

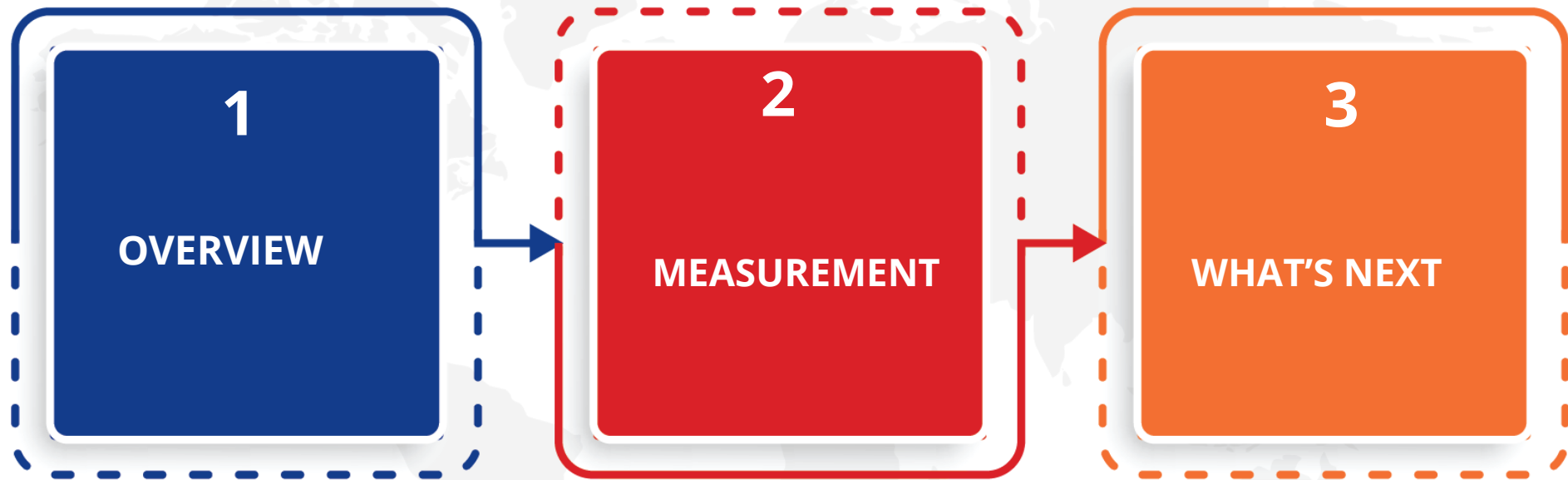


MINISTRY OF INFORMATION AND COMMUNICATIONS
VIETNAM INTERNET NETWORK INFORMATION CENTER

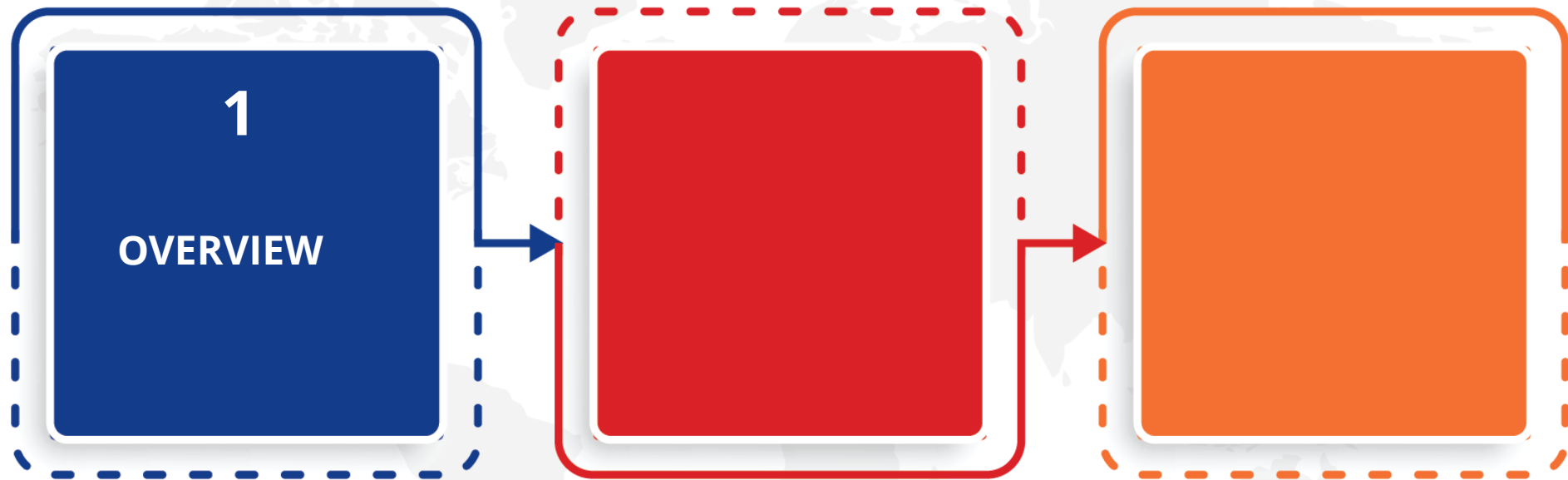
Viet Nam IPv6 Deployment

APNIC 55 | APNIC NIR SIG | 28th Feb 2023

CONTENT



CONTENT



OVERVIEW



02 National Plans

- *The 1st: National IPv6 Action Plan*
 - *Period: 2011-2019*
- *The 2nd: IPv6 For Gov Program*
 - *Period: 2021-2025*

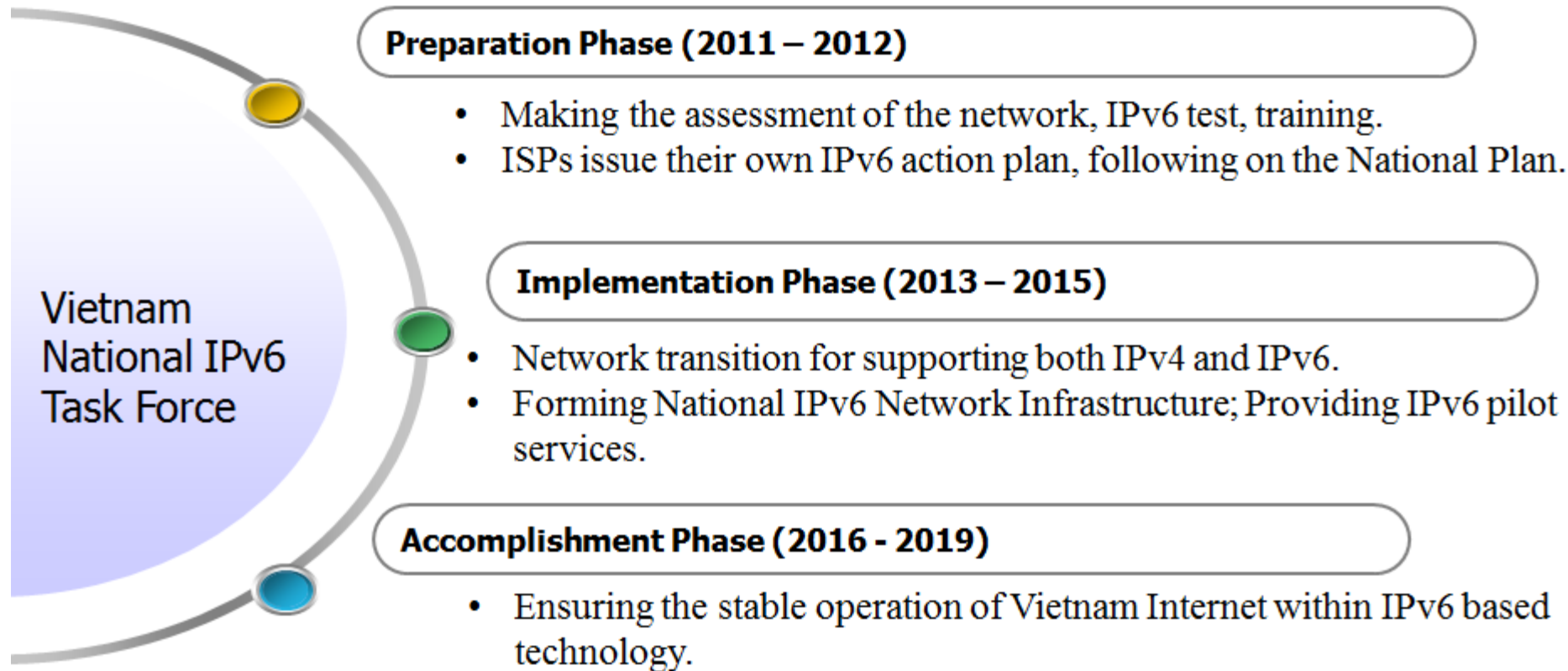
Key organizations

- Viet Nam IPv6 Task Force: headed by Deputy Minister of MIC.
 - VNNIC: The standing committee.
- Big ISPs/Operators deploying IPv6.

Rank

Year	2016	2017	2018	2019	2020	2021	2022
IPv6 adoption rate	5%	10%	25%	40%	45%	45%	53%
Rank	45 th	30 th	13 th	10 th	10 th	10 th	10 th

Viet Nam IPv6 Action Plan (2011 – 2019)



How?

Policies

- National Digital Transformation
- Development of e-government towards digital government.
- Decree and Circular to promote IPv6 deployment.
- Official letters.

Communications

- Online News (usually).
- Conferences:
 - Annual Viet Nam IPv6 Days
 - OPM
 - Other ICT Events.

