

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

Malaysia, one of Southeast Asia's most technologically advanced countries, with a highly digitalised economy and widespread internet access, provides a revealing example of active digital-infrastructure development combined with the gradual strengthening of state regulation of the online environment. This report offers a comprehensive analysis of the state of the internet and digital rights in Malaysia between 2019 and 2026, examining the key technological changes, legislative initiatives, and political processes influencing the country's digital development.

The document examines the principal indicators of internet-infrastructure development, including growth in the number of users, access quality and speed, the spread of mobile internet, and the state of the internet-service-provider market. Particular attention is paid to regulation of the digital environment: legislation governing the internet, the practice of blocking online resources, restrictions on freedom of expression online, mechanisms of state control and surveillance, and measures for protecting personal data. A separate section addresses the use of VPN services as a tool for privacy, the protection of digital rights, and continued access to information.

The report also examines the most significant events affecting Malaysia's digital environment, including socio-political developments, legislative reforms, and government initiatives that generated substantial public debate. The analysis shows how the balance between digital-economic development, national security, protection of the public interest, and respect for citizens' fundamental digital rights and freedoms changed over time.

This report will be useful to researchers, digital-policy specialists, human-rights advocates, business representatives, and anyone interested in the development of internet environments in Asian countries, state regulation of the internet, and the protection of digital rights. It provides a comprehensive picture of Malaysia's contemporary digital landscape and the key trends shaping it between 2019 and 2026.

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.

The State of the Internet and Digital Rights in Malaysia (2019–2026)	1
1. General Information	3
1.1. Population	3
1.2. Gross Domestic Product	4
Chart 2: Malaysia’s Nominal GDP Growth (1985–2026)	5
1.3. Key Economic Characteristics	5
1.4. General Political Situation	6
2. Internet	7
2.1. National Domain	7
2.2. Number of Users	7
2.2.1. Fixed Internet	8
Chart 3: Number of Fixed-Broadband Subscribers in Malaysia (2019–2026)	9
2.2.2. Mobile Internet	9
Chart 4: Number of Mobile-Broadband Subscribers in Malaysia (2019–2026)	10
2.3. Internet Speed and Quality of Service	10
2.4. Development of Providers and Autonomous Systems	11
Chart 5: Growth of Autonomous Systems in Malaysia (2010–2026)	12
2.5. IPv6 Penetration	15
2.6. Connectivity Index	16
Chart 7: Global Connectivity of Malaysian Autonomous Systems (2010–2026)	17
Chart 8: Local Connectivity of Malaysian Autonomous Systems (2010–2026)	19
Chart 9: Ratio of Global to Local Connectivity among Malaysian Autonomous Systems (2010–2026)	21
3. Internet Legislation	22
3.1. Principles of Internet Governance	22
3.1.1. Regulation	23
3.1.2. Regulatory Authorities and Responsible Officials	23
3.2. Market Monopolisation	23
3.3. Government-Ordered Internet Shutdowns	24
3.4. Legislation on “Speech on the Internet”	25
3.5. Internet-Blocking Legislation	25
3.5.1. Legislation	26
3.5.2. Blocking Procedures	26
3.5.3. Registers of Blocked Internet Resources	26
3.5.4. Independent Registers of Blocked Resources	27
3.5.6. Development of Blocking Practices	27
4. Human-Rights Violations Online	28

4.1. Government-Ordered Internet Shutdowns	28
4.2. Criminalisation of Online Expression	28
4.3. Persecution of Media and NGOs	29
5. Civil Society in Internet Governance	29
5.1. Organisations	30
5.2. VPNs and Circumvention Tools	30
5.2.1. Legal Status of VPN Services	30
5.2.2. Number of VPN Users	31
Chart 10: VPN-Related Search Queries in Malaysia (2020–2026)	31
5.2.3. Prosecution for VPN Use	32
5.2.4. Monitoring of Blocking	32
6. Conclusion	33
7. References	34

1. General Information

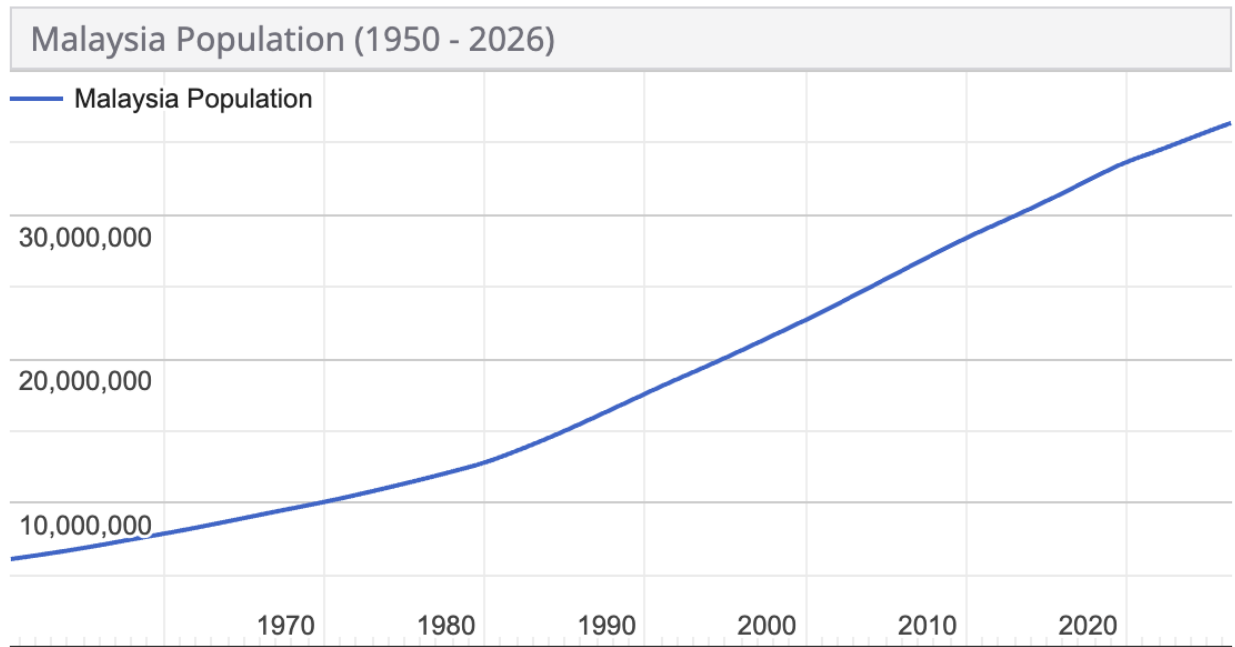
Malaysia is a Southeast Asian state with a distinctive geographic structure: the South China Sea divides it into two separate but politically unified parts. West Malaysia—also known as Peninsular Malaysia or Malaya—occupies the southern end of the Malay Peninsula and borders Thailand to the north and Singapore to the south. East Malaysia, comprising the states of Sabah and Sarawak, occupies the northern part of the island of Kalimantan (Borneo) and has land borders with Indonesia and Brunei. This geographic fragmentation, combined with difficult terrain that includes dense equatorial forests and mountain ranges, creates objective barriers to uniform infrastructure development. The need to lay extensive submarine fibre-optic cables across the South China Sea and provide communications in remote areas directly increases the capital intensity of telecommunications projects, contributing to the long-standing digital divide between the highly urbanised western states and the resource-rich but less densely populated eastern regions.¹

1.1. Population

Malaysia's population in mid-2026 is 36.4 million.

Malaysia's demographic structure is characterised by steady growth, a high level of urbanisation, and considerable ethnic and cultural diversity, all of which deeply influence domestic politics and patterns of digital-content consumption. The population is classified through a complex system of preferences: Malays and indigenous peoples—collectively known as *Bumiputera*, or “sons of the soil”—form the overwhelming majority, while the substantial Chinese and Indian communities traditionally play a major role in the country's economic and commercial life. This diversity requires telecommunications companies and digital platforms to support multilingual interfaces in Malay, English, various Chinese dialects, and Tamil, and to moderate the information environment carefully to prevent interethnic conflict. The state frequently invokes this need as justification for stronger internet controls.²

Between 2019 and 2026, demographic indicators showed moderate turbulence caused by the consequences of the global COVID-19 pandemic. In 2020 and 2021, the population declined slightly or stagnated because of the departure of migrant workers, temporary border closures, and lower birth rates. As the economy recovered and national initiatives to attract foreign specialists for the expanding electronics and digital-technology sectors intensified, however, the demographic curve returned to a stable upward trajectory. By May 2026, the population had exceeded 36 million. Young people and economically active residents under the age of 35 account for a substantial share and are the main drivers of demand for high-speed mobile internet, social media, and e-commerce services.⁵

