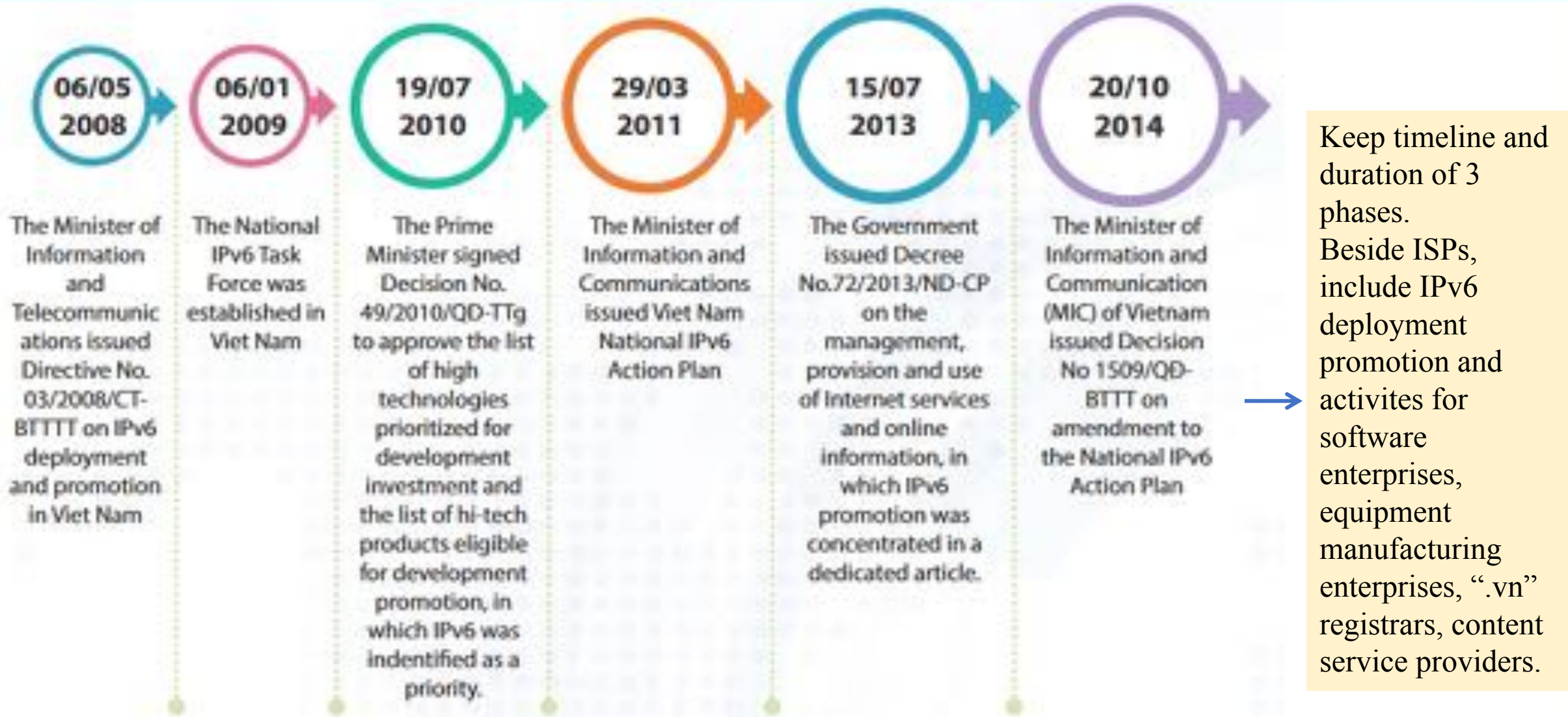


IPv4

## IPv6



# Vietnam IPv6 promotion milestones





# National IPv6 Action Plan

## Preparation Phase (2011 – 2012)

- Making the assessment of the network, IPv6 test, training.
- ISPs issue their own IPv6 action plan, following on the National Plan.

## Implementation Phase (2013 – 2015)

- Network transition for supporting both IPv4 and IPv6.
- Forming National IPv6 Network Infrastructure; Providing IPv6 pilot services.

## Accomplishment Phase (2016 - 2019)

- Ensuring the stable operation of Vietnam Internet within IPv6 based technology.