Viet Nam - IPv6TF

- Leading
- Promoting
- Supporting
- Collaborating

Training

- 5 - 10 courses per year.
- 2008 - 2016: focus on ISPs, big ICPs.
- From 2017: focus on Government Agencies, Mobile Operators, ICPs
- Total: >2.000 attendees.

Working visits, consultation

- Large ISPs, Mobile operators and ICPs (yearly):
- Government Agencies.

Next Plan



National IPv6 Action Plan (2011-2019)

- The use of IPv6: 40%
- IPv6 FTTH subscribers: 11 millions
- IPv6 Mobile subscribers: 24 millions.

IPv6 For Gov Program (2021-2025)

- Supporting Government agencies to deploy IPv6 and build their own networks.

IPv6 For Gov Program (2021-2025)



- The Decision No. 38/QĐ-BTTTT dated 14th January 2021 of Ministry of Information and Communications
- 02 stages with main target:
 - 2021-2022: 50% Government Websites enabled IPv6.
 - 2023-2025: 100% Government Websites enabled IPv6/ Readiness to deploy IPv6-only.
- **Main activities:**
 - Training for Government organizations from national to local.
 - Consulting/supporting the IPv6 transition progress of government organizations.

IPv6 promotion activities

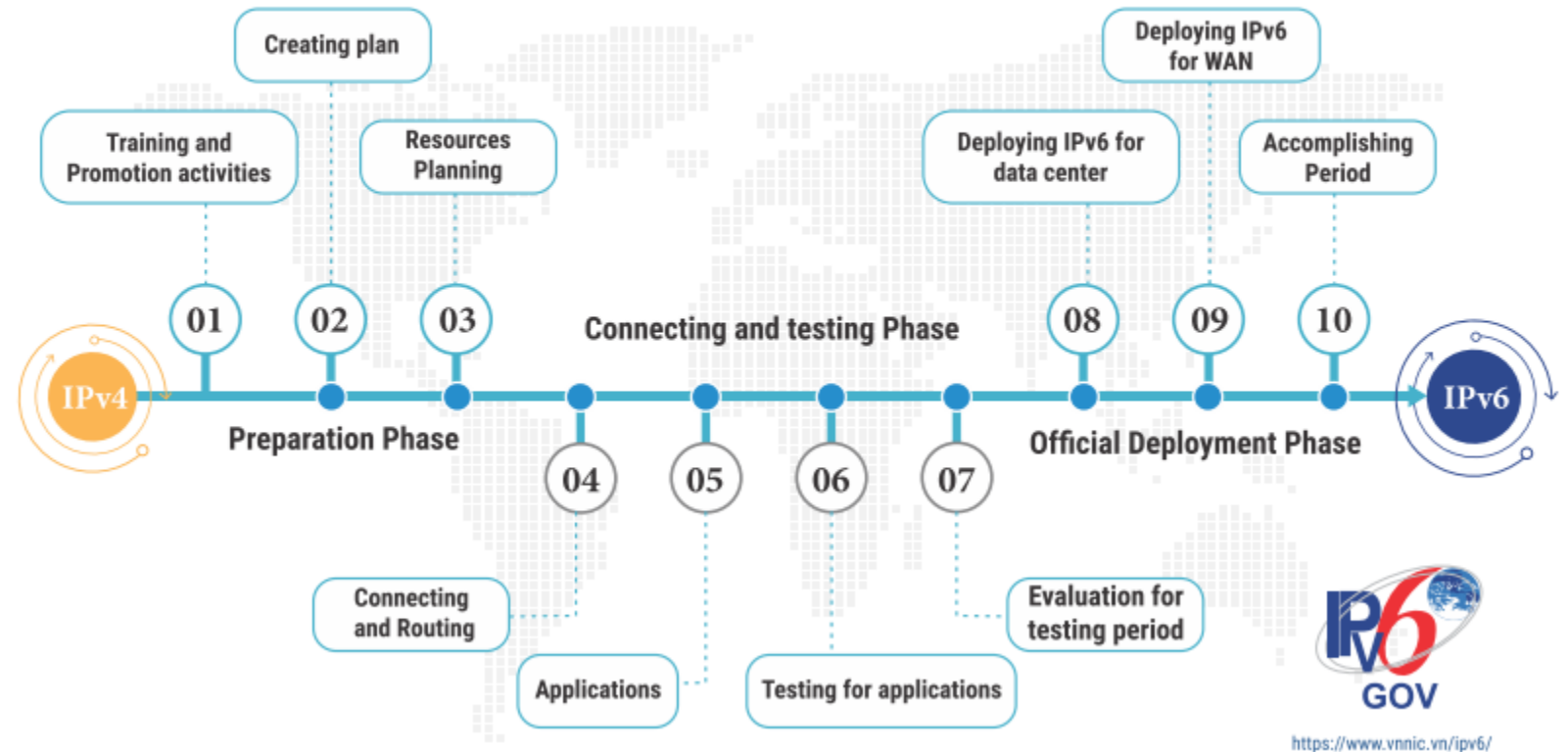
Policies

1. The Decision No. 749/QD-TTg of The Prime Minister of Government (2020) on introducing Program for National Digital Transformation by 2025: **“The entire of Viet Nam Internet transited to IPv6 by 2025”**