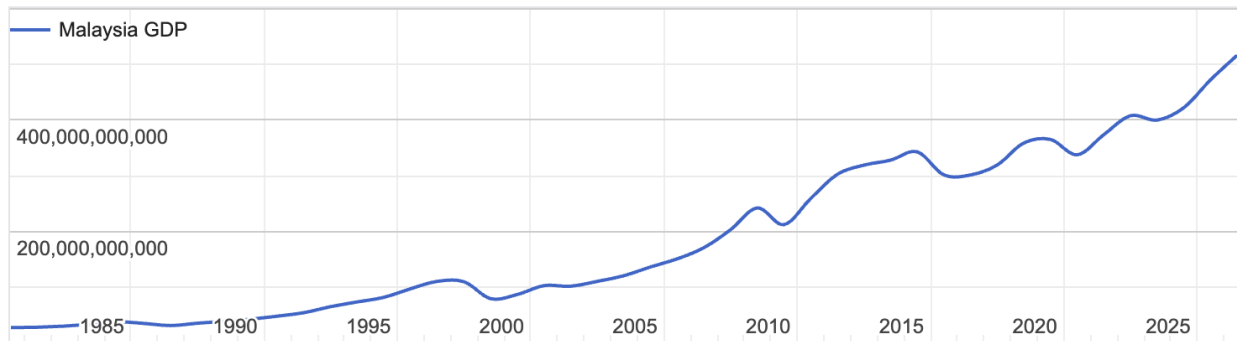
Chart 1: Malaysia's Population Growth (1950–2026)

Source: worldometers.info

1.2. Gross Domestic Product

Malaysia's macroeconomic performance during the period under review demonstrates the national economy's ability to absorb external shocks, from the pandemic crisis to large-scale changes in the architecture of global supply chains. After the inevitable contraction of gross domestic product in 2020, caused by strict Movement Control Orders and falling global energy prices, the economy entered a V-shaped recovery. Strong domestic demand, supported by large government-stimulus programmes, and a global growth cycle in the technology sector enabled Malaysia's GDP to expand steadily. Fiscal reforms aimed at gradually replacing universal fuel subsidies with more targeted social support helped keep inflation relatively low, creating a favourable environment for investment in digital infrastructure.⁹

Amid intensifying trade confrontation between the United States and the People's Republic of China, Malaysia capitalised on its status as a neutral jurisdiction. This attracted substantial foreign direct investment, especially in the construction of data centres for multinational technology corporations and semiconductor facilities. As a result, despite periodic fluctuations in the Malaysian ringgit's exchange rate against the US dollar, nominal GDP increased steadily and exceeded USD 500 billion by 2026. This economic base gives the government the resources to implement ambitious public-sector digitalisation programmes and expand fifth-generation mobile-network coverage.¹¹

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

Source: worldometers.info

1.3. Key Economic Characteristics

Throughout the period under review, Malaysia's economy remained in a phase of confident industrial and post-industrial growth and successfully avoided a prolonged recession. Economic stability rests on a powerful export-oriented electrical and electronics (E&E) manufacturing sector, which forms the foundation of the country's integration into global technology supply chains. The historically established oil-and-gas and palm-oil industries also generate substantial export revenue. In recent years, the economy has undergone a structural shift toward digital services: government strategy aims to transform Malaysia into a regional hub for cloud computing and artificial intelligence, as demonstrated by multibillion-dollar investments by international technology companies in infrastructure on the Malay Peninsula.⁸

At the same time, the economy faces serious structural imbalances that could delay its transition to high-income status. The key problem is the so-called middle-income trap, combined with a shortage of highly skilled jobs. Although the number of university graduates is increasing, the labour market does not generate enough technology-intensive positions. Statistics show that skill-related underemployment has become systemic: millions of graduates are forced to accept low-paid jobs in services or traditional industry. For many years, the public budget has also been burdened by large, untargeted fuel and food subsidies, narrowing the government's fiscal space and limiting opportunities for large-scale investment in human-capital development.¹⁷

1.4. General Political Situation

Malaysia is a federal elective constitutional monarchy and multiparty parliamentary democracy built around a complex ethnic and religious balance. The head of state is the Supreme Ruler, the Yang di-Pertuan Agong, elected on a rotating basis for a five-year term by the Conference of Rulers from among the hereditary sultans of nine Malay states. Executive

authority is concentrated in the Cabinet, headed by the prime minister, who is the leader of the coalition holding a majority in the lower house of parliament, the Dewan Rakyat. Administratively, the country is divided into 13 states and three federal territories with their own constitutions, while national security, telecommunications, and foreign policy fall under the exclusive jurisdiction of the federal government.³

The political situation changed significantly after the 2018 election, when the Barisan Nasional, or National Front, coalition—which had governed since Malaysia gained independence in 1957—lost power to the opposition for the first time. Major causes included corruption scandals, especially those involving the state investment fund 1MDB, and accumulated public dissatisfaction. In the following years, the country experienced political instability, with several prime ministers—Mahathir Mohamad, Muhyiddin Yassin, and Ismail Sabri Yaakob—and repeated changes in parliamentary coalitions. This created uncertainty for businesses and investors and affected the consistency of public policy, including in digital regulation.⁴

The November 2022 election produced a hung parliament, leading to the formation of a so-called Unity Government under long-time opposition leader Anwar Ibrahim. His Pakatan Harapan, or Alliance of Hope, coalition, supported by progressive urban voters and minorities, was forced into a tactical alliance with its former opponents in Barisan Nasional and regional parties from Borneo. Anwar Ibrahim’s government announced a programme of socio-economic reform under the *Ekonomi MADANI* concept, aimed at combating corruption, increasing government transparency, and restructuring the economy.⁴

Despite its progressive image, the Anwar Ibrahim administration faces powerful political pressure from the conservative Perikatan Nasional opposition coalition, which includes the influential Islamist party PAS. The opposition actively uses social media to mobilise the rural Malay-Muslim majority, accusing the government of excessive liberalism and threatening traditional values. The Unity Government’s desire to retain the support of conservative voters and prevent political destabilisation has produced a paradoxical result: a government that originally proclaimed its commitment to freedom of expression has increasingly resorted to strict internet regulation, censorship, and criminalisation of online speech, presenting these measures as necessary to combat disinformation and protect social values.⁴

2. Internet

2.1. National Domain

Malaysia’s country-code top-level domain (ccTLD) is **.my**. Administration, operation, and policy development for the national domain space are handled by MYNIC Berhad, a specialised agency affiliated with Malaysia’s Ministry of Communications. MYNIC is responsible not only for technical routing but also performs quasi-regulatory functions,

ensuring that domain names comply with national legislation. Relations between registrants and MYNIC are governed strictly by the Registrant Agreement, which incorporates the Malaysian Domain Name Dispute Resolution Policy (MYDRP) and places responsibility for hosted content on domain owners.¹⁹

Historically, domain-allocation policy in the .my zone was strongly protectionist. Registration of second- and third-level domains was strictly limited to local legal entities through the SSM company-number system and Malaysian citizens with verified NRIC identification numbers. This constrained growth of the domain zone in a globalised environment. The situation changed fundamentally when MYNIC, as part of a strategy to liberalise the digital economy, removed the mandatory local-presence requirement for certain categories of domains. This strategic shift allowed foreign corporations to register second-level .my names on a first-come, first-served basis, substantially increasing the investment appeal of the national domain space, although local-business-registration requirements remained in place for subdomains such as .com.my.²¹

The terms of use for the national domain contain strict ideological and legal restrictions reflecting the particular features of Malaysian law. MYNIC reserves the exclusive right to reject applications and unilaterally suspend—through the “ServerHold” status—or delete existing domains when their names are considered sensitive, obscene, scandalous, or contrary to public morality under Section 9.2 of the policy. The agency is also required to assist law-enforcement bodies. Where content hosted on a domain is deemed to fall under Sections 211 or 233 of the Communications and Multimedia Act 1998, including offensive or false information, MYNIC may initiate blocking without a prior court order.¹⁹

2.2. Number of Users

Malaysia’s internet-access infrastructure is developing rapidly but retains a structural imbalance caused by geography and economics: mobile technologies overwhelmingly dominate fixed-line access. Data are compiled from statistics published by the Malaysian Communications and Multimedia Commission (MCMC), analytical reports by the Khazanah Research Institute (KRI), and global databases such as Statista. Growth in the number of users accelerated significantly during the COVID-19 pandemic, when remote work and online education became routine and the government’s JENDELA programme provided unprecedented funding for communications-infrastructure modernisation.

