

The State of the Internet and Digital Rights in Indonesia (2019–2026)

Indonesia, the world's largest archipelagic state and one of Southeast Asia's fastest-growing digital economies, offers a unique example of rapid internet development against the backdrop of complex political, social, and legal processes. This report provides a comprehensive analysis of the state of the internet and digital rights in Indonesia between 2019 and 2026, covering both technological changes and the key trends in government regulation that shape the country's digital environment.

The document examines the main indicators of internet-infrastructure development, including growth in the number of users, access quality and speed, the expansion of mobile internet, and the state of the internet-service-provider market. Particular attention is paid to legislation governing the digital environment: mechanisms for restricting access to information, the practice of blocking online resources, state control over online space, and approaches to security and personal-data protection. A separate section addresses the use of VPN services as a tool for preserving privacy and circumventing network restrictions.

This analysis will be useful to anyone interested in the development of the digital environment in Asian countries, internet regulation, and the protection of digital rights. The report shows how technological progress is combined with stronger state control, which events and legislative initiatives have had the greatest impact on Indonesia's internet space, and how the balance between digital-economic development, public interests, and freedom of access to information is being formed.

Disclaimer: This document was partially generated using several large language models (LLM). The information presented in it is based on the analysis and generalization of data from the indicated sources; however, the process of its structuring, generalization, and presentation was performed using artificial intelligence technologies. It is recommended to use this text as a starting point for further research and to critically verify critically important data against primary sources.

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1. General Information

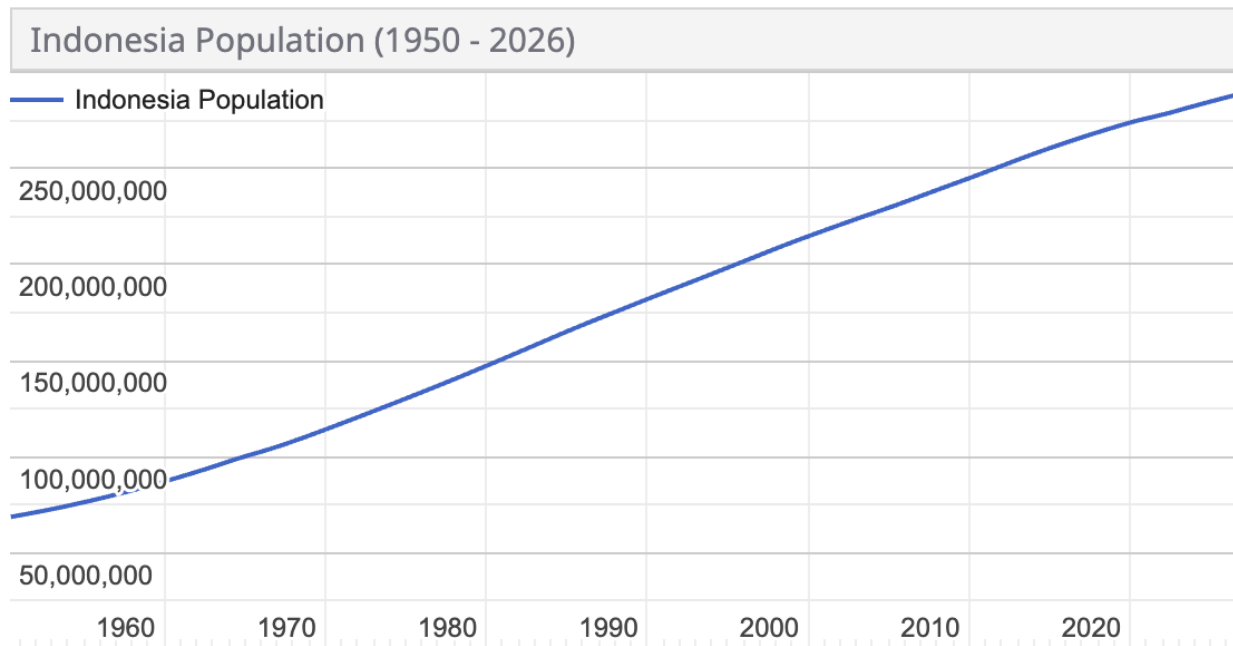
Indonesia is an archipelagic state located in Southeast Asia and Oceania, occupying a strategically important position between the Indian and Pacific Oceans. The country comprises more than seventeen thousand islands, creating a highly fragmented geographical environment that directly affects logistics, the distribution of economic resources, and the architecture of telecommunications-network deployment. This spatial fragmentation creates major infrastructure barriers and requires large-scale investment in submarine cable systems and satellite technologies to ensure nationwide connectivity.¹

1.1. Population

Indonesia's population at the beginning of 2026 is 287.8 million.

The country's demographic structure is characterised by considerable territorial imbalance and stable, though slowing, growth. Most citizens have historically been concentrated on the island of Java, which serves as the country's economic, political, and demographic core and contains around 58% of the total population.² At the same time, the vast territories of Kalimantan, Sulawesi, and Papua have low population density, which directly correlates with digital inequality and access to basic services.⁴ Government internal-migration programmes only partially mitigate this imbalance, leaving Java as the dominant centre of attraction for human capital.⁵

Urbanisation has continued to rise, reaching 60.3% by 2026. This has been accompanied by changing consumption patterns and growing demand for digital services.² The median age is 30.7 years, creating a large "digital generation" that drives the development of e-commerce, social media, and financial technologies.² The gradual decline in annual population growth is consistent with the global demographic transition; nevertheless, the country's absolute population figures make Indonesia one of the world's leading powers in terms of domestic-market size.⁶

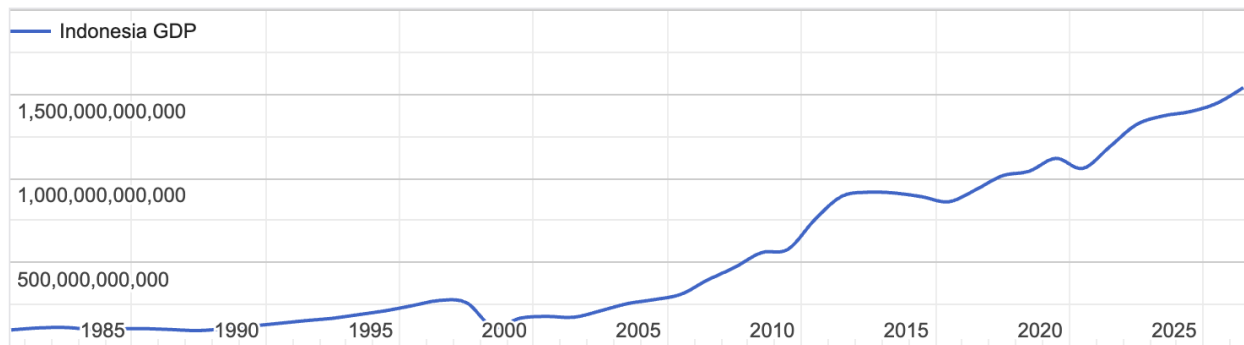
Chart 1: Indonesia's Population Growth (1950–2026)