2. Directive No. 2/CT-TTg (2022) of the Prime Minister on Developing e-government towards digital government, promoting national digital transformation: **“Implement the IPv6 conversion; prioritize IPv6 ready for Web portal and public service portals in order to allow the general public and enterprises to access and use government services via IPv6”**.
3. Decree 42/2022/ND-CP of Government on the provision of online information and public services by the State agencies in the cyber environment: **‘Web portal and public service portals using .vn domain and IPv6 ready.**
4. Official letters from Ministry of Information and Communication to Ministries, Branches, Cities and Provinces and ISP, Mobile Operators (2 times: 3/2022 and 11/2022).

IPv6 promotion activities

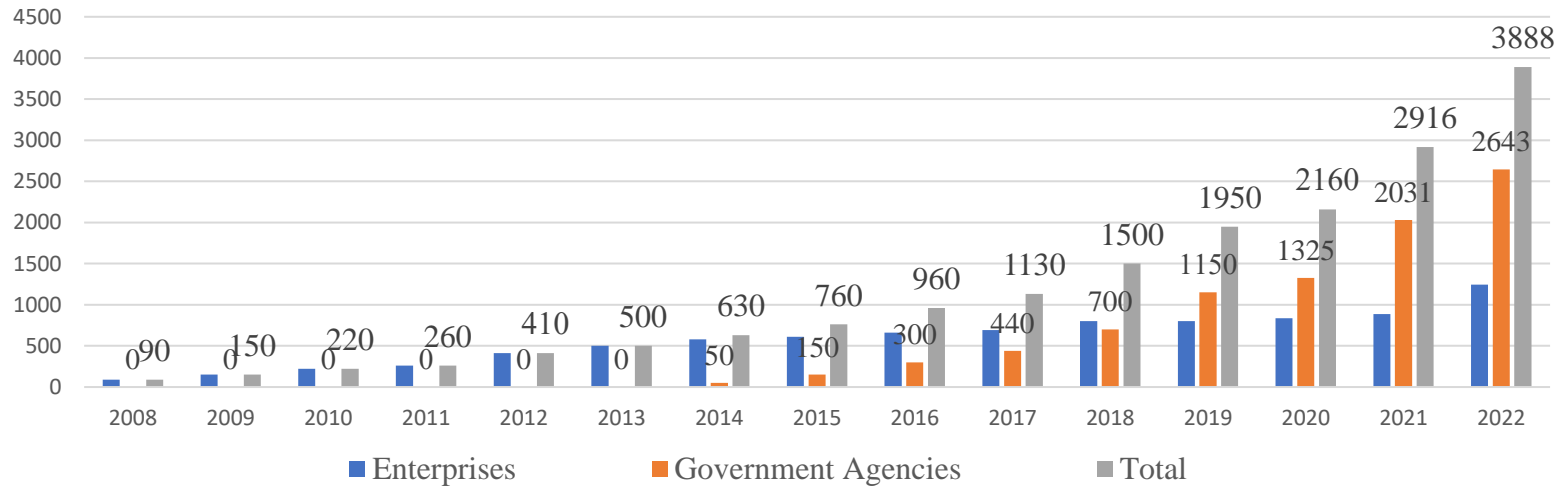
Human Resources

10 steps for IPv6 deployment in government agencies



Developing the framework of IPv6 plan for each government agency:
03 stages with 10 steps

IPv6 promotion activities



<https://academy.vnnic.vn>

- **IPv6 Training:**

- 2022: 16 training courses (847 attendees)
- Total: 85 courses with 3888 attendees.

- **Support in 2022:**

- ~30 ministries/branches/cities/provinces.

- **Main courses:**

- IPv6 deployment.
- Internet Resources.
- Routing/ RPKI
- DNS/DNSSEC ...