Data sources:

1. Official statistics from the MCMC / Ministry of Communications.²³
2. Research by the Khazanah Research Institute (KRI).¹
3. Reports by the international data platform Statista.⁷

2.2.1. Fixed Internet

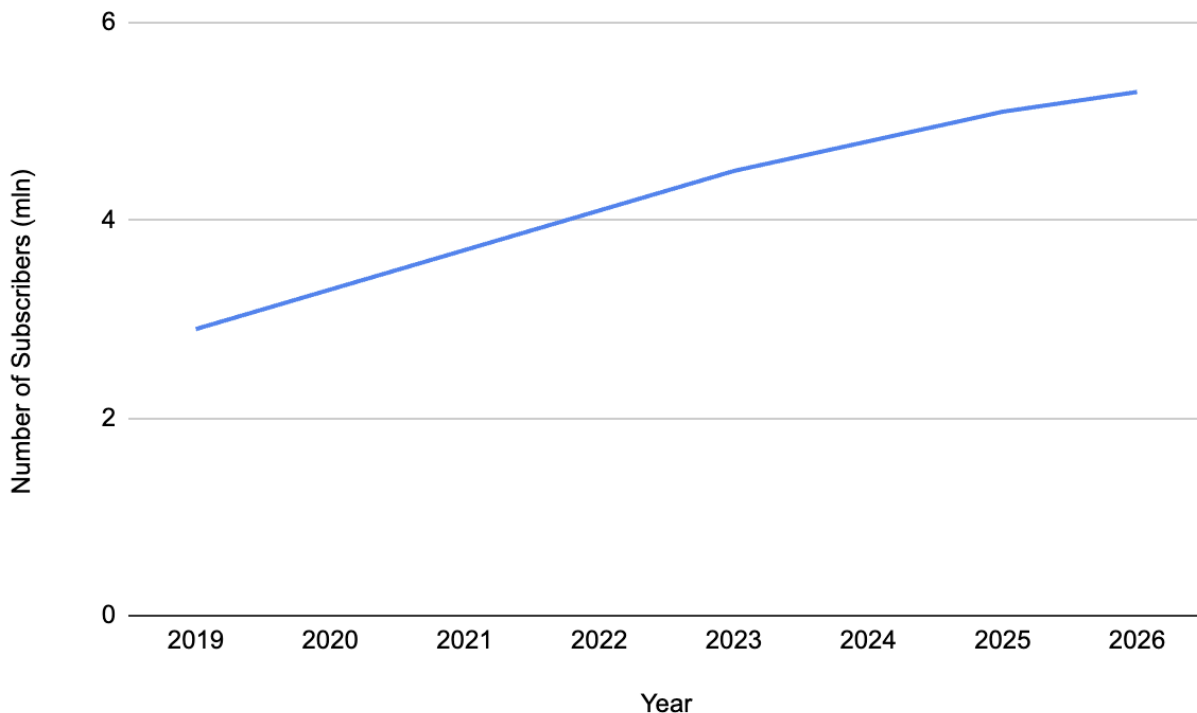
Malaysia's fixed-broadband market has historically developed under conditions of high capital concentration and a quasi-monopolistic state presence. Laying fibre-optic lines is economically justified mainly in the densely populated urban agglomerations of Peninsular Malaysia, including Kuala Lumpur, the Klang Valley, Penang, and Johor. Large rural areas and East Malaysia therefore remain underserved by high-speed home networks. This digital-divide problem is partly addressed through satellite technologies and fixed wireless access, but physical cable infrastructure remains largely an urban privilege.¹

The undisputed market leader and owner of most backbone infrastructure is the state-affiliated corporation Telekom Malaysia (TM), which offers services under the Unifi brand. Its market share in 2021–2022 was estimated at 85–90%. Competition comes from niche operators such as TIME dotCom, which specialises in high-speed access for apartment condominiums and commercial property, and companies offering hybrid communications services such as Astro IPTV.

Largest providers:

- **Telekom Malaysia (Unifi):** <https://unifi.com.my/> — approximately 90% market share.²⁵
- **TIME dotCom:** <https://www.time.com.my/>

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



2.2.2. Mobile Internet

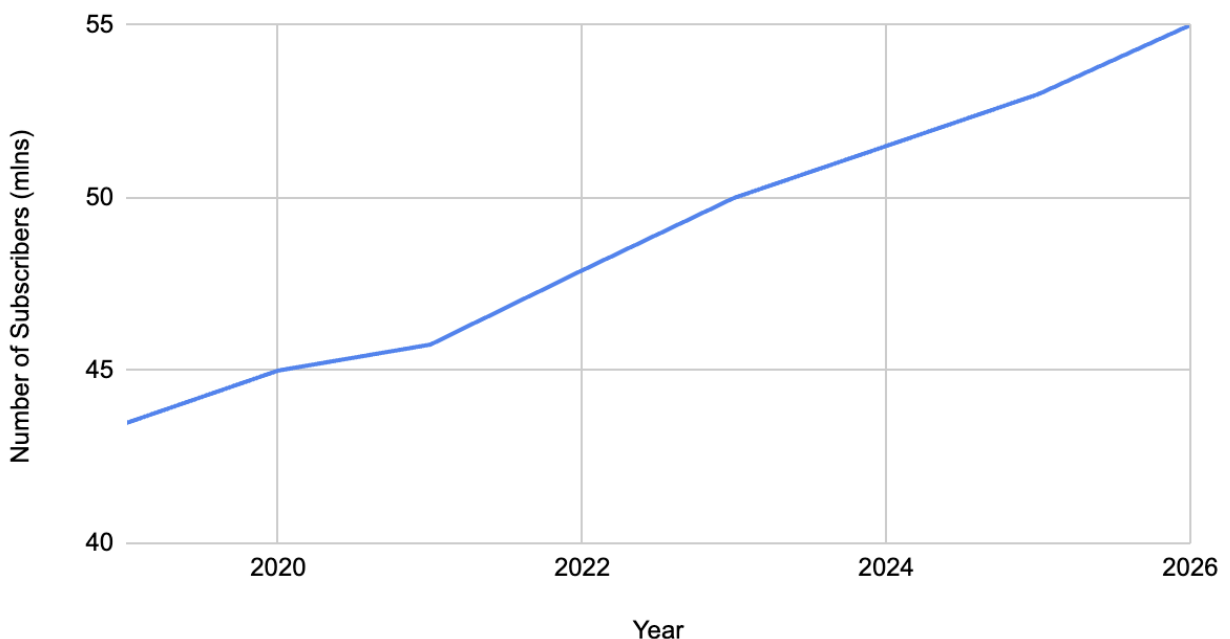
Mobile internet is the foundation of Malaysia’s digital economy and the principal means of connectivity for the overwhelming majority of citizens. Penetration of cellular communications and mobile broadband has long exceeded 100%, because many users maintain several SIM cards for personal and professional use. Notably, the urban-rural gap in mobile-internet consumption has almost disappeared: 4G networks cover nearly all populated areas, making the smartphone a universal instrument of economic participation through electronic wallets, public services, and social media.¹

Competition in the mobile segment is considerably more dynamic than in fixed broadband, although consolidation is also evident. At the end of 2022, two major operators, Celcom and Digi, completed a landmark merger, creating CelcomDigi, now the country’s largest operator by subscriber base. It is followed by the historically strong Maxis, as well as U Mobile and YTL Communications under the Yes brand, which compete through aggressive pricing and a focus on younger audiences.

Largest providers:

- **CelcomDigi:** <https://www.celcomdigi.com/> — approximately 35–40% market share after the merger.⁴
- **Maxis:** <https://www.maxis.com.my/> — approximately 25–30% market share.²⁵
- **U Mobile:** <https://www.u.com.my/>

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



2.3. Internet Speed and Quality of Service

Analysis of telecommunications-service metrics indicates that Malaysia's infrastructure is successfully handling exponentially increasing traffic volumes and performs strongly by global standards. The transformation in service quality in recent years has been driven largely by the extensive rollout of fifth-generation mobile networks. Initially, 5G deployment was organised through a tightly controlled state monopoly, the single wholesale network Digital Nasional Berhad (DNB). After achieving its target of 80% population coverage, however, the government responded to pressure from the telecommunications industry and began a gradual transition to a more competitive dual 5G network model in 2024–2025. This decision encouraged operators to improve last-mile service quality.⁴ By spring 2026, 5G coverage of populated areas had exceeded 82.4%, with more than 28 million active subscriptions to next-generation networks.³⁰

Objective measurement data confirm the country's leading position in the subregion. According to the Ookla Speedtest Global Index for April 2026, Malaysia's median mobile download speed reached 199.99 Mbps. Upload speed was 22.97 Mbps, with average latency of only 29 milliseconds. These results placed Malaysia's mobile internet 34th globally, ahead of many developed countries.³¹

Fixed broadband presents a more complex picture, although it too shows steady progress. The nationwide median home-internet download speed was 168.07 Mbps, while in the Kuala Lumpur metropolitan area it was slightly higher at 171.53 Mbps, with an upload speed of 75.12 Mbps and latency of seven milliseconds. In global fixed-broadband rankings, Malaysia has generally occupied positions between 45th and 68th in different months. These figures indicate that, although mobile communications have undergone a dramatic technological leap, modernisation of copper and older fibre lines at household level is proceeding more slowly than in regional leaders such as Singapore and Thailand.³¹

Research links:

1. [Ookla Speedtest Global Index, April 2026](#).³²
2. [Ookla: Network-performance analytics for Kuala Lumpur](#).³¹
3. [Wikipedia: List of countries by internet-connection speed](#).³³

2.4. Development of Providers and Autonomous Systems

The routing architecture of Malaysia's segment of the global internet was historically based on a hierarchical and highly centralised Autonomous System structure. The dominant position of national operator Telekom Malaysia (AS4788) and a limited number of large mobile providers meant that domestic internet connectivity depended heavily on several backbone nodes. The government's programme to transform Malaysia into a regional technology hub, however, triggered rapid growth in new points of presence. The large-scale construction of hyperscale

data centres—especially in Johor, which serves nearby Singapore—and the arrival of global cloud-service providers substantially diversified the network topology.¹²

According to global routing metrics such as RIPEstat, Malaysia’s internet has shown steady growth both in the number of registered Autonomous Systems and in the number actively announcing prefixes to the global BGP table. This reflects not only greater complexity in operator architectures but also the fact that corporations, financial institutions, and government bodies increasingly deploy their own isolated networks to improve cybersecurity and resilience.