Source: worldometers.info

1.2. Gross Domestic Product

Indonesia's macroeconomic performance demonstrates a high degree of resilience to external shocks. The exception was 2020, when global restrictions associated with the pandemic caused a decline in production and consumption.⁸ Subsequent periods, however, were marked by a confident economic recovery supported by domestic demand, inflows of foreign direct investment, and favourable conditions in global commodity markets. The post-pandemic period has been characterised by stable annual growth of around 5%, reflecting the effectiveness of government measures to stabilise the financial sector.¹⁰

Gross domestic product growth is supported by activity in manufacturing, construction, and services, including the rapidly developing digital economy. Fiscal policy is aimed at containing inflation, which has remained at relatively low levels of around 1.5–2.6%, providing predictability for businesses, although it also indicates moderate household purchasing power.¹⁰ The government's long-term plans seek to overcome the middle-income trap through the modernisation of production chains.¹²

Chart 2: Indonesia's Nominal GDP Growth (1985–2026)

Source: worldometers.info

1.3. Key Economic Characteristics

The economy is in a phase of stable growth and has avoided recession following its successful recovery from the 2020 crisis. GDP is generated primarily by services, which account for around 45% of the total, followed by industry at 41% and agriculture at approximately 13%.¹³ The principal drivers of development are domestic consumption, which exceeds half of GDP, and large-scale public investment in infrastructure projects intended to connect the dispersed islands through a unified transport and information network.¹⁰ Particular attention is also being paid to the digitalisation of public administration and the development of technology start-ups.

The main structural problems remain high logistics costs caused by geography and the budget's historical dependence on exports of unprocessed raw materials, including coal, nickel, and palm oil. To address the latter issue, the government has launched an aggressive "downstreaming" policy aimed at developing domestic processing. This includes bans on raw-ore exports and the granting of exclusive rights to state-owned enterprises (BUMN) to export strategic goods. These measures are expected to strengthen state control over financial flows and increase the added value of national exports, despite concern among international trading partners.¹⁵

1.4. General Political Situation

Indonesia is a presidential republic in which the head of state has broad authority to form the government and determine the country's strategic course. October 2024 marked a transfer of power: Prabowo Subianto assumed the presidency, succeeding Joko Widodo, who had served two consecutive terms. Gibran Rakabuming Raka, the former president's son, became vice-president, prompting active debate about the emergence of new political dynasties.¹⁷

The political landscape is multiparty, but governing elites tend to form broad coalitions that minimise the influence of systemic opposition. The new president formed a large "Red and

White Cabinet” consisting of 48 ministers and dozens of deputy ministers representing different parties within the Advanced Indonesia Coalition. It became one of the largest governments in the country’s history, indicating the need to accommodate the interests of numerous political actors.¹⁹

Independent observers note signs of democratic regression, including the centralisation of power, weakening checks and balances, and the use of the state apparatus and judicial system to achieve political objectives.¹⁸ The country is divided into 38 provinces, yet key financial and political decisions are made in the capital, while the military establishment has traditionally retained significant influence over civilian governance.¹⁸

2. Internet

2.1. National Domain

Indonesia’s country-code top-level domain (ccTLD) is **.id**. The domain zone is administered by the non-profit organisation PANDI (Pengelola Nama Domain Internet Indonesia), established in 2006 through the joint efforts of the internet community and government agencies.²⁰ The domain is promoted primarily on the basis of security and fast access for local users, because DNS root servers are physically located inside the country, reducing latency for routing within the national network segment.²¹

Historically, registration rules in the .id zone were strict: applicants had to demonstrate a legal presence in the country or ownership of a registered trademark, and names were generally issued at the third level, such as **co.id** for commercial organisations.²² In 2014, PANDI launched a major liberalisation reform that allowed second-level registrations directly under **name.id**. The transition included a “Sunrise” phase for trademark holders and a “Grandfather” phase for existing administrators of third-level domains.²²

To resolve conflicts involving cybersquatting and improper use of names, PANDI established a specialised body, the Domain Name Dispute Resolution Commission (PPND). It operates under Ministry of Communications regulations and provides out-of-court settlement of intellectual-property disputes in the digital environment.²³

2.2. Number of Users

Several organisations estimate the number of internet users in Indonesia and show broadly similar patterns of digital-audience growth. The main data sources are industry associations and international analytical agencies:

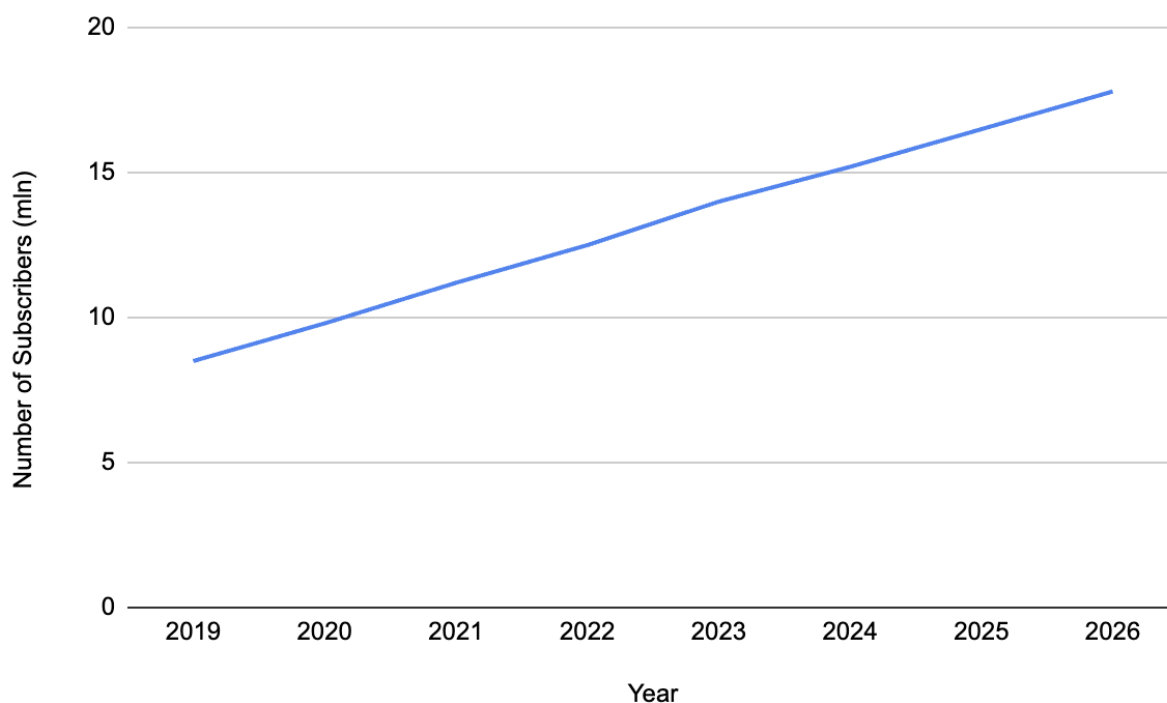
- Indonesian Internet Service Providers Association (APJII).⁴
- World Bank telecommunications database.²⁸

2.2.1. Fixed Internet

The development of fixed broadband networks faces significant geographical constraints. Laying fibre-optic cables across the seabed and through inaccessible mountainous areas makes infrastructure deployment capital-intensive. Consequently, fixed internet is available mainly to residents of major urban agglomerations, while remote provinces still lack stable wired connections. This results in a low household penetration rate of around 21%.³