IPv6 promotion activities



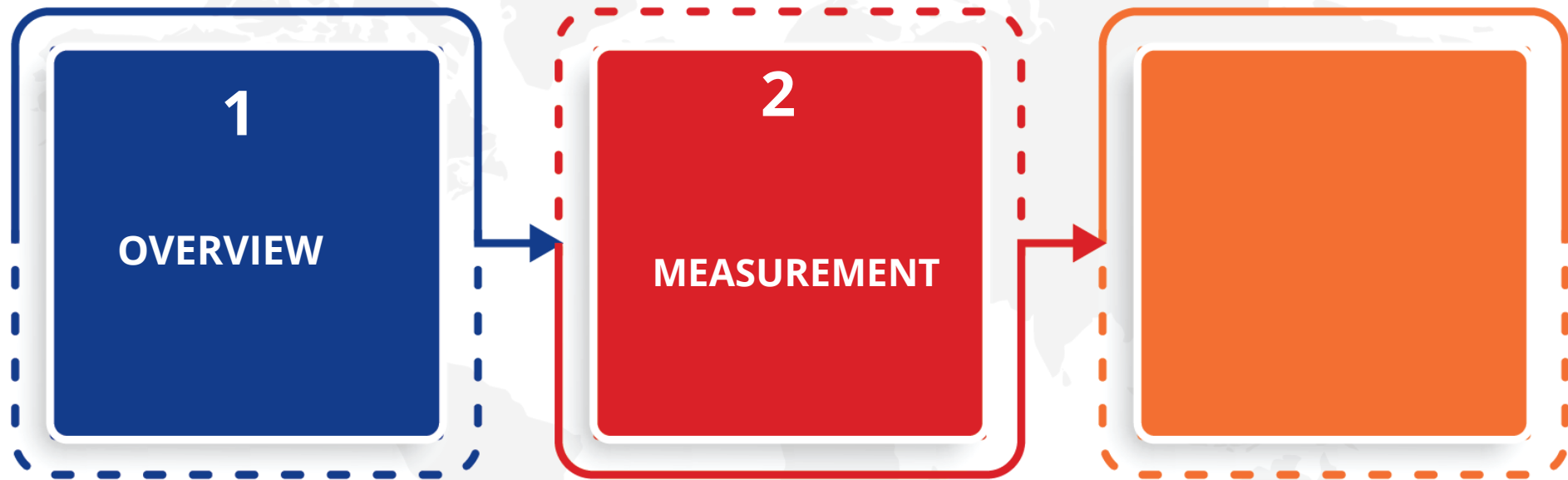
Deputy Minister: Moderator of IPv6 For Gov Forum
<https://internet-conference.vn/en/>

VNNIC Internet Conference

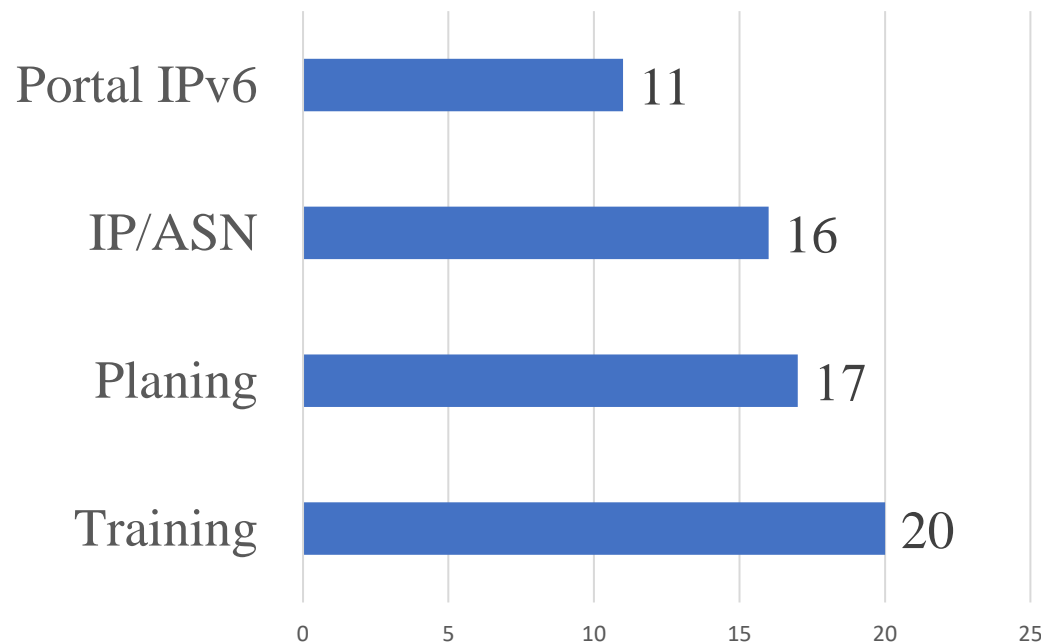
(The biggest event of VNNIC)

- 22-25, June 2022 in Da Nang city
- Topic: Future of Internet
- 300 on-site attendees and ~200 online particip
- 03 workshops and 01 conference.
- **Including: IPv6 For Gov Forum.**
 - Deputy Minister: Moderator
 - Attending:
 - Director Generals of Department of Information and Communications from Cities/ Provinces, Information Centers from Ministries/ Branches.
 - Leaders of ISPs

