

1. Summary of Resolution No.57-NQ/TW [1]

It is essential to understand some key points in Resolution No.57 before the act of Internet resources and Vietnam's Internet infrastructure in aiming for innovation, creativity, and breakthrough in spirit of Resolution No.57-NQ/TW of Politburo. Thus, this part use for summary several main points of this resolution.

1.1. Key Guiding Principles

- Developing science and technology are identified as top national breakthroughs, it also acts as a revolution of Vietnam
- This revolution has to be comprehensive in all areas, synchronously and long-term implementation
- Residents and enterprises are main source of motivation. Scientists are the key factor. The State has responsibility to lead, promote and facilitate
- Develop fast and sustainable

1.2. Goals

- To 2030:
 - Vietnam's capabilities in science and technology will reach advanced level in several sectors
 - Enterprises's capacity will be above the global average in science, technology and digital innovation
- To 2045:
 - Vietnam's science and technology will become solid foundations for high-income, developed country

1.3. Tasks and Solutions

- There are 7 tasks and solution:
 - Improve institutions and policy frameworks
 - Develop high quality human resources
 - Build modern infrastructure for science and technology
 - Promote research, application, technology transfer
 - Grow the science, technology and innovation market
 - Strengthen international cooperation
 - Enhance public awareness and media outreach

1.4. Implementation

- Establish a central committee for leading and guiding in accordance with the planned objectives
- Propagate details of resolution to all people
- Gather and allocate adequate resources
- Periodic check and evaluate every 6 months

2. Mission of Internet infrastructures and resources

After have a overview about Resolution No.57, this part will present about mission of Internet infrastructures and resources in promoting and completing the innovation, creativity, breakthrough in spirit of Resolution No.57-NQ/TW of Politburo

2.1. Mission of Domain Name System: Enabler of Secure, Sovereign Digital Platforms

- Developing high quality digital infrastructure and services: Vietnam's national DNS ensures reliable, fast access to digital public services and digital platforms in education, healthcare, e-commerce, . . . by using ".vn"
- Advantages of domain name ".vn":
 - Brand identity
 - Provide trust value
 - Have advantages on search engines
 - Fast, safety and reliable query
 - Protected by law
 - Convenient registration
- Enhancing cybersecurity and information safety because a strong domestic DNS can helps:
 - Prevent DNS spoofing or rerouting attacks
 - Deploy DNSSEC, ensuring data integrity and trust for Vietnamese domains
 - Keep user query data within national control, enhancing sovereignty
- Using digital technology to drive innovation and startup ecosystems: DNS analytics can rising sectors, helping policymakers allocate resources efficiently [2] [3]

2.2. Mission of Vietnam National Internet eXchange: Infrastructure for digital innovation and data sovereignty

- Building a strong national infrastructure platform, this helps VNIX reduce dependency on international routing, improves latency for innovation platforms:
 - Cloud-base AI training systems

- Real-time remote diagnostics in health tech
- Smart city systems using IoT, blockchain, ...
- Developing science and technology ecosystems in universities and enterprises: VNIX enables direct peering connect between universities and companies, facilitating faster data exchange collaboration and joint research deployment
- Promoting open innovation and public-private cooperation: VNIX can act as the backbone for shared digital sandboxes, connecting government, private technology hub and startups on a neutral technical ground [3] [4]

2.3. Mission of IP Address and ASN: Foundation for sovereign, scalable, experimental network

- Mastering critical digital infrastructures and platforms: National IPs/ASNs's allocation lets Vietnam:
 - Build a custom Internet architectures for all purposes especially science and digital innovation
 - Enable IPv6 deployments for next-gen technologies like 5G/6G, auto-driving vehicles, ...
 - Simulate national-scale digital services for research and development
- Developing digital human resources and encouraging youth creativity: Programs about IP/ASN experimentation in universities can train students in network architecture, cybersecurity, cloud engineering, AI systems, ... [2] [4]
- Enhance network security and sovereignty:
 - By combining IPv6, Blockchain and several technologies, Internet can be attacked and exploited uncontrollably. Moreover, this combination can help government manage residents, living-standard more and more effectively
 - Local control of IP and ASN registration allows quicker detection of cyberattacks, illegal activities via the Internet, supports national firewall, builds trust in digital platforms

2.4. Mission of ".vn" domain name

- Strengthen national digital branding and promoting Vietnamese tech: Promote ".vn" domains name among startup and researchers builds global visibility and local trust. A strong ".vn" brand support exportable innovation in edtech, medtech, fintech, ...
- The more strong of ".vn" domain, the more reputation of Internet infrastructure, local image in the eyes of international friends
- Enabling digital government and e-citizen services:
 - Enable fast and convenient administrative procedures
 - Manage resident's living-standard efficiently
 - Report about extraordinary timely

- Reduce victims of fraud due to choosing the wrong link which fake government agency or unofficial link
- Official use ".vn" ".gov.vn" enhances trust and standardization for public-facing services
- Encouraging innovation in small and medium enterprises: Reduce cost or free ".vn" domains for new businesses or students and encourage early digital adoption

2.5. Current state in Vietnam

- Up to now, in Vietnam had deployed many projects related:
 - National public service application: dichvucong.gov.vn
 - VNPT Smart City systems in many provinces: Ha Noi, Ho Chi Minh, Da Nang, . . .
 - Online study platforms using ".vn": hocmai.vn, viettelstudy.vn, . . .
- These projects serves as the essential foundation, bring valuable experiences, to drive the development and successful fulfillment of the objectives outlined in Resolution No.57-NQ/TW

Conclusion

In the current era of global integration, the Internet stands as one of the most important technologies, it also is strategic platform in create prestige and reputation of Vietnam. Therefore, exploiting Internet resources is required efficiently and thoroughly, contribute to the country's prosperity and development. Moreover, Vietnam needs to both take advantage of domestic resources and promote cooperate, transfer technology from abroad to be able to learn and apply advanced technologies

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- [1] [Details of Resolution](#)
 - [2] [Vietnam Internet Network Information Center](#)
 - [2] [Vietnam Internet Network Information Center](#)
 - [2] [Vietnam Internet Network Information Center](#)
 - [3] [Asia Pacific Network Information Centre \(APNIC\)](#)
 - [3] [Asia Pacific Network Information Centre \(APNIC\)](#)
 - [3] [Asia Pacific Network Information Centre \(APNIC\)](#)
 - [4] [World Bank – Digital Transformation in Vietnam](#)
 - [4] [World Bank – Digital Transformation in Vietnam](#)
 - [4] [World Bank – Digital Transformation in Vietnam](#)