The home-internet market is dominated by state-controlled entities. The clear leader is IndiHome, operated by a Telkom Indonesia division (Telkomsel), whose market share is estimated at 60–80%.³¹ It competes with private companies focused on premium urban customers, including Biznet Networks and First Media, which are actively extending coverage in the densely populated areas of Java.³³

Chart 3: Number of Fixed-Broadband Subscribers in Indonesia (2019–2026)

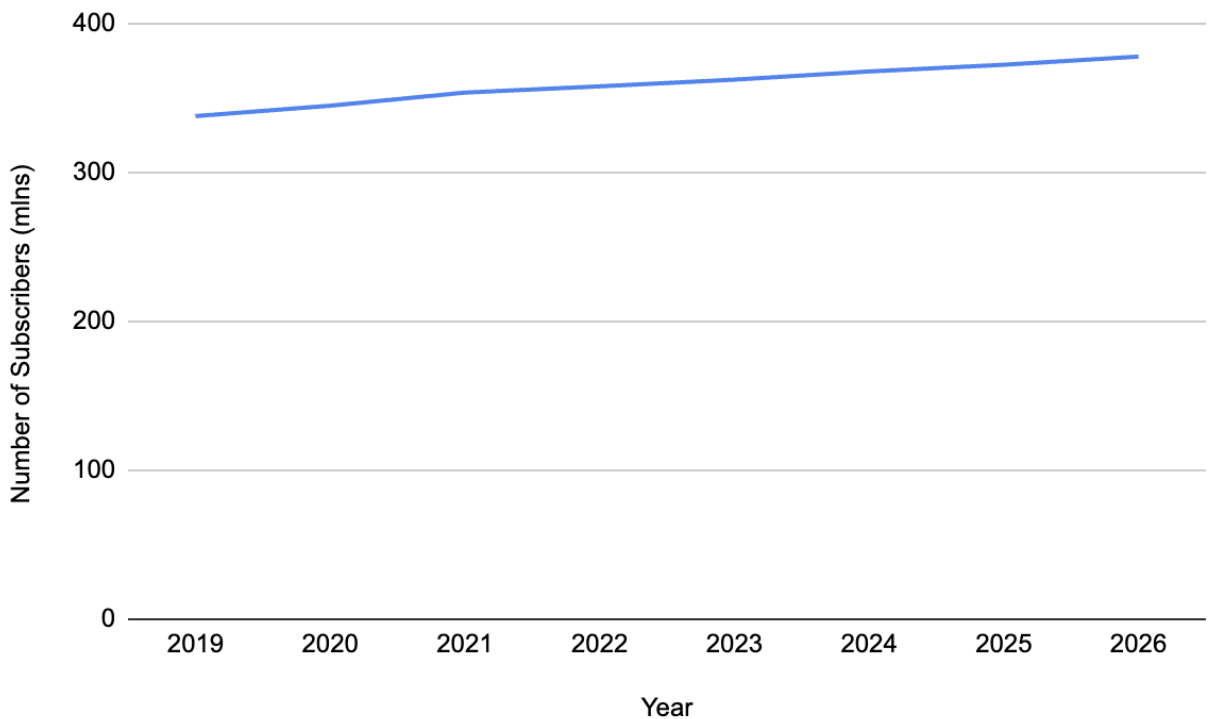


2.2.2. Mobile Internet

Because of the limited wired infrastructure, Indonesia has developed as a mobile-first digital economy. For the overwhelming majority of the population, smartphones are the sole means of accessing the global internet. 4G coverage reaches more than 98% of populated areas and provides basic connectivity, while 5G remains at the stage of selective rollout, covering approximately 26% of the territory, mainly in business centres.¹

The telecommunications sector is controlled by several leading operators. Telkomsel ranks first, serving around 45–50% of the market—more than 160 million subscribers—and providing the broadest regional coverage.³¹ Indosat Ooredoo Hutchison, with more than 94 million users, and XL Axiata, with a comparable number of connections, also hold significant positions and are investing actively in next-generation networks.³²

Chart 4: Number of Mobile-Broadband Subscribers in Indonesia (2019–2026)



2.3. Internet Speed and Quality of Service

Assessment of network-service quality is based on data from global research platforms including Ookla, Opensignal, and reports by industry associations such as GSMA. As of 2026, there is a clear trend toward increased bandwidth, driven by national infrastructure projects.

According to Ookla, the median mobile-download speed reached 77.97 Mbps, while fixed-broadband download speed reached 46.41 Mbps.³⁶ Despite this progress, Indonesia continues to lag behind some regional neighbours and remains outside the top 80 positions in global rankings.³⁰ Speeds are highly uneven: in the capital region they may exceed 77 Mbps, while signal quality falls substantially in remote provinces.³⁷

Opensignal research indicates intense competition among providers over service quality. First Media leads in video-streaming performance, while Biznet dominates in absolute download speed on fixed desktop connections.³³ Mobile operators are actively optimising their networks

to reduce latency, which is crucial for the growing mobile-esports and video-communications markets.

Public-private partnerships are among the most important factors improving connectivity. One example is the Palapa Ring project, which aims to create a backbone fibre-optic network encircling the archipelago. This reduces dependence on international communications channels and helps equalise access quality between urban agglomerations and rural settlements.³⁰

2.4. Development of Providers and Autonomous Systems

Management of IP address space and allocation of Autonomous System (AS) numbers at the national level are handled by the Indonesia Network Information Center (IDNIC), operating under the regional registry APNIC.¹ Growth in the number of autonomous systems is an indicator of the development of independent network infrastructure. Indonesia has seen a steady increase in operators, data centres, and corporate networks obtaining their own identifiers for participation in global BGP routing.³⁹

To optimise routing and reduce transit costs, the country operates an extensive network of internet exchange points (IXPs). In 2026, 57 such nodes were active, the largest being JKT-IX and Biznet Internet Exchange. This makes it possible to keep up to 80% of traffic within the national segment, significantly improving infrastructure resilience when submarine cables are damaged.¹

Chart 5: Growth of Autonomous Systems in Indonesia (2010–2026)

ASN Statistics



The chart shows rapid and almost uninterrupted growth in the number of autonomous systems in Indonesia between 2015 and 2026. The total number of registered ASes rose from approximately 150–200 in the mid-2010s to almost 3,900 by 2026, while the number of active, routable autonomous systems increased from around 120–150 to more than 2,700. Particularly high growth rates appeared after 2018–2019, coinciding with accelerated digitalisation of the economy and large-scale expansion of internet infrastructure.

The rise in AS numbers is associated with active development of telecommunications, the expansion of the data-centre and cloud-services markets, and growth among national internet providers. Unlike many countries in the region, Indonesia has a highly fragmented internet market due to its archipelagic geography, encouraging the emergence of numerous regional operators and corporate networks. The development of national internet exchanges such as IIX and OpenIXP, the growing number of domestic and international data centres, and substantial investment by global technology companies have also played an important role.