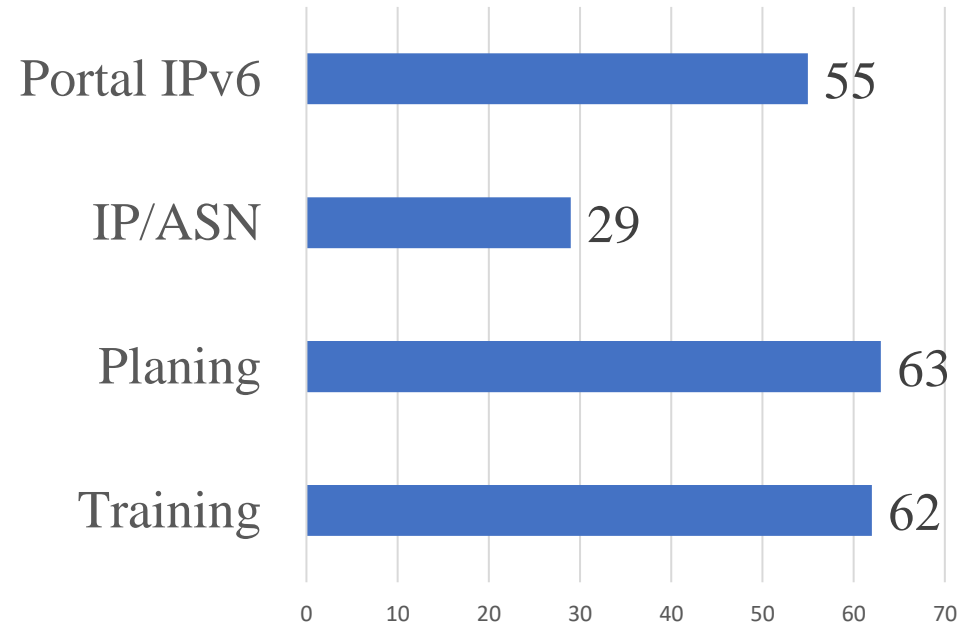
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Measurement – IPv6 For Gov



The status of ministries (total: 22)



The status of cities/provinces (total: 63)

- 94% ministries, cities, provinces having IPv6 Plan
- 77% ministries, cities, provinces having Portals enabled IPv6 (increasing 200%)

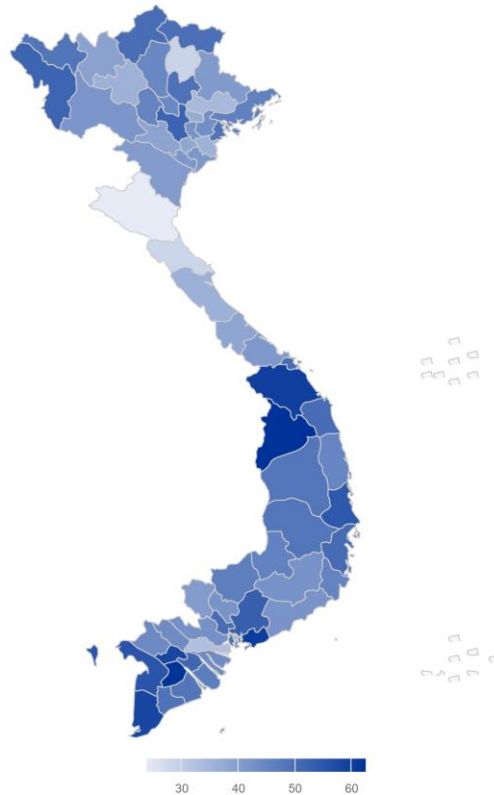
Measurement – IPv6 For Gov

Fixed broadband (Viet Nam Internet Speed)



i-speed.vn
Speedtest.vn

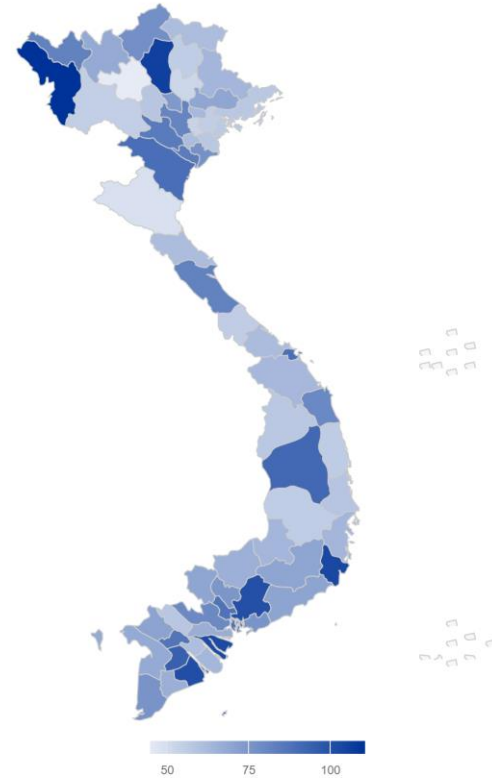
Tốc độ, độ trễ mạng BRDD trên các tỉnh thành
Tháng 4/2022



i-SPEED by VNNIC

Mobile (Viet Nam Internet Speed)