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

ASN Statistics



The chart shows steady and almost uninterrupted growth in the number of Autonomous Systems in Malaysia between 2015 and 2026. The total number of registered ASes increased from approximately 185–190 in the mid-2010s to more than 400 by 2026, while the number of active, routable Autonomous Systems rose from around 120–125 to approximately 250. The clearest acceleration occurred in 2020–2023, coinciding with rapid expansion of the digital economy, cloud services, and national internet infrastructure.

Growth in AS numbers is associated with development of the telecommunications sector, expansion by international cloud platforms, data centres, and internet providers, national digitalisation programmes, next-generation communications networks, and deeper integration of Malaysia into Southeast Asia’s regional internet ecosystem.

Total ASes per one million residents:

(≈ 405 AS / 35 million people) $\times$ 1 million ≈ 11.6 AS

Active, routable ASes per one million residents:

(≈ 250 AS / 35 million people) $\times$ 1 million ≈ 7.1 AS

For a country with a population of around 35 million, this is a relatively high figure, indicating a developed and diversified internet market. At the same time, the autonomy of network infrastructure remains lower than in the region's largest internet hubs, reflecting greater concentration around several large telecommunications operators.

Despite the leading role of national telecommunications companies such as Telekom Malaysia, Maxis, CelcomDigi, and TIME dotCom, the trend shows gradual growth in the number of independent network operators, corporate networks, and digital-service providers. The increase in active ASes indicates that more organisations are independently managing routing and interaction with the global internet.

Overall, the growth of Autonomous Systems confirms that Malaysia remains one of Southeast Asia's most developed digital markets. The increase in both the total number of ASes and active routable networks indicates greater resilience in the national internet segment, stronger competition among communications operators, and further consolidation of the country's position as an important regional digital and telecommunications centre.

Table 1: Ten Largest Autonomous Systems in Malaysia

#	Number of AS	Name	Web Site	Foreign neighbour count	Local neighbour count	Total neighbour count	Foreign neighbours share
1	9930	TIME dotCom Berhad	https://www.time.com.my	372	70	442	84.16%
2	4788	TM Technology Services Sdn. Bhd. (Telekom Malaysia)	https://www.tm.com.my	165	64	229	72.05%
3	45352	IP ServerOne Solutions Sdn. Bhd.	https://www.ipserverone.com	92	31	123	74.80%

#	Number of AS	Name	Web Site	Foreign neighbour count	Local neighbour count	Total neighbour count	Foreign neighbours share
4	38182	Extreme Broadband Sdn. Bhd.	https://www.extremebb.net	79	23	102	77.45%
5	142631	Metro Lightspeed	https://metrolightspeed.my/	51	4	55	92.73%
6	9534	Maxis / Binariang Berhad	https://www.maxis.com.my	30	13	43	69.77%
7	55720	Gigabit Hosting Sdn. Bhd.	https://www.gigabit.my	29	7	36	80.56%
8	24514	Ministry of Higher Education Malaysia	https://mohe.gov.my/	5	23	28	17.86%
9	133847	Anpple Tech Enterprise	https://hierof.com/en/	24	2	26	92.31%
10	4818	DiGi Telecommunications Sdn. Bhd. (CelcomDigi)	https://www.celcomdigi.com/	16	5	21	76.19%

Malaysia's internet market is characterised by a high level of international connectivity, although the largest Autonomous Systems maintain a more balanced mix of domestic and international relationships than is observed in major international transit hubs. The country's leading telecommunications operators combine strong participation in global internet routing with extensive domestic interconnection, reflecting Malaysia's role as both a national communications market and an important regional digital hub.

The largest Autonomous System by number of neighbouring networks is **TIME dotCom Berhad (AS9930)**, which has **442 neighbouring ASes**, including **372 foreign** and **70 local** connections. With **84.2%** of its neighbours located outside Malaysia, TIME dotCom demonstrates the highest overall level of international connectivity among the country's

largest network operators and plays a significant role in regional and international traffic exchange.

The second-largest network is **TM Technology Services (AS4788)**, part of the Telekom Malaysia group. The Autonomous System maintains **229 neighbouring ASes**, consisting of **165 foreign** and **64 local** neighbours. Compared with TIME dotCom, Telekom Malaysia has a noticeably stronger domestic presence while still maintaining extensive international connectivity, making it one of the key components of Malaysia's national internet infrastructure.

Among infrastructure and cloud service providers, **IP ServerOne Solutions (AS45352)** and **Extreme Broadband (AS38182)** occupy prominent positions. IP ServerOne has **123 neighbouring ASes** (92 foreign and 31 local), while Extreme Broadband maintains **102 neighbours** (79 foreign and 23 local). Both companies exhibit a predominantly international peering structure while also contributing to domestic connectivity through data-centre, cloud, and enterprise networking services.

Metro Lightspeed (AS142631) has **55 neighbouring networks**, of which **51 are foreign** and only **4 are local**, giving it one of the highest proportions of international connectivity (**92.7%**) among the largest Malaysian Autonomous Systems. This pattern suggests a strong orientation toward international transit and external connectivity rather than extensive domestic peering.

Among nationwide telecommunications operators, **Maxis (AS9534)** maintains **43 neighbouring ASes**, including **30 foreign** and **13 local** connections. Meanwhile, **DiGi Telecommunications (CelcomDigi) (AS4818)** has **21 neighbours**, with **16 international** and **5 domestic** connections. Both operators demonstrate a balanced combination of domestic and international interconnection typical of large mobile network providers.

Gigabit Hosting (AS55720) has **36 neighbouring networks**, including **29 foreign** and **7 local** connections, reflecting its focus on hosting and enterprise infrastructure. In contrast, the **Ministry of Higher Education Malaysia (AS24514)** is distinguished by a predominantly domestic connectivity profile, maintaining **23 local** neighbours compared with only **5 foreign** ones. This reflects its role as an academic and research network serving Malaysian educational institutions rather than international transit.

Overall, the largest Malaysian Autonomous Systems are characterised by a predominance of international neighbours. The share of foreign connections ranges from approximately **70–85%** for the major commercial operators and exceeds **90%** for Metro Lightspeed and Anpple Tech Enterprise. The principal exception is the Ministry of Higher Education Malaysia, whose connectivity is primarily domestic.

The distribution of neighbouring Autonomous Systems suggests that Malaysia possesses a well-developed internet infrastructure with strong integration into the global internet while maintaining substantial national interconnection through major operators such as **TIME**

dotCom, Telekom Malaysia, Maxis, and CelcomDigi. This combination of international reach and domestic backbone capacity supports Malaysia's role as one of Southeast Asia's important digital and telecommunications markets, although the available peering data indicate a less extreme international orientation than would be expected of a pure regional transit hub.

2.5. IPv6 Penetration

Malaysia's transition to the next-generation IPv6 routing protocol is proceeding at exceptionally high speed, making the country one of the clear leaders in the Asia-Pacific region. The technological drivers include severe exhaustion of IPv4 address space and the economic inefficiency of universal carrier-grade network-address translation in an environment of explosive growth in mobile devices. In addition, 5G networks and Internet of Things devices were deployed with hardware designed to obtain IPv6 addresses by default.³⁰

The catalyst for this technological leap was a deliberate policy by the MCMC, which set a national strategic objective of achieving 100% migration of all public and commercial communications networks to IPv6 by 2028. According to independent analysis by the regional internet registry APNIC and Google statistics, the share of Malaysian users successfully connecting to the global internet over IPv6 exceeded 50% early in the decade and surpassed 70% by 2026. This exceptionally high result indicates mature engineering infrastructure and readiness among national providers to handle future-generation traffic.³⁰



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 Malaysian 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 Malaysian Autonomous Systems (2010–2026)

Статистика глобальной связанности



The chart shows overall growth in the international connectivity of Malaysian Autonomous Systems throughout 2015–2026, although the trend is more volatile than in several other countries in the region. The number of foreign neighbours increased from approximately

350–400 in the mid-2010s to **1,100–1,200** by 2026, temporarily exceeding **2,000** connections at certain points.

The most noticeable acceleration occurred in **2019–2020**, when the number of international links almost doubled within a short period. The indicator then stabilised at a higher level while retaining substantial fluctuations associated with changes in the international-connectivity structure of major telecommunications operators and transit providers.

This pattern reflects Malaysia’s growing role as one of Southeast Asia’s principal telecommunications and data-centre hubs. Its favourable geographic position and developed infrastructure have turned the country into an important concentration point for international internet traffic, linking regional networks with global backbone routes.