Total ASes per one million residents:

($\approx 3,900 \text{ AS} / 285 \text{ million people}$) $\times 1 \text{ million} \approx 13.7 \text{ AS}$

Active, routable ASes per one million residents:

($\approx 2,750 \text{ AS} / 285 \text{ million people}$) $\times 1 \text{ million} \approx 9.6 \text{ AS}$

For a country with nearly 300 million inhabitants, this is a relatively high figure and substantially exceeds the values recorded in most developing countries in the region. It indicates a highly diversified internet market with a large number of independent network operators.

Despite the continuing dominance of major national players such as Telkom Indonesia, Indosat Ooredoo Hutchison, and XL Axiata, the trend shows the formation of an increasingly complex and competitive internet ecosystem. Rapid growth in active autonomous systems indicates that more organisations are independently managing their routing and connectivity to the global internet.

Overall, the growth in autonomous systems confirms that Indonesia is developing into one of Southeast Asia's largest and most decentralised internet markets. The rise in both the total number of ASes and the number of active routable networks demonstrates stronger resilience in the national internet segment, greater competition among operators, and the country's gradual emergence as an important regional digital hub.

Table 1: Ten Largest Autonomous Systems in Indonesia

#	Number of AS	Name	Web Site	Foreign neighbour count	Local neighbour count	Total neighbour count	Foreign neighbours share
1	7713	PT Telekomunikasi Indonesia (Telkom Indonesia)	https://www.telkom.co.id	2286	641	2854	80%
2	4800	PT Aplikanusa Lintasarta (Lintasarta)	https://www.lintasarta.net	92	298	390	24%
3	7717	PT XL Axiata Tbk	https://www.xl.co.id	9	360	369	2%
4	23947	Moratelindo (PT Mora Telematika Indonesia)	https://www.moratelindo.co.id	99	270	362	27%
5	136106	PT Jala Lintas Media (JLM / FiberStar Group)	https://www.jlm.net.id	95	283	354	27%
6	147094	PT Integrasi Jaringan Ekosistem (IJE)	https://ije.co.id	15	309	324	5%
7	38158	PT Hutchison 3 Indonesia (Tri Indonesia)	https://tri.co.id	96	228	321	30%
8	55655	SIMS / Sinar Mas Group	https://www.sims.co.id	28	300	320	9%
9	138840	Biznet Networks	https://www.biznetnetworks.com	62	279	299	21%
10	4761	INDOSAT Ooredoo Hutchison	https://indosatoooredoo.com	106	203	293	36%

Indonesia's internet market is highly diversified and significantly more competitive than those of many other countries in the region. Unlike centralised models in which a single operator controls most international and domestic connectivity, the Indonesian ecosystem relies on several major telecommunications and infrastructure players with extensive networks of local and international connections.

PT Telekomunikasi Indonesia (AS7713) is the undisputed market leader with **2,854 connections**—2,286 foreign and 641 local. Around **80% of its neighbours are foreign**, reflecting the company's role as the country's main international gateway. Telkom Indonesia controls a substantial share of the national backbone infrastructure, participates in international cable consortia, and links Indonesia with major internet hubs in Asia, Europe, and North America. Its high proportion of foreign neighbours confirms its status as one of Southeast Asia's key international operators.

Lintasarta (AS4800) ranks second with **390 connections**—92 foreign and 298 local. The company is focused primarily on corporate customers, cloud solutions, and data centres, explaining its high level of local peering and comparatively moderate international connectivity.

The next group of major operators includes **XL Axiata (AS7717)**, **Moratelindo (AS23947)**, **Jala Lintas Media / FiberStar (AS136106)**, **Integrasi Jaringan Ekosistem (AS147094)**, **Hutchison 3 Indonesia (AS38158)**, **SIMS / Sinar Mas Group (AS55655)**, **Biznet Networks (AS138840)**, and **Indosat Ooredoo Hutchison (AS4761)**. Most of these operators have considerably more local than international connections: between 200 and 360 local neighbours and relatively few foreign links. This structure indicates a well-developed domestic peering ecosystem and extensive use of national internet exchanges.

XL Axiata (AS7717) and **Integrasi Jaringan Ekosistem (AS147094)** are particularly illustrative, with foreign neighbours accounting for only **2–5%** of their links. This indicates a strong domestic-market orientation and active interaction with local operators, content providers, and data centres. By contrast, **Indosat Ooredoo Hutchison (AS4761)** and **Hutchison 3 Indonesia (AS38158)** have higher levels of international integration—36% and 30%, respectively—reflecting their active participation in international transit and mobile networks.

Indonesia therefore follows a distributed model. Although Telkom Indonesia remains the largest market player, the substantial number of local links maintained by other operators points to a developed competitive environment and a mature system of domestic traffic exchange.

This structure confirms the high resilience of Indonesia's internet segment. Even with Telkom Indonesia's continuing dominant role, domestic connectivity is distributed among numerous large providers, mobile operators, corporate networks, and data centres. This reduces

dependence on individual infrastructure nodes and increases the fault tolerance of the national internet segment.

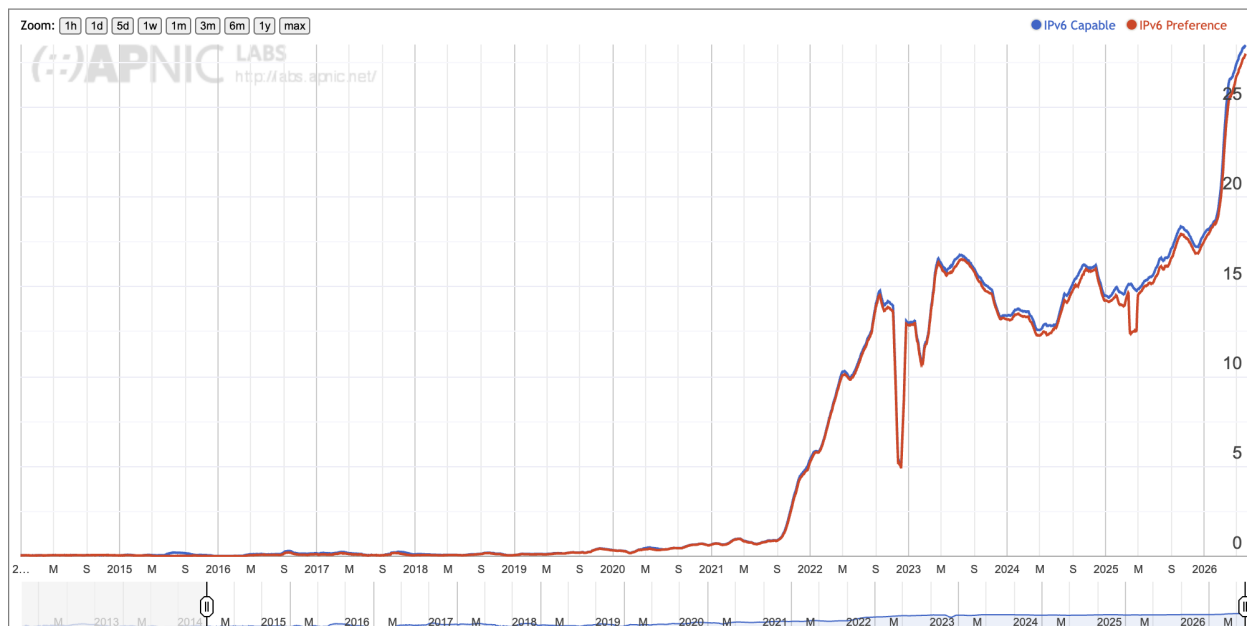
Overall, the distribution of links among the largest autonomous systems shows that Indonesia has created one of Southeast Asia's most developed and decentralised internet ecosystems. The combination of a powerful international gateway represented by Telkom Indonesia and a large number of major locally oriented operators provides both strong global integration and sustainable development of the domestic internet market.