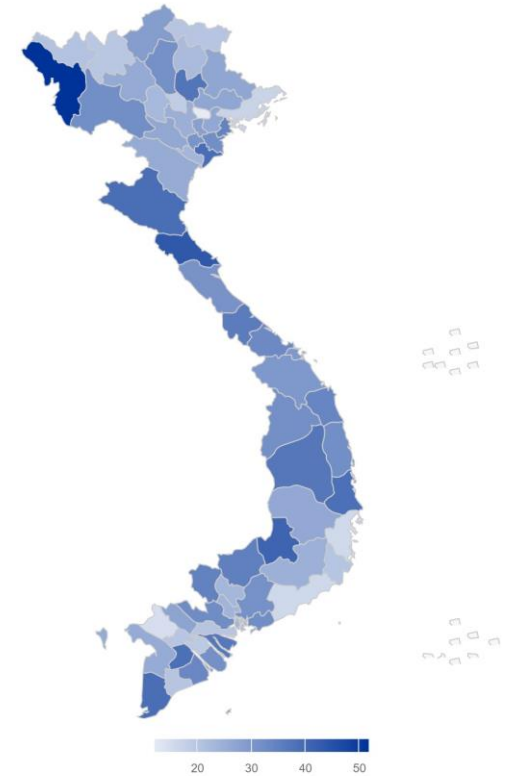
Tốc độ, độ trễ mạng BRCD trên các tỉnh thành
Tháng 4/2022



i-SPEED by VNNIC

The use of IPv6 for cities/ provinces

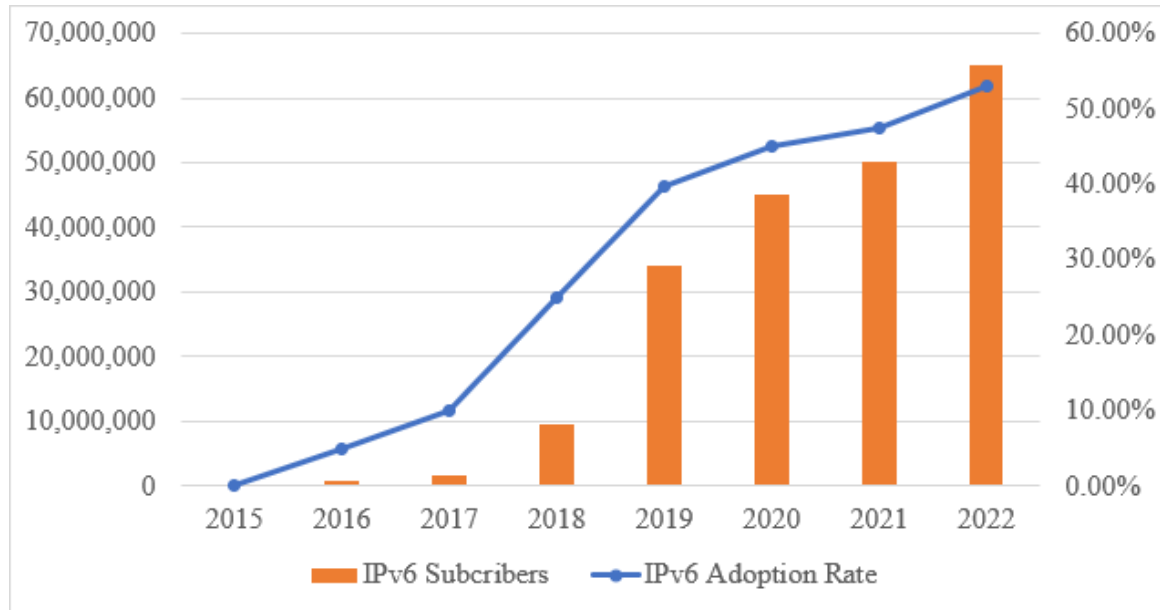
Tỉ lệ ứng dụng IPv6 trên các tỉnh thành
Tháng 4/2022



i-SPEED by VNNIC



Measurement – Internet Services



12/2022:

- The use of IPv6 for Viet Nam: 53%, ranked 10^h over the world.
- **FTTH:** 16.6 million IPv6 subs (79% of all FTTH subs)
- **Mobile:** 48.8 million IPv6 subs (58% of all mobile subs)

The use of IPv6 For Viet Nam (Source APNIC Lab and VNNIC Report)