Vietnam  
National IPv6  
Task Force



# Vietnam National IPv6 Task Force (VNIPv6TF)

- On 6th January, 2009, the Minister of Information and Communications has issued Decision No. 05/QD-BTTTT establishment Vietnam National IPv6 Task Force.
- Main functions of VNIPv6TF: carrying out research, plans and schedule for implementing the transition to IPv6 in Vietnam.
- Members:
  - Headed by Deputy Minister of Information and Communications (MIC).
  - VNNIC is the standing committee for the TF to cooperate and organize all activities of the TF.
  - High position officials from MIC, Ministry of Education and Training; Ministry of Science and technology, Office of the Party Central Committee.
  - CEO of major local ISPs.



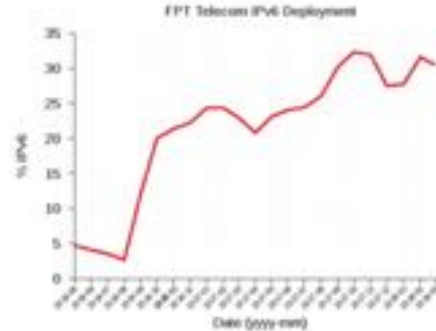
# IPv6 development in Vietnam

## Use of IPv6 for Vietnam (VN)

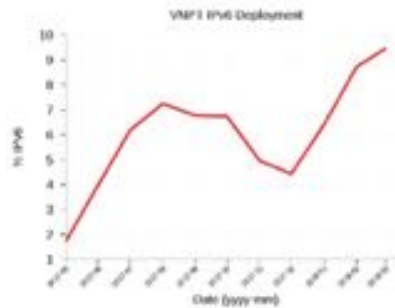


<https://stats.labs.apnic.net/ipv6/vn>

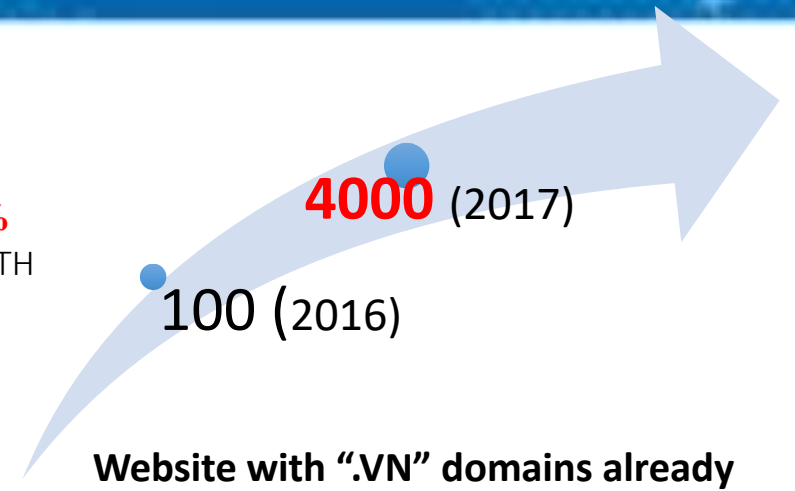
- Viet Nam IPv6 day (May 6<sup>th</sup>)
- Viet Nam IPv6 Launch on May 6<sup>th</sup> 2013.
- July 2018:
  - IPv6 adoption ~ 15%, ranking 2<sup>th</sup> in Asean, 4<sup>th</sup> in Asia – Pacific (after India, Japan and Malaysia).
  - Number of IPv6 user: 7,600,000



**FPT: 30.47%**  
1.500.000 FTTH  
users



**VNPT: 15%**  
~ 1,300,000  
FTTH user;  
~150.000 4G  
LTE users



**Website with “.VN” domains already worked with IPv6**



**VnExpress** - One of most popular e-newspaper (3,000,000 queries per day) already enabled with IPv6





- The Internet is essential part of society.
- Internet is un-deniable.
- We need to improve ourself to be adaptive and we all take responsibility to contribute to Internet.



- Transportation in Vietnam: we travel by bicycle in 1970, by motor bicycle in 1990 and now car is getting popular. Bicycle is easier but slower than motor bicycle. Car is most difficult to drive, but fastest.





# THANK YOU

All things is better when  
we go together