2.5. IPv⁶ Penetration

The transition to IPv⁶ is proceeding much more slowly than in leading countries in the region. The architecture of most small and medium-sized internet providers was historically built around exhausted IPv⁴ address pools and extensive use of Network Address Translation (NAT).¹ Deployment of the new protocol remains fragmented, and the dominant model is still dual stack, in which IPv⁶ operates alongside IPv⁴ rather than replacing it.¹

In recent years, however, a turning point has emerged due to initiatives by leading mobile operators to modernise their network cores. Moving millions of mobile devices belonging to Telkom-group customers to IPv⁶ routing produced a noticeable jump in the statistics. Experts note that, without administrative pressure or strong economic incentives from the regulator, complete abandonment of the older protocol will take a long time.¹

Chart 6: IPv6 Penetration in Indonesia (2015–2026)



Source: stats.labs.apnic.net

2.6. Connectivity Index

Two key indicators based on pairwise links, or peering relationships, between Autonomous Systems (ASNs) are used to assess the degree of integration of the national internet segment.

Global Connectivity Index: the total number of unique links between each Indonesian ASN and every external, foreign ASN. In practical terms, it measures how broadly and diversely the national internet segment is connected to the rest of the world. The higher the figure, the more “windows” the country has onto the global internet.

Local Connectivity Index: the total number of unique links between different domestic ASNs. It reflects the intensity and complexity of the internal internet market, particularly activity at internet exchange points. A high value indicates a developed domestic ecosystem capable of exchanging traffic efficiently within the country, minimising latency and reducing dependence on external channels for local data.

Analysing the relationship between these two indices helps determine the strategic orientation of the national network: whether it is primarily self-sufficient or deeply integrated into global infrastructure.

Chart 7: Global Connectivity of Indonesian Autonomous Systems (2010–2026)

Global Connectivity Statistics



The chart shows sustained and accelerating growth in the international connectivity of Indonesian autonomous systems throughout 2015–2026. The number of foreign neighbours rose from approximately 350–400 in the mid-2010s to almost 4,000 by 2025–2026.

Acceleration became particularly noticeable after 2018–2019, while the sharpest jump occurred in 2025, when the indicator almost doubled within a short period.

This trend reflects Indonesia’s rapidly strengthening role as one of Southeast Asia’s largest digital hubs. As the region’s largest economy and ASEAN’s largest internet market, the country is gradually moving from dependence on foreign transit operators toward deeper integration into the global traffic-exchange infrastructure.

The principal drivers of growth are:

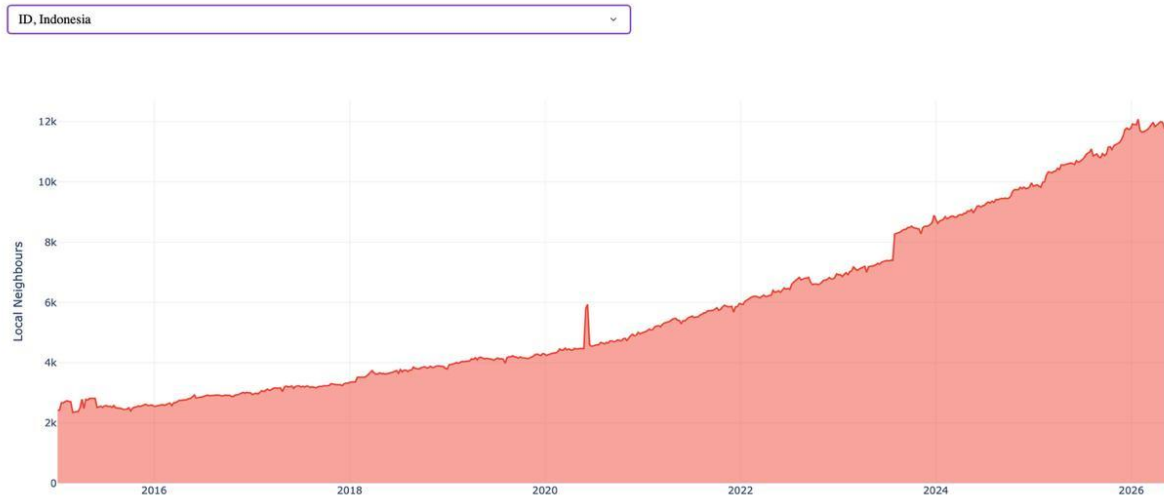
- **Large-scale development of international cable infrastructure.** New submarine cable systems—including Apricot, Echo, Bifrost, SEA-H2X, and Asia Direct Cable—have been brought into service, substantially increasing international capacity and the number of global operators present in the country.
- **Expansion of global cloud platforms and CDNs.** Investment by Google Cloud, AWS, Microsoft Azure, Alibaba Cloud, Meta, and other international companies has increased the number of international links and direct peering relationships.
- **Growth of data centres and the digital economy.** The development of major facilities in Jakarta, Batam, and other centres has attracted international carriers, content providers, and cloud services.
- **ASEAN regional integration.** Indonesia is gradually becoming one of the region’s key transit and content hubs, stimulating further growth in foreign connectivity.

The sharp increase in 2025 was probably associated with the simultaneous commissioning of several international infrastructure projects, the connection of new cloud regions, and a major expansion in international peering agreements. Subsequent stabilisation at around 3,800–4,000 foreign neighbours indicates a transition from rapid infrastructure expansion to active operation.

Indonesia’s global connectivity is therefore growing at an accelerating pace, reflecting the country’s transformation into one of the largest international internet hubs in the Asia-Pacific region.

Chart 8: Local Connectivity of Indonesian Autonomous Systems (2010–2026)

Local Connectivity Statistics



Unlike global connectivity, local connectivity shows smooth and almost uninterrupted growth throughout the period under review. The number of local neighbours increased from approximately 2,500–2,800 in 2015 to nearly 12,000 by 2026.

The chart contains no major fluctuations apart from isolated short-lived spikes, indicating gradual development of the domestic internet ecosystem. Acceleration became particularly noticeable after 2021–2022, followed by an additional surge in 2023–2024.

This trend points to increasing complexity and maturity in Indonesia’s domestic internet market. Growth in local connectivity means more internal peering links among telecommunications operators, data centres, content providers, and corporate networks.

The main factors are:

- **Development of national internet exchange points.** Indonesia has one of the region’s largest IXP ecosystems, including the Indonesia Internet Exchange (IIX), OpenIXP, and several regional facilities.
- **Rapid growth of the online population.** The country’s population exceeds 280 million, and the number of internet users continues to rise, stimulating local traffic exchange.
- **Localisation of content and cloud services.** International platforms increasingly locate infrastructure within the country, increasing the number of local connections.

- **Growth of data centres and the national digital economy.** Expansion in e-commerce, fintech, digital platforms, and government services is driving further growth in internal network links.