Main drivers of growth:

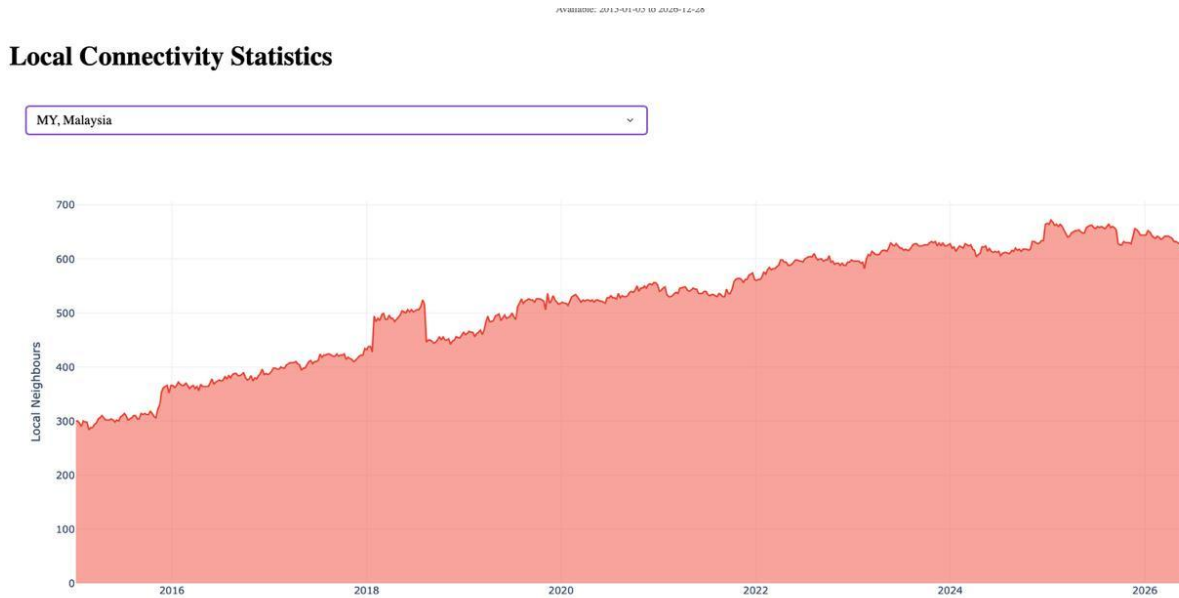
- **Development of international cable infrastructure.** Numerous submarine cable systems land in or pass through Malaysia, providing links between Asian countries, the Middle East, Europe, and North America. This increases the number of international operators and direct inter-network connections.
- **Formation of a regional data-centre hub.** Active construction of data centres in Kuala Lumpur, Johor, and other technology clusters has attracted major international cloud providers, content platforms, and telecommunications companies.
- **Expansion of global cloud platforms and CDNs.** Investment by Google, Microsoft, Amazon Web Services, Oracle, and other international companies has increased direct international connections and peering agreements.
- **Development of national telecommunications operators.** The country’s leading providers—including Telekom Malaysia, TIME dotCom, Maxis, and CelcomDigi—have consistently expanded the international connectivity of their networks, strengthening integration of the national internet segment into global infrastructure.

A characteristic feature of the chart is the sharp spikes and subsequent corrections recorded between 2020 and 2025. These were most likely associated with routing changes in major transit networks, redistribution of international traffic among operators, and the commissioning of new international links. The peak of around **2,000 foreign neighbours** near the end of the period was short-lived and probably reflected a temporary change in the connectivity structure of individual large Autonomous Systems.

Despite these fluctuations, the overall trend remains positive: by 2026, Malaysia’s international connectivity was more than three times higher than in the mid-2010s. This demonstrates deep integration into the global internet infrastructure and the country’s important role as a regional centre for traffic exchange, cloud services, and digital communications.

Malaysia's global Autonomous System connectivity therefore shows sustained long-term growth, confirming the country's status as one of Southeast Asia's most developed and internationally integrated internet markets. A large number of foreign links increases the resilience of the national internet segment, expands international data-exchange capacity, and supports further growth of the digital economy.

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



Unlike global connectivity, the local connectivity of Malaysian Autonomous Systems shows stable and relatively smooth growth throughout the period under review. The number of local neighbours increased from approximately **290–300** in 2015 to **620–650** by 2026, indicating a gradual strengthening of domestic network links and development of the national internet ecosystem.

The chart does not show the sharp long-term fluctuations seen in international connectivity. Although there are brief spikes and corrections in individual periods, the overall trend remains positive. The clearest growth occurred in **2018–2020**, when the number of local connections rose from around **420–450** to more than **500**. After 2022, the figure continued to increase, reaching peaks of **650–670 local neighbours**.

This trend reflects gradual development of the domestic internet-services market and a growing number of direct peering links among telecommunications operators, data centres, cloud platforms, and corporate networks. Increased local connectivity means a larger share of internet traffic can be exchanged within the country without using international transit routes.

Main factors behind the growth:

- **Development of national and regional internet exchange points.** Malaysia is actively expanding its internet-exchange infrastructure, increasing direct links among national operators and reducing reliance on external transit channels.
- **Growth in data centres and cloud infrastructure.** Construction of major data centres in Kuala Lumpur, Johor, and other technology clusters encourages new domestic network relationships between providers and digital-service companies.
- **Localisation of content and digital services.** International technology companies increasingly place server infrastructure and caching nodes inside the country, increasing domestic traffic exchange.
- **Development of the digital economy.** Expansion in e-commerce, financial technology, cloud services, and government digital platforms requires denser interaction among participants in the national internet market.

A notable feature is the persistence of strong local connectivity after 2023. Despite isolated short-term declines, the indicator remains within the range of **600–650 local neighbours**, suggesting a mature and relatively resilient domestic network ecosystem.

Malaysia's local connectivity is nevertheless substantially lower than that of the region's largest internet markets, particularly Indonesia. This is explained by the smaller number of Autonomous Systems and the more compact size of the national market. The relationship between local and international links, however, shows that Malaysia successfully combines strong global integration with development of domestic network infrastructure.

Overall, the local connectivity of Malaysian Autonomous Systems demonstrates stable development and gradual strengthening of domestic network relationships. Growth in the number of local neighbours indicates increasing maturity of the national internet market, expansion of the peering ecosystem, and a stronger capacity to keep a substantial share of internet traffic within the country's own networks and infrastructure.

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

Total Connectivity Share



The chart shows the changing share of foreign links in the overall connectivity structure of Malaysian Autonomous Systems. Throughout the period under review, the indicator remains high and generally falls within the range of **50–70%**, substantially above the levels typical of many other countries in the region. This reflects the strong international orientation of national internet infrastructure and Malaysia’s active participation in global internet-traffic exchange.

Between **2015 and 2018**, the share of foreign links remained relatively stable at **50–55%**. Beginning in late 2019, it increased noticeably to **70–73%**, reflecting the expansion of international connectivity by major telecommunications operators and growth in foreign peering and transit links.

After 2021, the indicator declined somewhat and stabilised within the range of **60–67%**, while international links continued to outnumber local ones. In 2025–2026, several brief spikes reached **75%**, after which the indicator returned to around **65%**. This points to continued international integration alongside a relatively stable domestic network structure.

The high share of foreign links reflects the specific character of Malaysia’s internet market, which functions as one of Southeast Asia’s largest regional telecommunications and data-centre hubs. A substantial volume of international traffic passes through the country’s infrastructure, and the largest operators maintain numerous direct relationships with foreign networks.

Main reasons for this connectivity structure:

- **Development of international telecommunications routes.** Malaysia is an important landing and transit point for submarine cable systems linking Asian countries with Europe, the Middle East, and North America.
- **High concentration of international data centres and cloud platforms.** The presence of Google, Microsoft, AWS, Oracle, and other global companies increases the number of direct international links.
- **Active transit operators.** Companies such as TIME dotCom, Global Transit Communications, and Telekom Malaysia operate not only as national providers but also as major participants in the international data-transmission market.
- **Malaysia's regional role in the ASEAN ecosystem.** The country facilitates traffic exchange among Southeast Asian markets and serves as one of the region's key centres of digital infrastructure.

At the same time, high international connectivity does not imply a weak domestic internet segment. Local connectivity is growing steadily in parallel, demonstrating development of national exchange points, localisation of digital services, and strengthening of the internal internet ecosystem.

By 2026, Malaysia had therefore become a highly integrated international internet hub with one of the region's largest shares of foreign connections. The continued level of around **65%** reflects the country's leading role in international traffic exchange, cloud-infrastructure development, and connectivity between national and global networks.