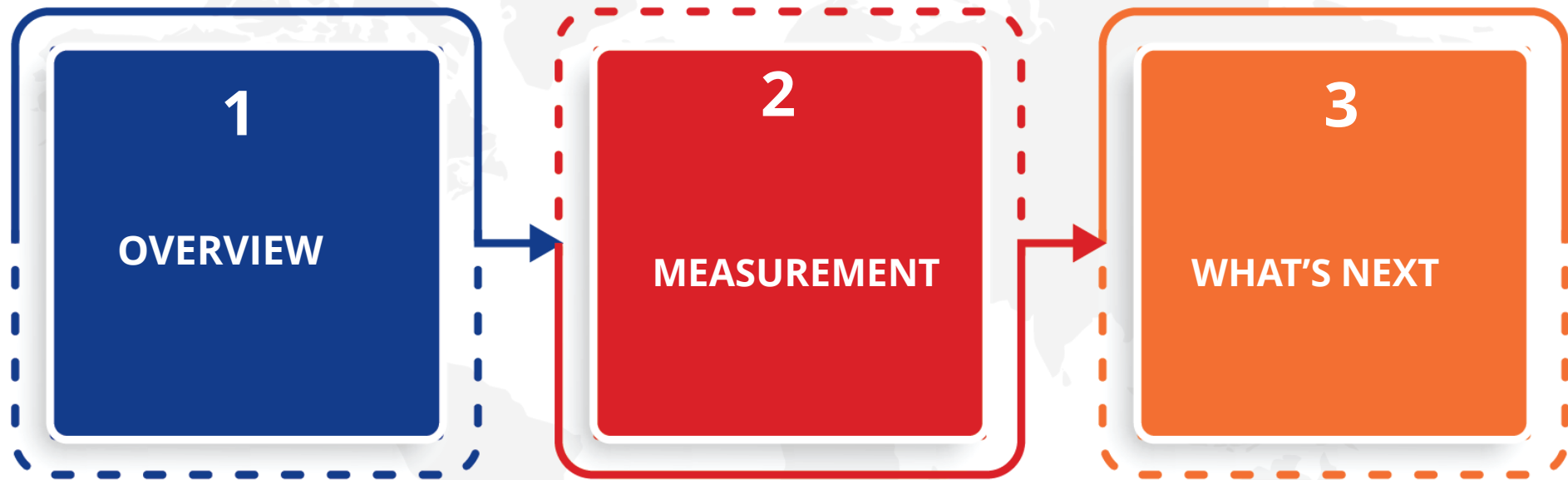
The research about Viet Nam measurement

	2018	2019	2020	2021	2022
% IPv6 Mobile	6%	39%	51%	58%	58%
% IPv6 FTTH	55%	70%	69%	69%	79%
% IPv6 others	0%	1%	1%	1%	2%
The use of IPv6 for Viet Nam	25%	40%	45%	47%	53%

Calculation Formula

The use of IPv6 = $0.4 \times (\% \text{ IPv6 FTTH}) + 0.35 \times (\% \text{ IPv6 Mobile}) + 0.25 \times (\% \text{ IPv6 others})$

CONTENT



What's next?

2023

- **Main target of 2023:**
 - IPv6 adoption rate: 60-70% (95-100% IPv6 FTTH and 63-86% IPv6 Mobile).
 - Focusing on 04 biggest ISP, Mobile operators in Viet Nam.
- **IPv6 For Gov: 2023**
 - Conference for IPv6 For Gov (completing 1st stage and preparing for 2nd stage).
 - IPv6 For Gov Forum at VNNIC Internet Conference 2023
 - Consulting meetings for each Ministries/Branches and Cities/Provinces.



Internet Address

2023 – 2025

- Deploying and completing the IPv6 For Gov Program.
- Promoting the ISP, Mobile and all IP members deploying IPv6.

2026 – 2030: Developing program and promote IPv6 for IoT, IPv6-only, and IPv6+

Upcoming events

VNNIC Internet Conference 2023

(06/2023, Ho Chi Minh city)

- IP member meeting
- IPv6/ IPv6 For Gov Forum
-



VNIX – NOG 2023 (8/2023)



Training

**10 workshops on IPv6
May to Nov 2023**

**Summary ceremony of the 1st
stage of IPv6 For Gov Program
(2021-2022)**

March 2023





ELEVATING VIETNAMESE BRANDS



**MINISTRY OF INFORMATION AND COMMUNICATIONS
VIETNAM INTERNET NETWORK INFORMATION CENTER**

Headquarters: Floor 24th, VNTA Building, Duong Dinh Nghe st., Yen Hoa Ward, Cau Giay Dist., Hanoi

Da Nang Branch: Lot 21, 7th st., An Don Industry Zone, Son Tra Dist., Da Nang City

HCMC Branch: 20th St., Tan Thuan Manufacturing area, 7 Dist., Ho Chi Minh City

+84 24 3556 4944

facebook.com/myVNNIC/

webmaster@vnnic.vn

https://vnnic.vn/

Thank you !