Growth after 2023 is particularly significant: the number of local neighbours rose by almost one-third within a relatively short period. This indicates not only an increase in market participants but also denser interconnection among existing players.

Overall, Indonesia's internet market demonstrates a high level of internal integration and the gradual formation of a mature national peering ecosystem capable of carrying a substantial share of traffic within the country.

Chart 9: Ratio of Global to Local Connectivity among Indonesian Autonomous Systems (2010–2026)

Total Connectivity Share



The chart shows the share of foreign connections in the overall connectivity structure of Indonesian autonomous systems. Between 2015 and 2024, the figure remained relatively stable at approximately 12–20%, gradually increasing as the country became more internationally integrated.

After 2025, the indicator rose sharply to 24–27% and then stabilised. This means that international links began growing faster than local connections.

Despite the substantial expansion of its domestic peering ecosystem, Indonesia remains actively integrated into the global network. The growing share of foreign links reflects the country's stronger international role as a digital centre of Southeast Asia.

The principal reasons for the changing connectivity structure are:

- **Accelerated growth in international links following the deployment of new submarine cables.** New routes sharply increased the number of foreign partners.
- **Strong presence of international cloud and content platforms.** Development of local AWS, Google, Microsoft, and other provider regions increased the number of direct international links.
- **Indonesia's expanding role as an ASEAN regional hub.** An increasing volume of interregional traffic between Southeast Asia, East Asia, and global networks passes through the country.
- **Continued rapid growth of the domestic market.** Local connectivity continues to expand despite the rising global share, preventing excessive dependence on external connections.

By 2026, Indonesia had therefore become a major regional digital hub with high domestic connectivity and rapidly strengthening international integration. The rise in foreign connections to around 25% does not indicate dependence on external operators; rather, it reflects the country's greater participation in the global internet economy.

3. Internet Legislation

3.1. Principles of Internet Governance

The basic paradigm for governing the country's digital space is the concept of a "healthy and safe internet" (*Internet Sehat dan Aman*). This doctrine legitimises state intervention in information flows in the interests of public order, religious harmony, and moral and ethical standards.⁴³ The legal framework consistently reinforces digital sovereignty, grants executive bodies broad powers to control content, and compels international corporations to comply with local jurisdictional requirements.⁴⁴

Human-rights organisations regularly point out that this approach has become a tool of political pressure. "Security" principles are often interpreted broadly, allowing the state apparatus to use censorship to suppress political dissent, restrict discussion of minority rights, and block resources associated with separatist movements, while avoiding transparent judicial procedures.⁴⁵

3.1.1. Regulation

The legal framework for internet regulation is based on specialised statutes and ministerial regulations. The central instrument is the Electronic Information and Transactions Law (UU ITE), which defines criminal liability for online conduct.⁴⁴ Another key control mechanism is

Ministerial Regulation No. 5 of 2020 (MR5/2020), governing the activities of Electronic System Operators (PSEs).⁴⁷

These rules require all digital platforms, including foreign technology companies, to register in a government database. Content providers must appoint local representatives, provide law-enforcement agencies with unhindered access to user data, and promptly remove material declared illegal or “negative” by the authorities. Failure to comply can result in administrative sanctions and service blocking at the backbone-provider level.⁴⁷

3.1.2. Regulatory Authorities and Responsible Officials

The principal executive authority responsible for policy and oversight in the digital sphere is the Ministry of Communication and Digital Affairs (*Kementerian Komunikasi dan Digital*, Komdigi; formerly Kominfo).

Key officials include:

- **Meutya Viada Hafid** — Minister of Communication and Digital Affairs, appointed in October 2024 during the formation of the new cabinet. [Ministry profile](#).⁵⁰
- **Alexander Sabar** — Director General of Digital Space Supervision, responsible for oversight of electronic-system operators and the application of administrative sanctions. [Ministry reference](#).⁴⁸

3.2. Market Monopolisation

De jure, communications and telecommunications legislation encourages licensing and private-operator activity and does not establish a direct state monopoly over internet access. The laws seek to create a competitive environment, attract private investment, and promote technological innovation.³¹

De facto, however, the market is highly concentrated in the hands of state capital. The state-owned telecommunications corporation **PT Telkom Indonesia** is the undisputed leader and effective monopolist in backbone infrastructure and fixed access. With the country’s most extensive network of terrestrial and submarine cables, it controls a substantial share of transit traffic.³¹

Following structural reforms and implementation of the Fixed Mobile Convergence strategy, the consumer segment under the IndiHome brand was transferred to **Telkomsel**, a mobile operator and Telkom subsidiary. The merger allowed the state conglomerate to concentrate as much as 80% of the home-broadband market and around 50% of mobile communications.³¹ The corporation is overseen through the Ministry of State-Owned Enterprises, and Ririek Adriansyah serves as its president director.³¹

3.3. Government-Ordered Internet Shutdowns

Legislation, including Telecommunications Law No. 36/1999, provides mechanisms allowing the authorities to intervene in operators' activities in the interests of national security. The initiation of so-called shutdowns—full or partial suspension of data networks—has traditionally been coordinated by the Ministry of Communications following requests from security agencies or the military.⁵³ Orders to restrict bandwidth are transmitted to backbone providers, which are required to comply immediately.

The shutdown procedure changed after a landmark ruling by the Jakarta State Administrative Court in June 2020. The court found that the government's 2019 internet shutdowns in the restive provinces of Papua were unlawful. It stressed that any restriction of citizens' basic right of access to information must be based on clear legal procedures rather than arbitrary discretionary decisions by officials.⁵⁴

Despite the ruling, experts report that the authorities have not abandoned the manipulation of connectivity. Instead of formal shutdown orders, periods of political tension or security operations in conflict regions are accompanied by widespread internet disruption officially attributed to "technical accidents," cable damage, or local infrastructure failures.⁵⁵

3.4. Legislation on "Speech on the Internet"

Prosecution of citizens and organisations for online publications relies on the Electronic Information and Transactions Law (UU ITE), adopted in 2008. The law contains so-called "rubber articles" (*pasal karet*) whose wording is deliberately vague. The concept of "spreading fake news" has no strict legal boundaries and is closely linked to accusations of defamation, libel, and incitement to hatred.⁴⁴

Under the law, any information capable of provoking public disorder, damaging the honour or dignity of officials, or insulting religious or ethnic sensibilities under the SARA concept may be prohibited. This allows law-enforcement agencies to interpret a wide range of publications—from criticism of government policy to satirical memes—as criminal offences.⁴⁴

Civil society campaigned for many years to repeal or substantially amend these provisions. In early 2024, parliament adopted a second revision of the ITE Law, Law No. 1 of 2024. According to human-rights organisations, however, the changes were largely cosmetic: definitions of defamation were narrowed only slightly, stronger evidence requirements were introduced, and maximum prison sentences under several articles were reduced from four years to two.⁵⁷

Despite these concessions, the core provisions allowing prosecution for "hate speech" and "false news" remain in force. The legislation was not properly harmonised with the new Criminal Code, leaving room for abuse.⁵⁷

In practice, political figures, influential businesspeople, and security agencies use UU ITE as a mechanism of retaliation and intimidation. Fear of criminal prosecution creates a persistent climate of self-censorship among journalists, academics, and ordinary users, undermining freedom of expression in the digital environment.⁴⁴

3.5. Internet-Blocking Legislation

The system for blocking online resources is a cornerstone of the government's digital-sovereignty policy. The authorities operate a large-scale traffic-filtering programme intended to shield the population from content considered contrary to national interests and cultural values.⁴³

3.5.1. Legislation

The legal basis for censorship includes Ministerial Regulation No. 19 of 2014 on countering websites with negative content and Regulation No. 5 of 2020 (MR5/2020) on Electronic System Operators. These rules require internet providers to restrict access at the technical level to materials placed on government blacklists.⁴³ The category of “negative content” includes pornography, gambling, copyright infringement, and any information deemed unlawful or threatening to public order.⁴⁷

3.5.2. Blocking Procedures

Filtering is initiated on the basis of monitoring by Ministry structures or complaints from citizens. The collected information is aggregated and added to a unified register. Until 2015, providers had some discretion over blocking methods; the regulator then required all DNS requests on port 53 to be forcibly redirected to provider-operated filtering servers.⁶⁰ This means that attempts to use third-party DNS services are intercepted and analysed.