3. Internet Legislation

3.1. Principles of Internet Governance

For many years, Malaysia's internet-governance philosophy was based on a fundamental principle of "no direct censorship," formally enshrined in Section 3(3) of the Communications and Multimedia Act 1998 (CMA 1998) during the launch of the Multimedia Super Corridor, when the country was seeking to attract foreign investors. The provision declared that nothing in the law should be interpreted as permitting internet censorship. In practice, however, this ideal quickly came into conflict with political realities. The state created a strict system of indirect control through criminal provisions protecting public order and prohibiting offensive speech, enabling the authorities to suppress dissent effectively without formal technical pre-moderation.³⁸

Between 2024 and 2026, the internet-governance paradigm underwent a radical conceptual transformation. The government moved away from a reactive model based on blocking

websites after publication and introduced an architecture of shared platform liability. Under this new principle, global corporations earning revenue in the Malaysian market must establish a local legal presence and proactively administer user-generated content in strict accordance with national law, assuming the costs and risks of suppressing fraud, political disinformation, and material considered harmful to public morality.³⁹

3.1.1. Regulation

Regulation of Malaysia’s digital environment is built around a complex system for licensing providers and platforms. The central element of the updated legal framework is the Online Safety Act 2024 (OnSA), which was fully in force by 2026. Together with amendments to the CMA 1998, it introduced mandatory licensing for all social-media platforms and messaging services with more than eight million users in the country. This Applications Service Provider Class, or ASP(C), licence requires platforms to establish sophisticated algorithmic and human moderation systems, remove harmful content promptly, and introduce electronic know-your-customer procedures for user verification.³⁹

The “deeming provisions” under Section 46A of the CMA also became particularly important. To avoid bureaucratic delays and overcome resistance from technology companies, the government empowered the communications minister to declare major services—including WhatsApp, Telegram, Facebook, and TikTok—“licensed” unilaterally. Even without voluntarily applying for a licence, such platforms automatically fall under Malaysian jurisdiction and become subject to regulatory penalties, eliminating the legal vacuum previously enjoyed by companies without a physical office in Kuala Lumpur.³⁹

3.1.2. Regulatory Authorities and Responsible Officials

The principal supervisory, technical, and enforcement authority in the internet sector is the **Malaysian Communications and Multimedia Commission (MCMC)**, operating under the Ministry of Communications. The agency has extensive powers ranging from spectrum allocation to police raids and directives requiring the blocking of IP addresses.

Key officials shaping regulatory policy include:

- **Fahmi Fadzil** — Malaysia’s Minister of Communications, the political architect of the Online Safety Act 2024 and a leading proponent of strict social-media licensing. [Minister’s profile on the official portal.](#)
- **Tan Sri Mohamad Salim Fateh Din** — Chair of the MCMC, responsible for the commission’s operational management and implementation of technical traffic-filtering initiatives. [Chair’s profile on the MCMC website.](#)

3.2. Market Monopolisation

Malaysia’s telecommunications legislation, particularly Chapter 2 of the Communications and Multimedia Act 1998, formally establishes free-competition principles and prohibits

anticompetitive agreements and abuse of dominant market positions. The MCMC regularly publishes reports and conducts audits to prevent price collusion. Nevertheless, the extremely capital-intensive nature of telecommunications infrastructure inevitably produces natural monopolies or oligopolies.²³

The effective monopolist in backbone fibre networks and fixed broadband is the national telecommunications corporation **Telekom Malaysia (TM)**. This monopoly is managed through a model of direct state capitalism: the sovereign wealth fund Khazanah Nasional owns a controlling shareholding. The ownership structure allows the government to use TM infrastructure not only for profit but also as a strategic instrument for implementing national-security and censorship policies. Government-linked investment companies also hold interests in the country's largest mobile operators.¹⁰

The mobile market has evolved into a rigid oligopoly. The most important development was the regulator-approved 2022 merger of two historic competitors, Celcom and Digi. The resulting **CelcomDigi** controls a substantial share of spectrum and the subscriber base. Although the MCMC required the merged company to return part of its spectrum holdings to preserve a degree of competition, barriers to entry remain effectively insurmountable for new independent operators, entrenching the existing market structure.⁴

3.3. Government-Ordered Internet Shutdowns

Malaysian law gives the executive branch broad powers, subject to limited judicial control, to intervene radically in telecommunications networks. Under Section 266 of the Communications and Multimedia Act 1998, the communications minister has special powers during emergencies. With the prime minister's approval, the minister may order immediate suspension of any communications network, interception of communications, or full seizure of equipment from licensed operators when justified by national security, public order, or threats to the constitutional order.³⁸

The shutdown process is bureaucratically straightforward: the MCMC sends confidential, binding compliance directives to telecommunications-company executives. Failure to comply may result in immediate revocation of an operator's licence, multimillion-ringgit corporate fines, and lengthy imprisonment for senior managers. Operators are technically required to disable traffic routing in specified regions or for designated protocols.

Despite the availability of such powerful legal and technical instruments, the Malaysian government has exercised considerable caution in practice. Unlike some neighbouring states in South and Southeast Asia, Malaysia generally avoids prolonged, indiscriminate internet shutdowns affecting entire regions. This restraint is driven less by democratic principles than by the deep integration of the digital economy into national GDP. A total blackout would cause severe damage to finance, logistics, and, critically, Malaysia's reputation as a reliable and

secure technology hub for foreign investment. The government therefore favours more targeted methods of content blocking and pressure on specific platforms.¹⁸

3.4. Legislation on “Speech on the Internet”

Malaysia’s legal framework for online expression contains broad and vague wording that allows law-enforcement agencies to criminalise an extensive range of political and social criticism. The foundation of this repressive apparatus is **Section 233 of the Communications and Multimedia Act 1998**, which covers “improper use of network facilities or network services.” It makes it a criminal offence to create or transmit content deemed “obscene, indecent, false, menacing or grossly offensive” with intent to annoy, abuse, threaten, or harass another person. The subjective interpretation of “offence” has turned Section 233 into a universal weapon against political opponents, cartoonists, and civil-society activists.¹⁸

Malaysia’s campaign against “fake news” has a complex political history. In 2018, the previous government adopted a dedicated Anti-Fake News Act, which prompted fierce international criticism and was soon repealed by the succeeding administration. Decriminalisation did not follow, however: prosecution for disinformation shifted to the **Penal Code**, particularly Section 505(b), which penalises statements likely to cause public alarm, and the archaic but still widely used **Sedition Act 1948**, inherited from the British colonial period.⁴

Criticism of the monarchy and discussion of interethnic issues receive special treatment in enforcement practice. An informal but tightly controlled taboo surrounds the “3R” issues of Race, Religion, and Royalty. Any careless statement on social media that investigators interpret as disrespectful toward hereditary state rulers, or as an attempt to inflame tension between the Muslim majority and minorities, can lead immediately to a police investigation, confiscation of electronic devices, and prolonged court proceedings with a risk of imprisonment.¹⁸

The architecture of repression was strengthened considerably in 2024–2025 through amendments to the CMA 1998 and adoption of the Online Safety Act. The legal definition of “harmful content” was expanded to an unprecedented degree. It brought together overt criminality, including child sexual-abuse material and fraudulent financial advertising, social harms such as cyberbullying, and politically motivated expression under a single legal category. Platforms were thereby made highly vulnerable and required to moderate enormous volumes of information.³⁹

Financial penalties also became more severe. Whereas the previous maximum fine under the communications law was MYR 50,000, the amended legislation increased maximum liability for content providers to MYR 1 million while retaining the possibility of imprisonment. Malaysia has therefore created a legal environment in which self-censorship by citizens and excessively strict filtering by online platforms become the safest way to avoid financial or criminal ruin.³⁹

3.5. Internet-Blocking Legislation

Blocking access to websites is an everyday and deeply embedded instrument of information governance in Malaysia. The authorities traditionally justify censorship mechanisms as necessary to protect conservative religious values, prevent the spread of pornography, suppress illegal online gambling, and preserve interfaith harmony. Under the cover of public morality, however, the mechanism has become increasingly politicised.

3.5.1. Legislation

The primary legal basis for extrajudicial blocking is the Communications and Multimedia Act 1998. Section 263 imposes a direct duty on all licence holders, including backbone and retail internet providers, to provide the regulator and law-enforcement agencies with the “best possible assistance” in preventing offences. In practice, this requires providers to carry out government filtering instructions without independently challenging their legality.³⁸

From 2024, the framework was supplemented by the innovative “deeming provisions” in Section 46A of the CMA. This rule allowed the government to bring global platforms within the national legal system and require them to perform blocking themselves. Whereas the state previously blocked access to entire websites, it can now legally compel Facebook, TikTok, or another platform to geoblock an individual page or post for Malaysian users, transferring the technical work to the technology company.³⁹

3.5.2. Blocking Procedures

Blocking is implemented through a closed administrative process with almost no independent oversight. The MCMC initiates action on the basis of internal monitoring or referrals from other authorities, including the police and religious departments. It compiles lists of targeted resources and sends confidential, binding requests to local internet providers requiring them to restrict access to specified domain names, URLs, or IP-address ranges. Providers generally implement restrictions through DNS spoofing on their resolvers or server-name-indication filtering.¹⁸

The evolution of blocking methods culminated in autumn 2024, when the MCMC attempted to impose radically stricter technical controls. The regulator instructed Malaysian providers to introduce transparent DNS proxying and redirect all user DNS queries—including those intended for secure public resolvers such as Google’s 8.8.8.8 and Cloudflare’s 1.1.1.1—to local filtering servers. This would have created unprecedented large-scale DNS hijacking. Technical experts in civil society quickly exposed the plan, however, and the resulting public outcry forced the ministry to reverse course and withdraw the directive in September 2024.¹⁸

3.5.3. Registers of Blocked Internet Resources

The Malaysian government maintains deep secrecy regarding the scale and targets of network censorship. There is **no official, open, publicly accessible register of blocked websites** comparable to those in some other jurisdictions. Government agencies refuse to publish comprehensive lists of URLs or domains sent to providers for filtering, citing national-security concerns and a desire not to promote prohibited resources.¹⁸

As a result, citizens usually learn that censorship has been applied only after the fact. When attempting to visit a blocked resource, users are redirected to a dedicated MCMC landing page containing a standard notice that access has been restricted for violating national law. The absence of an open register severely complicates legal remedies for website owners: they cannot learn in advance why their site was blacklisted or challenge the regulator's action promptly in court.