In 2024, the Ministry introduced additional technical directives requiring all international traffic to pass exclusively through a limited number of licensed Tier 1/NAP nodes. This created a centralised bottleneck and prevented smaller providers from avoiding blocking requirements.⁶⁰

3.5.3. Registers of Blocked Internet Resources

The government maintains a centralised blacklist known as the **Trust Positif** database. The existence of the register is officially acknowledged, but the full list of millions of blocked domain names is concealed from the public and is not published as a freely downloadable dataset.⁶¹

The Response Policy Zone (RPZ) technology is used to synchronise the database between the ministry and internet providers. Providers must regularly connect to government master servers and update their local filtering lists, allowing the authorities to change blocking parameters nationwide in real time.⁶²

3.5.4. Official Block-Status Services

Official checks of domain-name status are available through government interfaces:

- Ministry of Communication and Digital Affairs of the Republic of Indonesia — the ministry's block-status portal.⁶¹
- AduanKonten — a system for public complaints concerning illegal content.⁶¹

Access to AduanKonten.id may be restricted from some countries outside Indonesia; connections from foreign IP addresses can return a 403 Forbidden error.

Because the complete lists are closed, independent researchers develop tools to extract data from RPZ zones and publish archives for analysis of censorship:

- Aggregator of extracted domains.⁶³
- Scripts for integrating Trust Positif lists into local servers.⁶⁴
- Before the introduction of strict government control, filtering functions were partly performed by the community project **Nawala**.⁶⁵

3.5.5. Development of Blocking

Data from global monitoring networks such as OONI, the Open Observatory of Network Interference, and the Sinar Project's iMAP initiative show a continuing expansion in the categories of censored content.⁶⁶ Recent reports indicate that blocking affects not only casinos and pornography but also independent news outlets, politically critical blogs, LGBTQ-related resources, and human-rights organisations.⁴³

A major episode occurred in 2022, when Steam, Epic Games, Yahoo, and PayPal were blocked for refusing to comply with MR5/2020 registration requirements.⁴⁹ In July 2024, the DuckDuckGo search engine was blocked.⁶⁶

Conclusion: The development of blocking practices demonstrates the strengthening of state control. The government actively invokes the protection of public morality to deploy intrusive technologies such as DNS interception and filtering at traffic-exchange nodes. This contributes to a more closed information space and the suppression of freedom of expression.

4. Human-Rights Violations Online

Human-rights violations in Indonesia's digital environment are recorded regularly and have prompted concern from international human-rights institutions. The use of repressive legislation, technical censorship, and administrative pressure suppresses civic activism and creates a deeply rooted culture of self-censorship among content creators and ordinary

users.⁴⁵ The authorities justify these measures as necessary to combat disinformation, but in practice they also protect governing elites from criticism.⁴³

4.1. Government-Ordered Internet Shutdowns

Shutdowns are used as a radical form of information control in regions with high social tension. The best-known example was the complete internet shutdown in Papua and West Papua in August and September 2019 during mass protests.⁵³ Although a court declared the measure unlawful in 2020, restrictions continued in disguised form. New shutdowns occurred in Papua in 2021 and were officially attributed to a damaged submarine cable, although their timing coincided with separatist activity.⁵⁵ In May 2023, resources associated with the Papuan Student Alliance were selectively blocked ahead of the anniversary of the region's annexation.⁷⁰

4.2. Criminalisation of Online Expression

The ITE Law is the principal tool used to criminalise freedom of expression and has generated hundreds of criminal cases against ordinary citizens.

- **The Fatia Maulidiyanti and Haris Azhar case:** The prominent human-rights defenders faced criminal proceedings after discussing on YouTube an investigation into the alleged involvement of senior military officials, including the coordinating minister for maritime affairs and investment, in mining activities in Papua. Defamation charges exposed them to prison terms of up to four years. Following lengthy proceedings that attracted United Nations attention, the Supreme Court fully acquitted the activists, creating a rare precedent of resistance to a SLAPP case.⁷¹
- **The Lina Lutfiawati case:** In 2023, content creator Lina Lutfiawati posted a TikTok video in which she ate pork after reciting an Islamic prayer. A court found the video “blasphemous” and sentenced her to two years in prison and a fine of USD 16,000, demonstrating the severity of punishment for insulting religious sensibilities online.⁷⁰

4.3. Persecution of Media and NGOs

Independent journalism and non-governmental organisations face threats of physical violence and cyberattacks.

- **Abduction of journalist Sukandi Ali:** In March 2024, Indonesian naval officers abducted the journalist from his home in connection with an investigation into the military seizure of a civilian barge. Ali was interrogated using physical force and released only after signing a document renouncing journalism.⁷⁰
- **Cyberattacks on media outlets:** Opposition portals and feminist resources, including the news sites *Nasari* and *Konde*, are regularly targeted by coordinated DDoS attacks and server-intrusion attempts.⁷⁰ State structures and aligned business elites also sponsor networks of online trolls known as “buzzers,” which organise campaigns to

discredit undesirable organisations and dox human-rights defenders, including the January 2024 leak of UNHCR staff data.⁴⁵

5. Civil Society in Internet Governance

Civil society in Indonesia shows a high degree of self-organisation and resilience in the face of state repression. Journalists, lawyers, student unions, and independent researchers form coalitions to resist censorship and assist victims of digital persecution. Limited resources do not prevent them from campaigning against repressive laws and independently monitoring network anomalies.⁴⁵

5.1. Organisations

Several key non-profit organisations are at the forefront of the struggle for digital rights:

- Southeast Asia Freedom of Expression Network — a leading regional human-rights organisation specialising in monitoring online freedom of expression. It publishes analytical memoranda criticising legislation, including MR5/2020, and provides legal support to victims of cyber-persecution.⁷⁵
- AJI (Aliansi Jurnalis Independen) — the Alliance of Independent Journalists of Indonesia. The union actively opposes criminal-defamation provisions, defends journalists' rights to source confidentiality, and initiates litigation against internet shutdowns.⁵⁷
- Commission for Missing Persons and Victims of Violence — an organisation investigating abuse of power, including by the military. It actively uses digital tools to publish reports and is regularly subjected to pressure from the authorities.⁷⁴