3.5.4. Independent Registers of Blocked Resources

Because the government withholds this information, international and domestic civil-society projects have assumed the task of creating alternative, unofficial registers of blocked resources. These initiatives collect telemetry and document technical evidence of censorship.

The principal international resource is **OONI Explorer**, the open global database of the Open Observatory of Network Interference. It aggregates and visualises recurring accessibility tests for millions of websites from different Malaysian networks and providers. OONI publishes raw network data demonstrating technical anomalies such as connection timeouts or DNS manipulation.⁴¹

At national level, the Malaysian non-profit Sinar Project operates the **Internet Monitoring Action Project (iMAP)** database. Sinar Project aggregates data from OONI probes operated by volunteers across the country and organises the findings in annual reports. It focuses particularly on the inaccessibility of resources important to democratic discourse, including news portals, opposition blogs, and platforms protecting minority rights.⁴²

3.5.5. Development of Blocking Practices

Long-term OONI reports and iMAP research show that the scale and focus of blocking in Malaysia have evolved substantially in line with the political climate. At the beginning of the period under review, in 2019–2021, filtering was focused mainly on moral and ethical content, including mass blocking of pornography, LGBTQ-related websites, and escort services. In subsequent years, repression shifted increasingly toward control of political narratives.⁴

In 2022–2023, censorship spikes coincided with election cycles and government crises. OONI measurements recorded temporary but targeted disruption of independent investigative-media websites and blogs operated by political dissidents. Blocking was often

implemented through the local DNS servers of major providers such as TM and Celcom. The method proved ineffective because users switched widely to third-party resolvers such as Google 8.8.8.8 and Cloudflare 1.1.1.1, which easily bypassed basic filters.

Blocking practices reached a turning point in August and September 2024, when Sinar Project and OONI documented and publicised evidence that providers had deployed transparent DNS proxies. This deeper form of inspection meant that providers forcibly intercepted requests even to secure international resolvers, returned false IP addresses, and redirected users to the MCMC block page. It was a step toward a closed-internet architecture, but the resulting scandal forced the government to retreat.¹⁸

Conclusion: After recognising the technical difficulty and reputational cost of intercepting traffic at network level, the Anwar Ibrahim government changed tactics radically in 2025–2026. Malaysia is shifting away from targeted censorship at internet-provider routers, which is easy to detect and circumvent, toward systematic coercion of global technology companies through ASP(C) licensing. Instead of blocking sites directly, the authorities compel social networks and messaging services to remove content themselves under threat of enormous fines, achieving more effective censorship inside the platforms’ own ecosystems.

4. Human-Rights Violations Online

Freedom of expression and the right to seek and disseminate information freely are under unprecedented, multidirectional pressure in Malaysia’s online environment. The state’s repressive apparatus routinely uses administrative and criminal-procedure powers to suppress political criticism, satire, and investigative journalism. Arrests over social-media posts, hours-long police interrogations of civil-society activists, and the humiliating seizure of smartphones and computers for digital forensic examination have become routine practices intended to produce a durable atmosphere of fear and self-censorship.⁴

4.1. Government-Ordered Internet Shutdowns

Unlike countries such as India or Iran, where the authorities have used full shutdowns of mobile base stations and fixed internet services to suppress protests, Malaysia did not impose a nationwide or regional blanket internet shutdown during the period under review. The government considers the economic cost of halting digital-payment systems, logistics, and high-technology manufacturing unacceptable. Instead, the authorities have moved toward targeted “shutdowns” of individuals or platforms. A prominent example was the unusually intense pressure placed on ByteDance: in 2024, the MCMC sent TikTok an unprecedented number of orders requiring it to reduce the visibility of, or entirely remove, accounts belonging to users who criticised government decisions.¹⁸ Such targeted information blockades can inflict damage on freedom of expression comparable to that caused by technical shutdowns.

4.2. Criminalisation of Online Expression

The criminalisation of Malaysia’s digital environment has become a continuous campaign aimed at eliminating political dissent and criticism of public institutions. The state uses the full range of powers available under the Penal Code and the Communications and Multimedia Act against citizens considered undesirable. Several notable incidents in 2024–2025 attracted international attention:

- **Prosecution of political cartoonists — the Fahmi Reza case:** The prominent Malaysian satirical artist and activist Fahmi Reza, who has become a symbol of youth protest, has been a long-standing police target. The authorities repeatedly use Section 233 of the CMA to open criminal investigations into satirical images he publishes on X and Instagram. An exceptional example of digital censorship occurred in December 2024, when his TikTok account was permanently blocked during a livestream lecture on the history of student activism. Only a strong public-solidarity campaign persuaded the platform to restore access.¹⁸
- **Prosecutions for violating the “3R” taboo:** During periods of intense domestic political competition, dozens of ordinary citizens were arrested and prosecuted over Facebook posts that police interpreted as insulting hereditary state rulers or touching on sensitive racial issues. Cases were brought under the severe Sedition Act, which allows genuine prison sentences for careless online remarks.¹⁸
- **Transnational repression and persecution of foreign nationals:** Information control has extended beyond domestic politics. In October 2024, Malaysian police arrested a Cambodian activist living in the country, despite her refugee status, solely because she had posted videos on social media sharply criticising the Cambodian government. In violation of international legal norms, Malaysia deported her to Cambodia, demonstrating a willingness to use internet control in support of repression by neighbouring authoritarian governments.¹⁸

4.3. Persecution of Media and NGOs

Journalists and independent media outlets face constant pressure from lawsuits and police investigations. Opposition publications such as *Malaysiakini* and *Sarawak Report* regularly encounter exceptional pressure. The authorities’ tools include not only defamation suits filed by public officials, but also contempt-of-court proceedings over comments posted by readers beneath articles, effectively placing legal responsibility on journalists for third-party speech.

The introduction of automatic ASP(C) licensing and provisions of the Online Safety Act 2024 caused serious alarm among independent investigative journalists and human-rights organisations. They reasonably fear that technology companies, confronted with the risk of multimillion-ringgit fines and possible arrest of local representatives, will comply immediately with government demands to remove corruption investigations or reports of human-rights

abuses, turning platforms into instruments for cleansing the information environment on behalf of the state.³⁹

5. Civil Society in Internet Governance

Despite the repressive legal environment, Malaysian civil society is highly consolidated, professional, and technically sophisticated. Non-profit organisations, human-rights defenders, media-law specialists, and academic technology experts regularly form coalitions to resist the gradual expansion of state control over the digital environment. The coordinated action of activists in September 2024 was a particularly strong example: their technical reports provided irrefutable evidence that providers were intercepting citizens' DNS traffic, triggering public outrage that forced the Ministry of Communications and the MCMC to abandon plans for deeper internet filtering. Nevertheless, activists' daily work involves substantial risks, including surveillance, equipment seizure, criminal prosecution, and difficulty securing funding.¹⁸

5.1. Organisations

Malaysia is home to several specialised non-profit organisations working to protect digital rights, monitor censorship, and advocate for freedom of expression:

- **Sinar Project**: A distinctive Malaysian initiative operating at the intersection of human rights and civic technology. It uses open-source software, open-data scraping, and political analysis to organise information on corruption and government transparency. Sinar Project is a key local partner of global monitoring networks and involves communities across Southeast Asia in censorship research. Its iMAP programme is the leading source of objective information about blocking in Malaysia.⁴²
- **Centre for Independent Journalism (CIJ)**: A leading human-rights organisation advocating freedom of expression and the rights of independent media. CIJ is a major critic of the use of Section 233 of the Communications and Multimedia Act against journalists and ordinary users and regularly publishes reports on press freedom.
- **OONI — Open Observatory of Network Interference**: An international initiative working closely with Malaysian partners. It provides tools and software for detecting network censorship and collects large volumes of technical evidence of interference around the world.⁴¹

5.2. VPNs and Circumvention Tools

In response to escalating state censorship, stronger internet-traffic controls, and blocking of politically sensitive portals, virtual private networks and other cryptographic circumvention tools have evolved from niche instruments used by IT professionals into mainstream technologies used by a substantial share of ordinary Malaysians.