5.2. VPNs and Circumvention Tools

Large-scale state censorship blocking millions of online resources has made circumvention technologies—including VPNs, proxy servers, and encrypted DNS—a daily necessity for a substantial share of internet users. VPNs are used not only to access banned political websites or social networks during protests but also to reach global gaming and financial platforms.⁶⁹

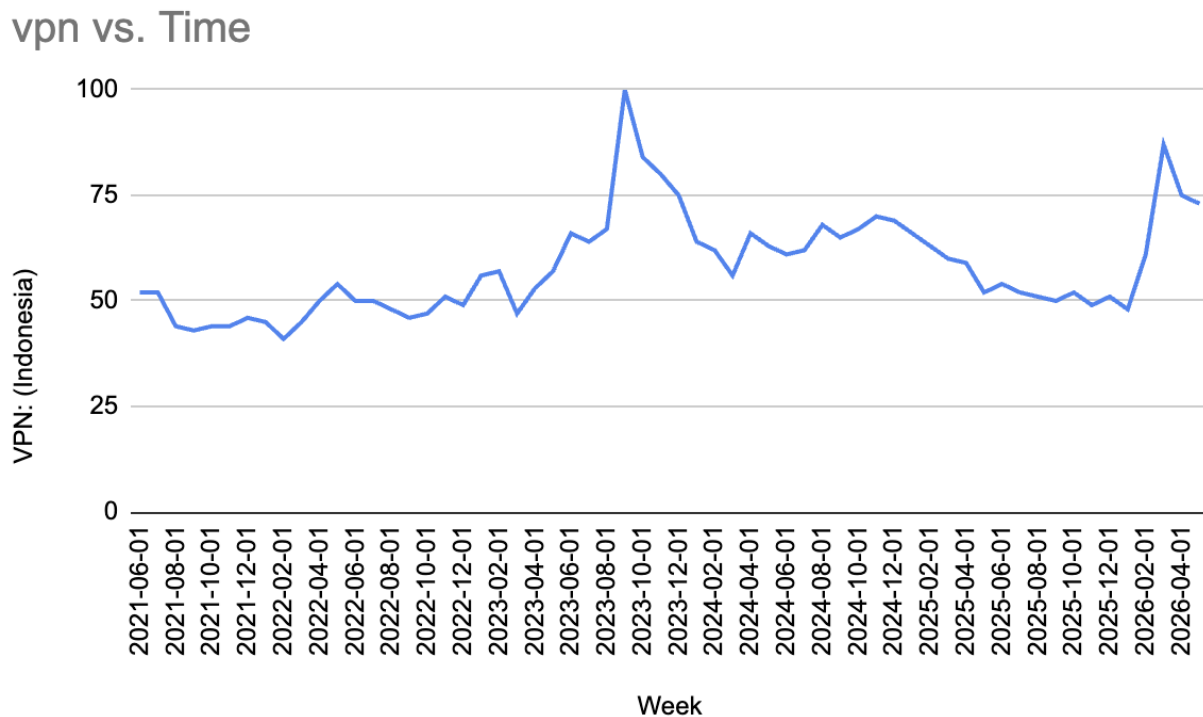
5.2.1. Legal Status of VPN Services

The use of VPN applications is **legal** in Indonesia; the law contains no direct prohibition on installation or private use.⁷⁸ Nevertheless, the regulatory environment is hostile toward anonymisation tools. Under MR5/2020, distribution of instructions or software intended to circumvent government blocking can be interpreted as facilitating access to “prohibited information” and may lead to content removal.⁵⁹ In 2024–2025, policy became more restrictive: the Ministry announced plans to limit free VPN services, citing the need to combat the spread of illegal online gambling.⁷⁹

5.2.2. Number of VPN Users

Indonesia consistently ranks among the world leaders in VPN penetration among internet users, driven by strong demand for unrestricted access to information.⁸²

Chart 10: VPN-Related Search Queries in Indonesia (2020–2026)



Source: trends.google.com

In autumn 2024, the government officially acknowledged that at least 30 popular free VPN services had been blocked at provider level. The technical implementation is based on traffic analysis and blocking IP-address pools associated with known commercial VPN providers.⁷⁹

5.2.3. Prosecution for VPN Use

There are no recorded cases of widespread criminal prosecution of ordinary citizens solely for using a VPN to read news or access blocked social networks. Proceedings are generally initiated only when anonymisation tools are used to commit serious cybercrimes.⁷⁸ Examples include large-scale police raids against transnational hacker groups, such as Operation Night Fury in 2019, and the arrests of hundreds of foreign citizens who operated illegal online-casino networks from Indonesia using encrypted communications and VPNs to conceal financial flows.⁸⁸

5.2.4. Monitoring of Blocking

Systematic monitoring of internet censorship in Indonesia is conducted by international and regional research initiatives:

- OONI Explorer — the global platform of the Open Observatory of Network Interference.⁶⁶
- Internet Monitoring Action Project (iMAP) — a regional initiative that publishes in-depth annual reports on censorship.⁶⁷

Five-year monitoring digest: In 2019–2020, researchers focused on full communications shutdowns in Papua and manipulation of DNS requests to restrict access to news aggregators.⁴⁶ In 2021–2022, iMAP documented an unprecedented campaign to block gaming and payment platforms—including Steam, Epic Games, and PayPal—for failure to comply with MR5/2020, along with extensive restrictions on human-rights websites.⁴³ In 2023–2024, OONI documented continuing political censorship, including the blocking of Papuan student-movement resources and temporary restrictions on DuckDuckGo.⁶⁶ Reports from 2025–2026 indicate that censorship increasingly shifted toward suppressing circumvention technologies, especially VPNs.⁸⁰

6. Conclusion

The analysis of digital rights in Indonesia indicates a deep and systemic crisis in freedom of expression and access to information. The state is methodically constructing a complex, multi-layered architecture of online control using both legal instruments—the repressive ITE Law and MR5/2020 administrative rules—and technological measures, including comprehensive DNS interception and mandatory traffic filtering by backbone providers. This policy criminalises lawful expression, encourages severe self-censorship, and harms the development of independent civil society.

Three possible development scenarios:

- **Neutral scenario — preservation of the status quo:** This is the most likely outcome. The Prabowo Subianto administration will continue relying on existing legislation to selectively suppress criticism and control political discourse. Blocking technologies will become more sophisticated, but the state will stop short of closing the internet completely. VPN use will remain in a grey area: enforcement will target organisers of criminal networks and online casinos, while ordinary users will continue to use circumvention tools.
- **Negative scenario — intensified censorship:** Escalating domestic political tension or economic shocks could trigger a sharp tightening of controls. The authorities could deploy deep packet inspection systems to block all known VPN and encrypted-DNS

protocols. Legislation might be amended to introduce criminal liability for the mere installation and use of software designed to circumvent government blocking, turning Indonesia's internet into a tightly controlled national intranet.

- **Positive scenario — regulatory easing and liberalisation:** This is the least likely scenario. Under strong pressure from international human-rights institutions, trading partners, and coordinated domestic civil society, the government could undertake a genuine revision of the ITE Law. Possible reforms include decriminalising defamation, removing excessive localisation requirements for foreign technology companies, and introducing mandatory judicial authorisation for all content blocking. Such changes would help restore the free exchange of information.

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