5.2.1. Legal Status of VPN Services

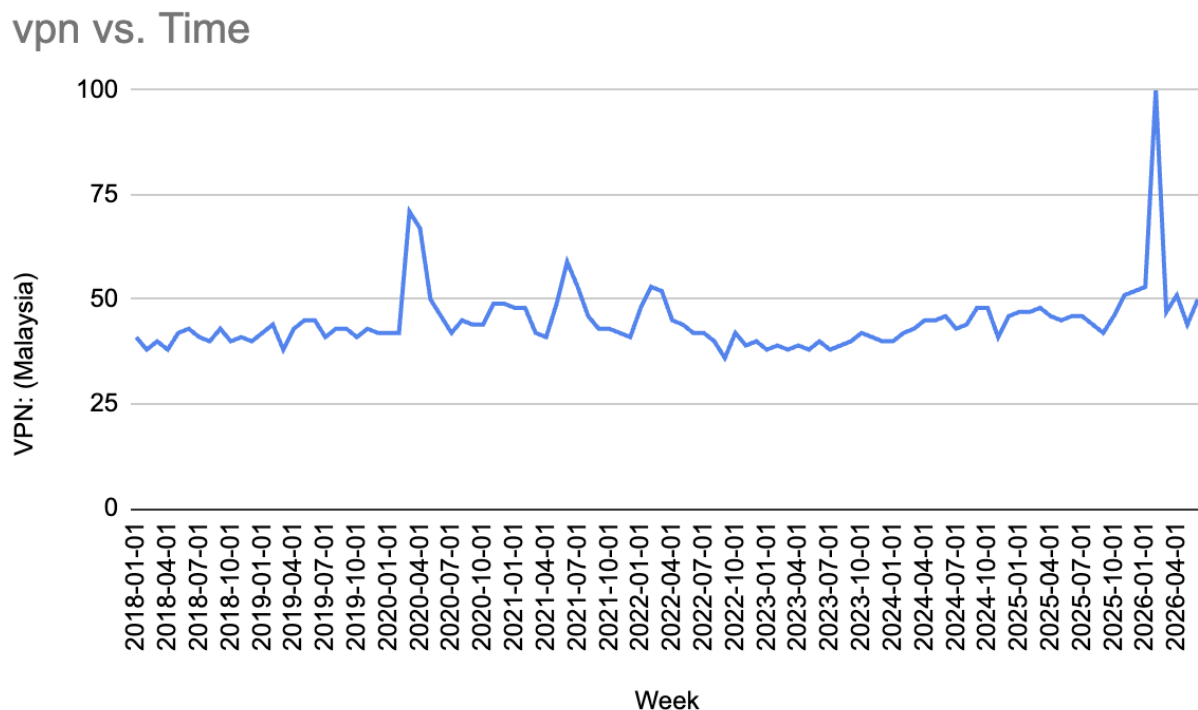
The use, advertising, purchase, and commercial sale of VPN subscriptions are currently **fully legal** in Malaysia. Neither the Communications and Multimedia Act 1998 nor the Penal Code contains provisions directly prohibiting individuals or corporations from using tunnelling, traffic encryption, or IP-address-masking technologies. The MCMC does not require providers to block VPN protocols such as OpenVPN, WireGuard, or IPsec, as occurs in countries with tightly controlled “sovereign” internet systems.

The MCMC’s 2024 attempt to require providers to redirect user DNS queries through transparent DNS proxies was, however, a technical measure aimed at reducing anonymity and weakening simple circumvention methods such as changing local DNS settings to 1.1.1.1 or 8.8.8.8. This indirectly demonstrated the state’s interest in restricting anonymous browsing.¹⁸

5.2.2. Number of VPN Users

The widespread adoption of VPN technology in Malaysia is driven by several factors: the desire to bypass growing political censorship, the need for basic cybersecurity on public networks, and, for a substantial share of users, access to geographically restricted content on international streaming services. There have been no documented cases of the MCMC systematically blocking the IP-address ranges of popular commercial VPN providers.⁴⁵

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



Source: trends.google.com

Interest in VPNs in Malaysia remained consistently high, reflecting the widespread use of corporate VPN networks, a substantial share of remote employment, a developed international digital-services sector, and growing concern about information security. In early 2026, however, search activity rose sharply for a brief period and reached its highest level during the period under review. The most likely trigger was the entry into force of the Online Safety Act 2025 and the new licensing regime for major social platforms, which substantially expanded state regulation of the digital environment. The temporary blocking of the Grok service in January 2026 was an additional factor, prompting broad discussion of VPN-based circumvention.

The short-lived nature of the increase suggests that it was driven less by actual restrictions on access to online services than by heightened public concern about privacy, freedom of internet communication, and the possible expansion of online-control mechanisms. Overall, the search-query trend indicates that VPN use in Malaysia is primarily practical: users seek secure connections, remote access to corporate resources, and privacy protection, rather than relying on VPNs mainly for mass circumvention of internet blocking.

5.2.3. Prosecution for VPN Use

There have been no documented cases of administrative proceedings, fines, or criminal arrests based solely on the installation, configuration, or routine use of VPN applications in Malaysia. A VPN is not itself an instrument of crime. If a person is investigated for sedition or an alleged violation of the “3R” taboo, however, law-enforcement agencies may seize smartphones and laptops. During digital-forensic examination, the presence of VPN software and anonymisation tools can be portrayed by investigators as indirect evidence of an intention to conceal one’s identity while publishing “offensive” content, potentially worsening the accused person’s position.¹⁸

5.2.4. Monitoring of Blocking

Systematic, evidence-based monitoring of internet blocking in Malaysia is conducted by OONI and the Malaysian Sinar Project through the iMAP platform.

Five-year digest of blocking reports, 2021–2026:

- **2021–2022:** Most OONI measurements reflected routine filtering of LGBTQ-related resources, sexually explicit content, and dating services. During political crises, monitors recorded occasional instability affecting individual regional-news websites.⁴
- **2023–2024:** The pattern changed fundamentally. Monitoring projects recorded sharp increases in blocking of social and political blogs, especially around elections. The most important development was the August 2024 Sinar Project reporting that documented transparent DNS proxies on the networks of major Malaysian providers.

iMAP and OONI evidence of traffic interception and IP-address manipulation generated an international scandal and forced the MCMC to withdraw the directive officially.¹⁸

- **2025–2026:** Monitoring resources recorded a change in state tactics. Instead of direct network-level blocking by providers—which is easy to detect and circumvent—the focus shifted toward tracking the “disappearance” of content inside platforms themselves. Reports describe an emerging period of algorithmic censorship driven by automatic licensing under the deeming provisions and the Online Safety Act 2024. Monitoring indicates that global platforms increasingly removed posts by Malaysian users to avoid conflict with the regulator.³⁹

6. Conclusion

A comprehensive analysis of Malaysia’s infrastructure development, telecommunications indicators, and legal environment between 2019 and 2026 reveals a deeply dualistic and paradoxical model of digital governance. In technological and economic terms, the country achieved exceptional global results: almost universal high-speed mobile-internet coverage, successful deployment of 5G under a dual-network model, one of the world’s fastest transitions to IPv6—exceeding 70%—and multibillion-dollar investment in data centres transformed Malaysia into an undisputed technology leader in Southeast Asia.

These economic achievements, however, have taken place alongside clear and systemic regression in the protection of fundamental human rights, freedom of expression, and access to independent information. Anwar Ibrahim’s government came to power promising reform, but the need to consolidate its electoral base and counter conservative opposition encouraged it to build a sophisticated architecture of “digital authoritarianism.” Instead of relying on blunt tools such as nationwide shutdowns, the state uses legal coercion. Through ASP(C) licensing, deeming provisions, and the Online Safety Act 2024, the authorities shift the practical work of political and social censorship onto multinational technology corporations, turning them into instruments of state policy under threat of enormous fines. The intimidation of citizens through repressive provisions of the Penal Code and communications law for speech involving the “3R” issues further entrenches a climate of self-censorship.

Based on the analysed data, three possible scenarios can be identified for the development of digital rights in Malaysia over the coming years:

1. **Neutral scenario — managed balancing, the most likely outcome:** The government will retain the current restrictive legal framework, including the Online Safety Act and CMA 1998, but apply it selectively to avoid a major confrontation with Silicon Valley and preserve investment in artificial intelligence and data centres. Global platforms such as Google, Meta, and ByteDance will reach an informal compromise with the MCMC: they will remove content concerning the monarchy or material that most strongly irritates the authorities, while maintaining the general availability and functionality of their

services. Civil society will continue to act as a digital watchdog and prevent radical technical experiments such as DNS interception, while VPN penetration will stabilise at around 40–45%.

2. **Negative scenario — digital authoritarianism, a plausible outcome:** Full and uncompromising implementation of the Online Safety Act and eKYC user-identification requirements could lead some international platforms, such as Telegram or X, to refuse compliance on privacy grounds. The Malaysian authorities could then block these services nationally or initiate criminal proceedings against local representatives. This would trigger a sharp political escalation, drive large numbers of citizens toward the dark web, produce explosive growth in advanced cryptographic circumvention tools, and transform Malaysia into a jurisdiction with a sovereign, tightly controlled internet resembling authoritarian models elsewhere in the region.
3. **Positive scenario — liberalisation, the least likely outcome:** Coordinated pressure from international technology investors threatening to relocate data centres to neighbouring countries, together with strong domestic civil-society coalitions such as Sinar Project, could persuade the government that the current course is damaging. Licensing requirements could be softened, while parliament might revise Section 233 of the CMA 1998 and the Sedition Act to decriminalise political satire and online criticism. The authorities could abandon extrajudicial blocking and create a transparent appeal mechanism for censorship decisions, returning Malaysia to a more democratic path of digital development.

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